UNITED KINGDOM (UK) REPORT*

with a focus on the law of England and Wales and the law of Scotland

by

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1. DEFINITION – LEGAL QUALIFICATION

1.1. Legal Treatment

The Financial Conduct Authority (FCA)'s cryptoasset consumer research 2021 estimates that 4.4% of UK adults (approximately 2.3 million people) hold cryptocurrency, compared to 3.9% (approximately 1.9 million) in 2020, and that 5.7% (around 3 million) hold or have held cryptocurrency, compared to 5.4% in 2020.[1] Bitcoin is the most popular cryptocurrency, being held by two-third (66%) of crypto users, followed by others, including Ethereum (35%), Litecoin (21%), XRP/Ripple (18%) and Bitcoin Cash (15%).[2] Cryptocurrencies are used in the UK as a means of exchange for payment of goods and services; as an intermediate step in cross-border transactions between fiat currencies (e.g., GBP-Bitcoin-USD) to facilitate

* The law is stated as at 31.01.2022.

[1] FCA, *Research Note: Cryptoasset Consumer Research* (2021) https://www.fca.org.uk/publications/research/research-note-cryptoasset-consumer-research-2021. They note that, in their 2021 research, current owners include those who sold some of their cryptocurrency while, in their 2020 research, they did not have this answer option.

[2] See ibid.

regulated payment services; or, to a greater extent, for investment by firms and consumers.[3]

Cryptocurrencies are not legal tender in the UK. Legal tender has a narrow technical meaning, and the classification of what constitutes legal tender varies across the three jurisdictions of the UK.[4] In England and Wales, Royal Mint coins and Bank of England banknotes constitute legal tender; whereas in Scotland and Northern Ireland it is only Royal Mint coins but not banknotes.[5] One reason why cryptocurrencies are not considered as money or currency is because "*they are too volatile to be a good store of value, they are not widely-accepted as means of exchange, and they are not used as a unit of account.*"[6]

Stablecoins feature in the UK as a new and emerging form of cryptoasset and are under consideration by the UK Government to ensure that the UK regulatory framework supports the safe use of stablecoins. To this end, Her Majesty's (HM) Treasury launched in January 2021 a Consultation and Call for Evidence on the UK Regulatory Approach to Cryptoassets and Stablecoins;[7] and, as of January 2022, is analysing the feedback received. The UK Government believes that with appropriate standards and regulation, stablecoins can potentially play an important role in retail and

[3] See Cryptoassets Taskforce, *Final Report* (2018) https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/752070/cryptoassets_taskforce_final_report_final_web.pdf, pp. 11-14 and p. 17 and FCA, *Research Note: Cryptoasset Consumer Research* (2021) https://www.fca.org.uk/publications/research/research-note-cryptoasset-consumer-research-2021.

[4] Bank of England, 'What is legal tender?' https://www.bankofengland.co.uk/knowledgebank/what-is-legal-tender.

[5] See Currency and Banknotes Act 1954, s 1(2); Coinage Act 1971, s 2; Royal Mint's Legal Tender Guidelines https://www.royalmint.com/aboutus/policies-and-guidelines/legal-tender-guidelines/; Committee of Scottish Bankers (CSCB), 'Legal Position' https://www.scotbanks.org.uk/banknotes/legal-position.html.

[6] Cryptoassets Taskforce, *Final Report* (2018) https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/752070/cryptoassets_taskforce_final_report_final_web.pdf, para 2.13.

[7] HM Treasury, *UK regulatory approach to cryptoassets and stablecoins: Consultation and call for evidence* (2021) https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/950206/HM_Treasury_Cryptoasset_and_Stablecoin_consultation.pdf.

cross-border payments (including settlement), due to their being able to hold their value against a reference benchmark.[8] According to the FCA's consumer research 2021, stablecoins owned among crypto users are Tether (6%), USDC (4%), TrueUSD (3%), Paxos Standard (2%) and Diem (formerly Libra,1%), and they are used as a store of value to use on exchanges (64%), for buying other financial products (28%), to exchange for cash (25%), or to use for buying other goods or services (23%).[9]

1.2. Legal Definition

There is no general legal definition of 'cryptocurrency' either in regulatory or private laws in the UK. The term tends to be avoided in these contexts, probably for policy reasons to avoid any confusion with fiat currencies, given that cryptocurrencies are not considered as money or currency in the UK.[10] Cryptocurrencies are usually referred to as 'exchange tokens', as one type of cryptoasset, along with security and utility tokens, under the broader umbrella term 'cryptoassets'.

The term 'cryptoasset', on the other hand, has been defined for certain legal purposes. The Money Laundering and Terrorist Financing (Amendment) Regulations 2019 (SI 2019/1511)[11] provides that *"'cryptoasset' means a cryptographically secured digital representation of value or contractual rights that uses a form of distributed ledger technology and can be transferred, stored or traded electronically".*[12] This definition is substantially similar to the definitions adopted in the Cryptoasset Taskforce

[8] See ibid paras 1.2 and 3.5-3.6.
[9] See FCA, *Research Note: Cryptoasset Consumer Research* (2021) https://www.fca.org.uk/publications/research/research-note-cryptoasset-consumer-research-2021.
[10] B. Yüksel, '*Is the UK heading towards regulation of cryptoassets? Findings from the UK Cryptoassets Taskforce Final Report*' (2018), Aberdeen Law School Blog https://www.abdn.ac.uk/law/blog/is-the-uk-heading-towards-regulation-of-cryptoassets-findings-from-the-uk-cryptoassets-taskforce-final-report/.
[11] Reg 4(7), which inserted Reg 14A into the Money Laundering, Terrorist Financing and Transfer of Funds (Information on the Payer) Regulations 2017 (SI 2017/692).
[12] Reg 14A(3)(a). See further at section 2.5 below.

Final Report[13] and HM Treasury's consultation and call for evidence paper on the UK Regulatory Approach to Cryptoassets and Stablecoins.[14]

In its Legal Statement on Cryptoassets and Smart Contracts, the UK Jurisdiction Taskforce pointed out that formulating a precise definition in this area is difficult and unlikely to be useful, given the great diversity of systems and assets in existence and rapid technological development.[15]

1.3. Other Definitions

The Cryptoasset Taskforce Final Report considers 'exchange tokens' as a type of cryptoasset that "*do not provide the types of rights or access provided by security or utility tokens, but are used as a means of exchange or for investment*".[16] HM Treasury's Cryptoassets and Stablecoins Consultation Paper views them as a type of cryptoasset too,[17] based on the FCA's Guidance on Cryptoassets.[18]

These definitions and taxonomy are also adopted by the Cryptoassets Manual of HMRC, with the addition of stablecoins as another type

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[13] Cryptoassets Taskforce, *Final Report*(2018) https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/752070/cryptoassets_taskforce_final_report_final_web.pdf, para 2.10.

[14] The definition in HM Treasury's consultation paper is slightly broader, see https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/950206/HM_Treasury_Cryptoasset_and_Stablecoin_consultation.pdf, para 1.11.

[15] UK Jurisdiction Taskforce, *Legal statement on cryptoassets and smart contracts* (2019) https://35z8e83m1ih83drye280o9d1-wpengine.netdna-ssl.com/wp-content/uploads/2019/11/6.6056_JO_Cryptocurrencies_Statement_FINAL_WEB_111119-1.pdf, para 26.

[16] Cryptoassets Taskforce, *Final Report* (2018) https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/752070/cryptoassets_taskforce_final_report_final_web.pdf, pp. 11-14 and p. 17, para 2.11.

[17] HM Treasury, *UK regulatory approach to cryptoassets and stablecoins: Consultation and call for evidence* (2021) https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/950206/HM_Treasury_Cryptoasset_and_Stablecoin_consultation.pdf, para 1.12.

[18] FCA, *Guidance on Cryptoassets*, Consultation Paper CP 19/3 (2019) https://www.fca.org.uk/publication/consultation/cp19-03.pdf, paras 2.4 and 2.5, and FCA, *Feedback and Final Guidance to CP 19/3*, Policy Statement PS19/22 (2019) https://www.fca.org.uk/publication/policy/ps19-22.pdf, para 2.2.

of cryptoasset which are tokens that "*minimise volatility as they may be pegged to something that is considered to have a stable value such as a fiat currency (government-backed, for example US dollars) or precious metals such as gold*".[19]

1.4. Legal Relationships between Participants to Blockchain

The question of who would qualify as a participant to a blockchain on which cryptocurrencies are transferred and recorded, as a matter of law, is not entirely clear. The Cryptoasset Taskforce Final Report uses, in the context of its report, 'participant' as referring to "*a computer participating in the operation of a [decentralised ledger technology ('DLT')] arrangement, otherwise known as a node*".[20]

The question of the existence and nature of claims that participants may have against each other would depend on the type of cryptocurrency system and circumstances of a given case. Where, as in the case of permissioned systems, a participant must agree to abide by the rules of the operating authority in order to join the system, or the system is otherwise regulated by a contract, the relationship between participants would be contractual in nature. Where the cryptocurrency system is permissionless, the answer is not straightforward. The FCA's Guidance notes that exchange tokens typically do not grant the holder any of the rights associated with specified investments within their perimeter as there is usually "*no central issuer obliged to honour those contractual rights – if any existed*".[21]

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[19] HMRC, *Cryptoassets Manual* (2021), CRYPTO10100 - Introduction to cryptoassets: what are cryptoassets https://www.gov.uk/hmrc-internal-manuals/cryptoassets-manual/crypto10100.

[20] Cryptoassets Taskforce, *Final Report* (2018) https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/752070/cryptoassets_taskforce_final_report_final_web.pdf, ch 2, footnote 1.

[21] FCA, *Guidance on Cryptoassets*, Consultation Paper CP 19/3 (2019) https://www.fca.org.uk/publication/consultation/cp19-03.pdf, para 3.35.

The UK Jurisdiction Taskforce's Legal Statement, which is based on English law, assesses that participants in a decentralised system with consensus rules (like Bitcoin) do not undertake any legal obligations to each other.[22]

In the absence of any authoritative legal characterisation of a permissionless system, it has been argued that the unincorporated association is the most appropriate characterisation of a permissionless network under English law.[23] Unincorporated associations were authoritatively defined in *Conservative and Unionist Central Office v Burrell*[24] and are considered "creatures of contract". Hence, the impliedly binding terms on which new nodes are 'admitted' to the network, including the existence and nature of claims between nodes, would be determined under contract law.

It has been similarly argued that a conflict of laws analysis on the relationship between participants in cryptocurrency systems suggests a contractual characterisation based on the recognition that those relationships are sufficiently akin to those between parties in a contractual relationship to justify applying a common set of rules to identify a court and rules of law for their obligations towards one another.[25]

Where intermediaries (e.g., brokers or custodians) are involved, the UK Jurisdiction Taskforce's Legal Statement assesses that the rights

[22] UK Jurisdiction Taskforce, *Legal statement on cryptoassets and smart contracts* (2019)https://35z8e83m1ih83drye280o9d1-wpengine.netdna-ssl.com/wp-content/uploads/2019/11/6.6056_JO_Cryptocurrencies_Statement_FINAL_WEB_111119-1.pdf, para 68.

[23] A. Held, 'Private Keys v Blockchains: What *is* a Cryptoasset in Law?' (2020) 4 *Journal of International Banking and Financial Law* 247.

[24] [1981] EWCA Civ 2, [1982] WLR 522, para 2.

[25] See A. Dickinson, 'Cryptocurrencies and the Conflict of Laws' in D. Fox and S. Green (eds), *Cryptocurrencies in Public and Private Law*, Oxford University Press, Oxford 2019, ch 5, para 5.31.

that the principal and intermediary may have against each other will depend on rules of contract, tort, or agency.[26]

2. REGULATORY FRAMEWORK

2.1. Regulatory Status

There is presently no specific regulatory regime that applies to cryptoassets and related activities. Accordingly, the prevailing general approach is to consider whether any given cryptoasset or related activity falls within the scope of existing regulatory regimes. The most relevant of these are those implemented in the context of financial services, markets, and instruments.

Cryptoassets and related activities may, thus, be 'regulated' either: (i) if they come within scope of; or (ii) pursuant to an express provision in an existing regulatory regime. The financial regulatory authorities have thus far generally focussed on the first approach. As will be seen in more detail in sections 2.2, 2.5, and 3 below, derivatives, exchanges, and custody are the main areas where the second approach has been taken to bring cryptoassets and related activities expressly within the regulatory perimeter.

Any cryptoasset or related activity that does not fall within the existing regimes thus is considered 'unregulated' and is not subject to authorisations (or exemptions) and/or comparable regulatory obligations. Many cryptocurrencies will fall into this ‘unregulated’ category.

[26] UK Jurisdiction Taskforce, *Legal statement on cryptoassets and smart contracts* (2019) https://35z8e83m1ih83drye280o9d1-wpengine.netdna-ssl.com/wp-content/uploads/2019/11/6.6056_JO_Cryptocurrencies_Statement_FINAL_WEB_111119-1.pdf, para 34.

2.1.1. Financial Conduct Authority (FCA)

Of the two key regulatory authorities for the UK's financial services sector, the FCA has been the more active in clarifying the regulatory status of cryptoassets and related activities. In January 2019, the FCA issued a Consultation Paper[27] for proposed Guidance; and, in its Final Feedback and Guidance Policy Statement of July 2019,[28] identified the four main points at which cryptoassets and related activities are likely to fall within the regulatory perimeter:

(i) 'Specified Investments' under the Financial Services and Markets Act 2000 (FSMA 200) and the associated 'Regulated Activities' Order 2001[29] (RAO 2001),

(ii) 'Financial Instruments' under the MiFID regime,[30]

(iii) 'E-Money' under the Electronic Money Regulations 2011[31] (EMR 2011),

(iv) Activities falling within the scope of the Payment Services Regulations 2017[32] (PSR 2017).

[27] FCA, 'Guidance on Cryptoassets,' Consultation Paper CP 19/3, 01.2019 https://www.fca.org.uk/publication/consultation/cp19-03.pdf.

[28] FCA, 'Feedback and Final Guidance to Consultation Paper CP 19/3,' Policy Statement PS19/22, 07.2019 https://www.fca.org.uk/publication/policy/ps19-22.pdf.

[29] The Financial Services and Markets Act 2000 (Regulated Activities) Order 2001 SI 2001/544.

[30] Financial Services and Markets Act 2000 (Markets in Financial Instruments) Regulations 2017 SI 2017/701, implementing Directive 2014/65/EU of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Directive 2002/92/EC and Directive 2011/61/EU.

[31] SI 2011/99, implementing Directive 2009/110/EC of the European Parliament and of the Council of 16 September 2009 on the taking up, pursuit and prudential supervision of the business of electronic money institutions amending Directives 2005/60/EC and 2006/48/EC and repealing Directive 2000/46/EC.

[32] SI 2017/752, implementing Directive (EU) 2015/2366 of the European Parliament and of the Council of 25 November 2015 on payment services in the internal market, amending Directives 2002/65/EC, 2009/110/EC and 2013/36/EU and Regulation (EU) No 1093/2010, and repealing Directive 2007/64/EC.

Before considering these regimes in more depth, it is helpful to note that, in the Final Guidance, the FCA adopts the term 'security token' to denote *'those [tokens] that reach the definition of specified investments under the RAO,'* including those that are 'financial instruments' as defined by MiFID II, but excluding tokens that meet the definition of 'e-money.'[33] Such 'e-money tokens' are regulated under the EMR 2011; 'security tokens' under the FSMA 2000 and/or MiFID II regime. Hence, any token that is not a security token or an e-money token thus defined are considered by the FCA to be unregulated.

Broadly speaking, the FCA appears to adopt, in substance, the 'same risk, same regulatory outcomes' approach generally favoured by stakeholders and other regulatory authorities. This approach emphasises substantive similarity, irrespective of formal designation by market participants, to products and activities that are already within the regulatory perimeter.

(i) "Investment of a specified kind": s 22 FSMA 2000/RAO 2001

In broad terms, the regulatory approach of the FSMA 2000 is underpinned the 'general prohibition' against persons carrying on a regulated activity, unless they are either authorised to do so, or are exempt from an authorisation to do so.[34] A person who contravenes the general prohibition is guilty of a criminal offence and may face up to two years' imprisonment and/or an unlimited fine.[35]

The definition of 'regulated activities' is further defined in s 22 FSMA 2000 as follows:

[33] FCA, 'Feedback and Final Guidance to Consultation Paper CP 19/3,' Policy Statement PS19/22, 07.2019, [2.25], p. 14 https://www.fca.org.uk/publication/policy/ps19-22.pdf.
[34] s 19(1) FSMA 2000: "(1) No person may carry on a regulated activity in the United Kingdom, or purport to do so, unless he is— (a) an authorised person; or (b) an exempt person."
[35] s 23(1) FSMA 2000.

(1) An activity is a regulated activity for the purposes of this Act if it is an activity of a specified kind which is carried on by way of business and—
(a) relates to an investment of a specified kind; or
(b) in the case of an activity of a kind which is also specified for the purposes of this paragraph, is carried on in relation to property of any kind.

Both 'activity of a specified kind' and 'investment of a specified kind' are further defined in the RAO 2001; the most relevant for present purposes being:

- dealing in investments as principal[36]
- dealing in investments as agent[37]
- arranging (bringing about) deals in investments[38]
- safeguarding and administering investments[39]
- establishing a collective investment scheme.[40]

Part III of the RAO 2001 deals with 'specified investments,' and currently provides for 25 defined investment products. Of these, the FCA has identified the following as 'likely to be most relevant in the security market context"[41]:

- Shares etc[42]
- Debt instruments[43]
- Warrants[44]

[36] Art 14 RAO 2001.
[37] Art 21 RAO 2001.
[38] Art 25 RAO 2001.
[39] Art 40 RAO 2001.
[40] Art 51 RAO 2001.
[41] FCA, 'Feedback and Final Guidance to Consultation Paper CP 19/3', Policy Statement PS19/22, 07.2019, [68] et seq https://www.fca.org.uk/publication/policy/ps19-22.pdf.
[42] Art 76 RAO 2001.
[43] Art 77 RAO 2001.
[44] Art 79 RAO 2001.

- Instruments giving entitlements to investments[45]
- Certificates representing certain securities[46]
- Units in a collective investment scheme[47]

Products referencing cryptoassets may well also come within the definitions of various derivative products provided for, such as Options,[48] Futures,[49] and 'Contracts for differences etc.'[50]

Given the tendency towards the 'same risk, same regulatory outcomes' approach, the question of whether any given cryptoasset and/or related activity is a 'specified activity' involving 'specified investments' within the regulatory perimeter should be considered on a case-by-case basis.

(ii) "Financial Instrument": the MiFID regime

The UK's implementation of the MiFID regime refers the definition of 'financial instrument' ultimately back[51] to Section C of Annex I of the Directive, which provides for 11 defined financial instruments. Many of these overlap with 'specified investments' under the RAO 2001. The MiFID regime is broadly aligned with the FSMA 200 and RAO 2001. As such, if a cryptoasset can be defined as a MiFID 'financial instrument,' it will fall within the UK's regulatory perimeter.

(iii) "e-money": EMR 2011[52]

[45] Art 79 RAO 2001.
[46] Art 80 RAO 2001.
[47] Art 81 RAO 2001.
[48] Art 83 RAO 2001.
[49] Art 84 RAO 2001.
[50] Art 85 RAO 2001.
[51] Regulation 2 of FSMA 2000 (Markets in Financial Instruments) Regulations 2017 refers to Art 4.1.15 of the Directive, which in turn refers to Section C of Annex I.
[52] Implementing Directive 2009/110/EC of the European Parliament and of the Council of 16 September 2009 on the taking up, pursuit and prudential supervision of the business of electronic money institutions amending Directives 2005/60/EC and 2006/48/EC and repealing Directive 2000/46/EC.

Electronic money is a 'specified investment' under Art 74A RAO 2001 but is subject to additional regulatory obligations under the EMR 2011. Issuing e-money is a regulated activity[53] when carried out by credit institutions, credit unions, and municipal banks.

The definition of e-money is contained in Regulations 2 and 3 of the EMA 2011. Regulation 2 provides that:

> *"electronic money" means electronically (including magnetically) stored monetary value as represented by a claim on the electronic money issuer which—*
> *(a) is issued on receipt of funds for the purpose of making payment transactions;*
> *(b) is accepted by a person other than the electronic money issuer; and*
> *(c) is not excluded by regulation 3;*

Regulation 3 excludes:

> *(a) monetary value stored on instruments that can be used to acquire goods or services only—*
>
> *(i) in or on the electronic money issuer's premises; or*
> *(ii) under a commercial agreement with the electronic money issuer, either within a limited network of service providers or for a limited range of goods or services;*
>
> *(b) monetary value that is used to make payment transactions executed by means of any telecommunication, digital or IT device,*

[53] Art 9B RAO 2001.

where the goods or services purchased are delivered to and are to be used through a telecommunication, digital or IT device, provided that the telecommunication, digital or IT operator does not act only as an intermediary between the payment service user and the supplier of the goods and services.

The FCA considers that certain types of stablecoins may meet the definition of e-money. In particular, it considers that:

"Cryptoassets that establish a new sort of unit of account rather than representing fiat funds are unlikely to amount to e-money unless the value of the unit is pegged to a fiat currency, but even then it will still depend on the facts of each case."[54]

(iv) Activity under the PSR 2017

PSR 2017 regulates 8 types of payment services, which are defined in Schedule 1 Part 1. Whilst many of these relate to cash and money, and are therefore irrelevant for present purposes, s 1(c) provides for *'the execution of payment transactions, including transfers of funds on a payment account with the user's payment service provider or with another payment service provider.'*

Regulation 2 contains definitions, under which:

"payment transaction" means an act initiated by the payer or payee, or on behalf of the payer, of placing, transferring or withdrawing funds, [… irrespective of any underlying obligations between the payer and payee]
[and]

[54] FCA, 'Feedback and Final Guidance to Consultation Paper CP 19/3,' Policy Statement PS19/22, 07.2019, [72] https://www.fca.org.uk/publication/policy/ps19-22.pdf.

"funds" means banknotes and coins, scriptural money and electronic money

Thus, if a cryptoasset is classified as 'e-money' for the purposes of the EMR 2011, it will also fall within the meaning of 'funds' for the purpose of 'payment transactions' within the scope of the PSR 2017.

2.1.2. The Prudential Regulatory Authority (PRA)

There are currently no prohibitions on financial institutions regulated by the PRA from gaining exposure to or holding cryptoassets. The PRA has remained less active than the FCA, going no further than to issue a 'Dear CEO' letter in June 2018[55] in respect of existing or planned exposures to cryptoassets. In sum, the letter reminds firms of their obligations under the PRA rules[56] to:

(i) act in a prudent manner; (ii) have effective risk strategies and risk management systems; and (iii) deal with regulators in an open and co-operative way, and disclose appropriately anything relating to your firm of which [the PRA] would reasonably expect notice.

The letter also identifies the risk strategies and risk management systems that the PRA considers most appropriate for cryptoassets.

2.2. Derivatives

[55] "Dear CEO" Letter from Sam Woods, 28.06.2018 https://www.bankofengland.co.uk/-/media/boe/files/prudential-regulation/letter/2018/existing-or-planned-exposure-to-crypto-assets.pdf.
[56] PRA Fundamental Rules 3, 5, and 7.

On 6 January 2021, amendments to the FCA Conduct of Business Sourcebook (COBS) came into effect.[57] COBS 22.6.5R provides that:

> *(1) [An authorised person] must not:*
>
> *(a) sell a cryptoasset derivative or a cryptoasset exchange traded note to a retail client; or*
> *(b) distribute a cryptoasset derivative or a cryptoasset exchange traded note to a retail client; or*
> *(c) market a cryptoasset derivative or a cryptoasset exchange traded note if the marketing is addressed to or disseminated in such a way that it is likely to be received by a retail client.*
>
> *(2) "Marketing" includes, but is not limited to, communicating and/or approving financial promotions.*

The FCA does not, however, necessarily consider that the underlying cryptoasset will in all cases be regulated. The parallel amendments to the Glossary include the following terms:

> *Cryptoasset Derivative: a derivative where the underlying is, or includes, an unregulated transferable cryptoasset or an index or derivative relating to an unregulated transferable cryptoasset.*
>
> *Cryptoasset Exchange Traded Note: a debt security: (a) which is traded on a trading venue or a market operated by a ROIE; (b) which features no periodic coupon payments; and (c) whose return tracks the performance of an unregulated transferable cryptoasset, minus*

[57] See FCA, 'Prohibiting the sale to retail clients of investment products that reference cryptoassets,' Policy Statement PS20/10, 10.2020 https://www.fca.org.uk/publication/policy/ps20-10.pdf.

applicable fees, whether featuring delta 1, inverse or leveraged exposure or other exposure to the unregulated transferable cryptoasset being tracked.

Unregulated Transferable Cryptoasset: a cryptographically secured digital representation of value or contractual rights that uses distributed ledger technology and which: (a) is capable of being traded on or transferred through a platform or other forum; (b) is not limited to being transferred to its issuer in exchange for a good or service, or to an operator of a network that facilitates its exchange for a good or service; (c) is not electronic money; (d) is not a specified investment; (e) is not a representation of ownership or other property right in a commodity; and (f) is not money issued by a central bank.

On 6 April 2018, the FCA first published a statement[58] expressing the view that, although cryptocurrencies *per se* were not regulated:

…cryptocurrency derivatives are, however, capable of being financial instruments under the Markets in Financial Instruments Directive II (MIFID II), although we do not consider cryptocurrencies to be currencies or commodities for regulatory purposes under MiFID II. Firms conducting regulated activities in cryptocurrency derivatives must, therefore, comply with all applicable rules in the FCA's Handbook and any relevant provisions in directly applicable European Union regulations.

The FCA further identified in the statement that regulated activities in relation to derivatives referencing cryptoassets or tokens will likely re-

[58] FCA, 'Cryptocurrency Derivatives: FCA statement on the requirement for firms offering cryptocurrency derivatives to be authorised', 06.04.2018 https://www.fca.org.uk/news/statements/cryptocurrency-derivatives .

quire authorisation by the FCA. In particular, the FCA identified: (i) cryptocurrency futures; (ii) cryptocurrency contracts for differences; and (iii) cryptocurrency options as likely requiring authorisation.

Following the 'same risk, regulatory outcomes' approach, whether a derivative referencing a cryptoasset meets any of the definitions set out in MiFID should be considered on a case-by-case basis.

2.3. Draft Legislation and Regulations

There is no specific law or regulation currently in force or in draft generally applicable to cryptoassets and related activities. There have, however, been extensive consultations and policy statements by various regulatory, monetary, legal, and government authorities, which have been issued with increased frequency particularly in recent years. These are indicative of both (i) a realistic prospect of specific laws or regulatory regimes/provisions (whether by amendments to existing laws and regulations, or a new regime altogether) being enacted in the near future; as well as (ii) the general approach likely to be taken.

A full account of the consultations and policy statements are beyond the remit of this Report. However, key papers include the following, in reverse chronological order:

- In January 2022, the FCA published a Consultation Paper on the financial promotion rules for 'high risk investments, including cryptoassets.'[59] The FCA proposes: (i) changes to their classification of high-risk investment; (ii) changes to the consumer journey into high-risk investments; (iii) strengthening the role of firms approving

[59] See generally FCA, 'Strengthening our financial promotion rules for high risk investments, including cryptoassets,' Consultation Paper CP 22/2, 01.2022 https://www.fca.org.uk/publication/consultation/cp22-2.pdf.

and communicating financial promotions; and (iv) applying the FCA's financial promotion rules to qualifying cryptoassets.[60]

- In April 2021, the Chancellor announced the Central Bank Digital Currency (CBDC) Taskforce as part of the April 2021 Fintech week, which brings together HM Treasury and the Bank of England to co-ordinate the exploration of a potential UK CBDC. The purpose of the Taskforce is to 'ensure a strategic approach to, and to promote close coordination between, the UK authorities as they explore CBDC, in line with their statutory objectives.' Its terms of reference were published by HM Treasury in April 2021.[61]

- In January 2021, HM Treasury published a Consultation and Call for Evidence[62] regarding the UK's regulatory approach to cryptoassets and stablecoins. It proposes that stablecoins be recognised as financial instruments within the UK's regulatory perimeter. It also seeks feedback on the adoption of DLT by financial market infrastructures.

- In July 2020, HM Treasury published a Consultation[63] seeking views on whether to bring the promotion of certain types of cryptoassets within scope of financial promotions regulation. In January 2022, HM Treasury published its Response,[64] which amongst other

[60] ibid.
[61] HM Treasury, 'Terms of Reference (ToR), April 2021 Central Bank Digital Currency (CBDC) Taskforce' https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1022969/Final_CBDC_Taskforce_ToR_update.pdf.
[62] HM Treasury, 'UK regulatory approach to cryptoassets and stablecoins: Consultation and call for evidence,' 01.2021 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/950206/HM_Treasury_Cryptoasset_and_Stablecoin_consultation.pdf.
[63] HM Treasury, 'Cryptoasset Promotions Consultation,' 07.2020 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/902177/2020-07-16_-_Cryptoasset_promotions_consultation_.pdf.
[64] HM Treasury, 'Cryptoasset Promotions: Consultation Response' 01.2022 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1047232/Cryptoasset_Financial_Promotions_Response.pdf.

things, summarises how the UK government will extend the scope of the Financial Promotion Order in light of the feedback.

2.4. Criminal Law

Other than as provided for generally in the context of financial regulation, there are no criminal offences specific to cryptoassets and related activities. However, the decided cases show that cryptoassets can be 'criminal property' and 'proceeds of criminal conduct' within the scope of the Proceeds of Crime Act 2002.

The Defendant in *R v West*[65] had fraudulently obtained the personal data of approximately 165,000 UK consumers through a phishing scam, which he then sold on the dark web. He reportedly made more than £180,000 from the scam, with the proceeds converted into Bitcoin and other cryptocurrencies across multiple accounts. He was ultimately convicted, *inter alia*, of:

> *concealing, disguising, converting, transferring, and removing criminal property from England and Wales, Scotland, or Northern Ireland contrary to section 327(1) of the Proceeds of Crime 2002 namely a quantity of Bitcoins knowing or suspecting it to represent in whole or part and whether directly or indirectly, the proceeds of criminal conduct.*[66]

Between conviction and sentencing, the Metropolitan Police reportedly seized some 82 Bitcoin and smaller amounts in other cryptocurrencies, such as Ether and Bitcoin Cash, from the Defendant. At the date of sentencing, the value of the Defendant's cryptocurrency wallets was reportedly approximately £1 million. Notwithstanding the high volatility of the

[65] *R v West,* Southwark Crown Court (14 December 2017, Unreported).
[66] ibid.

assets in the period between the criminal acts and sentencing, the sentencing judge ordered[67] 'a confiscation of […] £915,305.77, to be paid as a way of compensation to the losers.'[68]

2.5. Anti-Money Laundering and Counter Terrorist-Financing

The Money Laundering and Terrorist Financing (Amendment) Regulations 2019 implement the fifth iteration of the EU's Anti-Money Laundering Directive[69] and amend several of the UK's anti-money laundering and counter terrorist-financing legislation. Broadly, the amendments bring 'cryptoasset exchange providers' and 'custodian wallet providers' within the scope of the Money Laundering, Terrorist Financing and Transfer of Funds (Information on the Payer) Regulations 2017 (Regulations 2-13); the Terrorism Act 2000 (Regulation 14); and the Proceeds of Crime Act 2002 (Regulation 15).

'Cryptoasset exchange providers' and 'custodian wallet providers' are defined[70] uniformly in the 2019 Regulations as follows:

> *[...] cryptoasset exchange provider" means a firm or sole practitioner who by way of business provides one or more of the following services, including where the firm or sole practitioner does so as creator or issuer of any of the cryptoassets involved, when providing such services—*

[67] Part 2 of the Proceeds of Crime Act 2002 provides for the making of confiscation orders.
[68] M Busby, 'Bitcoin worth £900,000 seized from hacker to compensate victims' *The Guardian*, 23.08.2019 https://www.theguardian.com/technology/2019/aug/23/bitcoin-seized-hacker-grant-west-uk-compensate-victims.
[69] SI 2019/1511; implementing Directive (EU) 2015/849 on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing, and amending Directives 2009/138/EC and 2013/36/EU.
[70] Regulations 4(7), 14(12) and (13), 15(12) and (13) of the Money Laundering and Terrorist Financing (Amendment) Regulations 2019 (SI 2019/1511).

(a) *exchanging, or arranging or making arrangements with a view to the exchange of, cryptoassets for money or money for cryptoassets,*
(b) *exchanging, or arranging or making arrangements with a view to the exchange of, one cryptoasset for another, or*
(c) *operating a machine which utilises automated processes to exchange cryptoassets for money or money for cryptoassets.*

[...] "custodian wallet provider" means a firm or sole practitioner who by way of business provides services to safeguard, or to safeguard and administer—

(a) *cryptoassets on behalf of its customers, or*
(b) *private cryptographic keys on behalf of its customers in order to hold, store and transfer cryptoassets,*
(c) *when providing such services.*

[... and] —

(a) *"cryptoasset" means a cryptographically secured digital representation of value or contractual rights that uses a form of distributed ledger technology and can be transferred, stored or traded electronically;*
(b) *"money" means—*
    (i)money in sterling,
    (ii)money in any other currency, or
    (iii)money in any other medium of exchange,
    but does not include a cryptoasset; and
(c) *[…] "cryptoasset" includes a right to, or interest in, the cryptoasset.*

As such, these entities active in the cryptoasset market will be subject to the familiar obligations, such as due diligence, KYC, and reporting, under the UK's wider legislative framework to combat money-laundering and terrorist financing.

As will be addressed further in section 3 below, the FCA is the anti-money laundering and counter-terrorist financing supervisor of UK cryptoasset businesses under the money laundering regulations.

3. SUPERVISION

3.1. Licenses and Authorisation

Since 10 January 2020, businesses carrying on cryptoasset activities (including in relation to cryptocurrencies) are required to register with the FCA.[71] Beyond this, licences or authorisations from an authority are not generally required before cryptocurrencies are used/managed/issued or before cryptocurrency-related services are provided, unless the activities undertaken constitute "regulated activities".[72] Only authorised or exempt persons may carry on a regulated activity in the UK, as outlined in 2.1. above.[73] If the cryptoassets business involves regulated activity, then authorisation will be required from the FCA (and in some circumstances the PRA), which consists of receiving permission to carry on regulated activities.[74] As discussed in 2.1.1. above, ordinarily, security tokens and e-money tokens will be the forms of cryptoasset which will fall into the regu-

[71] In order to comply with the Money Laundering, Terrorist Financing and Transfer of Funds (Information on the Payer) Regulations 2017 (SI 2017/692) (as amended by the Money Laundering and Terrorist Financing (Amendment) Regulations 2019 (SI 2019/1511)).
[72] See Financial Services and Markets Act 2000, s 22 and the Financial Services and Markets Act 2000 (Regulated Activities) Order 2001, arts 73 ff.
[73] FSMA 2000, ss 19 and 31.
[74] See FSMA 2000, Part 4A.

lated category. They can be considered "specified investments" under legislation.[75] Other forms of cryptoassets, including exchange tokens and utility tokens are (broadly) unregulated cryptoassets.[76] Given the changing landscape in this area, it is possible that the regulatory regime could be expanded to include additional types of cryptoasset in the future.

To successfully register with the FCA, information regarding the business and associated individuals needs to be provided. The FCA must refuse registration if the applicant or any "officer, manager, or beneficial owner" of the applicant is not a "fit and proper person" to carry on the business of a cryptoasset exchange provider or custodian wallet provider.[77] This would be the case if such a person had been convicted of specified criminal offences (including a number of crimes of dishonesty).[78] If none of those offences is applicable, the FCA must have regard to the following in determining whether the requirement is met: (a) whether the applicant has consistently failed to comply with the requirements of the Regulations; (b) the risk that the applicant's business may be used for money laundering or terrorist financing; and (c) whether the applicant, and any officer, manager or beneficial owner of the applicant, has adequate skills and experience and has acted and may be expected to act with probity.[79] Details about specific information that the FCA will seek can be found on their website.[80]

[75] See FSMA 2000, s 22 and Financial Services and Markets Act 2000 (Regulated Activities) Order 2001/544). See also e.g. Electronic Money Regulations 2011 (SI 2011/99).
[76] For further details about which cryptoassets fall within the regime requiring authorisation and those which do not, see the FCA's Guidance on Cryptoassets (PS19/22, 2019) – https://www.fca.org.uk/publication/policy/ps19-22.pdf. And for the legal consequences of breaching the prohibition on an unauthorised person carrying out a regulated activity, see FSMA 2000, s 23, which outlines criminal penalties.
[77] See Money Laundering, Terrorist Financing and Transfer of Funds (Information on the Payer) Regulations 2017, reg 58A.
[78] See Money Laundering, Terrorist Financing and Transfer of Funds (Information on the Payer) Regulations 2017, Sch 3.
[79] Money Laundering, Terrorist Financing and Transfer of Funds (Information on the Payer) Regulations 2017, reg 58A(4).
[80] https://www.fca.org.uk/cryptoassets-aml-ctf-regime/register.

Regarding the authorisation needed for certain types of cryptoasset business noted above, there are various requirements outlined in legislation.[81] Of course, it must be clear that a business is able to comply with the rules regarding the relevant activity (or activities) being undertaken. Firms seeking to engage in regulated activities and applying for permission to do so from the FCA need to meet the FCA's "threshold conditions".[82] These include that the applicant is capable of being effectively supervised by the FCA, that it has appropriate resources in relation to the regulated activities in question, that the applicant is a fit and proper person and that its business model is suitable for the regulated activities. There is some variation of the tests where the activity is, or includes, a PRA-regulated activity.

3.1.1. Scope of Authorisation and Licencing Requirements

"Cryptoasset exchange providers" and "custodian wallet providers" carrying on cryptoasset activities falling under the relevant legislation (noted above) need to register with the FCA.[83] A party must not act as a cryptoasset exchange provider or custodian wallet provider if they have not been included in the register.[84]

Registration is only required for the parties and activities falling under the relevant legislation. In addition, for cryptoasset exchange providers and custodian wallet providers carrying out in-scope business before 10

[81] FSMA 2000, Part 4A.
[82] FSMA 2000, s 55B and Sch 6.
[83] Money Laundering, Terrorist Financing and Transfer of Funds (Information on the Payer) Regulations 2017, regs 8 and 14A.
[84] Money Laundering, Terrorist Financing and Transfer of Funds (Information on the Payer) Regulations 2017, reg 56(1).

January 2020 there are transitional provisions regarding registration,[85] involving temporary registration for businesses whose applications are still to be determined. The FCA extended the end date of the Temporary Registration Regime for existing cryptoasset firms to continue trading from 9 July 2021 to 31 March 2022.[86]

The FCA can suspend or cancel the registration of a cryptoasset exchange provider or custodian wallet provider if, at any time after registration takes place, it is satisfied that the provider does not meet the fit and proper person requirements.[87] The providers are required to provide to the FCA such information that it directs in relation to compliance by the business with the requirements under the legislation,[88] and the FCA can, if it reasonably considers, require a report by a "skilled person" regarding a provider.[89] The FCA may also exercise powers of direction with respect to a cryptoasset business.[90]

As well as being the supervisory authority for credit and financial institutions, the FCA is the supervisory authority for "cryptoasset exchange providers" and "custodian wallet providers".[91] The registration discussed

[85] See Money Laundering, Terrorist Financing and Transfer of Funds (Information on the Payer) Regulations 2017, reg 56A.
[86] See https://www.fca.org.uk/firms/financial-crime/cryptoassets-aml-ctf-regime. The existing businesses need to have applied for registration prior to 16 December 2020. According to the FCA, a "significantly high number of businesses are not meeting the required standards… resulting in an unprecedented number of businesses withdrawing their applications".
[87] In reg 58A(2) of the Money Laundering, Terrorist Financing and Transfer of Funds (Information on the Payer) Regulations 2017 – see reg 60(2A).
[88] See Money Laundering, Terrorist Financing and Transfer of Funds (Information on the Payer) Regulations 2017, reg 74A.
[89] Money Laundering, Terrorist Financing and Transfer of Funds (Information on the Payer) Regulations 2017, reg 74B.
[90] Money Laundering, Terrorist Financing and Transfer of Funds (Information on the Payer) Regulations 2017, reg 74C.
[91] See Money Laundering, Terrorist Financing and Transfer of Funds (Information on the Payer) Regulations 2017, reg 7.

above is with the FCA, which must maintain a register of cryptoasset providers and custodian wallet providers.[92] The FCA also keeps a list of unregistered cryptoassets businesses (of which it is aware) and these may subsequently be the subject of enforcement action.[93]

Parties undertaking regulated activities will require authorisation from the FCA for doing so (see the details given above), but only certain types of cryptoasset activities will fall into the regulated category and need authorisation.

3.2. Prospectuses

Depending on the type of token in question, issuers of cryptocurrencies may, in some circumstances, be required to publish a prospectus (and may be subject to other disclosure requirements too). There is no special regime for cryptocurrencies in this area but the issuance of a cryptocurrency may fall within the general rules requiring a prospectus.[94] A prospectus is necessary if a token is a transferable security and is to be offered to the public or admitted to trading on a regulated market; however, a prospectus is not required if an exemption applies.[95] The exemptions include where "an offer of securities" is "addressed solely to qualified investors" or to "fewer than 150 natural or legal persons, other than qualified investors", in

[92] Money Laundering, Terrorist Financing and Transfer of Funds (Information on the Payer) Regulations 2017, reg 54(1A). For the FCA's register of cryptoassets businesses, see https://register.fca.org.uk/s/search?predefined=CA.
[93] Details of this list are provided here https://register.fca.org.uk/s/search?predefined=U.
[94] For discussion of prospectus requirements, see e.g. L. Gullifer and J. Payne, *Corporate Finance Law: Principles and Policy*, 3rd ed., Hart, Oxford 2020, pp. 510 ff.
[95] See Guidance on Cryptoassets Feedback and Final Guidance to CP 19/3, Policy Statement PS19/22 (July 2019), p. 50; Regulation (EU) 2017/1129 (Prospectus Regulation) art 3 and FCA Handbook, Prospectus Regulation Rules Sourcebook (PRR) 1.2.1; FSMA 2000, s 85. The Prospectus Regulation is retained EU law, with some amendments – see Prospectus (Amendment etc.) (EU Exit) Regulations, SI 2019/1234.

the UK, or there is an "offer of securities whose denomination per unit amounts to at least EUR 100,000."[96]

Where a prospectus is required, it must be approved by the FCA.[97] It will only be approved if it contains the information required by relevant provisions,[98] and these state that:

> *"a prospectus shall contain the necessary information which is material to an investor for making an informed assessment of: (a) the assets and liabilities, profits and losses, financial position and prospects of the issuer and of any guarantor; (b) the rights attaching to the securities; and (c) the reasons for the issuance and its impact on the issuer."*[99]

There are various rules regarding the application for approval of a prospectus to the FCA and the FCA's decision regarding the application, but it is not possible to discuss these in detail here.[100]

A further disclosure requirement particular to cryptoassets should be mentioned at this point. A cryptoasset exchange provider or custodian wallet provider who establishes a business relationship, or enters into a transaction, with a customer arising out of the activities of the cryptoassets business must, before establishing the relationship or entering the trans-

[96] See Prospectus Regulation, art 1(4) and PRR, 1.2.3. And see the discussion at Gullifer and Payne, *Corporate Finance Law: Principles and Policy*, pp. 512-513.
[97] FSMA 2000, s 85(7).
[98] FSMA 2000, s 87A.
[99] Prospectus Regulation, art 6(1) and PRR, 2.1.1. And see the rest of PRR, 2.1.1 and Prospectus Regulation, arts 6 and 7 for further details of the requirements. See also the discussion in Gullifer and Payne, *Corporate Finance Law: Principles and Policy*, pp. 513 ff.
[100] For further information, see e.g. FSMA 2000, ss 87C and 87D; Regulation (EU) 2019/980, Chapter V; PRR, 3.1.

action, inform the customer if the activity is not within the scope of the Financial Ombudsman Service's jurisdiction and/or is not subject to protection under the Financial Services Compensation Scheme.[101]

There is the possibility of liability in respect of an incorrect or misleading prospectus. For a party making a claim, there are various avenues available. The Financial Services and Markets Act 2000, s 90, offers specific liability for prospectuses. Under this, any person responsible for a prospectus is liable to pay compensation to a person who has acquired securities to which the prospectus applies, if the claimant has suffered loss as regards those securities due to any untrue or misleading statement in the prospectus or an omission of any matter that was required to be included in the prospectus.[102] The legislation provides exemptions (defences) to such a claim,[103] including that there was a reasonable belief that the statement was true or that the claimant acquired securities with knowledge that the statement was false or misleading or the matter was omitted.

While a s 90 claim is likely to be the most appealing course in the majority of circumstances, there are other routes available for claims. At common law, if there have been intentionally fraudulent misrepresentations, then the tort of deceit allows for liability.[104] There can also be liability for a negligent misstatement in a prospectus, but because the loss will involve pure economic loss, the law is rather restrictive.[105] A successful claim will depend upon meeting the requirements of foreseeability, proximity of relationship and that it is fair, just and reasonable to impose a duty.[106] In

[101] Money Laundering, Terrorist Financing and Transfer of Funds (Information on the Payer) Regulations 2017, reg 60A.
[102] FSMA 2000, s 90(1).
[103] Under FSMA 2000, Sch 10.
[104] See e.g. *Derry v Peek* (1889) 14 App Cas 337; *Clerk & Lindsell on Torts*, 23rd ed., Sweet & Maxwell, London 2020, ch 17. The equivalent in Scots law is the delict of fraud – see further below.
[105] Clerk & Lindsell on Torts, para 7-103.
[106] Caparo Industries plc v Dickman [1990] 2 AC 605.

relation to proximity, the defendant will need to have assumed responsibility to the claimant in the matter: it will need to be shown that the defendant knew the information would be provided to the claimant and that the claimant would rely on it.[107] In the context of a statement in a prospectus, this is a test that can certainly be met, particularly where initial investors are purchasing on the strength of statements in the prospectus. Depending on the circumstances, there could also be successful contractual claims (e.g. between the issuer of the securities and initial purchasers),[108] and claims under the Misrepresentation Act 1967, ss 1-2.[109]

Furthermore, there are administrative sanctions available to the FCA.[110] As well as the role they have in approving or not approving a prospectus, they can, for example, suspend or prohibit an offer of securities to the public, suspend or prohibit admission to trading, publicly censure an issuer (or other relevant party) or impose monetary penalties on them.[111]

There may also be criminal liability in some circumstances, such as where there has been behaviour constituting criminal fraud or where the prospectus has been used for market manipulation.[112]

With respect to enforcement of securities law (including prospectus liability), while there are some signs of improvement, the levels of public

[107] *Hedley Byrne & Co Ltd v Heller & Partners Ltd* [1964] AC 465; *Henderson v Merrett Syndicates* [1995] 2 AC 145; and see *Clerk & Lindsell on Torts*, paras 7-104 onwards, for discussion.
[108] By virtue of the statement being considered incorporated into the contract.
[109] For some discussion of the various civil law remedies, see Gullifer and Payne, *Corporate Finance Law: Principles and Policy*, pp. 522 onwards.
[110] FSMA 2000, ss 87J-87O.
[111] See FSMA 2000, ss 87K-87M and 91. See Gullifer and Payne, *Corporate Finance Law: Principles and Policy*, pp. 534-535 for discussion.
[112] On the latter point, Gullifer and Payne, *Corporate Finance Law: Principles and Policy*, p. 533, suggest that ss. 89-90 of the Financial Services Act 2012 could be relevant. Regarding fraud, see Fraud Act 2006.

enforcement (by the FCA) and private enforcement are relatively low in the UK, particularly compared to the USA.[113]

3.3. Supervisory Authorities and Measures

There is no specific supervisory authority that only deals with cryptocurrencies and/or cryptocurrencies-related services. However, as discussed above, the FCA is the authority that deals with aspects of cryptocurrencies involving supervisory and sanction matters.

In respect of supervisory measures, the FCA has a list of businesses who seem to be undertaking activities involving cryptoassets without registration,[114] and this could lead to measures/actions against those businesses.

There is currently an absence of cases involving action by the FCA in relation to illegal activities connected to cryptocurrencies. However, the position will no doubt change as time passes, especially given the increased growth in cryptocurrencies. More enforcement action is likely following the passing of the deadlines for registration of cryptocurrency activities and as applications for registration are unsuccessful. The time and resources needed to investigate and take action against illegal activities involving cryptocurrencies, in large part due to complexity, does, however, mean that the FCA will need to be selective about enforcement. It could also take a significant amount of time to, for example, successfully prosecute parties for illegal activities concerning cryptocurrencies.

[113] See Gullifer and Payne, *Corporate Finance Law: Principles and Policy*, pp. 535-537, and the sources cited there.
[114] See above.

4. PRIVATE LAW ISSUES

This part of the Report, under each of its sections, addresses some key private law issues under the laws of England and Wales and of Scotland and considers private international law aspects. It highlights the general position under these laws and discusses cryptocurrency related issues via specific examples. This part of the Report, due to the constraints arising from its length, addresses private international law issues by considering cryptocurrencies as a form of intangible property.

4.1. Property Rights

4.1.1. Law of England and Wales

4.1.1.1. General Property Law Considerations

English property law is not codified under a comprehensive statute comparable to a civilian code. Apart from various statutes with a defined scope of application (e.g., the Law of Property Act 1925 deals predominantly with interests in land), or definitions of 'property' for a specific context (such as for the purpose of the Insolvency Act 1986 or Theft Act 1968), the general law remains judge-made. In this respect, judges approach the question as to whether any given thing or right in respect of a thing is 'property' on a case-by case basis, with the particular purpose of the given case remaining at the core of that analysis.

There is as yet no comprehensive statute for the property aspects of cryptoassets, nor an authoritative decision from the UK Supreme Court. However, various first instance decisions[115] have proceeded on the basis

[115] See further section 6.1.1 below.

that cryptocurrencies 'are property' for the purposes of interim applications relating to jurisdiction, freezing orders, and proprietary injunctions.

Although these cases may appear indicative of the position under English law, it is important to note that: (i) all but one of the decisions were *ex parte* interim applications;[116] and (ii) none of the decisions turned on an outright determination of whether cryptocurrencies can or cannot be considered property, or be the subject of property rights at common law. Accordingly, these decisions are neither binding precedents nor, strictly, of persuasive authority under the doctrine of precedent that governs the operation of the common law. Moreover, the issue of whether cryptocurrencies may be the subject of property rights – and if so, what kinds of property rights – under English law is more complex than these cases would suggest. There are several reasons for this, as follows.

Property as Rights

Unlike civilian systems of property law,[117] the common law of property has traditionally not been concerned with the types of 'things' that may be the subject of property rights, but the nature, exigibility, and priority of those rights themselves.

Thus, the traditional approach[118] is that a common law right in respect of some *res* is 'proprietary' or is a 'property right' if it binds third parties to its creation under a strict regime of liability (i.e., can be enforced against 'all the world', irrespective of the knowledge or intent of third parties who allegedly infringe upon that right). This is in contrast to personal rights,

[116] I.e., without the benefit of full argument for both sides.
[117] For scholarly literature on comparative property law more broadly, see U. Mattei, *Basic Principles of Property Law: A Comparative Legal and Economic Introduction,* Greenwood Press, Westport 2000; S. van Erp and B. Akkermans (eds), *Cases, Materials and Text on Property Law,* Hart, Oxford 2012.
[118] See generally W. Swadling, 'Property,' in A. Burrows (ed), *English Private Law*, 3rd ed., OUP, Oxford 2013.

which can be enforced only against a specific person on the basis of a bilateral legal relationship. Occupying a somewhat intermediate position between these two are property rights in equity, which do bind third parties, but *not* where the third party was a *bona fide* purchaser for value of his competing right in the *res* without notice of the prior right allegedly infringed.

From a substantive perspective, English law differs, again, from civilian systems of property law in that it does not recognise a substantive right of 'ownership' in the sense of the Roman *dominium.* Rather, the common law is generally concerned with the entitlement to possession, which remains the formal meaning of the legal term 'title' (as derived from 'entitlement'). Nevertheless, as the supreme substantive right recognised in English property law, the term 'title' will be used somewhat interchangeably with 'ownership' throughout the English private law sections of this Report.

A more modern trend in property law adopts a markedly civilian, asset-centric approach to its subject matter. According to this second approach, English property law is based on residual categories based on asset types: broadly speaking, 'real property' law concerns interests in land; 'personal property' law concerns interests in assets that are not land.[119]

Controversy arises when such asset-centric perspective applies doctrines developed along the lines of the older rights-based approach. In the present debates as to cryptocurrencies, the key authority of *National Provincial Bank Ltd v Ainsworth*[120] remains the starting point alike for judges, policy statements, and other debate or commentary on cryptoassets. That case concerned a dwelling house (the *res*), but the issue for the House of Lords was the priority between the interest of a mortgagee

[119] M. Bridge *et al* (eds), *The Law of Personal Property,* 3rd ed., Sweet & Maxwell, London 2021, [1-009] and [1-015] et seq.
[120] *National Provincial Bank Ltd v Ainsworth* [1965] AC 1175.

Bank and the (alleged) interest of the mortgagor-owner's wife to remain in occupation following the breakdown of their marriage but before a final divorce decree had been granted. The House of Lords ultimately found that the wife's alleged right did not meet the requirements for a property right at law; broadly because it was too uncertain and undefined, being ultimately based on the breakdown of marital relations.[121] It was, therefore, held not binding on the Bank.

Hence, in the modern cryptoasset discourse, application of these requirements for property status is contentious insofar as it is applied to the *res* itself (reflecting the newer asset-based approach), rather than the *right in* the *res* asserted (the traditional, rights-based approach).

Characterisation of the Res

Further difficulties arise from the fact that English law has not yet adopted a definitive property characterisation of cryptocurrencies as empirical phenomena which are, as such, the subject of legal rights.

As a preliminary issue, cryptoassets and records in decentralised ledgers, analysed essentially as data phenomena, form a particular problem from the perspective of the English common law of property: it has long been held at common law that there can be no property rights in information.[122]

[121] See in particular *National Provincial Bank Ltd v Ainsworth* [1965] AC 1175, 1224A-E (Lord Hodson); 1248G-1249F (Lord Wilberforce).
[122] *Boardman v Phipps* [1966] UKHL 2; [1967] 2 AC 46; P.E. Kohler & N.E. Palmer, 'Information as Property' in N.E. Palmer and E. McKendrick (eds) *Interests in Goods*, 2nd ed., Informa Law from Routledge, Milton Keynes 1998; Law Commission, *Breach of Confidence*, Law Com No 110, Cmnd 8388,1981.

However, taking the example of copyright and other intellectual property rights,[123] it is clear that data-based things can indeed be the subject of property rights; albeit, as a matter of statute, rather than at common law. Accordingly, there is no reason in principle why cryptoassets, even as a data-based *res*, could not be the subject of statutory, if not common law, property rights.

Irrespective of whether property rights are recognised at common law or via statute, the more pressing questions, however, are how the *res* is to be characterised in law; and which particular feature of that characterisation is relevant for a property law analysis.[124] In this regard, cryptocurrencies present an unprecedented challenge in that they exhibit various empirical features that correspond to different interests presently recognised by English property law in different contexts.

On one analysis, knowledge/control of the private key may be considered roughly analogous to the interest of possession and/or use. By analogy to the principle that possession confers title[125] (which generally prevails in its purest form in the law applicable to chattel/moveable goods),[126] it might be said that knowledge or control over the private key confers title to a cryptoasset. Although this approach in the cryptoasset sphere has generally found favour,[127] it is problematic in that it leaves open

[123] M. Spence, *Intellectual Property*, OUP, Oxford 2007. Spence takes the view at 14 that intellectual property rights are not property rights in the intangible asset itself (the literary work, patent, or so on), but rather property in the legal rights, provided for in the various statutes, in respect of those intangible assets. This is consistent with the traditional rights/remedies-based approach to property law.

[124] See, for example A. Held, 'Does Situs Actually Matter When Ownership to Bitcoin is in Dispute?' (2021) 4 *Journal of International Banking and Financial Law* 269.

[125] The position is well established at common law. It suffices for present purposes to refer to the statement of Lord Hoffmann in *Alan Wibberley Building Ltd v Insley* [1999] 1 WLR 894 (HL), 898: "possession is in itself a good title against anyone who cannot show a prior and therefore better right to possession."

[126] See generally W. Swadling, 'Property,' in A. Burrows (ed), *English Private Law*, 3rd ed., OUP, Oxford 2013, [4.131]; and [4.457] et seq.

[127] E.g., with the highly influential UK Jurisdiction Taskforce, 'Legal Statement on Cryptoassets and Smart Contracts,' 11.2019, [43] https://technation.io/lawtech-uk-resources/#cryptoassets.

the question of which copy of any private key is definitive for this purpose. Given the ease with which private keys may be duplicated or hot wallets hacked, the issue is of considerable significance. Further issues of characterisation also arise, depending on the type of wallet used.

Accordingly, it has been argued that knowledge or control over a private key should not confer the right of ownership/a superior title, but rather an interest functionally equivalent to a relative or limited right of possession.[128] Such right would in itself represent a different property interest to that of ownership/superior title, comparable to the lessee's rights to exclusive possession of land for the duration of the lease, or the bailee's 'special property' interest in chattels under a bailment.

On a second analysis, the decentralised ledger might be taken as the definitive feature of cryptocurrencies for the purpose of property rights: direct participation in the relevant decentralised ledger network as a node being key to establishing and asserting property rights. Some private applications of decentralised ledger technology take this one step further by expressly designating the associated cryptocurrency or token a registered asset, with the decentralised ledger functioning as the title register.[129] However, in both cases, in the absence of a statute recognising decentralised ledgers as a *legal* title register,[130] a decentralised ledger cannot function as such.

An alternative conceptualisation is to treat cryptoassets as some notional asset, i.e., as a legal construct superimposed upon the empirical processes underpinning the *res* itself.[131] Reflecting the traditional rights-

[128] Held, 'Private Keys v Blockchains: What *is* a Cryptoasset in Law?,' 247.
[129] See, for example, registered blockchain bonds in R. Cohen *et al,* 'Automation and Blockchain in Securities Issuances,' (2018) 3 *Journal of International Banking and Financial Law* 144.
[130] Such as the Uncertificated Securities Regulations 2001 SI 2001/3755 (CREST Regulations) for uncertificated securities, or the Land Registration Act 1862, establishing HM Land Registry for land.
[131] A. Held, 'Baking, Staking, Tezos, and Trusts: Crypto Sale and Repurchase Agreements Analysed by the High Court' (2022) 2 *Journal of International Banking and Financial Law* 96.

based approach to property law, such notional asset would best be considered some other abstract right in respect of the decentralised ledger.[132] These include the right to participate in a blockchain network with a defined quantum of value;[133] the right to 'have one's public bitcoin address appear as the last entry in the blockchain in relation to a particular bitcoin;'[134] or otherwise premised on 'legitimate expectations of participants in a decentralised ledger network that the ledger will attribute particular units of value within the system and the power to deal with those units.'[135]

A common practical issue to all proposals is that there remains no legally definitive mechanism for linking any such rights, private keys, or public addresses to legal or natural persons for the purpose of identifying parties in and locus standi to bring a claim.

Additional considerations are then superimposed by the commercial practices of intermediaries, such as key custodians and cryptocurrency exchanges.[136]

Taxonomy

The English property taxonomy is divided between (i) realty or 'real property' and (ii) personalty or 'personal property.'[137] The traditional rights-based approach draws the distinction by reference to remedies: real property comprises those things that can be made subject to the real actions

[132] ibid.
[133] Held, 'Private Keys v Blockchains: What *is* a Cryptoasset in Law?'.
[134] K.F.K. Low and E. Teo in 'Bitcoins and Other Cryptocurrencies as Property?' (2017) 9(2) *Law, Innovation and Technology* 235, para 4.3.
[135] A. Dickinson, 'Cryptocurrencies and the Conflict of Laws' in D. Fox and S. Green (eds), Cryptocurrencies in Public and Private Law, OUP, Oxford 2019, [5.108].
[136] See further A. Held, 'Intermediated Cryptos: What Your Crypto Wallet *Really* Holds' (2020) 8 *Journal of International Banking and Financial Law* 540.
[137] The distinction is ancient and has its roots in the law of succession: real property passed to the heir or legatee, whereas personal property passed to the deceased's personal representatives for distribution according to the will. See generally W. Swadling,'Property,' in Burrows (ed), *English Private Law*, 3rd ed, OUP, Oxford 2013, [4.14].

(and, therefore, are recoverable *in specie*); personal property comprises those things in respect of which only personal actions for damages are available.

The more modern asset-based approach draws the distinction by reference to the empirical features of the *res* itself: 'real property' is essentially a category for land and interests in land; and 'personal property' is a category for non-land assets. 'Personal property' is then further subdivided between (ii)(a) things in possession or 'chattels;' and (ii)(b) things in action.[138] These correspond respectively to tangible things/goods and chattels amenable to physical possession and control; and intangible things that are vindicated by taking legal action, such as the contract debt.

Things in possession and things in action were said in *Colonial Bank v Whinney*[139] to be exhaustive of non-land assets: *'*all personal things are either in possession or in action. The law knows no tertium quid between the two.' [140]

Such taxonomy on the asset-based approach is thought to be problematic because cryptocurrencies do not fall neatly within any of these categories. Given that cryptocurrencies are neither land/interests in land, nor tangible things/goods, it would appear that the only remaining option is the thing in action. Cryptocurrencies do not, however, meet the classic definition of the thing in action either, given they are not underpinned by the concept of a legal right that may be vindicated by taking action before the courts. As noted in *AA v Persons Unknown*:

[138] This is a later distinction, dating to Blackstone. See generally, M. Bridge *et al* (eds), *The Law of Personal Property,* 3rd ed, Sweet & Maxwell, London 2021, [1-015].
[139] *Colonial Bank v Whinney* (1885) 30 Ch D 285 (CA).
[140] *Colonial Bank v Whinney* (1885) 30 Ch D 285 (CA), 285 (Fry LJ). Fry LJ dissented, but the decision of the Court of Appeal was reversed in (1886) 11 App Cas 426 (HL). For an argument against adopting Fry LJ's dictum, see UK Jurisdiction Taskforce, 'Legal Statement on Cryptoassets and Smart Contracts', 11.2019, [74] https://technation.io/lawtech-uk-resources/#cryptoassets.

Prima facie there is a difficulty in treating Bitcoins and other crypto currencies as a form of property: they are neither chose in possession nor are they chose in action. They are not choses in possession because they are virtual, they are not tangible, they cannot be possessed. They are not choses in action because they do not embody any right capable of being enforced by action.[141]

Nevertheless, the UK Jurisdiction Taskforce holds the view that *Colonial Bank v Whinney*, being concerned with 'property' within the meaning of the Bankruptcy Act 1869, cannot be taken as authoritative regarding the general position at common law Accordingly, the categories of chose in possession and in action should not be considered 'exhaustive' of personal things.[142] This view was cited in *AA v Persons Unknown*, where the judge ultimately concluded that, notwithstanding that cryptocurrencies do not fall neatly within either category of choses in possession or in action, it would be 'fallacious to proceed on the basis that the English law of property recognises no forms of property other than choses in possession and choses in action.'[143] However, the position remains undeveloped in positive terms.

As another proposal, the Financial Markets Law Committee have suggested the new category of 'virtual chose in possession' for cryptocurrencies, however, the concept is as yet undeveloped.[144]

Possession

[141] *AA v Persons Unknown* [2019] EWHC 3556 (Comm), [55].
[142] UK Jurisdiction Taskforce, 'Legal Statement on Cryptoassets and Smart Contracts' 11.2019, [71]-[84] https://technation.io/lawtech-uk-resources/#cryptoassets.
[143] *AA v Persons Unknown* [2019] EWHC 3556 (Comm), [58].
[144] See further Financial Markets Law Committee ('FMLC'), 'Issues of Legal Uncertainty Arising in the Context of Virtual Currencies' 07.2016, 23 www.fmlc.org .

Although there is some controversy as to whether the taxonomy is rights or asset based, classification and taxonomy on the asset-based approach remains important for two main reasons. First, as will be seen below, the vast majority of statutes adopt an asset-based definition of 'property' for the purposes of their scopes of application. Second, and perhaps more importantly, classification is reflected in the substantive principles of personal property law.

The most relevant illustration for present purposes is the tort of conversion, which is the primary action through which title to personalty is vindicated. Critically, conversion is a personal claim in the common law of obligations and does not afford a proprietary remedy,[145] unlike the real actions used to vindicate titles to land. For present purposes, however, the key feature of the tort is that, under the leading authority of *OBG v Allan,*[146] it is only available in respect of assets that may be the subject of possession; i.e., only for things in possession. This is of prime significance, because the question of possession remains a key consideration underpinning many of the English private law issues considered in this Report.

In *Lubin v Persons Unknown*,[147] an intended claim in conversion in respect of US Dollar Tethers was held to be untenable for the purpose of an application to serve proceedings out of the jurisdiction on the basis that, following the leading authorities, 'rights such as debts, copyright and other choses in action could not be possessed for the purposes of the tort of conversion'.[148]

[145] The essence of the tort is that the defendant has unlawfully interfered with the claimant's rights of possession in respect of the asset, thereby causing loss. At common law, compensatory damages are the default remedy, though a claimant may elect an order for delivery up of the asset under section ss 32(2)(b) and 3(3) of the Torts (Interference with Goods) Act 1977. See generally, *Clerk & Lindsell on Torts*, 23rd ed, Sweet & Maxwell, London 2020.
[146] [2007] UKHL 21; [2008] 1 AC 1.
[147] [2021] EWHC 1938 (Comm).
[148] *Lubin v Persons Unknown* [2021] EWHC 1938, [12].

The problems of extending legal techniques based on possession have long been recognised in respect of intangible assets, with (i) a line of *dicta* in the case law suggesting that the time has come for a reconsideration of the principle that intangible things cannot be the subject of possession;[149] (ii) various academic proposals for a reconsideration of the traditional bi-partite characterisation of personal things; and most recently (iii) two consultations of the Law Commission of England and Wales.

Professor Goode notably proposed a new taxonomy whereby the old category of 'things in action' or 'intangibles' is sub-divided into pure and documentary intangibles, based on the use of paper documents.[150] 'Pure' intangibles are defined as 'a right which is not in law considered to be represented by a document.'[151] By contrast, 'documentary' intangibles are those (such as bills of lading and bearer bonds)[152] in which 'the debt or other obligation is considered in law,' in recognition of mercantile usage,[153] 'to be locked up in the document.'[154] One of the key consequences that flow from symbolising an obligation in this kind of paper form is that the intangible obligation is treated in law as a chattel good: (i) delivery of the document will usually be effective to transfer the 'ownership' of the asset; and (ii) possession-based legal techniques, such as bailment and pledge, are available in respect of such assets.[155]

[149] See, for example, *Re Lehman Brothers International (Europe)* (Extended Liens) [2012] EWHC 2997 (Ch); [2014] 2 BCLC 295, [34]; most recently culminated in the statement of Vos C in *Lloyd v Google* [2019] EWCA Civ 1599 at [46] that the "question may in due course need to be revisited."
[150] E. McKendrick (ed), *Goode and McKendrick on Commercial Law,* 6th ed, Penguin, London 2020, [2.16] and [2.53] et seq.
[151] ibid para 2.54.
[152] ibid, para 2.56.
[153] ibid, para 2.58.
[154] ibid para 2.56. Professor Goode continues to identify three types of documentary intangible: (i) documents of title to payments of money (termed instruments); (ii) documents of title to negotiable securities (e.g., bearer bonds and notes), and (iii) documents of title to goods (such as bills of lading).
[155] S. Dromgoole and Y. Baatz, 'The Bill of Lading as a Document of Title,' in N. Palmer and E. McKendrick (eds), *Interests in Goods*, 2nd ed, 1998, in M. Bridge *et al* (eds), *The Law of Personal Property*, 3rd ed., Sweet & Maxwell, London 2021, [1-026], footnote 120.

The proposed category of documentary intangible is notable in the present discussion, given the obvious applicability to private keys stored on various physical media. Leigh Sagar, a key commentator writing in the context of the digital estate takes the view that 'digital records' (such as a digital file or image) must be distinguished from both: (i) 'digital property rights', which are property rights (in the traditional sense of the term) in respect of digital records, such as copyright and design rights; and (ii) the physical medium upon which the digital record is stored. Sagar then continues the analysis along the same lines as the documentary intangible for obligations recorded on paper.[156]

Drawing these threads together, if the 'documentary' analogy were extended thus to private keys, as a type of digital record, it would appear that, whilst a claim in conversion in respect of US Dollar Tethers was held untenable, a claim in conversion of a Trezor cold wallet on which the private keys associated with certain US Dollar Tethers was stored would, in principle be tenable.

In a similar vein, as part of its project on Electronic Trade Documents, the Law Commission of England and Wales published a Consultation Paper in April 2021, seeking views on the suggestion 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.*[157]

[156] L. Sagar, *The Digital Estate*, Sweet & Maxwell, London 2018, [8.10].
[157] Law Commission, 'Electronic Trade Documents,' CP/254, 2021, [5.47] https://www.law-com.gov.uk/project/electronic-trade-documents/.

At the time of writing, the Electronic Trade Documents Final Report is expected to be published in Spring 2022.

As part of its project on Digital Assets, the Law Commission published a Call for Evidence in April 2021, seeking views on 'whether other digital assets could and should be possessable under the law of England and Wales,' with a focus on the legal and practical implications of digital assets being possessable under the law.[158] At the time of writing, the Digital Assets Consultation Paper is expected to be published in mid-2022, following an Interim Update in November 2021.

4.1.1.2. Ownership and Transfer: Case Examples

Based on the general property law considerations addressed above, in an example where X has 60 Bitcoins registered in his wallet, the prevailing statement that cryptocurrencies fulfil the criteria set out in *National Provincial Bank* does not go far to address the more complex question of whether X has the legal property right of '*ownership'* in respect of 60 Bitcoin in any given case (as opposed to some other substantive right). Hence, the fundamental question of whether X has the legal property right of 'ownership' in respect of certain Bitcoin does not yield any wholly satisfactory answer.

If X holds private keys directly in a non-intermediated wallet simpliciter, applying the simple possession rule by analogy, X probably has a title to the corresponding 60 Bitcoin as a matter of empirical control.[159]

[158] Law Commission, 'Digital Assets Call for Evidence.' 04.2021, [2.18]; [2.21]-[2.22] https://www.lawcom.gov.uk/project/digital-assets/.

[159] This is the position also taken by the UK Jurisdiction Taskforce, 'Legal Statement on Cryptoassets and Smart Contracts' 11.2019, [43]: "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 associated cryptoasset, in much the same way that a person lawfully in possession of a tangible asset is presumed to be the owner" https://technation.io/lawtech-uk-resources/#cryptoassets.

This analysis, however, is of limited practical utility, and where a third party also holds a copy of the private keys, the question becomes more complex.

Where that third party is MontC providing private key custody services pursuant to a commercial agreement, the contract between MontC and X will be of prime importance. As has been seen in the context of cryptocurrency exchanges,[160] where cryptocurrencies are 'held' via an intermediary, the rights of the accountholder, such as X, will depend, not only on the express provisions of the agreement but also the way in which the intermediary itself interacts with the relevant decentralised ledger network.

Many commercial agreements plainly purport to confer the right of ownership upon accountholders, and, notwithstanding the technical legal obstacles surrounding the issue of possession in English law, such arrangements may be possible by way of substantive analogy. Where, for example, the private keys are held by MontC, X may retain some property interest in the 60 Bitcoins if MontC holds the private keys as the functional equivalent of a bailee or as a trustee.

However, it is only in the former case of quasi-bailment that X will retain the superior right of 'general property'/the right of 'ownership' as against MontC; where MontC holds as a trustee, X does not have any property interest at law but that of a beneficiary under a trust. Both are property interests in themselves insofar as they are exigible against third parties but, as noted above,[161] rank differently in any determination of priority. Thus, the key issue under English property law is not the question of whether 'X has ownership,' but the question of whether X's right takes pri-

[160] See further Held, 'Intermediated Cryptos: What Your Crypto Wallet *Really* Holds'.
[161] Part 4.1.1.1., 'Property as Rights.'

ority as against some other competing right. The analysis will be no different in the case of a fork, though it may well be that the contractual agreements between MontC and X expressly provides for such circumstances.

Where the third party is Z, however, who challenges X's rights of 'ownership,' the limitations of the possession rule, as applied by analogy to cryptoassets defined as the private key, come to the fore. In the absence of any mechanism for determining which copy of the private key is definitive, there is no way to determine whether X or Z has the better claim to 'ownership.'

4.1.2. Law of Scotland

In Scots law, while some legislation refers to property (for which, see below), the nature and status of cryptocurrencies will largely be determined by the common law. There is a general absence of case law on cryptocurrencies in Scots law.[162] However, it is a system that often relies on principles to determine the answers to novel questions and the same would apply to the treatment of cryptocurrencies. The system recognises corporeal and incorporeal property and immoveable and moveable property, and property combining elements from each of these two groupings, e.g. incorporeal moveable property.[163] While there is some debate as to whether incorporeal property can be "owned",[164] this terminology is often used in practice and in academic literature.[165]

[162] There has also been little scholarly discussion of the nature of cryptocurrencies in Scots law, the leading analysis considers Scots law as part of a wider grouping of Civilian and mixed legal systems – D. Carr, 'Cryptocurrencies as Property in Civilian and Mixed Legal Systems' in D. Fox and S. Green (eds), *Cryptocurrencies in Public and Private Law*, Oxford University Press, Oxford 2019, ch 7. See also D. Fox, 'Digital Assets in Scots Private Law' (2021) Edinburgh School of Law Research Paper No. 2021/17; and D. Bartos, 'Where did the money go?' (2018) Journal of the Law Society of Scotland (Online) https://www.lawscot.org.uk/members/journal/issues/vol-63-issue-04/where-did-the-money-go/.

[163] The leading text on property law in Scotland is K.G.C. Reid, *The Law of Property in Scotland*, Law Society of Scotland/Butterworths, Edinburgh 1996.

[164] See G.L. Gretton, 'Ownership and its Objects' (2007) 71 Rabels Zeitschrift 802.

[165] See e.g. Reid, The Law of Property in Scotland, para 16.

Given that Scots law adopts an expansive definition of property, covering a vast range of "objects" or "things" ("*res*"), it would seem likely that at least some cryptocurrencies will be accepted as property (but it may depend on the exact characteristics of the asset involved).[166] Cryptocurrencies would appear to constitute a sub-category of incorporeal moveable property,[167] and differ from the paradigmatic type of such property, namely claim rights, as there is no counterparty obligant. In this sense, they have more in common with intellectual property rights but also differ from them in some respects.[168]

If cryptocurrencies are deemed to be property, then it logically follows that it will be considered possible to own them and to make them the subject of other property rights, including security rights. An advantage of the recognition of cryptocurrencies as property is being able to utilise the apparatus of property law to legally regulate their use and to deal with issues arising.[169] If they are treated as incorporeal property, it will not be possible to possess the property as such,[170] albeit that there could be equivalence for some purposes depending upon the degree of control a party has over the assets. A physical manifestation of the property could be possessed in some cases, but it seems unlikely that this will be considered to represent the property itself.

[166] As noted by Carr, 'Cryptocurrencies as Property in Civilian and Mixed Legal Systems', para 7.36, commercial momentum for the recognition of cryptocurrencies will make their acceptance as property likely. Related to this, their recognition in English law as property may also add to the impetus for accepting them, given the commercial and financial integration of Scotland and the rest of the UK.
[167] However, cf D. Fox, 'Digital Assets in Scots Private Law' (2021) Edinburgh School of Law Research Paper No. 2021/17, who contends that digital assets are most appropriately analysed as a species of corporeal thing.
[168] This is a point also made by D. Carr, 'Cryptocurrencies as Property in Civilian and Mixed Legal Systems', paras 7.07 and 7.21-7.22. See also G.L. Gretton and A.J.M. Steven, *Property, Trusts and Succession*, 4th ed., Bloomsbury Professional, London 2021, para 1.20, where they note some of the difficulties in identifying the legal nature of cryptocurrencies in property terms.
[169] See Carr, 'Cryptocurrencies as Property in Civilian and Mixed Legal Systems'.
[170] Carr, 'Cryptocurrencies as Property in Civilian and Mixed Legal Systems', para 7.15.

To use some examples, where party X has 60 Bitcoins in their wallet, it is not entirely certain whether the Bitcoins can be considered as an object of property and whether ownership of the Bitcoins is possible in Scots law (as noted above). However, it seems likely that it would be considered (incorporeal) property and that X would have ownership. If, instead, X opened an account with a wallet services provider, such as MontC, then the question of whether X has ownership of the Bitcoins registered in their wallet will depend on the precise nature of the relationship between X and MontC and the services being provided. As such, while in a number of scenarios X will own the Bitcoins, particularly where they (alone) hold the private keys, in some circumstances, X may only have a claim or right against MontC, rather than owning the Bitcoins themselves. In the latter case, the normal rules regarding claims as a form of property could apply.[171]

Certain issues referred to above regarding competing rights in relation to cryptocurrencies in English law could conceivably apply in Scots law too. However, although trusts and subordinate real rights are recognised, it should be noted that Scots law is unititular with only one party owning property at a given time (e.g. there is no division between legal and equitable ownership).[172]

4.1.3. Private International Law Considerations

[171] This may be considered partly analogous to a situation where a party has a bank account and the account holder has a claim against the account provider for the "sums" in the account.
[172] See Reid, *The Law of Property in Scotland*, para 603. It is, however, possible for parties to own property in common or jointly.

Different terms and classifications adopted by English and Scots property law are accommodated in private international law by the use of the 'moveable' and 'immovable' classification.[173] The nature of property (or of the subject matter of ownership) is classified as moveable or immoveable according to the *lex situs* (i.e., the law of the place where the property is situated),[174] which represents an exception to the general principle that classification (or characterisation) is made according to the *lex fori*.[175] On the other hand, the nature of the cause of action is classified according to the *lex fori*.[176]

Regarding immoveable property, all questions of proprietary rights are, in principle, governed by the *lex situs*.[177] For moveable property, although there have been arguments for the application of other laws,[178] the *lex situs* still remains the predominant law applied to questions of proprietary rights. Regarding tangible moveable property, the general rule is that

[173] See E.B. Crawford and J.M. Carruthers, *International Private Law: A Scots Perspective*, 4th ed., W. Green, Edinburgh 2015, para 17.02; Lord Collins of Mapesbury and others (eds), *Dicey, Morris & Collins on the Conflict of Laws*, 15th ed., Sweet & Maxwell, London 2014, para 22-004; J. Hill and M. Ní Shúilleabháin, *Clarkson & Hill's Conflict of Laws*, 5th ed., Oxford University Press, Oxford 2016, para 9.2; D. McClean and V. Ruiz Abou-Nigm, *Morris: The Conflict of Laws*, Sweet & Maxwell, London 2021, para 17-002.

[174] See Crawford and Carruthers, *International Private Law: A Scots Perspective*, para 17.02; P. Beaumont and P.E. McEleavy, *Anton's Private International Law*, 3rd ed., W. Green, Edinburgh 2011, paras 21.04 and 21.08; Collins and others, *Dicey, Morris & Collins on the Conflict of Laws*, paras 22R-001 and 22-009.

[175] Hill and Shúilleabháin, *Clarkson & Hill's Conflict of Laws*, para 9.2.

[176] See Crawford and Carruthers, *International Private Law: A Scots Perspective*, para 17.02. They also note that the initial characterisation may occasionally require a re-characterisation according to the *lex causae* at a later stage, see ibid.

[177] See Crawford and Carruthers, *International Private Law: A Scots Perspective*, para 17.08; Beaumont and McEleavy, *Anton's Private International Law*, para 21.48; Collins and others, *Dicey, Morris & Collins on the Conflict of Laws*, 23R-062; McClean and Ruiz Abou-Nigm, *Morris: The Conflict of Laws*, para 17-018.

[178] This includes the law of the domicile (*lex domicilii*), the law of the place of acting (*lex loci actus*) or the proper law of the transfer (*lex actus* based on the closest connection), see Crawford and Carruthers, *International Private Law: A Scots Perspective*, paras 17.11 and 17.21; P. Torremans (ed), *Cheshire, North & Fawcett: Private International Law*, Oxford University Press, Oxford 2017, pp. 1264-67.

the *lex situs* governs all questions of proprietary rights, subject to the exceptions stated in *Winkworth v Christie Manson & Woods Ltd*.[179] For intangible property, there is a tendency to apply the *lex situs*[180] as determined at the time of the transaction allegedly giving rise to the proprietary claim,[181] and the general practice for this category of property with no physical location (such as money debts, shares, rights of action, intellectual property) has been to ascribe them to an artificial or fictional legal situs where they can be pursued or enforced.[182]

Based on these general considerations, the nature of cryptocurrencies (as moveable or immovable property) is therefore to be determined by the *lex situs* whereas the nature of a claim arising from them, for example as property, contract, unjustified enrichment or trust, is to be determined by the *lex fori* (i.e., English law before an English court and by Scots law before a Scots court). It has been argued that cryptocurrencies are a form of intangible property in English private international law.[183]

As is the case with the other forms of intangible property, the identification of the *lex situs* poses difficulties as cryptocurrencies do not have a physical location and, additionally, are underpinned by DLT. In *Ion Sci-*

[179] See Crawford and Carruthers, *International Private Law: A Scots Perspective*, para 17.11; Torremans, *Cheshire, North & Fawcett: Private International Law*, pp. 1267-70. These exceptions relate to situations where (i) goods in transit with a causal or unknown situs, (ii) a purchaser claiming tittle did not act bona fide, (iii) the English court considers the application of the particular law of the relevant situs contrary to English public policy, (iv) there is a statute in force in the forum obliging the forum to apply its own law and (v) there are special rules applicable regarding bankruptcy or succession. On these exceptions, see *Winkworth v Christie Manson & Woods Ltd* [1980] 1 Ch 496, p. 501 and for a discussion on them see Crawford and Carruthers, *International Private Law: A Scots Perspective*, para 17.15; Torremans, *Cheshire, North & Fawcett: Private International Law*, pp. 1269-70. Hill and Shúilleabháin note at para 9.23 in *Clarkson & Hill's Conflict of Laws* that there are very few reported cases where the exceptions were applied. See also *Glencore International AG v Metro Trading International Inc (Formerly Metro Bunkering and Trading Company) and Others* [2001] CLC 1732 reasserting the general *lex situs* rule.

[180] T.C. Hartley, *International Commercial Litigation: Text, Cases and Materials on Private International Law*, 3rd ed., Cambridge University Press, Cambridge 2020, p. 825.

[181] See Crawford and Carruthers, *International Private Law: A Scots Perspective*, para 17-04.

[182] ibid, para 17-04; Collins and others, *Dicey, Morris & Collins on the Conflict of Laws*, para 22-025.

[183] Dickinson, 'Cryptocurrencies and the Conflict of Laws', para 5.97.

ence and *Fetch.AI*, English courts took the view, based on Professor Dickinson's proposal, that the location of a cryptoasset (in the given cases Bitcoin) is the place where the person or company who owned the coin or token is domiciled.[184] In the absence of any reported cases in Scotland concerning cryptocurrencies, it is not clear how the Scottish courts would determine the situs of a cryptocurrency. Therefore, the matter has not been settled in the UK by authority yet.[185] Digital location[186] is one of the issues that the Law Commission of England and Wales will be considering as part of its new project on Conflict of Laws and Emerging Technology[187] starting in the first half of 2022.[188]

In a case concerning X's legal ownership over 60 Bitcoins in his/her wallet, the cause of action would be characterised according to the *lex fori*, and the nature of Bitcoins would be classified according to the *lex situs*. Assuming that X holds the Bitcoins directly, it is likely that the proprietary rights of X would be determined to according to the *lex situs*, though it is unclear to which law this would be. Where X holds via an account with MontC, questions concerning MontC's proprietary rights *vis-à-vis* X's proprietary rights over the 60 Bitcoins registered in X's wallet would likely be determined according to the law applicable to the relationship between MontC and X.[189]

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[184] *Ion Science Ltd v Persons Unknown* (unreported) (21.12.2020); *Fetch.AI Ltd v Persons Unknown* [2021] EWHC 2254 (Comm). For Professor Dickinson's proposal in an analogy to goodwill, see Dickinson, 'Cryptocurrencies and the Conflict of Laws', paras 5.97 and 5.119.

[185] On this issue, see also A. Held, 'Does Situs Actually Matter When Ownership to Bitcoin is in Dispute?' (2021) 4 *Journal of International Banking & Financial Law* 269.

[186] Law Commission of England and Wales, Smart legal contracts: Advice to Government (2021) https://s3-eu-west-2.amazonaws.com/lawcom-prod-storage-11jsxou24uy7q/uploads/2021/11/Smart-legal-contracts-accessible.pdf, para 7.145.

[187] https://www.lawcom.gov.uk/project/conflict-of-laws-and-emerging-technology/.

[188] See generally B. Yüksel Ripley**, '**Law Commission of England and Wales's New Project on Conflict of Laws and Emerging Technology', EAPIL Blog https://eapil.org/2021/11/30/law-commission-of-england-and-waless-new-project-on-conflict-of-laws-and-emerging-technology/.

[189] The characterisation of the nature of this relationship is subject to the *lex fori*. It is asserted that a digital wallet (like a bank account) has a contractual nature, not proprietary, see C. Hare, 'Cryptocurrencies and Banking Law Are There Lessons to Learn?', in D. Fox and S. Green (eds), *Cryptocurrencies in Public and Private Law*, Oxford University Press, Oxford 2019, ch 9, paras 5.97 and 5.119. For an analysis of Exchange User Agreements, see A. Held, 'Intermediated Cryptos: What Your Crypto Wallet Really Holds' (2020) 8 *Journal of International Banking & Financial Law* 540.

4.2. Transfer of Ownership

4.2.1. Law of England and Wales

Given that English law has not yet adopted a definitive property characterisation of cryptocurrencies as empirical phenomena, nor a legal classification within the existing property taxonomy, it is difficult to state with certainty the necessary conditions or legal formalities required to effect a valid transfer of property rights in a cryptoasset.

The general rule for chattels/things in possession is that title may be transferred by one of three ways: sale, deed, and delivery.[190] This may prove applicable if a chattel characterisation of the private key stored on some physical medium is adopted as determinative of 'ownership.'

By contrast, the rule for the assignment of things in action is set out in s 136 of the Law of Property Act 1925, which broadly provides that an assignment in writing is effective at law to transfer a debt or other thing in action where express notice in writing of the assignment is given to the relevant obligor. This would be potentially applicable if the thing in action/claims-based characterisation ultimately prevails. However, as noted in section 4.1.1.1 above, there is significant difficulty in identifying an obligor for the purpose of such characterisation.

The position, therefore, is far from clear. However, in all cases, a key principle of English property law is encapsulated by the phrase *nemo dat quod non habet*. Should X wish to transfer property rights in some of

[190] W. Swadling, 'Property,' in A. Burrows (ed), *English Private Law*, 3rd ed, OUP, Oxford 2013, [4.457].

the Bitcoins in his wallet to Y, the primary condition is that X himself is entitled to those rights.

Returning to the example of MontC holding the 60 Bitcoins as trustee for its accountholders, X has only a beneficial interest under a trust. Accordingly, X cannot transfer legal title to 30 of those Bitcoin to Y, but only - effectively - X's own beneficial interest. If, on the other hand, MontC holds as a quasi-bailee, X retains the superior interest of the 'general property' in the asset, which may then be transferred to Y.

Generally, it makes no difference at common law whether the transfer from X to Y is by way of donation or by way of mutual exchange pursuant to a contract. At equity, however, the question of whether Y gave valuable consideration will have implications for questions of priority should a competing interest said to pre-exist the transfer to Y be asserted by a third party to the transfer.

In the commercial context, the common law of contract accords primacy to the principle of freedom of contract. Parties are generally free to contract on whatever terms they see fit; as such, an agreement between X and Y that X will transfer a quantum of cryptocurrency to Y in consideration of some counter-performance will be enforceable under the law of contract. The types of remedy for breach of such contract available, however, will differ, depending on how the transaction is characterised.[191]

[191] The default remedy for breach of contract under English law is damages and/or debt, i.e., an action for the agreed sum of the price. Given that neither Bitcoin nor Ether are 'money', such remedy would only be available for the £1,000 in legal tender as the 'price.' Whether the rights and remedies under the Sale of Goods Act 1979 are additionally available would depend on whether Bitcoin and/or Ether are 'goods' within the meaning of section 61(1) of that Act. Here, "goods" includes all personal chattels other than things in action and money, and in Scotland all corporeal moveables except money; and in particular "goods" includes emblements, industrial growing crops, and things attached to or forming part of the land which are agreed to be severed before sale or under the contract of sale; and includes an undivided share in goods. The UKJT takes the view that cryptoassets are not 'goods' within this definition: UK Jurisdiction Taskforce, 'Legal Statement on Cryptoassets and Smart Contracts' 11.2019, [130] https://technation.io/lawtech-uk-resources/#cryptoassets.

Hence, where X and Y agree for the mutual exchange of 5 Bitcoin against either (i) 10 Ether, or (ii) a quantum of legal tender, say, £1,000, as dependent obligations, the transaction will in principle be enforceable in contract.

4.2.2. Law of Scotland

Assuming cryptocurrencies can be owned, then the law will almost certainly facilitate the transfer of ownership of such assets. In addition to requiring an intention to transfer ownership, Scots law generally subscribes to the publicity principle, whereby the creation and transfer of real (property) rights require a step of publicity, which can inform third parties of rights that may affect them.[192] This is usually in the form of delivery of an item, notice (intimation) to a claim debtor, or registration. However, there are important exceptions to this.[193] For cryptocurrencies, the noted forms of publicity are unlikely to be applicable in the normal ways but, as Carr identifies, cryptocurrencies do generate publicly ascertainable information regarding transfer, even though the true identity of the transferee is not accessible.[194] It would seem that the point of transfer of ownership of a cryptocurrency will depend upon its transfer from one party to another within the confines of the relevant cryptocurrency framework, and may consist of the transfer of exclusive control. There are a number of complexities as to whether a party could seek to retain ownership, i.e. subject to other conditions being fulfilled, despite an apparent transfer of the cryptocurrency.

There is no reason to think that donation of a cryptocurrency would be precluded, if transfer of ownership is possible. Ownership would likely

[192] See e.g. Gretton and Steven, *Property, Trusts and Succession*, paras 4.19-4.21.
[193] E.g. under the Sale of Goods Act 1979, s 17. And note that the transfer of unregistered intellectual property, such as copyright, only requires delivery of an assignation document (see Scottish Law Commission, *Report on Moveable Transactions* (Scot Law Com No 249) (2017), para 22.45).
[194] Carr, "Cryptocurrencies as Property in Civilian and Mixed Legal Systems", para 7.18.

transfer at the same point as for other forms of transaction involving transfer of a cryptocurrency.[195] In terms of using cryptocurrencies as consideration for some form of counter-performance, this will usually be permissible, so long as the parties involved agree.

4.2.3. Private International Law Considerations

In private international law, a distinction is made between (i) an agreement to transact in relation to a property (which may include to transfer an interest in property) and (ii) the actual transfer of a right in rem in a property.[196] The former raises contractual questions, for which the Rome I Regulation, as retained by the UK,[197] may become relevant if the given contract and contractual question fall into Rome I's scope of application. The latter raises proprietary questions. The contractual and proprietary questions may not necessarily be governed by the same law.

Regarding intangible moveable property, despite the tendency to apply the *lex situs*[198] to the questions of proprietary rights, it is noted that it cannot be applied in the same manner as it is applied to tangibles due to the absence of a physical location and that it is difficult to clearly distinguish contractual and proprietary aspects of transfers.[199]

Various issues regarding the transfer of intangible movables are governed by Article 14 of Rome I, which applies to both the contractual and propriety aspects of a voluntary assignment or contractual subrogation

[195] See, generally, Gretton and Steven, *Property, Trusts and Succession*, para 4.57.
[196] See eg Crawford and Carruthers, *International Private Law: A Scots Perspective*, para 17.07; Collins and others, *Dicey, Morris & Collins on the Conflict of Laws*, para 24-006.
[197] The Law Applicable to Contractual Obligations and Non-Contractual Obligations (Amendment etc.) (EU Exit) Regulations 2019 (SI 2019/834) as amended by the Jurisdiction, Judgments and Applicable Law (Amendment) (EU Exit) Regulations (SI 2020/1574).
[198] Hartley, *International Commercial Litigation: Text, Cases and Materials on Private International Law*, p. 825.
[199] McClean and Ruiz Abou-Nigm, *Morris: The Conflict of Laws*, para 17-033.

against a debtor. At common law, Rule 135 in Dicey, Morris & Collins[200] is considered to be the uniform rule for the transfer of all intangibles. Article 14 of Rome I, which is materially in similar terms to Rule 135, is argued to be of limited relevance to cryptocurrency transactions as they frequently do not involve a claim in the sense of a legally enforceable right arising under the law applicable to the relationship between participants in the system.[201] Therefore, there is, strictly speaking, neither a 'law governing the right/claim to be assigned or subrogated' that can determine the 'proprietary effects' of the transfer,[202] nor any debtor against whom the assignment or subrogation must have effect as per Article 14 of Rome I or Rule 135.

As an alternative solution to the issue, it has been suggested that the proprietary effect of a transfer of a cryptocurrency can be governed by the law of the participant's residence[203] and if the dispute arises solely between the parties to the transaction, the effects as between the parties to the transaction could plausibly be governed by its applicable law.[204] The authority is, however, not settled on the matter yet.

In an example where X wants to transfer ownership of a unit of cryptocurrencies registered in his/her wallet to Y by way of sale or donation, the position on the law governing the proprietary effect of the transfer is not entirely clear. It may be that if the dispute arises solely between X and Y, the effects of the transfer would be determined by the law applicable to the sale agreement or donation. If the dispute is between one of the parties on the one hand and a third party on the other hand, the law of the

[200] See Collins and others, *Dicey, Morris & Collins on the Conflict of Laws*, para 24R-050.
[201] Dickinson, 'Cryptocurrencies and the Conflict of Laws', paras 5.101 and 5.106.
[202] A. Held, 'Cryptoassets and Decentralised Ledgers: Does Situs Actually Matter?' in A. Bonomi, M. Lehmann and S. Lalani (eds), *Blockchain and Private International Law*, Leiden, Brill forthcoming.
[203] See Dickinson, 'Cryptocurrencies and the Conflict of Laws', para 5.109. There is some recognition for this by the English courts as referred to in section 4.1 above.
[204] See Dickinson, 'Cryptocurrencies and the Conflict of Laws', para 5.109. See also B. Yüksel Ripley and F. Heindler, 'The Law Applicable to Crypto Assets: What Policy Choices are Ahead of Us?' in A. Bonomi, M. Lehmann and S. Lalani (eds), *Blockchain and Private International Law*, Leiden, Brill forthcoming.

place where X is resident or domiciled might be applied as the artificial or fictional legal situs of the asset.

4.3. Succession

4.3.1. Law of England and Wales

Much like in the law of contract, a key principle of the English law of succession is testamentary freedom.[205] A testator (the person making the will) is generally free to dispose of his assets as he sees fit; as such, there is, in principle, no reason why X could not include the 60 Bitcoins in a will to be distributed to Y upon X's death.

The way in which the relevant clause of the will should be drafted, however, depends on characterisation. As noted in section 4.1.1.1 above, Leigh Sagar, writing in the context of the Digital Estate, adopts the 'documentary intangibles' analysis to conclude that although a legacy in a will of the legal property rights associated with a digital file of a private key (or any other digital file) will be effective, any gift of the file itself, as pure data, will be ineffective. However, the legacy in a will of a device (e.g., a laptop) will carry all of the device's transistors and magnetic disks in which all digital records (including a private key) are stored. Accordingly, a testator, X, wishing to give a gift of a private key to Y should ensure it is stored on a device owned by him[206] and ensure that medium is expressly made subject to the gift to Y. On the other hand, if ownership is proved and vindicated by some other means, such as a legally recognised abstract property right in respect of the Bitcoin akin to an intellectual property right, X should make clear this is the subject of the gift.

[205] The principle was established by the Wills Act 1837. Section 3, which broadly provides that all property may be disposed of by will, remains in force.
[206] L. Sagar, *The Digital Estate*, Sweet & Maxwell, London 2018, [8.10].

Where a will has not been made, the 60 Bitcoins will fall under the rules of intestacy, the principal rules of which are contained in the Administration of Estates Act 1925. Where X is survived only by issue (to make it simple, assume Y is X's only child), the matter is straightforward: Y will take the entire estate. Where, however, X is survived by both Y and a spouse or civil partner, Y and the spouse/civil partner take the entire estate between them. In these circumstances, the issue of classification under the English property taxonomy is important, because the spouse first takes X's personal chattels absolutely. Section 55(1)(x) of the Administration of Estates Act 1925 defines 'personal chattels' as:

> *tangible movable property, other than any such property which—*
>
> > *consists of money or securities for money, or*
> > *was used at the death of the intestate solely or mainly for business purposes, or*
> > *was held at the death of the intestate solely as an investment.*

Whether or not the 60 Bitcoins would fall within this definition largely depends on characterisation. Although cryptocurrencies themselves are essentially data phenomena, if they have been stored on any physical medium – such as on a cold hardware wallet or on a piece of paper – it would in principle be open for a court to apply the 'benevolent' judicial fiction underpinning the documentary intangible developed for things in action, and treat the intangible cryptoasset as being equivalent to the physical medium itself. As such, a cold hardware wallet or piece of paper on which the private key is recorded may well fall within the definition of 'personal chattels' for the purposes of the Administration of Estates Act 1925.

4.3.2. Law of Scotland

Assuming cryptocurrencies are accepted as property, then they can also be dealt with in the Scots law of succession.[207] This means that a testator, such as X, can specify in a will that their child, Y, is to inherit their Bitcoins. The will should provide specific details regarding the assets and how they can be accessed, to adequately identify the property and to assist the executor in transferring the cryptocurrency to the legatee.[208] However, care is needed to ensure that certain details (especially regarding private keys) are not so readily available as to make the cryptocurrency easily accessible to a party who may wish to act fraudulently.

If there is no valid will, Bitcoins or other cryptocurrency assets will be part of the deceased's wider estate and will be dealt with according to the rules of intestate succession. Section 2 of the Succession (Scotland) Act 1964 outlines the order of succession for various parties based on their relationship to the deceased. This is, however, subject to "prior rights",[209] which a spouse or civil partner holds, and "legal rights" held by a spouse or civil partner and children of the deceased in relation to the moveable estate (which would include cryptocurrencies).[210] In addition, a cohabitant has a right to claim to the court for provision to be made.[211] There may be some problems in identifying and accessing the cryptocurrency in an intestate estate if the deceased has not provided relevant details to other parties.

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[207] For the law of succession in Scots law generally, see Gretton and Steven, *Property, Trusts and Succession*, chs 26-30.
[208] In addition, some of the issues regarding digital assets mentioned by Gretton and Steven, *Property, Trusts and Succession*, paras 26.35 onwards, could be of relevance, even though cryptoassets are not specifically dealt with there.
[209] See Succession (Scotland) Act 1964, ss 8-9.
[210] A testate estate is also subject to "legal rights" (but not "prior rights") – see Gretton and Steven, *Property, Trusts and Succession*, ch 27 and the sources cited there.
[211] See Family Law (Scotland) Act 2006, s 29.

4.3.3. Private International Law Considerations

In English and Scots private international law, the general rule, per the principle of scission, is that succession to immoveable property is governed by the *lex situs* whereas succession to moveable property is governed by the law of the deceased's last domicile.[212] In the case of testate succession, a will complying with one of the laws set out in Sections 1 and 2 of the Wills Act 1963, is deemed to be formally valid. Essential validity of a will is governed by the law of succession, being the law of the testator's domicile at the time of the death as regards moveable property.[213]

In an example where X wants to make a will, if cryptocurrencies are classified as moveable property, essential validity of the will would be governed by the law of X's domicile whereas its formal validity would be determined according to the laws set out in Sections 1 and 2 of the Wills Act 1963. If there is no will, intestate succession to cryptocurrencies would be governed by the law of X's last domicile.

An interesting question might arise whether cryptocurrencies in a legacy should be paid in the same cryptocurrency or converted to and paid in sterling. In the past, the answer regarding legacy in a foreign currency seems to have depended on whether the legatee resides abroad (in which case no conversion is necessary) or in the UK (in which case there will be a conversion unless the will indicates otherwise).[214] Based on the modern authorities on foreign currency obligations, it is now, however, argued that

[212] Crawford and Carruthers, *International Private Law: A Scots Perspective*, para 18-05, Beaumont and McEleavy, *Anton's Private International Law*, para 21.01 and 21.49; Torremans, *Cheshire, North & Fawcett: Private International Law*, p. 1138.
[213] Crawford and Carruthers, *International Private Law: A Scots Perspective*, para 18-31, Beaumont and McEleavy, *Anton's Private International Law*, para 24.73, Torremans, *Cheshire, North & Fawcett: Private International Law*, pp. 1344-47.
[214] Collins and others, *Dicey, Morris & Collins on the Conflict of Laws*, para 27-070.

the legacy should be paid in the foreign currency even where the legatee resides in the UK.[215] Given that the UK currently does not regard cryptocurrencies as money or legal tender, it is not clear whether or to what extent this argument regarding foreign currencies could find a scope of application for cryptocurrencies.

4.4. Trusts

4.4.1. Law of England and Wales

There are three traditional requirements for the creation of an express trust, which are known as the 'three certainties'.[216] Of these, only one is potentially problematic where X wishes to create a trust over the 60 Bitcoins in his wallet in favour of Y: the requirement that the subject matter of the trust (i.e., the 60 Bitcoins) is sufficiently certain.

In the commercial context, the 'certainty of subject matter' requirement has largely been considered through the concept of fungibility: traditionally, neither the common law nor equity recognised proprietary interests in commingled fungible assets on the basis that it was not possible to identify which assets belonged to whom. This position was reversed, at least in equity, in *Hunter v Moss*,[217] which was subsequently applied in the cases arising from the Lehman insolvency[218] and generally remains authoritative.

[215] ibid.
[216] See generally W. Swadling, 'Property,' in A. Burrows (ed), *English Private Law,* 3rd ed, OUP, Oxford 2013, [4.166] et seq.
[217] [1994] 1 WLR 452 (CA).
[218] *Re Lehman Brothers International (Europe), also known as Pearson v Lehman Brothers Finance SA (RASCALS)* [2010] EWHC 2914 (Ch); *Re Lehman Brothers International (Europe), also known as Lomas v RAB Market Cycles (Master) Fund Ltd* [2009] EWHC 2545 (Ch).

There have been various arguments for and against the proposition that cryptocurrencies can fulfil the 'certainty of subject matter' requirement, and therefore be the subject of a trust,[219] however, the position remains unclear as a matter of legal authority.

In this respect, the more recent case of *Wang v Darby*[220] is of particular interest. Unlike other recent decisions, *Wang* was a fully defended application which invited the judge to determine outright whether the claim that certain cryptoassets were impressed with a trust had a real prospect of success for the purpose of a summary judgment application. Following *Hunter v Moss,* it was common ground between the parties that, as a matter of English law, a unit of Tez constitutes an asset which can, in principle, be the subject of a trust. The judge, however, appeared to express some misgivings at [8] by observing that this was so, "*notwithstanding [a unit of Tez's] entirely fungible character and non-identifiable status: no single unit bears any unique serial number or means of identification."* On the other hand, it has been argued that no fewer than four property analyses at protocol level support the view that cryptoassets are non-fungible assets.[221]

It is worth noting that several of the decisions[222] on procedural applications proceeded on the basis that there was at least an arguable case that certain cryptocurrencies were impressed with trust. These decisions, however, cannot be taken as authoritative: given the relatively low threshold for the grant of the relief sought, none of these decisions considered the issue having heard submissions from both sides on a fully defended basis. Accordingly, it cannot be assumed that the submissions advanced

[219] Held, 'Baking, Staking, Tezos, and Trusts: Crypto Sale and Repurchase Agreements Analysed by the High Court'.
[220] [2021] EWHC 3054 (Comm). On this case, see further section 6.1.1 below.
[221] Held, 'Baking, Staking, Tezos, and Trusts: Crypto Sale and Repurchase Agreements Analysed by the High Court'.
[222] See section 6.1.1 below; in particular *Ion Science Limited v Persons Unknown* (Unreported, 21 December 2020).

in the applications would be successful at trial or, more critically, on any appeal.

In sum, whether Bitcoin satisfies the 'certainty of subject matter' requirement, and accordingly, whether X can declare a trust over 60 Bitcoin in favour of Y remains unclear.

4.4.2. Law of Scotland

Scots law recognises trusts, but they are conceptualised differently from English law, due to the absence of equity.[223] So, assuming that cryptocurrencies are considered property, it is possible to create a trust of cryptocurrencies, albeit that this is potentially subject to some of the identification of property issues mentioned for English law above. A trust can be created upon the death of an individual by virtue of provision within the individual's will, which would need to identify the assets being placed into trust.[224] Alternatively, a trust can be created during the settlor's[225] lifetime or by a non-natural person, through a declaration of trust and the vesting of the relevant property in the trustee.[226] Scots law also allows for a party to be both settlor and trustee, as in the example involving X and Y – the settlor (X) declares a trust and notifies (intimates) this to at least one of the beneficiaries (Y).[227] The assets are thereby moved from X's general patrimony into a special

[223] For discussion of trusts in Scots law generally, see W.A. Wilson and A.G.M. Duncan, *Trusts, Trustees and Executors*, 2nd ed., W. Green, Edinburgh 1995; Gretton and Steven, *Property, Trusts and Succession*, chs 23-25.
[224] This is known as a *mortis causa* trust.
[225] The English law term settlor is often used in practice in Scots law. The term "truster" is sometimes used instead.
[226] See Gretton and Steven, *Property, Trusts and Succession*, para 23.38. See also Scottish Law Commission, Discussion Paper on the Nature and the Constitution of Trusts (Scot Law Com DP No 133) (2006), part 3; *Joint Administrators of Rangers Football Club Plc, Noters* 2012 SLT 599.
[227] See *Allan's Trs v Lord Advocate* 1971 SC (HL) 45; Gretton and Steven, *Property, Trusts and Succession*, para 23.39.

trust patrimony.[228] This means that the property is protected from X's non-trust creditors.[229] If X held the Bitcoin with an intermediary, the position might be the same, at least in some circumstances. However, if the intermediary were, instead, considered to be the owner of the property, then X could place its right(s) against that third party in trust for the benefit of Y.

4.4.3. Private International Law Considerations

The UK is a party to the 1985 Hague Convention on the Law Applicable to Trust and on their Recognition which was given effect in the UK by the Recognition of Trusts Act 1987. As per Section 1(2) of the Act, the provisions of the Convention have effect not only in relation to the trusts described in Articles 2 and 3 of the Convention but also in relation to any other trusts of property arising under the law of any part of the UK or by virtue of a judicial decision whether in the UK or elsewhere.[230]

A trust falling into this scope is governed by the law chosen by the settlor under Article 6. In the absence of a choice of law, as per Article 7, a trust is governed by the law with which it is most closely connected, and this is ascertained with making reference in particular to a) the place of administration of the trust designated by the settlor, b) the situs of the assets of the trust, c) the place of residence or business of the trustee, and

[228] For the patrimonial analysis of Scots property law, see G.L. Gretton, 'Trusts without Equity' (2000) 49 ICLQ 599; K.G.C. Reid, 'Patrimony not Equity: The Trust in Scotland' (2000) 8(3) ERPL 427. And see *Ted Jacob Engineering Group Inc v Robert Matthew, Johnson-Marshall and Partners* [2014] CSIH 18; *Advocate General v Murray Group Holdings Ltd* [2015] CSIH 77.

[229] For instance, "property held on trust by the debtor for any other person" does not vest in the trustee in sequestration where the debtor enters the bankruptcy process of sequestration – Bankruptcy (Scotland) Act 2016, s 88(1)(c); and a trust estate is sequestrated separately from a party's general estate – s 6(1)(a). See also *Heritable Reversionary Co Ltd v Millar* (1891) 19 R (HL) 43.

[230] On the relevance of the Rome II Regulation (The Law Applicable to Contractual Obligations and Non-Contractual Obligations (Amendment etc.) (EU Exit) Regulations 2019 (SI 2019/834) as amended by the Jurisdiction, Judgments and Applicable Law (Amendment) (EU Exit) Regulations (SI 2020/1574) to some trusts within the 1987 Act but beyond the scope of the Hague Trusts Convention, see McClean and Ruiz Abou-Nigm, *Morris: The Conflict of Laws*, para 19-011; Hill and Shúilleabháin, *Clarkson & Hill's Conflict of Laws*, para 5.10. and Collins and others, *Dicey, Morris & Collins on the Conflict of Laws*, para 29-010 and 29-011.

d) the objects of the trust and the places where they are to be fulfilled. It is assessed that it is usually intangible moveable property included in the trust and, as their situs is fictional, the situs of the asset may be given little weight in determining the law with which the trust is most closely connected.[231] These considerations would be valid for trusts of cryptocurrencies as well.

4.5. Attachment and Seizure

4.5.1. Law of England and Wales

4.5.1.1. Civil Freezing Orders

The freezing order formerly known as the 'Mareva injunction' is not a true attachment order; nor is, strictly speaking, concerned with execution. However, given that such orders have featured heavily in the cryptoasset litigation before the English courts, they warrant a brief mention.

The freezing order differs from a true attachment order in that they operate *in personam;* i.e., they are directed to the Respondent personally and have no proprietary effects/effects *in rem*. As such, they are not premised upon any definition of 'property' under the general law: the fact that cryptocurrencies have been considered 'assets' for the purpose of the example freezing order annexed to CPR Practice Direction 25A does not have any broader property law significance.

Freezing orders are typically sought at an interim stage and require the Respondent to refrain from dealing with the assets listed in the order

[231] McClean and Ruiz Abou-Nigm, *Morris: The Conflict of Laws*, para 19-004; Collins and others, *Dicey, Morris & Collins on the Conflict of Laws*, para 29-021.

to a specified financial threshold to ensure that he cannot improperly frustrate any judgment ultimately entered against him following trial.

The effects of a freezing order have limited reach beyond the enjoined Respondent: third parties notified of the order - typically the Respondent's bank or, indeed, the cryptocurrency exchange at which the Respondent holds cryptocurrencies - may find themselves in contempt of court if they act inconsistently with the terms of the freezing order. This is of particular relevance in the case where the Respondent holds 60 Bitcoins with an intermediary: not only will the applicant typically have brought the intermediary on notice of the freezing order, the intermediary may well have been named as a co-Respondent in the application for the purposes of the disclosure orders typically sought alongside a freezing order.

4.5.1.2. Final Civil Judgments

Where a final judgment for a money award has been entered against X, the judgment creditor is entitled to use any method of enforcement to satisfy the judgment debt. Of particular relevance for cryptoassets is the writ and/or warrant of control under CPR Parts 83 and 84. These essentially allow the judgement creditor to take possession of the judgment debtor's assets, sell them, and apply the proceeds of the sale to the satisfaction of the debt.

Although, prima facie, the procedure may seem limited to tangible goods, the relevant statutory (asset-based) definition[232] is wider than that at common law: 'goods' means 'property of any description, other than

[232] Schedule 12, Part 3 of the Tribunals, Courts, and Enforcement Act 2007.

land.' In any event, given that the procedure is available in respect of intangibles such as securities,[233] it does not seem in principle that the procedure is limited to tangible goods.[234]

Another option for the judgment creditor is to apply to the court for the appointment of a receiver by way of equitable execution under s 37 of the Senior Courts Act 1981. Although not strictly a method of execution, the application of a receiver has traditionally been sought where the usual methods of execution have not been possible; either owing to the nature of the asset itself or the nature of the judgment debtor's interest in the asset. In sum, the effect of the receivership order is that the judgment debtor is personally ordered not to receive any asset that would otherwise be owed and delivered to him; which is, instead, diverted to the appointed receiver to be applied to the satisfaction of the judgment debt.[235]

A final issue that arises is the requirement that the relevant assets to be attached are in the jurisdiction. As already noted above, there is considerable uncertainty as to the legal situs of cryptoassets and the approach that has been applied in some English cases cannot be considered authoritative.[236]

Criminal Proceedings

As noted in section 2.4 above, cryptoassets have been seized as criminal property or proceeds of crime under the Proceeds of Crime Act 2002.

[233] Part 4 of the Taking Control of Goods Regulations 2013 (SI 2013/1894).
[234] However, given the uncertainty as to ascertaining who is entitled to the rights of owner, the procedure is not without risk for the creditor.
[235] *Masri v Consolidated Contractors International Co SAL* [2008] EWCA Civ 303, [52]-[59].
[236] See further A. Held, 'Cryptoassets and Decentralised Ledgers: Does Situs Actually Matter?' in M. Lehmann and A. Bonomi (eds), *Blockchain and Private International Law* (2022 – in print).

The Proceeds of Crime Act 2002 generally adopts a wide, non-exhaustive (asset-based) definition of 'property' as follows:

> *Property is all property wherever situated and includes—*
> *(a) money,*
> *(b) all forms of property, real or personal, heritable or moveable,*
> *(c) things in action and other intangible or incorporeal property.*[237]

It is worth noting that the definition of property in the relevant criminal statutes are thus wider than they are at common law.[238]

4.5.2. Law of Scotland

The law involving enforcement of debts against property is known in Scots law as "diligence".[239] There are various diligences, including attachment and arrestment for moveable property, and adjudication for debt and inhibition for immoveable property.[240] However, while a cryptocurrency would be considered moveable property, it would not be subject to attachment, as it is not corporeal property, and arrestment would not apply in many scenarios, as the property is ordinarily not a claim right or a type of asset that can be arrested in the hands of a third party. Although adjudication for debt is primarily a diligence for immoveable property, it also serves as the default or residual diligence in Scots law, i.e., it is used for property that is

[237] E.g., ss 84(1), 232(1), 316(4), 340(9). Section 150(1), which applies in Scotland, is in slightly different terms, but does not differ materially: (a) money; (b) all forms of property whether heritable or moveable and whether corporeal or incorporeal.
[238] Under s 4(1) Theft Act 1968, property is defined as follows:" "Property" includes money and all other property, real or personal, including things in action and other intangible property."
[239] See generally L.J. Macgregor, D.J. Garrity, J. Hardman, A.D.J. MacPherson and L. Richardson, *Commercial Law in Scotland*, 6th ed., W. Green, Edinburgh 2020, ch 9; G.L. Gretton, "Diligence" in *The Laws of Scotland: Stair Memorial Encyclopaedia*, vol 8, *Law Society of Scotland/Butterworths, Edinburgh* 1992; J.G. Stewart, *A Treatise on the Law of Diligence*, W. Green, Edinburgh 1898.
[240] Macgregor et al, *Commercial Law in Scotland*, paras 9.4 ff; and G.L. Gretton, *The Law of Inhibition and Adjudication*, 2nd ed., Butterworths, Edinburgh 1996.

not covered by any of the other diligences.[241] As such, it could be used by a creditor of X to enforce a debt owed by X against X's cryptocurrencies. Yet adjudication is a long-standing diligence that is viewed as archaic and is rarely utilised.[242] The procedure and enforcement mechanisms are complicated and are unlikely to be appealing to a creditor, e.g. there is no right to sell the property and ownership is only acquired after 10 years.[243] It is also unclear how interim enforcement involving leasing or licensing out the property would apply to cryptocurrencies. There is legislation from 2007 which seeks to replace adjudication for debt with "land attachment" and "residual attachment"; however, the relevant provisions have not (yet) been brought into force.[244]

The position if X's Bitcoin were held by an intermediary would depend on the precise circumstances, but if X simply had rights to receive payments from the intermediary or the property were held on trust for X, then X's creditor could seek to arrest in the hands of the intermediary.[245]

4.5.3. Private International Law Considerations

Types of enforcement of debts against property by a creditor available in respect of given property and their effect are governed by the *lex situs* as they require an intervention of judicial authority and power of the *lex situs* to dispose of property within its control.[246]

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[241] Such as intellectual property. See G.L. Gretton, "Diligence" in *The Laws of Scotland: Stair Memorial Encyclopaedia* (1992), vol 8, pp. 215-216 for the residual status of adjudication for debt.
[242] It was introduced by the Adjudications Act 1672.
[243] See *Hull v Campbell* [2011] CSOH 24; Macgregor et al, *Commercial Law in Scotland*, para 9.11.3; and Gretton, *The Law of Inhibition and Adjudication*, pp. 220-221. In the meantime, the property can usually be leased (or potentially licensed) out.
[244] Bankruptcy and Diligence etc. (Scotland) Act 2007, Part 4.
[245] See Debtors (Scotland) Act 1987, ss 73A-73T for some of the details regarding the procedure for arrestment.
[246] Beaumont and McEleavy, *Anton's Private International Law*, para 22.69, Torremans, *Cheshire, North & Fawcett: Private International Law*, p. 1275.

In an example where a creditor wants to assert a claim to the Bitcoins registered in X's wallet to satisfy X's debt, types of enforcement of debts against Bitcoins and their effect would therefore be governed by the *lex situs* at the time of enforcement.

4.6. Insolvency

4.6.1. Law of England and Wales

The Insolvency Act 1986 is underpinned by a very wide and non-exhaustive (asset-based) definition of property. Section 436(1) provides that:

> *"property" includes money, goods, things in action, land and every description of property wherever situated and also obligations and every description of interest, whether present or future or vested or contingent, arising out of, or incidental to, property.*

With the absence of any reference to 'intangible property', this is prima facie narrower than the definitions seen in the criminal context. Although this may appear to impose a higher hurdle for recognising cryptocurrencies as a species of property for the purposes of insolvency, it is also important to note that it is a non-exhaustive definition. As such, there is no reason to suggest that cryptocurrencies cannot form part of an insolvency estate.

Where X has opened an account with MontC, who subsequently becomes insolvent, the contract between X and MontC will be of paramount importance. If, on a proper analysis of the relevant contracts, X has been granted any type of proprietary interest in the 60 Bitcoins registered in his account, these will not be available to MontC's general creditors. If X

has only personal rights against MontC for 60 Bitcoin, his claims for their equivalent value will rank *pari passu* with MontC's other general creditors.

Where Company Z has opened an account with MontC, and Company Z subsequently becomes insolvent, the wide definition of property under section 436(1) of the Insolvency Act 1986 will likely bring the value of Z's wallet within Z's insolvency estate; irrespective of whether Z's claims against MontC are proprietary[247] or personal.[248] Hence, having excluded proprietary claims to any of the cryptocurrencies in Z's wallet, the question of whether any of Z's creditors rank ahead in priority to other creditors will depend on their contracts with Z.

Thus, in the cases of insolvencies of both MontC and Z, the rights conferred by contracts between the relevant parties are of paramount significance in determining the types of claims a creditor may bring.

4.6.2. Law of Scotland

The precise application of Scots insolvency law to cryptocurrencies depends upon them being treated as property. Assuming that cryptocurrencies are considered property, they will be subject to the general rules for property in insolvency law.[249] If an individual who owns cryptocurrency be-

[247] This would fall within the following part of the definition: "money, goods, things in action, land and every description of property wherever situated".
[248] This would fall within the following part of the defintion: "obligations and every description of interest, whether present or future or vested or contingent, arising out of, or incidental to, property."
[249] The main legislation for personal insolvency in Scotland is the Bankruptcy (Scotland) Act 2016 and the main legislation for corporate insolvency is the Insolvency Act 1986, the same legislation as applies to England and Wales, albeit that some provisions only apply in one or other of the jurisdictions. For details about the law of insolvency in Scotland, see e.g. J. St Clair and J. Drummond Young, *The Law of Corporate Insolvency in Scotland*, 4th ed., W. Green, Edinburgh 2011; D.W. McKenzie Skene, *Bankruptcy*, W. Green, Edinburgh 2018; Macgregor et al, *Commercial Law in Scotland*, 6th ed. (2020), ch 10.

comes insolvent and enters sequestration (the principal bankruptcy process for individuals in Scots law),[250] then their "whole estate" will vest in their trustee in sequestration.[251] The property included in the whole estate will encompass cryptocurrencies. The trustee will have control over the debtor's estate and will realise the property, including cryptocurrency, in order to pay creditors.[252]

Similarly, while the estate of a debtor in corporate insolvency does not automatically vest in a liquidator, that party will gather in and realise the debtor's assets and will then distribute to creditors.[253] The liquidator's powers include the ability to sell "any of the company's property",[254] and property is given a wide meaning in the legislation, which, as noted above in section 4.6.1, appears broad enough to encompass cryptocurrencies.[255] This wide definition is also relevant to administration and an administrator would have the ability to manage such property in the interests of all of the creditors and could seek to sell it and distribute proceeds too.[256]

Thus, if Company Z becomes insolvent, their cryptocurrencies (assuming Z owns the cryptocurrencies) will be treated in an equivalent way to other property belonging to them and will be available to the liquidator or administrator, albeit that there may be some practical difficulties involved in dealing with the assets. Creditors of Z could obtain priority over

[250] In Scots law, like English law, the term "bankruptcy" is ordinarily used to refer to personal insolvency. Sequestration is not limited to individuals, as it is also used for the insolvency of e.g. partnerships and trust estates.
[251] Bankruptcy (Scotland) Act 2016, s 78(1). However, the property specified in s 88 does not vest in the trustee. See McKenzie Skene, *Bankruptcy*, ch 11 for discussion.
[252] See Bankruptcy (Scotland) Act 2016, s 50(1).
[253] See e.g. Insolvency Act 1986, s 143(1); St Clair and Drummond Young, *The Law of Corporate Insolvency in Scotland*, para 4-44 onwards.
[254] Insolvency Act 1986, Sch 4, para 6.
[255] Insolvency Act 1986, s 436(1).
[256] Insolvency Act 1986, Sch B1, paras 1-3 and 59-69 and Sch 1.

assets by virtue of security rights over them.[257] Such security would ordinarily enable them to sell the property or to have an insolvency practitioner sell it and distribute the proceeds to them (in accordance with the ranking order of priority). The terms of the agreement between Z and MontC would generally be unlikely to bind third party creditors; however, the precise effects would depend upon the form and nature of the agreement.

Where X opens an account with MontC and MontC becomes insolvent, the position regarding X's Bitcoins is not wholly certain. If X is "owner" of the property it would mean it was not property of the insolvent and so could not be dealt with by a liquidator or administrator of MontC. This may also be the case in the example but it would depend on the precise nature of the arrangement of the parties involved and MontC's rights in relation to the assets, particularly whether MontC may actually be considered the owner.

4.6.3. Private International Law Considerations

In the UK, there are a number of schemes of rules concerning insolvency proceedings with a foreign element which are found in Section 426 of the Insolvency Act 1986 (mainly intra-UK and Commonwealth), the EU Insolvency Regulation (Recast) (affected by Brexit),[258] and the 2006 Cross-Border Insolvency Regulations.[259] Situations falling outside the scope of these schemes are subject to any relevant pre-existing private international law rules.

The 2006 Cross-Border Insolvency Regulations implemented, with certain modifications, the 1997 UNCITRAL Model Law on Cross-Border

[257] See below for security rights. And see e.g. Insolvency (Scotland) (Receivership and Winding Up) Rules 2018, SSI 2018/347, r 7.27(6); and Insolvency (Scotland) (Company Voluntary Arrangements and Administration) Rules 2018, SI 2018/1082, r 3.115(6).
[258] Regulation (EU) 2015/848 of the European Parliament and of the Council of 20 May 2015 on insolvency proceedings (Recast) OJ L 141, 5.6.2015, pp. 19–72.
[259] SI 2006/1030.

Insolvency for Great Britain (i.e., England and Wales, and Scotland). One of these modifications is that the definition of establishment was extended to cover intangible assets by the replacement of the Model Law term 'goods' with 'assets' in Schedule 1, Article 2(e).[260] Cryptocurrencies can therefore fall into the scope of this definition. This is important in respect of the foreign non-main proceedings as they are taking place in a State where the debtor has an establishment based on that definition.[261]

4.7. Pledge and Other Security Interests

4.7.1. Law of England and Wales

English law only recognises four kinds of consensual security: pledge, contractual lien, equitable charge and mortgage.[262] Technically speaking, pledge (as well as lien) can only be created over assets in respect of which it is possible to transfer possession. As noted in section 4.1.1.1 above, possession is not available in respect of intangible assets. Consequently, possessory security interests, such as pledge, cannot be taken over intangible assets.

Accordingly, under the present law, where Company Z has agreed to pledge 30 Bitcoins that are registered in its wallet to secure a loan, it cannot formally pledge the Bitcoins. However, there is no reason why Z could not offer some other, non-possessory, form of security interest in the 30 Bitcoins, such as a charge.

[260] Beaumont and McEleavy, *Anton's Private International Law*, para 25.148.
[261] See Schedule 1, Article 2(f) of the 2006 Regulations.
[262] See generally L. Smith, 'Security,' in A. Burrows (ed), *English Private Law*, 3rd ed, OUP, Oxford 2013.

4.7.2. Law of Scotland

Technically speaking, pledge can only be used for corporeal moveable property in Scots law, so it would not be possible to "pledge" cryptocurrencies in the strict sense of the term.[263] However, in practice the terminology of pledging of incorporeal assets is sometimes used (e.g. share pledges) to refer to secured transactions in relation to such assets and the Scottish Law Commission has also recommended the introduction of a "statutory pledge" for certain incorporeal property (see below).[264] Scots law allows for companies (and certain other corporate entities) to grant floating charges and given that this form of security can cover all of the assets of the grantor, cryptocurrencies would fall within the scope of a floating charge (assuming that the charge was granted over all the debtor's present and future property or over a class of property including cryptocurrencies).[265] Consequently, Z would be able to create a floating charge over its property including Bitcoins. Individuals and partnerships cannot, however, grant floating charges. The enforcement of floating charges in Scots law requires the use of liquidation, receivership (where still possible) or administration.[266]

In terms of fixed security, Scots law is relatively restrictive. Security over incorporeal property ordinarily involves the transfer (assignation) of property to the creditor with the creditor merely being obliged to retransfer the property upon the debt being satisfied.[267] Consequently, Z would need to transfer the Bitcoins to the creditor, who would be under a conditional

[263] For pledge, see A.J.M Steven, *Pledge and Lien*, Edinburgh Legal Education Trust, Edinburgh 2008.
[264] See e.g. Scottish Law Commission, *Report on Moveable Transactions* (Scot Law Com No 249) (2017), paras 22.27 and 22.57.
[265] Companies Act 1985, s 462(1). For floating charges in Scots law generally, and the property covered by them, see A.D.J. MacPherson, *The Floating Charge*, Edinburgh Legal Education Trust, Edinburgh 2020.
[266] See Companies Act 1985, s 463; Insolvency Act 1986, ss 53-54 and Sch B1, para 14 onwards. For discussion regarding enforcement, see MacPherson, *The Floating Charge*, chs 3 and 6.
[267] See e.g. Scottish Law Commission, *Discussion Paper on Moveable Transactions* (Scot Law Com DP No 151) (2011), paras 7.6 and 18.3; MacPherson, *The Floating Charge*, paras 9-16 onwards, and the sources cited there.

obligation to retransfer. Given the nature of cryptocurrency, there is no claim debtor to whom a transfer would need to be intimated, so a mere transfer in accordance with the relevant cryptocurrency system in question may be sufficient, especially if it involves a transfer of exclusive control.[268] The Scottish Law Commission is proposing the introduction of registration in a Register of Assignations as an alternative to intimation;[269] however, it is unlikely that this will affect the position of security over cryptocurrencies.

The Scottish Law Commission has also recommended the introduction of a new form of fixed security, a "statutory pledge" over intellectual property and financial instruments, and legislation is now awaited.[270] While cryptocurrencies are not expected to fall within the meaning of financial instruments,[271] there is the possibility of extending the types of property over which a statutory pledge could be granted in the future, and cryptocurrencies might be included.

4.7.3. Private International Law Considerations

Regarding moveable property, the creation of securities is governed by the *lex situs*.[272] Aspects of voluntary assignment, including transfer of claims by way of security as well as pledges or other security rights over claims, are governed by Article 14 of the Rome I Regulation. However, as addressed in section 4.2.3 above, Article 14 of Rome I and Rule 135 in Dicey, Morris & Collins may be of limited relevance in relation to transactions involving cryptocurrencies, and therefore, in relation to the law applicable to

[268] There are already special rules for the transfer of shares or intellectual property in Scots law.
[269] See Scottish Law Commission, *Report on Moveable Transactions* (Scot Law Com No 249) (2017), vol 1, for more details regarding the proposed registration of assignations.
[270] See Scottish Law Commission, *Report on Moveable Transactions* (Scot Law Com No 249) (2017), vol 2, for more details regarding the statutory pledge.
[271] The proposed definition of financial instruments is the one outlined in the Financial Collateral Arrangements (No. 2) Regulations 2003, SI 2003/3226, reg 3(1); see s 116 of the Scottish Law Commission's Draft Bill.
[272] Beaumont and McEleavy, *Anton's Private International Law*, para 21.66

proprietary effects outside a cryptocurrency system of transactions involving cryptocurrencies, alternative suggestions have been raised.[273]

In an example where Z, to secure a loan for the financing of a specific project, has agreed to "pledge" 30 Bitcoins, the position on the law governing the proprietary effect falling outside the scope of Rome I and Rule 135 is not entirely clear. It might be that the proprietary effects of the transaction outside of the cryptocurrency system, between one/more parties to the transaction and one/more third parties, would be governed by the law of the place where Z is resident[274] or domiciled.

4.8. Loans

4.8.1. Law of England and Wales

In principle, contracts of loan, lease, and hire are subject to the same principle of freedom of contract as any other contract governed by English law. On this view, where Company Z intends to borrow 60 Bitcoins from company PayB with an interest rate of 5% payable either in legal tender or Bitcoins, there is, in principle, no reason why the parties could not do so as a matter of contract. The precise characterisations of the transaction and of the Bitcoins, however, give rise to various different considerations and legal effects.

[273] Legal issues concerning effects of the transactions within the cryptocurrency system are argued to be governed by the consensus rules of the given system and any rules of law applicable to the relationships between system participants. For this argument and the underlying analysis, see Dickinson, 'Cryptocurrencies and the Conflict of Laws', paras 5-15-7.72.
[274] See ibid, para 5.109.

Both gratuitous loans and contracts of hire of things in possession take legal effect as a bailment.[275] Accordingly, they require the return *in specie* of the asset loaned or hired, and the 'lender' does not part with the superior possessory right of 'general property' in the asset. Strictly speaking, therefore, if it were possible to classify Bitcoin as an asset in respect which the parties have entered into a contract for hire in consideration of a '5% interest rate,' Z would not be entitled to 'pay the loan back' in Bitcoin Cash, nor any other 'Bitcoins,' but could only discharge its obligation to return by delivering the exact same 60 Bitcoins back to PayB. Again, the issues of fungibility seen in the context of trusts, set out in section 4.4.1 above, arise.

In this respect, loans of cash/money, differ in that the obligation to return is not generally in respect of the specific coins and banknotes advanced, but an equivalent sum; as such, the parties do not stand in a relationship of bailment, but in one of creditor and debtor.[276] It is against this background that the RAO 2001 captures the provision of certain types of 'credit agreements' as a 'lender' as a specified activity.[277] Article 60B(3) provides that *'"credit agreement" means an agreement between an individual or relevant recipient of credit ("A") and any other person ("B") under which B provides A with credit of any amount.'* 'Credit' is then defined in Article 60L as *'[including] a cash loan and any other form of financial accommodation.*'

It follows that whether PayB's loan of 60 Bitcoins is a regulated activity turns on whether the provision of Bitcoin is a 'form of financial accommodation.' Given that cryptocurrencies are not legal tender, cash,

[275] See generally N. Palmer, 'Bailment,' in A. Burrows (ed), *English Private Law*, 3rd ed., OUP, Oxford 2013, especially [16.45] and [16.61]; H.G. Beale *et al* (eds) *Chitty on Contracts,* 34th ed, Sweet & Maxwell, London 2021, Vol II [35-066] et seq.
[276] N. Palmer, 'Bailment,' in A. Burrows (ed), *English Private Law*, 3rd ed., OUP, Oxford 2013, [16.15].
[277] See Chaper 14A of the The Financial Services and Markets Act 2000 (Regulated Activities) Order 2001 generally for 'Regulated Credit Agreements.' Lenders and those exercising the rights of lenders are captured under Art 60B(1) and Art 60B(2).

banknotes, nor finance within the central banking system, it is unlikely that loans of Bitcoin will fall within the meaning of a ‘credit agreement’ under the RAO 2001.

This would mean that PayB, if established in the UK, would not require any authorisations to provide Z with a 'loan' of 60 Bitcoins, however, there would be significant difficulty in characterising such 'loan' in the financial sense of the provision of 'credit.' Equally, characterisation as a 'loan' in the sense of the hire of a chattel under a bailment is problematic because, as noted in section 4.1.1.1, possession is not presently available in respect of intangibles under English law. In any event, from a practical perspective, the constraints upon Z to return the 60 Bitcoins *in specie* as a bailee under a contract of hire would limit the commercial utility of the transaction.

In this respect, it is worth noting a precedent from the practice of securities 'lending' in prime brokerage. Such 'loans' which are not strictly loans per se, but generally agreements to return equivalent securities under sale and repurchase agreements.

In this vein, in *Wang v Darby*,[278] the parties characterised their transaction as a 'sale and buyback,' expressly avoiding a loan characterisation for accounting purposes.[279] It is worth noting that no issue was taken with whether such transaction were possible as a matter of law. The only comment by the judge was that the facts did not strictly align with a repo transaction, but the specific characterisation of the transaction was immaterial to the issues to be determined by the court.[280]

[278] [2021] EWHC 3054 (Comm). See further section 6.1.1 below and Held, 'Baking, Staking, Tezos, and Trusts: Crypto Sale and Repurchase Agreements Analysed by the High Court'.
[279] [2021] EWHC 3054 (Comm), [29]-[31].
[280] ibid, [78]; [89].

In sum, an arrangement under which Company Z intends to 'borrow' 60 Bitcoins from company PayB with an 'interest rate of 5% payable either in legal tender or Bitcoins' could not be properly characterised under English law as a loan or hire of a chattel, nor as a loan of cash/money. Instead, it would be likely best be characterised as a kind of sale and repurchase agreement, with the 'interest rate' further characterised as simple contractual consideration rather than in the familiar sense associated with traditional finance.

4.8.2. Law of Scotland

In Scots law, it would seem to be possible to “lend” cryptocurrencies. Generally, the law gives significant freedom to the parties themselves to decide on the nature of the transaction and there is no good reason to think that “lending” would not be permissible. Furthermore, the points made in relation to England and Wales above could also potentially apply in Scots law.

4.8.3. Private International Law Considerations

The law applicable to contractual obligations is determined according to the rules contained in the Rome I Regulation, and subsidiarily in the pre-existing common law rules of England and Scotland when the contract and/or contractual question does not fall into the scope of Rome I.[281]

The contract of loan, if between commercial parties, is not one of the types of contracts for which Rome I provides specific choice of law rules, and therefore its applicable law will be determined according to the

[281] Crawford and Carruthers, *International Private Law: A Scots Perspective*, para 15-02.

general choice of law rules under Article 3 (freedom of choice) and Article 4 (the applicable law in the absence of choice) of Rome I.[282]

If there is a valid choice of law, the contract of loan will be governed by that law as per Article 3. In the absence of a choice of law, the contract of loan concerning cryptocurrencies may be regarded as a contract for the provision of services and governed by the law of the country where the service provider/lender has its habitual residence as per Article 4(1)(b) unless it is clear from all the circumstances of the case that the contract is manifestly more closely connected with another country (in which case that country's law applies) under Article 4(3).[283] If the contract would not be regarded as a contract for the provision of services, it would not fall into any other types of contract in Article 4(1) and therefore the applicable law would be determined by the back-up rule based on characteristic performance in Article 4(2). The result would likely be the same via the application of Article 4(2) given that the characteristic performer is the lender.

Rome I preserves mandatory rules and provides for the public policy exception. Depending on the circumstances of the case, mandatory rules or public policy considerations might arise, for example, if this type of contract using cryptocurrencies is deemed illegal under the law of the borrower's country.

In an example where Company Z intends to borrow 60 Bitcoins from Company PayB providing lending services, the contract would be governed by the law chosen by Z and PayB if there is such a choice of law. In the absence of a choice of law, such a contract might fall under Article 4(1)(b) or arguably under Article 4(2) and in either case be governed by

[282] If the contract is a consumer contract within the meaning of Article 6 of Rome I, the applicable law is determined according to the specific choice of law rules provided under Article 6.
[283] On contract of loan, generally see Collins and others, *Dicey, Morris & Collins on the Conflict of Laws*, paras 33-309- 33-310.

the law of the country where PayB (service provider/characteristic performer) has its habitual residence (which is the place of central administration of the company under Article 19) at the time of conclusion of the contract under Rome I.

4.9. Tort/Delict, Fraud, and Hacking[284]

4.9.1. Law of England and Wales

Where X opened an account with MontC and lost all the Bitcoins in his digital wallet due to MontC's IT systems being hacked, the nature of the claims X may bring against MontC will depend on the contractual terms upon which X opened the relevant account. In addition to the contractual causes of action, X could also potentially sue in tort and for breach of fiduciary duty. All claims, however, would depend on the precise scope of MontC's duties to X, as undertaken expressly or impliedly in the agreement between them.

It is worth noting that under Article 67 of the EU Commission's proposal for a Regulation for Markets in Crypto-assets,[285] service providers authorised for the custody and administration of crypto-assets on behalf of third parties are, under paragraph 3, obliged to establish a custody policy with internal rules and procedures to ensure that service providers 'cannot lose clients' crypto-assets or the rights related to those assets due to

[284] This part of the Report addresses tort matters. However, beyond tort there could be similar circumstances, as discussed in the examples below, that give rise to an unjust enrichment claim and there may be consumer protection issues depending on the parties involved and the terms on which the transaction has taken place.

[285] Proposal for a Regulation of the European Parliament and of the Council on Markets in Crypto-assets, and amending Directive (EU) 2019/1937 COM(2020) 593 final, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020PC0593.

frauds, cyber threats or negligence.' It is, therefore, plausible that warranties in similar terms are contained (or are expressly excluded) in MontC's Terms and Conditions.

In order for X to bring a civil claim against the hacker himself or any third parties to whom the hacker conveys the 'stolen' Bitcoins, X could only plausibly bring a claim based on a proprietary interest.

If the arrangements between MontC and X gave rise to a quasi-bailment and conversion were therefore possible, here, the issues of priority and the *nemo dat* principle come to the fore. Generally, a thief does not obtain good title to stolen or otherwise misappropriated property; as such, if the hacker has sold the Bitcoin to a third party, Y, the hacker cannot confer upon Y a better title than the hacker himself holds. Assuming that X retains a good title to the 'general property' at common law, this will generally prevail over the hacker's inferior possessory title. Hence, under the *nemo dat* principle, Y will receive only the hacker's inferior title and it does not matter that Y did so as a *bona fide* purchaser for value without notice: it will not defeat X's prior title, which remains good and superior relative to Y's.[286]

The position, however, differs in equity. Should X bring a property claim as, for example, a beneficiary under a trust created or implied by X's arrangements with MontC, X's interest in equity will not bind Y as a *bona fide* purchaser for value, without notice, of MontC's title at law.

Where the hacker has fraudulently induced X to part with the Bitcoin, additional causes of action under the law of obligations – notably

[286] This is the dominant rule for chattels, as set out in *Farquharson Bros & Co v King & Co* [1902] AC 325 (HL). There are, however, some limited exceptions to this strict application of the *nemo dat* rule. See generally W. Swadling, 'Property,' in A. Burrows (ed), *English Private Law*, 3rd ed., OUP, Oxford 2013, [4.487] - [4.499].

fraud and misrepresentation at common law and under the Misrepresentation Act 1967 – will be available. Indeed, such facts underpinned the case of *Ion Science v Persons Unknown*, considered in greater detail in section 6.1.1 below.

4.9.2. Law of Scotland

With reference to loss due to hacking or fraud and Scots law, if there was a contractual connection between the parties, then there could be contractual liability in the circumstances.[287] This could include liability arising from the contractual relationship between MontC and X. In the absence of contractual liability, or in addition, there could be liability in delict (the equivalent of tort).[288] Liability for fraudulent behaviour would normally be on the basis of the delict of fraud (the equivalent of the tort of deceit), and would extend to both economic and non-economic loss.[289] However, for a successful action, the "fraudster" would need to have known their statement (or equivalent) was false or believed it to be false or at least not believed it to be true.[290] The owner of the cryptocurrency will need to have been induced into a transaction involving the cryptocurrency as a result of the fraudulent statement (or equivalent). The position for hacking is less clear and it does not fit neatly into existing categories of intentional delicts; however, it is foreseeable that a court would find a way to impose liability, given that the hacking could be considered analogous to theft or another form of wrongful interference with property.

[287] For contract law in Scotland generally, see e.g. W.W. McBryde, *The Law of Contract in Scotland*, 3rd ed., W. Green, Edinburgh 2007; H.L. MacQueen, *MacQueen and Thomson on Contract Law in Scotland*, 5th ed., Bloomsbury Professional, London 2020.
[288] For the law of delict in Scotland generally, see e.g. G. Cameron, *Thomson's Delictual Liability*, 6th ed., Bloomsbury Professional, London 2021; E.C. Reid, *The Law of Delict in Scotland*, Edinburgh University Press, Edinburgh 2022.
[289] See e.g. Cameron, *Thomson's Delictual Liability*, 6th ed. (2021), ch 2.
[290] See Cameron, *Thomson's Delictual Liability*, 6th ed. (2021), para 2.10; *Derry v Peek* (1889) 14 App Cas 337 HL; *Western Bank of Scotland v Addie* (1867) 5 M (HL) 80.

An action could be raised against MontC on the basis of negligence, if there was hacking or fraud by a third party causing loss to X, and MontC was at fault. However, it should be noted that the ability to recover for pure economic loss is severely constrained in relation to negligence.[291]

Usually in Scots law, if ownership is not validly transferred to a party, then that party cannot transfer the property to another.[292] While it is possible that the answer regarding the hacking example may depend upon whether there has been a valid transfer in terms of the Bitcoin system (i.e. a third party may be considered to have acquired the Bitcoin from the hacker under the system) this is at odds with the general Scots law position,[293] and therefore cannot be suggested with any degree of confidence. In any event, for practical reasons it may be difficult for a hacked party to enforce their claimed ownership rights against later transferees.

4.9.3. Private International Law Considerations

Regarding private international law aspects of the loss due to hacking or fraud, depending on the characterisation of the nature of cause of action as contractual or non-contractual, the rules of the Rome I and Rome II Regulations would be relevant for the law applicable to contractual and non-contractual obligations respectively, along with common law rules of England and Scotland for matters not falling into the scope of the Regulations.

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[291] See *Hedley Byrne & Co Ltd v Heller & Partners Ltd* [1964] AC 465; *Caparo Industries plc v Dickman* [1990] 2 AC 605; *Henderson v Merrett Syndicates Ltd (No 1)* [1995] 2 AC 145. These are English cases but have been accepted in Scots law too, see Cameron, *Thomson's Delictual Liability*, 6th ed. (2021), para 4.10 onwards, and the sources cited there.

[292] Reid, *The Law of Property in Scotland* (1996), paras 669 onwards. The Latin maxims "nemo dat quod non habet" and "nemo plus juris ad alienum transferre potest, quam ipse haberet" are often used.

[293] Albeit that an analogy could be drawn with the transfer of cash and certain negotiable instruments, for which the general legal position does not apply.

In terms of contractual liability arising from the contract between Company X and MontC under Rome I, the applicable law would be determined according to Articles 3 and 4. Accordingly, if X and MontC have chosen a law to govern the contract, the chosen law would be applied. In the absence of a valid choice of law, it would be likely that the contract would be regarded as a contract for the provision of services and be governed by the law of the country where MontC has its habitual residence at the time of conclusion of the contract under Article 4(1)(b)[294] unless it is clear from all the circumstances of the case that the contract is manifestly more closely connected with another country (in which case that law would apply).

In terms of non-contractual liability arising from hacked crypto accounts under Rome II, the law applicable to tort/delict would be determined according to Article 14 (freedom of choice) and Article 4 (general rule on tort/delict) unless a given case would raise one of particular types of tort/delict for which specific choices of law rules are provided for in Rome II. Similar to Rome I,[295] Rome II preserves mandatory rules and provides for the public policy exception.

Article 14 allows both an after-event choice of law and, where all the parties are pursuing commercial activity and freely negotiate the applicable law, a pre-event choice of law. In an action that X would bring against the hacker based on tort/delict, it is unlikely that there would be a pre-event choice of law, as set out in Article 14, between X and the hacker. However, it would, at least in theory, be possible that they might agree on a choice of law after the event giving rise to the damage occurred and in that case that the chosen law would be applied to the tort/delict.

[294] If the contract would not be regarded as a contract for the provision of services and Article 4(1) was found inapplicable, the applicable law would still likely be the same via the application of Article 4(2). For a relevant discussion, see section 4.8.3 above.
[295] See section 4.7.3 above.

In the absence of a choice of law, the applicable law would be the law of the country in which the damage occurs under Article 14(1) regardless of the counties in which the event giving rising to the damage or the indirect consequences of that event occurred. In *Fetch.AI Ltd v Persons Unknown*,[296] the English court considered that in determining the law of the country in which the damage occurs under Article 14(1), the first and decisive question is where a cryptocurrency is to be regarded as being located.[297] The court took a similar approach to that in *Ion Science v Persons Unknown*,[298] and considered that a cryptocurrency is located in the place where its owner is domiciled. In *Fetch.AI*, this was England and therefore led to the application of English law.[299]

If X and the hacker both have their habitual residence, determined pursuant to the definitions of habitual residence given in Article 23, in the same country at the time when the damage occurs, the law of their common habitual residence would apply to the tort/delict as per Article 4(2). If, however, there is another country with which the tort/delict is manifestly more closely connected than the country where the damage occurred or where the parties' common habitual residence is located, the law of that other country would apply.

In an action that X would bring against MontC based on tort/delict, the above analysis might be likely to change on two points: in terms of Article 14, a pre-event choice of law for non-contractual obligations might be present between them as they are in an existing relationship and in terms of Article 4(3) that existing relationship might be an indication of a manifestly closer connection with another country.

[296] [2021] EWHC 2254 (Comm).
[297] ibid, para 14.
[298] Uunreported, 21.12.2020.
[299] For more details on these cases, see section 6.1.1 below. For a criticism on the judgment of *Fetch.AI,* see A. Held and M. Lehmann, 'Hacked crypto-accounts, the English tort of breach of confidence and localising financial loss under Rome II' (2021) 10 *Journal of International Banking & Financial Law* 708.

It is submitted that if the transfer of property is tainted by fraud, a transferee, who has been guilty of fraud or acquired the property from a non-owner, will not obtain good title to the given property unless the transfer is valid in his favour according to the *lex situs* at the time of the transfer.[300] The application of the argument to hacked crypto accounts might suggest that if the hacker has sold the Bitcoin to third party Y, Y could obtain good title to the Bitcoin if the transfer is valid in his favour according to the *lex situs* of the Bitcoin at the time of the transfer.

5. TAX MEASURES

There is currently no specific legislation concerning the tax treatment of cryptocurrencies in the UK. The UK's tax authority, HMRC, has produced a "Cryptoassets Manual" regarding the treatment of cryptocurrencies and other cryptoassets for tax purposes.[301] As noted by HMRC, when individuals dispose of cryptoassets, they will be liable to pay Capital Gains Tax.[302] If an individual receives cryptoassets from their employer, or via "mining, transaction confirmation or airdrops", they will be liable to pay Income Tax and National Insurance contributions.[303] Cryptocurrencies in this context

[300] Crawford and Carruthers, *International Private Law: A Scots Perspective*, para 17.14.

[301] HMRC, *Cryptoassets Manual* (2021) https://www.gov.uk/hmrc-internal-manuals/cryptoassets-manual.

[302] HMRC, *Cryptoassets Manual* (2021), CRYPTO20050 – Cryptoassets for individuals: which taxes apply https://www.gov.uk/hmrc-internal-manuals/cryptoassets-manual/crypto20050.

[303] HMRC, Cryptoassets Manual (2021), CRYPTO20050 – Cryptoassets for individuals: which taxes apply https://www.gov.uk/hmrc-internal-manuals/cryptoassets-manual/crypto20050. If airdrops are received "*without doing anything in return (for example, not related to any service or other conditions)*" or "*not as part of a trade or business involving cryptoasset exchange tokens or mining*", Income Tax may not apply to them. See HMRC, CRYPTO21250 - Cryptoassets for individuals: Income Tax: airdrops https://www.gov.uk/hmrc-internal-manuals/cryptoassets-manual/crypto21250.

will count as benefits in "money's worth" and therefore as a form of earnings.[304] In addition, cryptoassets will be considered property for the purposes of Inheritance Tax.[305] There is a possibility too that cryptoassets could create liability for Stamp Duty and Stamp Duty Reserve Tax; however, HMRC does not consider that existing exchange tokens would be likely to meet the requirements for falling within this regime.[306]

If a company or other type of business is carrying out activities involving exchange tokens, they are liable to pay tax. As noted by HMRC, the relevant activities include: buying and selling exchange tokens; exchanging tokens for other assets (including other types of cryptoassets); "mining"; and providing goods or services in return for exchange tokens.[307] If a business has engaged in these activities, they will likely be liable to pay one or more forms of tax (dependent in part on the type of business involved), namely Capital Gains Tax, Corporation Tax, Corporation Tax on Chargeable Gains, Income Tax, National Insurance Contributions, Stamp Taxes and VAT.[308] For example, "[a]ll forms of property" are considered assets for the purposes of Capital Gains Tax and Chargeable Gains, and this expressly includes "incorporeal property generally."[309]

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[304] See Income Tax (Earnings and Pensions) Act 2003, for the meaning of earnings. HMRC also view exchange tokens like Bitcoin as "Readily Convertible Assets" – see HMRC, *Cryptoassets Manual* (2021), CRYPTO21100 – Cryptoassets for individuals: Income Tax: earnings from employment – readily convertible assets https://www.gov.uk/hmrc-internal-manuals/cryptoassets-manual/crypto21100; and 2003 Act, s 702.

[305] HMRC, *Cryptoassets Manual* (2021), CRYPTO25000 – Cryptoassets for individuals: Inheritance Tax https://www.gov.uk/hmrc-internal-manuals/cryptoassets-manual/crypto25000. See Inheritance Tax Act 1984, ss 1-6 for definitions relating to the inheritance tax regime, including the meaning of "estate" (s 5).

[306] HMRC, *Cryptoassets Manual* (2021), CRYPTO24000 – Cryptoassets for individuals: Stamp Duty, Stamp Duty Reserve Tax and Stamp Duty Land Tax https://www.gov.uk/hmrc-internal-manuals/cryptoassets-manual/crypto24000.

[307] HMRC, *Cryptoassets Manual* (2021), CRYPTO40050 – Cryptoassets for businesses: which taxes apply https://www.gov.uk/hmrc-internal-manuals/cryptoassets-manual/crypto40050.

[308] HMRC, *Cryptoassets Manual* (2021), CRYPTO40050 – Cryptoassets for businesses: which taxes apply https://www.gov.uk/hmrc-internal-manuals/cryptoassets-manual/crypto40050.

[309] Taxation of Chargeable Gains Act 1992, s 21(1); HMRC, *Capital Gains Manual* (2016; updated 2022), Chargeable assets: intangible assets: rights https://www.gov.uk/hmrc-internal-manuals/capital-gains-manual/cg12010. And see also the 1992 Act, s 8, regarding the company's total profits for Corporation Tax purposes including "chargeable gains".

In terms of VAT, HMRC provides that it is "due in the normal way on any goods or services sold in exchange for cryptoasset exchange tokens" and the due value will be "the pound sterling value of the exchange tokens at the point the transaction takes place".[310] Services supplied by exchanges (exchanging exchange tokens for legal tender/or other exchange tokens and vice versa), are exempt from VAT, which is also in line with the decision of the Court of Justice of the EU (CJEU) in case C-264/14 *Skatteverket v David Hedqvist*.[311]

6. LITIGATION IN RELATION TO CRYPTOCURRENCIES

6.1. Court Proceedings

In England, a handful of interim applications have come before the courts, predominantly seeking permission to serve proceedings out of the jurisdiction, and interim relief. Although not binding nor persuasive authority for the reasons set out in section 4.1.1.1. above, they nevertheless do give interesting insights into commercial practice, the factual nature of disputes that arise, and also shed light on the areas of law which may well require reform to accommodate cryptoassets and cryptoasset disputes.

In Scotland, there are as yet no reported cases in relation to cryptocurrencies.

6.1.1. Key Cases in the English Courts

[310] HMRC, *Cryptoassets Manual* (2021), CRYPTO45000 - Cryptoassets for businesses: Value Added Tax (VAT) https://www.gov.uk/hmrc-internal-manuals/cryptoassets-manual/crypto45000.
[311] Judgment of the Court (Fifth Chamber) of 22 October 2015.

1. *Danisz v Persons Unknown and Huobi Global Ltd (t/a Huobi)* [2022] EWHC 280 (QB): 5 January 2022

(a) Nature of the Proceedings

An *ex parte* interim application for: (i) an interim proprietary injunction against both Defendants; (ii) a worldwide freezing order against Persons Unknown; (iii) a *Banker's Trust* disclosure order against the Second Defendant.

(b) Facts and Background

The Claimant discovered a website known as Matic Markets Ltd and was encouraged by what she saw there to make investments in the form of Bitcoin, which she duly did, releasing £4,999.09 to it on 31 October, £4,979.13 on 2 November and £17,010.66 on 19 November, all in order to acquire certain Bitcoins. The Claimant was encouraged to think that these Bitcoin investments had accrued in value, following her investment. However, when, in December 2021, she sought to withdraw the Bitcoin and any profit, her request was refused by the apparent representative of Matic, even though she had earlier been told that she could do both on demand. Upon investigations, it became apparent that the Matic operation was likely wholly fraudulent and run by organised criminals. It appeared that the entity was not only engineered to misappropriate funds invested in it by investors such as the claimant, but also had the capacity to interfere with banking and other online transactions.

(c) Jurisdiction Issues

Permission granted to serve proceedings out of the jurisdiction on the basis of a claim in tort where damage was sustained in the jurisdiction (CPR PD 6B para 3.1 (9)(a)).

(d) Status

Unknown

2. *Tulip Trading Limited v Bitcoin Association for BSV* [2022] EWHC 2 (Ch): 5 January 2022

(a) Nature of the Proceedings

Two interim applications for security for costs made by various Defendants in respect of the Claimant's application to serve proceedings out of the jurisdiction.

(b) Facts and Background

The Claimant was a Seychelles-incorporated company, whose ultimate beneficial owners were one Dr Craig Wright and his family. Dr Wright has publicly claimed to have created the Bitcoin system under the pseudonym "Satoshi Nakamoto" (see *Crypto Open Patent Alliance v Wright* below). The Defendants were open-source software developers who developed or improved the Bitcoin Core and Bitcoin Cash ABC software on a non-commercial basis.

The Claimant claimed to be the owner of about US$4.5 billion worth of digital assets which were accessed and controlled by Dr Wright from his computer and network in England. In order to do so, Dr Wright used secure private keys. These private keys were deleted (presumably after having been copied) by hackers who had accessed Dr Wright's computer in February 2020, leaving Dr Wright unable to access the Bitcoin.

The Claimant's case was that the Defendants owe fiduciary and tortious duties to it to re-write or amend the underlying software code to enable it to access the Bitcoin. It had asked them to take those steps. The Defendants did not consider themselves to be under the duties alleged by the Claimant and had refused to take the steps requested.

(c) Jurisdiction Issues

Whether the location of the Claimant's central management and control was England or the Seychelles.

(d) Status

On-going; jurisdiction hearing listed for 2-5 March 2022.

Consequential matters following the substantive decision (amount of security to be paid, and costs) were decided in *Tulip Trading Limited v Bitcoin Association for BSV* [2022] EWHC 141 (Ch): 21 January 2022

3. *Wang v Darby* [2021] EWHC 3054 (Comm): 17 November 2021

(a) Nature of the Proceedings

Three applications: (i) the Claimant's interim application to continue a worldwide freezing order and proprietary injunction granted by HHJ Pelling QC at a without notice hearing on 2 August 2021; (ii) the Defendant's interim application seeking to strike out or enter reverse summary judgment in respect of the "*proprietary claims*" pleaded against him in the action; (iii) the Claimant's interim application seeking to vary the terms of the worldwide freezing order granted on 2 August 2021 as regards the Defendant's expenditure allowance.

(b) Facts and Background

The dispute concerned two related contracts entered into by the Claimant and the Defendant. Broadly speaking both contracts involved the individual parties exchanging specified quantities of respective cryptocurrencies, namely Tez and Bitcoin, on terms as to reciprocal restoration of the same amounts of each currency upon or after an agreed period of two years. The parties were diametrically opposed on the central issues of the correct legal characterisation of the transactions; and the proprietary consequences of Mr Wang transferring the Tezos to Mr Darby.

(c) Jurisdiction Issues

None

(d) Status

Unknown

4. *Ion Science Limited v Persons Unknown* (Unreported): 21 December 2020

(a) Nature of the Proceedings

Ex parte interim application for a proprietary injunction, a worldwide freezing order, and an ancillary disclosure order against Persons Unknown.

(b) Facts and Background

The Claimants, an English company and its sole director and shareholder, alleged that they had been induced by one 'Ms Black,' purportedly a senior associate of a Swiss entity called 'Neo Capital', to invest in cryptocurrency products. Giving 'Ms Black' remote control over his laptop, the second Claimant enabled commission payments of approximately 64.36 bitcoin (GBP 577,002) to be made. It then allegedly transpired that 'Neo Capital' did not appear on the Swiss register of companies; had received a warning from the Swiss regulatory authorities in respect of providing unauthorised financial services; and had no online presence, save for a website.

The Claimants brought proceedings in deceit, unlawful means conspiracy, and equitable claims in property.

(c) Jurisdiction Issues

Permission to serve proceedings out of the jurisdiction was granted on the bases of (i) a claim made in tort where damage was sustained, or will be sustained within the jurisdiction, or damage which has been or will be sustained results from an act committed within the jurisdiction (CPR PD 6B para 3.1(9)); and (ii) a claim made against the defendant as a constructive trustee, or as a trustee of a resulting trust, where the claim arises out of acts committed or events occurring within the jurisdiction or relates to assets within the jurisdiction (CPR PD 6B para 3.1(15)).

(d) Status

Unknown

5. *Fetch.AI Limited and Anor v Persons Unknown and Ors* [2021] EWHC 2254 (Comm): 15 July 2021

(a) Nature of the Proceedings

The Claimant's interim applications for the following relief: (i) a proprietary injunction, worldwide freezing order and ancillary information disclosure against the First to Third Respondents (the Persons Unknown); (ii) a disclosure order, either in *Bankers Trust* and/or pursuant to CPR 25.1(g) and/or using the *Norwich Pharmacal* jurisdiction, against the Fifth Respondent (Binance Markets Limited); and an order using the *Bankers Trust* jurisdiction and/or CPR rule 25.1(g) as against the Fourth Respondent (Binance Holdings Limited).

The Claimant's application for permission to serve the proceedings out of the jurisdiction on (i) the Persons Unknown; and (ii) Binance Holdings Limited.

(b) Facts and Background

The First Claimant alleged a fraud in which Persons Unknown were able to obtain access to trading accounts it maintained with the Binance exchange, within which were held various cryptocurrencies. It was alleged that the Persons Unknown obtained access to these accounts, and then traded the cryptocurrencies credited therein at a massive undervalue, thereby causing the First Claimant losses totalling in excess of US$2.6 million.

The intended causes of action were breach of confidence, unjust enrichment, and constructive trust.

(c) Jurisdiction Issues

English law was held to apply under the Rome II Regulation as: (i) the place where the damage occurs in a claim made in tort/delict within the meaning

of Article 4(1); (ii) an equitable proprietary claim within the meaning of Articles 3, 10, and possibly 11; and (iii) a claim in restitution/unjust enrichment within the meaning of Article 10.

Permission to serve out of the jurisdiction granted on the bases of: (i) a claim for breach of confidence where detriment was suffered within the jurisdiction (CPR PD 6B para 3.1(21)); (ii) a claim in which the subject matter relates wholly or principally to property within the jurisdiction (CPR PD 6B para 3.1(11)); (iii) a claim for restitution where the enrichment is obtained within the jurisdiction or the claim is governed by the law of England and Wales (CPR PD 6B para 3.1(16)); (iv) a claim made against the defendant as constructive or resulting trustee where the claim arises out of acts or events occurring within the jurisdiction or relates to assets within the jurisdiction (CPR PD 6B para 3.1(15)).

(d) Status

Unknown

6. *Lubin Betancourt Reyes and Anor v Persons Unknown* and Ors [2021] EWHC 1938 (Comm): 26 April 2021

(a) Nature of the Proceedings

Claimant's interim application *ex parte* for: (i) a worldwide freezing order coupled with ancillary disclosure as against the First Respondent (Persons Unknown); (ii) a proprietary injunction against the Second and Third Respondents (Persons Unknown) on the basis that they are knowing recipients of the proceeds of fraud; (iii) a disclosure order under either the *Bankers Trust* jurisdiction and/or the *Norwich Pharmacal* jurisdiction against the

Fourth and Fifth defendants (Tether Holdings Limited and Binance Holdings Limited) coupled with applications for permission to serve out of the jurisdiction and permission to serve by an alternative means.

(b) Facts and Background

The Claimant attempted to make a payment of $105,458 in US Dollar Tethers for services to a counterparty in the Philippines. For that purpose, the Claimant had to enter the destination wallet for the payment into the electronic account facilities that were available to him on a platform operated by Binance Holdings Limited.

The Claimant alleged that he entered the destination wallet by its relevant address, a long string of numbers and letters. Before the claimant came to click on the ‘send’ button in order to transfer the Tether from his wallet to the intended recipient’s wallet, a malware program on his computer appeared to have had the effect of more or less instantaneously substituting an almost exact replica of the Binance Holdings platform page but inserting into the destination box a different public address.

By this means and unknown or unappreciated by the Claimant at the time, when he clicked to send the Tethers thinking they were going to his counterparty in the Philippines, they went to what are known in the proceedings as "wallet 1" operated by the First Defendant, a phishing fraudster (a Person Unknown)

The evidence suggested that the proceeds were not merely the $105,000-odd which the Claimant wished to send his counterparty in the Philippines but, in effect, the whole of his account was transferred away.

The Tethers transferred to wallet 1 were then divided with some being sent to what is known in the proceedings as "wallet 2" and the remainder to "wallet 3," belonging to the Second and Third Defendants (Persons Unknown)

(c) Jurisdiction Issues

Permission to serve out of the jurisdiction was refused as against the First Defendant on the basis of a claim in conversion.

Permission to serve out of the jurisdiction was granted as against the First Defendant on the bases of a claim in fraudulent misrepresentation and in unjust enrichment where the Claimant is habitually resident in and conducts his business from England and that is where the loss caused was suffered (CPR PD 6B para 3.1(9)).

Permission to serve out of the jurisdiction was granted as against the Second and Third Defendants on the basis of constructive trust CPR PD 6B para 3.1(15)).

Permission to serve proceedings out of the jurisdiction was granted as against the Fifth Defendant as a necessary or proper party to the claim (CPR PD 6B para 3.1(3)).

Permission to serve proceedings out of the jurisdiction was refused as against the Fourth Defendant because, although it is a BVI company, it had a branch in London where it could be served.

(d) Status

Unknown

7. *AA v Persons Unknown and Ors* [2019] EWHC 3556 (Comm): 13 December 2019

(a) Nature of the Proceedings

Interim application for: (i) a *Bankers Trust* order and/or a *Norwich Pharmacal* order requiring the Third and Fourth Defendants (both trading as the Bitfinex Exchange) to provide specified information in relation to a cryptocurrency account owned or controlled by the Second Defendant (Persons Unknown who own/control specified Bitcoin); and/or, (ii) a proprietary injunction in respect of the Bitcoin held at the account of the Fourth Defendant; and/or (iii) a freezing injunction in respect of Bitcoin held at the specified account of the third or fourth defendant; and (iv) consequential orders to serve the same, including alternative service and service out of the jurisdiction.

(b) Facts and Background

A hacker managed to infiltrate and bypass the firewall of a Canadian insurance company, referred to as the Insured Customer, and installed malware called BitPaymer. The malware first bypassed the system's firewalls and anti-virus software and then encrypted all of the Insured Customer's computer systems. The Insured Customer then received notes which were left on the encrypted system by the First Defendant, demanding a ransom for the decryption of the systems.

The Applicant was the Insured Customer's insurer, and ultimately agreed to pay the ransom in Bitcoin to the value of USD 950k. The Applicant then tracked the 109.25 Bitcoin it paid, 96 of which were tracked to a public address linked to the Bitfinex Exchange.

The Claim Form raised proprietary claims in restitution and/or constructive trust, or for the tort of intimidation and/or fraud and/or conversion.

(c) Jurisdiction Issues

The hearing determined only the application for service out based on the claims in restitution and/or constructive trust and the proprietary injunction against all four defendants.

Permission was granted on the bases of (i) a claim for interim remedy under section 25.1 of the Civil Jurisdiction and Judgments Act (CPR PD 6B para 3.1(5); and (ii), claims in tort, where damage was sustained within the jurisdiction (CPR PD 6B para 3.1(9)).

The Judge further considered whether any of the four defendants could potentially be a necessary or proper party to the claim made against the intended defendant, and there is between the claimant and that defendant a real issue which it is reasonable for the court to try (CPR PD 6B para 3.1(3)).

(d) Status

Unknown

6.1.2. Other Cases in the English Courts

1. *Crypto Open Patent Alliance v Wright* [2021] EWHC 3440 (Ch): 22 December 2021

A claim for declaratory relief that the Defendant, Dr Craig Wright, is not Satoshi Nakamoto/the author of the Bitcoin Whitepaper.

2. *Andoro Trading Corp v Dolfin Financial (UK) Ltd* [2021] EWHC 1578 (Comm): 10 June 2021

A case alleging fraud in the context of tokens issued in an ICO; the claimants sought, *inter alia*, the return of the fiat currency invested and damages for, *inter alia*, fraudulent misrepresentation.

3. *Vorotyntseva v Money-4 Ltd (t/a Nebeus.com*) [2018] EWHC 2596 (Ch): 28 September 2018

A defended application for a freezing order as against the corporate First Respondent and its Directors, the Second and Third Respondents; and a proprietary injunction in respect of 293.6583085 Bitcoin and 400.39984802 Ether transferred by the Claimant to the First Respondent for the purpose of testing its trading platform.

It was not in dispute that the relevant Bitcoin and Ether belonged to the Claimant, and the Respondents offered an undertaking to maintain the cryptocurrencies pending further order, which was accepted.

A key point worth noting is that the parties were not in dispute that cryptocurrencies could be a form of property, and that a party amenable to the court's jurisdiction could be enjoined from dealing in or disposing of it.

6.2. Arbitration

The authors of this Report are not aware of any arbitration proceedings in relation to cryptocurrencies in England and Wales or in Scotland.

It is, however, worth noting the Digital Dispute Resolution Rules, published in 2021 by the UK Jurisdiction Taskforce 'to be used for and incorporated into on-chain digital relationships and smart contracts.'[312] They are considered ground-breaking in that they allow for arbitral or expert dispute resolution in very short periods (Rule 1), arbitral decisions to be implemented directly on-chain using a private key (Rule 12), and optional anonymity of the parties (Rule 13).

Under the definitions (Rule 2):

(a) a **digital asset** includes a cryptoasset, digital token, smart contract or other digital or coded representation of an asset or transaction; and a **digital asset system** means the digital environment or platform in which a digital asset exists;
(b) an **interested party** means a party to a contract into which these rules are incorporated including, in relation to a digital asset, a person who has digitally signed that asset or who claims to own or control it through possession or knowledge of a digital key;
(c) an **automatic dispute resolution process** means a process associated with a digital asset that is intended to resolve a dispute between interested parties by the automatic selection of a person or panel or artificial intelligence agent whose vote or decision is implemented directly within the digital asset system (including by operating, modifying, cancelling, creating or transferring digital assets).

Rule 5 provides for any dispute not subject to automatic dispute resolution to be referred to arbitration, with any expert issue determined by an appointed expert acting as such and not as an arbitrator. Under Rule

[312] UK Jurisdiction Taskforce, Digital Dispute Resolution Rules, Version 1.0, 2021, https://technationio.wpenginepowered.com/wp-content/uploads/2021/04/Lawtech_DDRR_Final.pdf.

16, the seat of arbitration is England and Wales (and therefore subject to the Arbitration Act 1996); and, unless the parties agree otherwise, English law applies to the substance of the dispute.

The model dispute resolution clause is stated in Rule 3 to be "*Any dispute shall be resolved in accordance with UKJT Digital Dispute Resolution Rules.*"

6.3. Group Litigation and Class Actions

In England and Wales, there are no provisions for class actions specifically for disputes relating to cryptocurrencies comparable to Collective Proceedings Orders for competition claims under s 47B of the Competition Act 1998. There are general provisions for group litigation and representative claims contained in CPR Part 19, however, these are not true 'class' actions in the US sense of the term.

In representative actions under CPR Part 19.6, the claim may be commenced or continued by or against one or more persons as representatives of any others who have the 'same interest' in the claim. However, each member must still show they have the same interest in the claim, and courts have traditionally interpreted this requirement strictly. Group Litigation Orders made under CPR Part 19.10, on the other hand, are a case management measure for organising a large number of related claims, but each person still issues and establishes their own claim.

In Scotland, there are no specific actions (including class actions), or special or exclusive heads of jurisdiction available for crypto litigation.

Scotland has special procedures for bringing class actions[313] and it is possible to bring a class action in Scotland for disputes in relation to cryptocurrency uses or services in accordance with those procedures. The Civil Litigation (Expenses and Group Proceedings) (Scotland) Act 2018 provides for opt-in and opt-out class actions under Part 4.[314] The opt-in regime was introduced in July 2020 and has been effective since then.[315] The introduction of the opt-out regime, on the other hand, is still under consideration by the Scottish Civil Justice Committee.[316] However, the opt-out regime introduced for competition law disputes by the Consumer Rights Act 2015, which amended the Competition Act 1998, is UK wide and applicable to Scotland as well.

It is interesting to note that the Scottish news recently reported that an alleged victim of the OneCoin scandal (considered to be a Ponzi scheme) announced that she would be leading a class action lawsuit to recover money for the victims of this scheme and launched the OneCoin Victims Law and Asset Recovery Lawsuit for others to participate.[317]

6.4. Recognition and Enforcement of Foreign Court Judgments and Arbitral Awards

[313] See generally C. Hutton, G. MacLeod and K. Henderson, 'The Class Actions Law Review: United Kingdom- Scotland' in C. Sanger and Slaughter and May, *The Class Actions Law Review*, 5th ed., 2021: https://thelawreviews.co.uk/title/the-class-actions-law-review/united-kingdom-scotland.

[314] Section 20(7) of the Act defines these proceedings as following: "*"opt-in proceedings" are group proceedings which are brought with the express consent of each member of the group on whose behalf they are brought*" and "*"opt-out proceedings" are group proceedings which are brought on behalf of a group, each member of which has a claim which is of a description specified by the Court as being eligible to be brought in the proceedings and—(i) is domiciled in Scotland and has not given notice that the member does not consent to the claim being brought in the proceedings, or (ii) is not domiciled in Scotland and has given express consent to the claim being brought in the proceedings*".

[315] Prior to this, there was an informal procedure based on case-management and the procedural tools available. This informal procedure continues to apply to cases commenced prior to July 2020. On the former informal procedure, see Hutton, MacLeod and Henderson, 'The Class Actions Law Review: United Kingdom- Scotland'.

[316] ibid.

[317] See https://www.gbnews.uk/news/scottish-woman-leads-court-fight-to-recover-cash-after-losing-thousands-in-cryptocurrency-scam/181543.

The recognition and enforcement in the UK of foreign judgments or arbitral awards given in relation to crypto disputes would be subject to the established rules on recognition and enforcement of foreign court judgments and of foreign arbitral awards. There is a number of relevant multilateral and bilateral regimes to which the UK is a party, and this Report will consider some of the key ones.[318]

6.4.1. Foreign Court Judgments

The UK is a party to the 2005 Hague Convention on Choice of Court Agreements.[319] Whether the Hague Choice of Court Convention applies to the forum selection clauses embedded in a blockchain protocol or smart contract is one of the questions raised by the Permanent Bureau of the Hague Conference.[320] The applicability of the Hague Convention to choice of court agreements concerning disputes relating to cryptocurrencies and the operation of grounds for refusal of recognition or enforcement of judgments (including public policy) under Article 9 in this context would need to be interpreted uniformly, by considering the Convention's international character as per Article 26, among the Contracting States including the UK. This may, however, not be straightforward given the absence of a court or mechanism which can provide such uniform interpretation under the Hague regime and given the divergent approaches to cryptocurrencies in general.

[318] The Report does not consider intra-UK recognition and enforcement of judgments.
[319] Convention of 30 June 2005 on Choice of Court Agreements. This was given effect in domestic law by the Private International Law (Implementation Agreements) Act 2020 which amended the Civil Jurisdiction and Judgments (Hague Convention on Choice of Court Agreements 2005) (EU Exit) Regulations 2018 (SI 2018/1124).
[320] See the Proposal for the Allocation of Resources to Follow Private International Law Implications relating to Developments in the Field of Distributed Ledger Technology, in particular in relation to Financial Technology," (Prel. Doc. 28.02.2020) https://assets.hcch.net/docs/f787749d-9512-4a9e-ad4a-cbc585bddd2e.pdf, para 15.

For the recognition and enforcement in the UK of judgments given in a court in an EU Member State or in Switzerland, Norway and Iceland in cases commenced but not concluded before the end of the Brexit transition period, provisions of the Brussels Ia Regulation[321] (and its predecessors and the 2005 EU-Denmark Agreement[322]) and the Lugano Convention[323] remain applicable.[324] The question of whether a foreign judgment given in relation to crypto disputes would be recognised and enforced under the Brussels-Lugano regime would be subject to provisions of this regime. This would require a uniform interpretation in which the CJEU would play a significant role.[325]

The Administration of Justice Act 1920 (Part II) and the Foreign Judgments (Reciprocal Enforcement) Act 1933 provide for the enforcement in the UK of certain judgments from certain countries. A foreign judgment under which a sum of money is payable may be enforceable in the UK by registration under these Acts. In relation to foreign judgments awarded in cryptocurrencies (which may or may not be from a country that recognises and/or adopts cryptocurrencies as money or legal tender), a question may arise whether such judgments would be considered as judgments for the payment of a sum of money in the context of these Acts[326]

[321] Regulation (EU) No 1215/2012 of the European Parliament and of the Council of 12 December 2012 on jurisdiction and the recognition and enforcement of judgments in civil and commercial matters, OJ L 351, 20.12.2012, pp. 1–32.
[322] Agreement between the European Community and the Kingdom of Denmark on jurisdiction and the recognition and enforcement of judgments in civil and commercial matters, OJ L 299, 16.11.2005, pp. 62–70.
[323] Convention on jurisdiction and the recognition and enforcement of judgments in civil and commercial matters, OJ L 339, 21.12.2007, pp. 3–41.
[324] This is as per the Withdrawal Agreement and the Civil Jurisdiction and Judgments (Amendment) (EU Exit) Regulations 2019 as amended by the Jurisdiction, Judgments and Applicable Law (Amendment) (EU Exit) Regulations (SI 2020/1574).
[325] On the effectiveness of the CJEU in interpreting EU private international law regulations, see B. Yüksel, 'An Analysis of the Effectiveness of the EU Institutions in Making and Interpreting EU Private International Law Regulations' in P. Beaumont, M. Danov, K. Trimmings and B. Yüksel (eds), *Cross-Border Litigation in Europe*, Hart, Oxford 2017, ch 3, pp. 44-52.
[326] See Section 12(1) of the Administration of Justice Act 1920 and Section 1(2) of the Foreign Judgments (Reciprocal Enforcement) Act 1933.

given that the UK currently does not regard cryptocurrencies as money or legal tender.[327]

Both Acts set out certain grounds on which no judgment may be registered[328] or the registration must or may be set aside respectively.[329] One of these grounds is that the original court had no jurisdiction in the circumstance of the case. Section 4(2) of the Act 1933 provides for certain grounds of competence under which the original court is deemed to have had jurisdiction or lacked jurisdiction. For example, according to Section 4(2)(b), in the case of a judgment given in an action of which the subject matter was immovable property or in an action in rem of which the subject matter was movable property, the original court would be deemed to have had jurisdiction if the property in question was at the time of the proceedings in the original court situate in the country of that court. Therefore, if cryptocurrencies are regarded as property, the application of these grounds of competence for enforcement of judgments relating to cryptocurrencies would raise the determination of the situs of cryptocurrencies in a given case. As addressed in part 4 above, the determination of the situs of cryptocurrencies poses difficulties as they do not have a physical location and they are underpinned by DLT. If the original court, based on that determination, is found to have had no jurisdiction, the judgment will not be registered or registration shall be set aside in the UK.

Another ground on which no judgment may be registered or the registration must be set aside under the Acts is public policy. Public policy is not defined in the Acts and at a first glance the threshold does not seem to be as high as the one in the Brussels-Lugano and Hague regimes addressed above. However, the exceptional nature of public policy and its

[327] On the question of whether the remedial powers available to English courts include the power to give a judgment in a cryptocurrency, see Dickinson, 'Cryptocurrencies and the Conflict of Laws', paras 5.89-5.92.
[328] See Section 9(2) of the Administration of Justice Act 1920.
[329] See Section 4(1)(a) the Foreign Judgments (Reciprocal Enforcement) Act 1933.

limited extent is well known and accepted in private international law, and distinguished from the understanding of public policy domestically. Given this understanding of public policy and no review of merits at the recognition and enforcement stage, it would be very rare, particularly in commercial contexts, for a public policy plea to be successful regarding recognition and enforcement of foreign judgments given in relation to crypto disputes. It is, however, worth noting that it is argued that the status of cryptocurrencies as property would grant them a degree of recognition and protection under international law, most notably under the European Convention on Human Rights.[330] Depending on the circumstances of the case, a foreign judgment infringing this protection under international law may cause the judgment not to be registered or registration may be set aside in the UK on the ground of public policy.[331]

If the recognition and enforcement of a foreign judgment does not fall within the scope of a bilateral or multilateral regime to which the UK is a party or of the 1920 or 1933 Acts (notably judgments from the USA, Russia, and China), the judgment may be recognised or enforced at common law.[332] It is however to be noted that a foreign judgment cannot be enforced in the UK under the 1920 or 1933 Acts or at common law if the enforcement

[330] C. Proctor, 'Cryptocurrencies in International and Public Law Conceptions of Money' in *Cryptocurrencies in Public and Private Law*, D. Fox and S. Green (eds), *Cryptocurrencies in Public and Private Law*, Oxford University Press, Oxford 2019, para 3.21 and 3.59.

[331] In a broader context, refusal of the recognition or enforcement of a foreign judgment which is contrary to the European Convention on Human Rights (given the force of law in the UK by the Human Rights Act 1998) could be rather seen as a result that primary legislation produces. See Collins and others, *Dicey, Morris & Collins on the Conflict of Laws*, para 14-159.

[332] For England and Wales, see generally Ministry of Justice, Cross-border civil and commercial legal cases: guidance for legal professionals, 2020 https://www.gov.uk/government/publications/cross-border-civil-and-commercial-legal-cases-guidance-for-legal-professionals/cross-border-civil-and-commercial-legal-cases-guidance-for-legal-professionals#jurisdiction-and-recognition-and-enforcement-of-judgments. For Scotland, see generally Justice Directorate of the Scottish Government, Cross-EU border civil and commercial legal cases from 1 January 2021: guidance for legal professionals https://www.gov.scot/publications/cross-eu-border-civil-commercial-legal-cases-1-january-2021-guidance-legal-professionals/pages/1/.

would be contrary to Section 5 of the Protection of Trading Interests Act 1980.[333]

In England and Wales and in Scotland, it is a general principle that a foreign court judgment will not be recognised or enforced unless the issuing court is regarded as one having international competence in the given case.[334]For judgments *in rem*, the situation of the property, at the time of the proceedings, within the jurisdiction of the issuing court is recognised as a ground of competence.[335] If cryptocurrencies are regarded as property, this ground would raise the determination of the situs of cryptocurrencies in a given case,[336] and, based on where the situs is, the issuing court might be deemed to have or lack jurisdiction, affecting whether the judgment may be enforced in the UK.For judgments *in personam* e.g. for a debt or definite sum of money, jurisdiction is less problematic. The issuing court must have had jurisdiction over the defendant,[337] which in practice is tested in the courts in the UK according to a broad international standard of justice.[338]

Additional requirements for recognition and enforcement of a foreign judgment *in personam* include that the judgment is final and conclusive on the merits;[339] and is unimpeachable[340] on the grounds of fraud,[341]

[333] Crawford and Carruthers, *International Private Law: A Scots Perspective*, para 9-18; Beaumont and McEleavy, *Anton's Private International Law*, para 9.45.
[334] For Scotland, see Beaumont and McEleavy, *Anton's Private International Law*, paras 9.10 and 9.16.
[335] Rule 47, Collins and others, *Dicey, Morris & Collins on the Conflict of Laws*, para 14R-108 onwards; Beaumont and McEleavy, *Anton's Private International Law*, paras 9.12, 9.35 and 9.36.
[336] On the discussion of the situs of cryptocurrencies, see part 4 above.
[337] Rule 42(1); Rule 49, Collins and others, *Dicey, Morris & Collins on the Conflict of Laws*, para 14R-020 onwards.
[338] Crawford and Carruthers, *International Private Law: A Scots Perspective*, para 9.10.
[339] Rule 42(1)(b), Collins and others, *Dicey, Morris & Collins on the Conflict of Laws*, para 14R-020 onwards; Crawford and Carruthers, *International Private Law: A Scots Perspective*, para 9.12.
[340] Rule 42(1), Collins and others, *Dicey, Morris & Collins on the Conflict of Laws*, para 14R-020 onwards.
[341] Rule 42(1); Rule 50, Collins and others, *Dicey, Morris & Collins on the Conflict of Laws*, para 14R-020 onwards; Crawford and Carruthers, *International Private Law: A Scots Perspective*, para 9.12.

public policy[342] or breach of natural justice.[343] Regarding fraud, public policy, or breach of natural justice, there is no strong reason to think that recognition and enforcement of a foreign judgment concerning a cryptoasset will be refused on any of these grounds, simply because the debt or sum of money owing was somehow related to a cryptoasset. This is particularly so, given that the UK continues to position itself as a 'pro-cryptoasset' country.

6.4.2. Foreign Arbitral Awards

The UK is a party to the 1927 Geneva Convention on the Execution of Foreign Arbitral Awards and the 1958 New York Convention on the Recognition and Enforcement of Foreign Arbitral Awards.

England and Wales prides itself on being an arbitration-friendly jurisdiction. Under section 66(1) of the Arbitration Act 1996, "an award made by the tribunal pursuant to an arbitration agreement may, by leave of the court, be enforced in the same manner as a judgment or order of the court to the same effect." The only ground for refusing leave is where, pursuant to section 66(3), the person against whom it is sought to be enforced shows that the tribunal lacked substantive jurisdiction to make the award. New York Convention Awards are recognised under section 101(1) of the Arbitration Act 1996, and may be enforced by leave of the court in the same manner as a judgment or order of the court under section 101(2). There are, therefore, limited grounds for an English court to refuse recognition and enforcement of an arbitral award relating to cryptocurrencies.

[342] Rule 42(1); Rule 51, Collins and others, *Dicey, Morris & Collins on the Conflict of Laws*, para 14R-020 onwards; Crawford and Carruthers, *International Private Law: A Scots Perspective*, para 9.12.
[343] Rule 42(1); Rule 52, Collins and others, *Dicey, Morris & Collins on the Conflict of Laws*, para 14R-020 onwards; Crawford and Carruthers, *International Private Law: A Scots Perspective*, para 9.12.

Scotland is perceived as a pro-enforcement jurisdiction.[344] A New York Convention award is recognised and enforced in Scotland in accordance with the Arbitration (Scotland) Act 2010, subject to the limited refusal grounds including public policy. It is assessed that Scottish courts would interpret public policy narrowly in this context and, in doing so, consider English authority as persuasive.[345] A non-Convention award can be enforced in Scotland[346] at common law[347] or under the 1920 Act[348] or the 1933 Act.[349] There is no strong reason to think that a foreign arbitral award concerning crypto disputes will not be recognised or enforced in Scotland unless one of the refusal grounds exists in a given case. This is, however, subject to the question raised above regarding the enforcement of judgments for the payment of a sum of cryptocurrencies under the 1920 and 1933 Acts, which is also relevant to the enforcement of arbitral awards for the payment of a sum of cryptocurrencies under these Acts.

7. MISCELLANEOUS

7.1. Other Legal Issues

One further area that is of relevance to cryptocurrencies is the law of marriage, divorce, cohabitation and separation. While it is not possible to consider these matters in detail here, it can be stated that outcomes in given cases may be dependent upon the property analysis applied to cryptocurrencies.

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[344] J. Cullen, F. Chute, A. McWhirter, R. Mitchell, P. Begbie and E. Smith, 'Enforcement of judgments and arbitral awards in the UK (Scotland): overview' https://uk.practicallaw.thomsonreuters.com/w-022-4911?transitionType=Default&contextData=%28sc.Default%29#co_anchor_a946783.

[345] B.J. Malone, 'National Report: Scotland', Scottish Arbitration Centre, 2018 https://scottisharbitrationcentre.org/wp-content/uploads/2019/04/ICCA-HB-Suppl.-105-Offprint-Scotland.pdf, p. 31.

[346] See Section 22 of the Arbitration (Scotland) Act 2010.

[347] ibid.

[348] See Section 1(2) of the Administration of Justice Act 1920.

[349] See Section 10A of the Foreign Judgments (Reciprocal Enforcement) Act 1933. See also Crawford and Carruthers, *International Private Law: A Scots Perspective*, para 9-48.

In England and Wales, the courts have wide discretion to make a range of orders upon divorce which can take account of the parties' assets, and an order can be given for e.g. the transfer of property.[350]

In Scotland, the courts take account of "matrimonial property" (which could include cryptocurrencies) in determining financial provision and generally seek to share the net value of such property fairly between the parties, which may result in a range of orders including for the transfer of property.[351] Scots law also makes special provision for cohabitants which includes allowing a cohabitant to apply for financial provision upon separation but property rights do not figure to the same extent in the court's considerations here.[352]

Another point to note is that although there may be issues of concealment regarding assets other than cryptocurrencies in divorce proceedings, such issues could be particularly pronounced in relation to cryptocurrencies, which by their nature can be easier to hide than other assets.

[350] See Matrimonial Causes Act 1973, s 21 onwards.
[351] Family Law (Scotland) Act 1985, s 8 onwards.
[352] Family Law (Scotland) Act 2006, s 25 onwards.