KEY POINTS

- Units of virtual currency convincingly shown to have economic value and transferability among market participants and to be robustly engineered enough to trade freely are likely to be categorised as a type of property at common law.
- In addition, virtual currencies which have achieved status as a medium of exchange within a significant user community have a good claim to be regarded as money.
- If so, they will be negotiable. The *nemo dat* rule (that no one can give a better title than he himself has) will not apply.
- With the attribute of sharing certain characteristics of both intangible property and choses in possession, there may be an argument for extending the traditional legal categories so as to recognise virtual choses in possession as a new form of property.

Feature

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The legal aspect of virtual currencies

Virtual currencies have a good claim to be regarded as money – if they are used as a medium of exchange within a significant user community and are negotiable. A common perception among users is that virtual currency tokens are some sort of money – and a nascent alternative to real-world currencies – based on their functional or economic use. The question addressed in this article is whether this informal characterisation holds true at common law.

INTRODUCTION

Virtual currency schemes have proliferated in recent years, gaining ground as a medium of exchange. Proponents argue that they provide the benefits of anonymity, speed and convenience, and remove the need for a payment intermediary. Opponents, on the other hand, claim that anonymity facilitates crime, including money laundering and that virtual currencies depend, almost entirely, on information technology networks which may themselves be subject to systemic risk.

Virtual currencies resist attempts to define them as a class, not least because a wide variety of platforms exist and they share few, if any, common characteristics. The modest aim of this article is not to provide such a definition but rather to reflect on the qualities which would permit a virtual currency to be classed, first, as personal property and, second, as money – for the simple reason that unless at least some virtual currencies can achieve this classification at law, the ambition of their design will, in an important sense, have failed. To this end, a brief overview of virtual currency schemes is set out below.

OVERVIEW OF VIRTUAL CURRENCY SCHEMES

As a class, virtual currency schemes differ in their underlying mechanics. Some rely on cryptography, hence the name "cryptocurrency", some do not. Bitcoin, the best-known and the most prevalent virtual currency, is a cryptocurrency created by a technological process referred to as "mining" which is simulated by an individual's contribution to the computing power of the virtual network serving the scheme. A finite number of Bitcoins can be "mined" by this process, a limitation which is expected ultimately to determine the market value of Bitcoins. The scheme is supported by "distributed ledger technology" (DLT) which creates a decentralised transactional system. Alternative cryptocurrencies to the Bitcoin, commonly known as altcoins, vary in the way that they are developed, mined and marketed. One altcoin platform which has gained a higher profile recently is Ethereum – now the second largest virtual currency system by market capitalisation – where transactions are executed in an altcoin called Ether. Unlike the Bitcoin platform, Ethereum offers programmable, automated transaction functionality (or "smart contracts").

By way of contrast to cryptocurrencies like Bitcoin and Ether, a third currency, Ripple does not depend on cryptographic techniques to record transactions. It is a centralised payment system built around a shared public database. This central ledger can only be amended by a process known as "consensus" – a democratised technological voting mechanism.

Where a unit of virtual currency is interchangeable with "real world" currency, it is said to be "open" and "closed" where it is not interchangeable. If the currency is freely interchangeable it is said to have "bidirectional flow", if it can be purchased but not sold in other currencies it is said to have "unidirectional flow".

Bitcoin is said to be technologically "closed" because there is no exchange possible between Bitcoins and real world currencies within the scheme itself but functionally "open" because the tokens can be bought or sold on certain platforms. Ripple allows for the direct exchange of other currencies, including real world currencies, through its payment system.

Some virtual currencies are pegged, to a greater or lesser extent, to real world currencies. Where a virtual currency has perfect "peg" to a real world currency, as online vouchers do, for instance, it will likely be classified as "e-money" for the purposes of legislation (discussed further below) and may be said to have "crossed over" into the real world as an electronic representation, like bank balances, of real money.

LEGAL CHARACTER OF VIRTUAL CURRENCY: PROPERTY OR PERSONAL RIGHT?

At the heart of many of the regulatory questions which surround virtual currencies is the question of how to allocate this new and, allegedly, disruptive technology to the traditional categories of property and personal rights developed by the common law.

The characteristics of property are well-established and were summarised in *National Provincial Bank v Ainsworth* [1965] 1 AC 1175 at 1247–8, by Lord Wilberforce:

> '… before a right or an interest can be admitted into the category of property, or of a right affecting property, it must be definable, identifiable by third parties, capable in its nature of assumption by third parties and have some degree of permanence or stability.'

Private law rights or interests which do not amount to property will be categorised as non-transferable personal rights.

Recent judicial decisions have tended to support the categorisation of rights as property wherever they have acquired economic value and shown themselves susceptible to transfer and trade. The hypothesis, therefore, is that units of virtual currency convincingly shown to have economic value and transferability among market participants and to be robustly-engineered enough to trade freely are likely to be categorised as a type of property at common law.

IN ACTION OR IN POSSESSION?

Property in English law may be either real or personal property. Real property refers to freehold land and can be disregarded for the purposes of this discussion. Personal property, on the other hand, may be further divided into chattels real – largely leasehold interests – and chattels personal, where the latter can be either "in possession" or "in action" at common law, hence: "*choses* in possession" and "*choses* in action". A chose in action is a property right that can only be obtained or enforced through legal action. A chose in possession, in contrast, is a thing of which physical possession can be taken.

In other jurisdictions, as well as in some UK statutes, it is more common to divide personal property into tangible and intangible property. Where this distinction is made, it is logical to assume that units of virtual currency – being "virtual" – must be intangible property, if they are property at all. In this, virtual currencies would differ from, say, sovereign currency in the form of coins and notes. The latter being tangible property are choses in possession – although notes may be simultaneously a chose in action, which is a kind of intangible property.

The class of intangible property is normally regarded as essentially the same as the class of choses in action. Nonetheless, virtual currencies may share several of the characteristics of choses in possession. Bitcoins, for example, can be transferred and stored in such a way that they may be lost, which the common law recognises as a characteristic of choses in possession but not of choses in action. A related point is that a transfer of possession can be effected by placing Bitcoins in a digital wallet on the user's computer, which will connote a transfer of ownership.

With this attribute of sharing certain characteristics of both intangible property and choses in possession, it may be convenient to understand virtual currencies – where the currency is economically robust enough to be classed as "property" – as a kind of hybrid: "virtual choses in possession". That is, intangible property with the essential characteristics of choses in possession.

There is, under the common law, a category of property which shares some of the characteristics of both choses in possession and choses in action. Items in this category are sometimes described as "documentary intangibles" and one example is a promissory note. Here, the debt itself is a chose in action, but the document which represents it is a chose in possession. The two cannot be separated and when the document is transferred so, too, is the debt, as a general rule. Documentary intangibles include negotiable instruments (bills of exchange, promissory notes and cheques); negotiable securities (for example, bearer bonds and notes) and certain other mercantile documents relating to the storage, transport and delivery of goods (for example, bills of lading). When such instruments are transferred, the purchaser who takes them in good faith, for value and without notice of the defect in title, acquires a good title even though the seller may have had a bad or defective title or, indeed, no title at all. This characteristic, known as "negotiability", privileges documentary intangibles over and above ordinary choses in possession in that it permits the holder for the time being to transfer a better title to the property than he himself has.

NEGOTIABILITY AND VIRTUAL CURRENCY: POSSESSION, DELIVERY AND OWNERSHIP

A basic principle of common law is the rule *nemo dat quod non habet* – that no one can give a better title than he himself has and, conversely, a purchaser cannot receive better title to property than the seller. The principle is, however, subject to a number of significant exceptions: one of which, as we have seen, is the class of documentary intangibles; another – probably the commonest of all – is money itself. Sovereign currency in the form of notes and coins in general circulation generally cannot be recovered from a person who has obtained possession of them in good faith – ownership of such notes and coins passes on delivery. In this respect, coins and notes are sometimes said to be "negotiable chattels", on account of the fact that title passes "in currency". Banknotes are a two-fold exception to the *nemo dat* principle because they also qualify as promissory notes ("I promise to pay the bearer…") for the purposes of the Bills of Exchange Act 1882 and, thus, as negotiable instruments.

Although the category of negotiable things includes both negotiable instruments and negotiable securities, the latter categories do not appear to be sufficiently flexible to accommodate virtual currencies, for reasons given in a recent paper published by the Financial Markets Law Committee (FMLC), available at www.fmlc.org. If the FMLC is indeed correct in this, it means that the *nemo dat* rule will apply to virtual currencies – if they are chattels at all – unless they are negotiable chattels like money.

MONEY, MONEY, MONEY

There is no single wholly satisfactory theory of what money is, particularly as to its legal aspect. Certain theories of money emphasise its function as sovereign currency and legal tender while others emphasise its societal role as a means of payment and yet others point to its economic aspect and its sensitivity to monetary policy.

While it is unlikely that any one of these theories can satisfactorily account for all the attributes of money, it is clear that one or other may be more or less useful for certain purposes. The "State" theory of money as sovereign currency has been important, for example, in helping to answer both simple questions about counterfeiting and difficult questions about monetary union and economies in transition. But a theory of this kind will not easily account for the way in which US dollars are more widely accepted in many economies – and, therefore, offer a better discharge of commercial obligations – than the local sovereign currency. Nor does it satisfactorily explain how consumers have come to regard a dematerialised chose in action, like a bank account balance, as "money in the bank".

For questions like these, we need instead to have regard to money's function as the currency of commerce. Charles Proctor, in *Mann on the Legal Aspect of Money* (7th edition: Oxford, 2012), refers to a theory of money which focuses on this function as "the Societary theory of money". According to this theory, the negotiability of coins and notes stems from their ability to "pass in currency" (*per* Lord Mansfield in *Miller v Race* (1758) 1 Burr 452, at 457), ie commonly and continuously to be accepted as payment in exchange for articles of commerce. As explained by Best J in *Wookey v Pole* 4 B & Ald 1, the rule that 'where the owner of money had lost the possession of it, he had lost the property in it' is justified because:

> '… by the use of money the interchange of all other property is most readily accomplished. To fit it for its purpose the stamp denotes its value, and possession alone must decide to whom it belongs.'

It seems reasonable to infer from this that if a chattel, having a face value or other ascertainable value, is widely accepted in "interchange" for all other kinds of property then the law will regard it as a negotiable chattel, whether or not it is also a unit of the sovereign currency. That is, a chattel which qualifies as money under the Societary definition should be negotiable whether or not it also qualifies under the State definition.

Whether units of a virtual currency have achieved the status of being "passed in currency" is a mixed question of fact and law. It is worth noting that in the recent case of *Florida v Espinoza* (Case No F14-2923), concerning alleged money laundering and unlicensed money transmission, a US court held that Bitcoins "are not a commonly used means of exchange".[1] Judge Teresa Pooler gave this – together with the volatility of the currency and its "limited ability to act as a store of value" – as reasons for declining to categorise the currency as money. In contrast, the European Central Bank, in a paper on Virtual Currency Schemes published in October 2012, concluded that some virtual currencies do indeed act as a medium of exchange and as a unit of account within a particular virtual community and that they qualify as "money" to that extent but, like Judge Pooler in the *Espinoza* case, the paper expressed doubt as to whether virtual currencies could be sufficiently safe and reliable to act as a "store of value". The FMLC Paper referred to above took the view that neither the commonly used "means of exchange" threshold condition nor the "store of value" test should necessarily preclude the classification of virtual currencies – where they are sufficiently robust to qualify as personal property – as money. The next two sections explain why.

FOREIGN EXCHANGE?

Virtual currencies which have achieved a measure of transferability but have not yet gained popular acceptance may perhaps be said to be somewhat analogous to foreign money in a jurisdiction where it is not legal tender. Foreign money is issued for the purpose of acting as a medium of exchange and, in at least one location, it is accepted and traded as payment, just as functionally "open" virtual currencies are accepted for payment in the real world within the user community. In the UK, however, foreign money cannot purchase articles of commerce or satisfy a debt unless expressly stipulated for by the creditor. It cannot do so for an odd mix of reasons, both legal and socio-practical: foreign money is not sovereign currency or legal tender, there is no general social practice of accepting foreign money as payment and ordinary commercial debts within the jurisdiction are, by law, denominated in pounds sterling unless another currency is stipulated.

Yet, under English law, foreign money is still regarded, in its legal aspect, as "money". Any argument to the contrary was laid to rest by the Court of Appeal in *Camdex International Ltd v Bank of Zambia* [1997] CLC 714, where Phillips LJ noted that, in the event foreign currency is specified in a contract as the means of payment it retains its character as a medium of exchange.

Foreign money also constitutes money for a host of purposes reflected in legislation – for example, the policy objectives of the Forgery and Counterfeiting Act 1981 – including for the purposes of the Financial Collateral Arrangements (No 2) Regulations 2003, SI 3226/2003, where "cash" is:

> '… money *in any currency* credited to an account, or a similar claim for repayment of money and includes money market deposits …' (emphasis added).

Crucially, there is no reason to believe that foreign money is not negotiable under English law, just like pounds sterling. Banknotes and coins will still, it is to be strongly inferred, count as negotiable chattels such that they can be transferred by mere delivery.

If the analogy between virtual and foreign currencies has merit, this suggests that it is not safe to infer, as the judge appears to have done in *Florida v Espinoza*, that virtual currencies cannot be classified as money unless and until they have achieved acceptance as a common means of exchange in the domestic economy.

A STORE OF VALUE

Judge Pooler in *Espinoza* also rejected the argument that Bitcoins could be money on the grounds that the tokens do not act "as a store of value". In this she may have been referring to established economic, rather than legal, approaches to theorising virtual currencies. In its 2014 Q3 Quarterly Bulletin, the Bank of England, in the course of considering innovative payment systems, observed that:

> '… something may be considered money from the perspective of economic theory to the extent that it serves as a medium of exchange with which to make payment; a store of value with which to transfer "purchasing power" (the ability to buy goods and services from today to some future date); and a "unit of account with which to measure the value of any particular item for sale"'.

Feature

Biog box

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A similar account was given by the European Central Bank in a paper on *Virtual Currency Schemes* published in October 2012. And, as we have seen, the paper expressed doubt as to whether virtual currencies could be sufficiently safe and reliable to act as a "store of value".

In its 2014 Q3 Quarterly Bulletin, however, the Bank of England noted that DLT is adept at resolving the "double-spend problem", reduces the credit, liquidity and operational risks that can beset more conventional payment systems and eliminates the fraud risk associated with identity theft or card theft. It observed that the 'risk of direct loss of digital currencies is higher than that for deposits' but the loss of a virtual wallet remains "analogous to" the risk of loss of a physical wallet along with its contents in the form of coins and notes. If this is correct, well-engineered virtual currencies are, in general, no less effective as a "store of value" than "real world" currencies. (The one note of continuing caution sounded by the Bank of England in this regard was the remote risk of system-wide fraud on cryptocurrencies like Bitcoin reflected in what is commonly called "the pool of miners scenario".)

E-MONEY: IT'S MONEY, JIM, BUT NOT AS WE KNOW IT ...

In *Mann*, Proctor observes that a funds transfer has many of the hallmarks of a payment in cash. Moreover, both the transferor and transferee will think of themselves as having dealt in "cash" or "money" – rather than in claims on the bank account provider(s) – and will also strongly think of themselves as possessing and owning that money when funds are credited. Proctor concludes that this:

> '… would appear to justify the earlier conclusion that funds standing to the credit of a bank account should be regarded as "money" for legal purposes.'

Proctor also extends the analysis to "e-money", which includes pre-paid cards (like Oyster cards), pre-paid accounts online (eg Paypal) and balances on electronic devices (such as mobile telephones).

What is interesting about his analysis is the implicit view that a functional definition of money is appropriate. Money has traditionally been both tangible and "in possession" – the fact that negotiable instruments simultaneously represent a chose in action does nothing to change that –and a strictly traditional approach might suggest that it cannot exist outside those categories. Proctor, however, rejects this approach, in favour of a flexible, modern definition which better accords with the common understanding of money.

This account of money has implications for virtual currencies. Once it is accepted that electronic money – ie money which is not constituted by tangible property and therefore cannot be the subject of physical control – can be possessed and that ownership can pass with possession, key objections that might otherwise exist to accepting virtual currencies, in their legal aspect, as "money" fall away. Another objection – that virtual currencies are not legal tender and not issued by the State – also falls away, since bank deposits and e-money are obligations issued by private organisations.

IMPLICATIONS FOR REGULATING VIRTUAL CURRENCY

The fact that virtual currencies may, as to their legal aspect, have a strong claim to negotiability as "money", does not necessarily entail that they should be treated as "money" in all contexts.

Money is defined for a broad array of legal, economic and financial purposes and the analysis of virtual currencies in their relation to those definitions should not be rigidly pre-determined across all categories. Virtual currencies have similarities with money, commodities, securities and instruments of payment and it may be appropriate to regulate schemes by analogy with commodities or securities accordingly.

CONCLUSION

This article expresses the view that virtual currencies which have achieved status as a medium of exchange within a significant user community, which are sufficiently robustly engineered to achieve economic value and which have proved to be not only transferable but tradable, have a good claim to be regarded as money. If so, they will be negotiable. Since this does not sit easily with the traditional distinctions between choses in possession and choses in action there may be an argument for recognising the new reality of the digital world and extending the traditional legal categories so as to recognise virtual choses in possession as a new form of property. ■

The Financial Markets Law Committee ("FMLC" or "Committee") was established in 2002 to address issues of legal uncertainty affecting wholesale financial markets. As part of its remit, the Committee has undertaken work on the topic of virtual currency on recommendation by stakeholders that exploratory work on virtual currency would be of benefit.

For further information visit www.fmlc.org

This article is based on the FMLC Paper entitled 'Issues of Legal Uncertainty Arising in the Context of Virtual Currencies'.

1 Following the submission of this article, a decision was reached by US District Judge Alison Nathan in *US v Murgio* et al, US District Court, Southern District of New York, No 15-cr-00769 that Bitcoins qualify as money. According to Judge Nathan – and in contrast to the reasoning in *Florida v Espinoza* – '[Bitcoins] can be accepted as a payment for goods and services or bought directly from an exchange with a bank account. They, therefore, function as pecuniary resources and are used as a medium of exchange and a means of payment.'

Further Reading:

- Misappropriation of cryptocurrency: propelling English private law into the digital age? [2016] 5 JIBFL 263.
- Virtual money in the virtual bank: legal remedies for loss [2016] 3 JIBFL 150.
- LexisPSL: Financial Services: virtual currencies – essentials.