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1 Crypto-assets Regulation in the UK: An Assessment of the Regulatory Effectiveness and Consistency

Abstract

4 Purpose
The UK authority published its first regulatory guidance on crypto-assets in July 2019. This paper aims to critically evaluate the effectiveness of the crypto-asset regulation in the UK and the consistency of the existing regulatory scheme.

8 Design/methodology/approach
This paper adopts comparative methods to carry out the analysis. The paper begins by elaborating the development of crypto-assets alongside the financial innovation in the world and pinpointing the core Acts and Regulations applied to crypto-assets in the UK. The paper also discusses a court case in the EU to highlight an argument among legal professions concerning crypto-assets classification.

15 Finding
Through carefully analysing relevant primary and secondary legislation of the UK and EU, this paper identifies some unclarified issues in the regulatory framework and discovers three flaws in the regulatory system. The paper concludes that the effectiveness of the current regulatory scheme is poor and room for improvement exists.

21 Originality/value
The paper provides the first review and a thorough analysis of the Laws and Acts applied to the crypto-asset regulation in the UK. It also calls on a simpler and clearer regulatory scheme from the perspectives of market participants and consumers. The discovered issues in the crypto-asset regulation in the UK may urge authorities to improve the existing regulatory frameworks and legal provisions.

Keywords: FinTech, Crypto-assets regulation, Bitcoin, Cryptocurrency
Introduction

The Financial Conduct Authority (FCA) finalised a framework in July 2019 to regulate business activities of crypto-assets (FCA, 2019b). Crypto-assets were created as ‘a purely peer-to-peer version of electronic cash’ by Nakamoto in 2008 (Nakamoto, 2008, p.1). Crypto-assets use Blockchain — ‘a shared, immutable record of peer-to-peer transactions built from linked transaction blocks and stored in a digital ledger’ (Holloway, 2017, pp.3-4), which is one application of the Distributed Ledger Technology (DLT)—distributed network technology (Reyes, 2017, p.8).

Crypto-assets carry multifaceted characteristics consisting of virtual property and financial products and have been adopted in payment transactions, financial instruments, investments and corporate coupons (The World Bank, 2017; HM Treasury et al., 2018; FCA, 2019b). Although the technology comes with enhanced efficiency and security (Holloway, 2017), it offers an anonymous network for value transactions without financial intermediaries, which has caused concerns over financial crimes, such as money laundering (Albrecht et al., 2019; Blundell-Wignall, 2014; Brown, 2016; Irwin and Turner, 2018). A trade-off exists in policymaking between regulation and financial inclusion: strict regulation of crypto-assets will impede technology innovation and investments; non-intervention may expose investors and consumers to risks. Is the existing regulatory framework effective and consistent and what is its impact on market participants? This paper intends to examine the consistency and effectiveness of existing regulatory regimes in the United Kingdom (UK) and identifies potential issues, accordingly.

Crypto-assets have been involved in financial misconduct in some countries. The knockdown of a dark web—Silk Road in the United States (US) in 2013 (US v Matthew Jones, 2014) and the arrest of two former Federal agents in 2015 (US v Carl Mark Force IV, 2015) marked the first combat of crypto-assets crime in the world. More than $1.5 million US Dollar worth of...
money was involved and the illicit earnings were laundered on an international crypto-assets platform—BTC-e (Magnuson, 2020, p.95). The BTC-e was ordered shut down and the owner, Alexander Vinnik (Russian), was arrested in Greece in July 2017 (NDC-Department of Justice, 2017) and was remanded in custody in Greece (BBC News, 2019) at the time of writing. Also in 2017, a cross-border and large-scale money laundering group was shut down by the European Union Agency for Law Enforcement Cooperation (Europol), 23 people were arrested. The involved amount was around €2.5 million, and the criminals were from Spain, Colombia and Venezuela (Europol, 2019a). In earlier 2019, the Europol, Canada and the United States of America (US) Joined Forces targeted the users of controlled products on dark web marketplaces, 61 people were arrested, and 50 illicit dark web accounts were closed, the involved amount was over €6.2 million (Europol, 2019b). The soaring popularity and cross-border use of crypto-assets used for internationally organised crimes or potential illegal purposes stress why competent authorities around the world must deliberate on the establishment of regulatory schemes.

As of June 2020, there were over 5,537 crypto-assets[1] and more than 265 crypto-assets exchanges[2] available online. The number of crypto-assets doubled from July 2019.[3] Bitcoins, the original and by far the most popular crypto-assets launched in January 2008 (Nakamoto, 2008) hold the majority of the global market shares (CoinMarketCap, 2020) and have been used as intermediaries for value transactions worldwide. Walch (2015, pp.40-41) believes that the DLT makes value transactions more efficient, economical, secure and transparent and explains that ‘open-source software is less vulnerable and more resilient than proprietary software, because the development of the software is transparent, and since more eyes are looking for bugs, more bugs will be noticed and fixed’. Authorities are also following up with the technology development (Arner et al., 2017), such as Regulatory
Technology (FCA, 2017) that aims to enhance the efficiency of market oversight, reporting
and compliance.

The FCA set forth a relevant regulatory framework of crypto-assets in 2019 under the
(RAO 2001) and the Perimeter Guidance Manual 2019 (PERG 2019) and categorises crypto-
assets into four types: security tokens, e-money tokens, exchange tokens and utility tokens.

Of which, the security token and e-money token fall within the regulatory perimeters of the
FCA corresponding to specified investment/financial instruments and e-money, respectively.

However, regulatory flaws exist. Article 76 of the RAO 2001 regarding shares of specified
investments contains convoluted phrases, which may perplex market participants; the PERG
2019 allows exemptions for the European Economic Area (EEA) firms operating in the UK
and through the internet under the single market system, however, EEA licensed crypto-
assets may fall outside the regulatory perimeters of the FCA.

For instance, the European Banking Authority (EBA) categorises crypto-assets into three
types: investment tokens, exchange/payment tokens and utility tokens (EBA, 2019, pp.6-7)
and Bitcoin-like tokens that fall outside the regulatory perimeters of the FCA (FCA, 2019b)
are grouped into exchange/payment tokens and are able to apply for licences in the EU (EBA,
2019, p22).

In addition, the classification of crypto-assets in the UK presents some flaws. A crypto-asset
may fit in multiple categories, for instance, utility tokens can be identified as investment
tokens, exchange tokens or e-money tokens. The FCA states that falling into the regulatory
perimeters does not determine the regulatory status, while crypto-assets may move from one
category to another during their business cycle. Therefore, the FCA will identify the
regulatory status of crypto-assets on a case by case basis (FCA, 2019b). This complicates the
regulatory process for both market participants and the regulator and indirectly increases the
cost of financial technology (FinTech) firms. This regulatory regime is inflexible and inefficient in response to the rapid technology innovation in the financial sector. The regulatory complexity may also cause managerial uncertainty at UK firms; cumulative managerial uncertainty can further transfer to consumers through the markets and incur risks. This paper intends to address the flaws in current regulatory regimes in the UK and draw attention to potential risks.

Background

Definition of crypto-assets and relevant literature

Crypto-assets, as one of the notable outcomes of FinTech—built on DLT and Blockchain, offer a new approach for value transactions with enhanced privacy and efficiency. These crypto-assets operate as an intermediary of exchange at a person-to-person level enabling direct payments between individuals (Badev and Chen, 2014, p.5; Walch, 2015, p.6; The World Bank, 2017, p.IV; Houben and Snyers, 2018, p.15; Dryall, 2018, pp.15, 158-161).

Crypto-assets transactions are anonymous or semi-anonymous and processed on peer-to-peer networks using encrypted keys that are generated randomly and held by transaction parties only (Li et al., 2019).

The DLT refers broadly to a distributed network technology that:

(1) [E]nables users to upload programs and to leave the programs to self-execute; (2) maintains a permanent and public record (ledger) of the current and past states of every program; (3) is distributed; (4) uses public key cryptography for authentication; and (5) uses a consensus mechanism to ensure that the network maintains the technology’ (Reyes, 2017, p.8).
Blockchain is a shared, immutable record of peer-to-peer transactions built from linked transaction blocks and stored in a digital ledger. … Blockchain is alleged to be: (1) Transparency and Privacy; (2) Security and Reliability; (3) Trust and Integrity (Holloway, 2017, pp.3-4).

The technology establishes point-to-point or peer-to-peer networks enabling permissionless and anonymous transactions, which causes issues in identifying the rights and liabilities. The initial idea of peer-to-peer networks was to share music files freely and anonymously within users on a music platform, ‘Napster’, using ‘BitTorrent’ (Stern, 2000, p.4). Napster was charged with infringement of copyright for indirectly distributing music files without authorisation and was ordered shut down in 2001. Although Napster did not directly breach copyright as the peer-to-peer network did not hold or store music (A&M Records, Inc. v. Napster, 2001), the technology was banned (Brown, 2016, pp.330-331). The idea of peer-to-peer sharing was well received, while the ban of Napster was criticised by online users and legal professions for undermining creation in the music industry (Shih and Ku, 2002, p.263; Landes and Lichtman, 2003, p.119).

Similar to Napster, the peer-to-peer network allows anonymous crypto-asset transactions. The anonymity together with the permission-less network has opened a window for financial misconduct (Murray, 2019, pp.438-452). This has challenged the regulatory capacity of the financial sector (Buocz et al., 2019; Vandezande and KU Leuven Centre for IT & IP Law, 2018; The World Bank, 2017; Dryall, 2018).

The creator of Bitcoins, Nakamoto, states that

[P]urely peer-to-peer version of electronic cash would allow online payments to be sent directly from one party to another without going through a financial institution. ... We propose a solution to the double-spending problem using a peer-to-peer network. The network timestamps transactions by hashing them into an ongoing chain of hash-based proof-of-work, forming a record that cannot be changed without redoing the proof-of-work. ... As long as a majority of CPU power is controlled by nodes that are not
cooperating to attack the network, they'll generate the longest chain and outpace attackers (Nakamoto, 2008, p.1).

The Organisation for Economic Co-operation and Development (OECD) emphasises the potential issues of crypto-assets in consumer protection, including value volatilities and business shutdown (Blundell-Wignall 2014, p.7); the International Monetary Fund (IMF) discusses the risks of crypto-assets and urges authorities to introduce relevant regulations to ensure market integrity (IMF, 2018); a joint publication of Her Majesty’s Treasury (HMT), the FCA and the Bank of England (BoE) discusses the features of crypto-assets and provides the definition (HM Treasury et al., 2018).

Academic studies have investigated some crypto-assets related issues, such as user privacy and cybersecurity (Li et al., 2019; Ng and Kwok, 2017; Buocz et al., 2019), money laundering and terrorism financing (Vovchenko et al., 2017; Teichmann, 2018; Turner and Irwin, 2018; Albrecht et al., 2019; Irwin and Dawson, 2019), however, discussions on the Laws and Regulations of crypto-assets in the UK are sparse. There are institutional studies and books providing overviews of the regulations of crypto-assets around the world. For instance, Norton Rose Fulbright (2015) gives an introduction of the global legal framework of crypto-assets in 2015; Arner and others (2017) emphasise the importance of digital innovation in regulation and suggest sequenced reforms; the Law Library of Congress (2018) studies the regulation of crypto-assets in multiple countries in 2018; The Cambridge Centre for Alternative Finance provides an overview of crypto-assets development around the world in 2019 (Blandin et al., 2019); and Dean and others (2019) list the associated issues of crypto-assets with the financial systems; Hughes (2020) reviews the definitions and functions of crypto-assets and global responses. These studies only summarise crypto-assets regulations in different countries. In addition, official working papers of the UK focus on the
interpretations of the aims, scope and process of the regulatory frameworks (HM Treasury et al., 2018; FCA, 2019a), whilst the evaluations of their regulatory schemes are absent.

Regulatory Framework of Crypto-assets in the UK

The Legal Basis

The FCA published a consultation paper in January 2019 to collect feedback on its initial regulatory framework (FCA, 2019a). Within six months, the FCA received feedback from 92 parties of 10 sectors, including large banks, FinTech firms, crypto-assets issuers, exchanges, and custody service providers. Based on the feedback, the FCA finalised the guidance of crypto-assets regulation in July 2019 by virtue of a document titled ‘Guidance on Crypto-assets Feedback and Final Guidance to CP 19/3’. The objective of the final guidance is to provide clarification on crypto-assets falling within or outside the regulatory remits of the FCA and to set forth the obligations on market participants (FCA, 2019b).


The FCA categorises crypto-assets into four types of tokens: security tokens, e-money tokens, exchange tokens and utility tokens. Security tokens and e-money tokens are grouped in the category of regulated tokens, otherwise unregulated tokens. Generally, security tokens refer to crypto-assets presenting similar characteristics as traditional shares or debentures; e-money tokens are the crypto-assets that fall into the definition of e-money under the EMR 2011; exchange tokens refer to crypto-assets used as a means of remittances, such as Bitcoins;
utility tokens are crypto-assets that allow holders to have access to the current or prospective product or services with agreed conditions (FCA, 2019b, p.30).

Identifying the regulatory status of crypto-assets follows three steps. First, market participants shall identify if they are carrying on activities by way of business in the UK under the PERG 2019 and Sections 22, 418 and 419 of the FSMA 2000. In addition, Schedule 2 of the FSMA 2000 pinpoints that By Way of Business in the UK refers to business or business-like activities in the UK including domestic and overseas registered venues. However, this excludes individuals (excluding self-employed or freelancers) and non-profit institutions that carry on irregular commercial activities (FCA, 2019c, section.2.3).

The second step requests market participants to identify if their crypto-assets fall within the definition of specified investments under Part 3 of the RAO 2001. Some financial instruments defined under the MiFID II are recognised as certain types of investments and mapped to the RAO 2001 (FCA, 2019b, p.29).

The third and final step is to identify whether crypto-assets fall within the definition of e-money under the EMR 2011 (FCA, 2019b, p.30) if crypto-assets fall outside the categories of specified investments. Crypto-assets products falling outside the definitions of both specified investments and e-money are categorised as unregulated tokens.

Regulated Crypto Tokens

Crypto tokens that show clear ownership rights or contractual rights are classified as regulated tokens in the UK (FCA, 2019b, pp.14 and 34-39). Token holders may participate in multiple crypto-assets activities, only tokens that fall within the definition of security tokens and e-money tokens are regulated by the FCA (FCA, 2019b, pp.40-48).

Security Tokens
The FCA classifies security tokens following the definition of ‘Specified Investments’ under the RAO 2001 (FCA, 2019b, p.40). The classification focuses on the legal titles of crypto-assets investments and whether the legal titles are negotiable and transferable on capital markets. Specified investments of the kind include Shares, Debentures, Warrants and Units in Collective Investment Schemes.

Shares of crypto-assets are defined under Article 76 of the RAO 2001. Crypto-assets shares shall be registered under the names of a natural/legal person/persons, who can provide clear identity information of the ownership. The shareholders can be any person in the UK or overseas constituted under the law of the country. Crypto-assets present similar properties as shares of specified investments and are negotiable and transferable on the capital markets are considered as security tokens in accordance with business operation, corporate law and MiFID; the operation of a company can be used as a reference but not determinants (FCA, 2019b, p.41).

Crypto-asset debentures are defined under Article 77 of the RAO 2001—‘instruments creating or acknowledging indebtedness’. This category refers to debentures, debenture stock, loan stock, bonds, certificates of deposit and any other instrument creating or acknowledging indebtedness. This does not include borrowed money for defraying or paying goods or services and heritable security which might be payable using crypto-assets, and it does not include government and public securities. The certificates of deposit are unlikely to be recognised as crypto-assets and are not yet treated as deposits. Negotiable and transferable indebtedness crypto-assets could be treated as security tokens under MiFID II only if the legal titles of token holders are clear or identifiable and have the rights to trade on capital markets (FCA, 2019b, pp.42-43).

Crypto-assets acting as warrants follow the definition “Warrants” under Article 79 of the RAO 2001—‘investments giving entitlements to investments’. Warrants give the rights to
crypto-assets holders to access specified investments, including token-like shares and
debentures under Article 76 and 77 of the RAO 2001. Warrants refer to the rights that the
token issuer grants token holders to participate in new specified investments directly.

Units in Collective Investment Schemes refer to pooled investments including internet-based
crowdfunds. Units in Collective Investment Schemes define that investors gaining benefit
from the rising income/profit of specified investments based on the proportions of their token
shares under Article 80 and 81 of the RAO 2001. The pooled investments refer to one
specified investment at a time, investing in multiple specified investments is treated as
separate specified investments, even if the investments are operated by the same issuer.

However, whether collective token investments fall within the regulatory perimeters of the
FCA depends on the agreements or prospectus of the investments, while collective
investments involving exchange tokens or utility tokens also fall outside the regulatory
perimeters of the FCA (FCA, 2019b, p.44).

E-money Tokens

The FCA defines e-money tokens under the EMR 2011 and Article 9b of the RAO
2001(FCA, 2019b, p.40). Authorised e-money must be a representative equivalent to the
value of users’ funds and widely accepted in society (Electronic Money Regulations 2011, SI
2011/99, regs. 2 and 3). E-money token issuers can only be third parties in providing
transaction services with stabilised rates against fiat money and comply with capital
requirements, recordkeeping and money laundering regulation. E-money tokens issued by
credit institutions, credit unions and municipal banks for the purpose of debt securities, shall
meet a minimal value of redemption of £100,000 or equivalent value of other currency and
shall have an office situated in the UK (Electronic Money Regulations 2011, SI 2011/99,
reg.6).
The FCA will identify e-money tokens on a case by case basis. There are possibilities of not being recognised as e-money tokens even crypto-assets falling within the definition of e-money under the EMR 2011 and meet the abovementioned criteria (FCA, 2019b, p.45).

Unregulated Crypto Tokens

The FCA classifies exchange tokens and utility tokens as unregulated tokens (FCA, 2019b, pp.34-36). Unregulated tokens are mainly anonymous and can be transferred directly among users or through crypto-assets service providers. Bitcoins and bitcoin-like crypto-assets are unregulated tokens. Although these tokens fall outside the regulatory perimeters of the FCA, they shall comply with the Fifth Anti-Money Laundering Directive (Council Directive (EU) 2018/843, 2018) (AMLD5) of the EU and the Money Laundering and Terrorist Financing (Amendment) Regulations 2019, SI 2019/1511 (MLR 2019) of the UK.

Exchange Tokens

Exchange tokens refer to crypto-assets used for payment transactions or trading on crypto-asset exchanges or stored on custody wallets. The FCA denotes that exchange tokens do not need existing regulatory permissions as there are regulatory rules applying to unregulated crypto-assets. These rules include the Principles for Business (PRIN) 2020 for commercial conduct and the Senior Managers and Certification Regime (SMCR) 2019 for individual conduct, as well as the Banking: Conduct of Business sourcebook (BCOBS) 2020 for banks and financial firms. These rules are applicable to insurers and other FCA regulated firms with activities under the definition of ‘SMCR financial activities’ including regulated activities and activities in connection with a regulated activity no matter when the connection takes place.
The FCA has recognised the incremental use of exchange tokens and the DLT. However, some characteristics of exchange tokens made them fall outside the regulatory perimeters of the FCA. For instance, anonymity and value volatility. Thus, firms using crypto-assets to facilitate regulated payments must have the correct permission and must follow the relevant Laws and Regulations. This includes, but is not limited to, the Payment Services Regulations 2017, SI 2017/752 (PSR 2017), and from 1 August 2019, PRIN 2020 and BCOBS 2020. Certain activities of exchange tokens are regulated under the MLR 2019 implementing of the AMLD5.

Utility Tokens

Utility tokens refer to crypto-assets acting like ‘a current or prospective product or service and often grant rights similar to pre-payment vouchers’ (FCA, 2019b, p.36). Utility token owners can be anonymous and trade or exchange their tokens on secondary markets and use their tokens for speculative investment purposes. Utility tokens have a wider range of characteristics that are similar to all other three token classes. Therefore, further clarification of the regulatory perimeters of utility tokens is needed.

Methodology

FinTech blends the subjects of technology and finance, and it becomes more complex when business activity and market regulation engage. To reflect the interdisciplinary nature, this paper employs a comparative legal analysis to estimate the effectiveness of current regulatory frameworks of crypto-assets in the UK. The comparative legal analysis can be used in interdisciplinary subjects (Legrand, 1996) and multi-markets research (Siems and Deakin, 2010). It allows the discussion of ‘micro-legal questions’— a specific legal problem, such as a specific provision of a statute or code, or a
specific case or line of cases (Siems, 2008), and assists to identify if ‘the subdivisions of a
general concept or field are in a logical, systematic, succinct, and complete way’(Van Hoecke,
2016, p.16).

FinTech has developed internationally within a short period. Relevant laws and regulations of
crypto-assets in most countries are still at their initial phases. Regulatory challenges seem
inevitable given the interdisciplinary nature of FinTech, such as balancing financial
innovation of crypto-assets and consumer protection (Baer and Pavel, 1988; Yeoh, 2017),
whereas evaluation of their regulatory frameworks has lagged behind.

Adopting a comparative legal analysis, this paper works up a new perspective on the
challenges in financial regulation in the UK and attempts to encourage interdisciplinary
discussions on the effectiveness of crypto-assets regulation—if the established regulatory
framework is logical, simple to understand and clear to comply with and if it serves the
mission of the regulator, the FCA, that is to ‘enhancing trust in markets, improving how
markets operate, delivering benefits through a common approach to regulation, and working
to prevent harm from occurring’ (FCA, 2017).

The comparative law is, therefore, not just another positivist approach that merely concerned
with the rules of a legal system. It is unravelling the use of the law in an interdisciplinary
subject and enhances the originality of this paper. A thorough discussion on potential issues
of crypto-assets regulation in the UK may assist in decision-making and multi-dimensional
improvements.

Analysis of Crypto-asset Regulation in the UK

Concerns over Crypto-assets Classification

A clear classification of crypto-assets helps market participants and legal professions to
identify the regulatory status of crypto-assets. A German court case taking place in 2018
could be an example to see how crypto-asset classification could affect prosecution proceedings. The court case between a Bitcoin service provider and the public prosecutor's office of Berlin (“Citizen Service Berlin - Brandenburg - Criminality of trade in bitcoins”, 2019) revealed an issue in identifying the regulatory position of Bitcoins among legal professions — whether Bitcoins are ‘financial instruments’ (The Law Library of Congress, 2018). The lawsuit was on the ground that Bitcoins were financial instruments according to the Federal Financial Supervisory Authority of Germany (BaFin) (2017), therefore the service provider shall apply for a licence to provide banking services and was liable to carry out due diligence measures. However, the court opinion was opposite and adjudicated that Bitcoins were not financial instruments (“Banking Act (KWG)”, 2014, s.1(11) (f)) as Bitcoins were neither legal tender nor units of accounts (Act on the Prudential Supervision of Payment Services (Payment Services Supervision Act) 2009, ss.(1a)(1)(5) and (1a)(3)). Both the public prosecutor's office and the court referred to Section 1(11) of the Banking Act 2014, Germany. The dispute was caused by whether Bitcoins were ‘Financial Instruments’ or ‘Payment Instruments’.

The BaFin defines crypto-assets as financial instruments under the Banking Act 2014 regardless of the technology applied (BaFin, 2017). Bitcoin-like crypto-assets are recognised as financial instruments because they are ‘comparable to foreign exchange; value units which function as private means of payment in barter transactions that is used as means of payment’(BaFin, 2017). However, the Banking Act 2014 excludes payment instruments from the definition of financial instruments under the German Payment Services Supervision Act 2009 (Act on the Prudential Supervision of Payment Services (Payment Services Supervision Act) 2009, ss. (1a)(1)(5) and (1a)(3)). Since crypto-assets ‘do not represent any claims on an issuer, as in their case there is no issuer’ (BaFin, 2017), therefore they are not recognised as payment instruments in Germany, thus, associated service providers do not require banking
licences. The conflict over the German court case lays bare the fact that an unclear
classification of crypto-assets could lead to misunderstanding, while similar issues may also
take place in the UK as the FCA’s classification is even more complicated.

The FCA defines security and e-money tokens as regulated tokens, unregulated tokens
otherwise (FCA, 2019b, p.34). This classification seems simple, whereas it is practically
more complicated than it looks. For example, the FCA states that identifying the regulatory
status of crypto-assets (both regulated and unregulated) is on a case by case basis; one or
more factors that make a token falling within or outside the regulatory perimeter are not
determinative; while crypto-asset may move between the regulatory categories during their
existence. The FCA also requires firms to identify relevant permissions themselves and
consult independent advice (FCA, 2019b, p.32).

This ambiguous classification reflects the policy indecision about crypto-asset regulation: on
the one hand, the FCA intends to encourage financial innovation and investments, which
allows unregulated tokens to operate in the UK (FCA, 2019b, p.51); on the other hand, the
regulator must ensure consumer protection. This implies policy uncertainty on token
businesses. For instance, the current regulatory perimeters categorise products that reference
crypto-assets as financial instruments under MiFID II as regulated tokens, including
derivative instruments (FCA, 2019b, p.45). However, some unregulated tokens that possess
properties of securities or derivatives are also financial instruments under MiFID II, such as
BitCoins. This ambiguity may incur risks, especially to uninformed consumers. The FCA
recognises this issue (FCA, 2019b, pp.40 and 45) and further introduced a ban in October
2020 on the marketing, distribution and sale of derivatives and exchange traded notes (ETNs)
that reference crypto-assets to retail consumers. The rule applies to both UK and EEA MiFID
investment firms and comes into force on 6 January 2021 (FCA, 2020).
In addition, the FCA’s guideline is inconclusive and costly, especially to market participants. For instance, identifying the regulatory status of crypto-assets on a case by case basis implies a slow licensing process and requires more specialists. This implies extra cost to firms including time and financial cost as well as opportunity cost: a slow process means firms need to wait longer to launch/operate their businesses and pay more on bank loans interests if they borrowed some; business opportunities may slip away during the time of waiting for permission. Meanwhile, a slow process can lead to a backlog of business registrations and delays in an Initial Coin Offering (ICO); investments may go to another country, which has a simpler and faster-licensing process. Additionally, the indeterminate official guidelines will puzzle market participants since falling within the regulatory perimeters does not mean business permission; third party specialists may also hold different viewpoints from one to another due to the unclear classification. The unclear classification may also offer room for financial misconduct and cause conflicts in the regulatory process and legal proceedings.

In sum, the current regulatory framework requires further clarification. The abovementioned regulatory issues may become more prominent when the number of market participants increases. The FCA has admitted that there are some ‘inherent structural differences’ amongst securities markets (FCA, 2019b, p.16) and ‘believes’ that the final guidance for security tokens is sufficient to market participants and will continuously monitor the developments in the unclarified areas while the market is maturing (FCA, 2019b, p.23).

**Regulatory Flaws**

In addition to the concerns over crypto-asset classifications, this paper discovers some flaws in the regulatory system. These flaws relate to the core provisions of crypto-assets regulation.

*A Regulatory Flaw in Specified Investments*

The first flaw exists in Article 76 of the RAO 2001 — shares of specified investments.
76.— (1) Shares or stock in the share capital of—
(a) any body corporate (wherever incorporated), and
(b) any unincorporated body constituted under the law of a country or territory outside
the United Kingdom.

(2) Paragraph (1) includes—

(b) any transferable shares in a body incorporated under the law of, or any part of, the
United Kingdom relating to industrial and provident societies or credit unions, or in a
body constituted under the law of another EEA State for purposes equivalent to those of
such a body.

(3) But subject to paragraph (2) there are excluded from paragraph (1) shares or
stock in the share capital of—

(b) a building society incorporated under the law of, or any part of, the United Kingdom;
(c) a body incorporated under the law of, or any part of, the United Kingdom relating to
industrial and provident societies or credit unions;

This Article seems mutually exclusive. Paragraph (1) states that this regulation applies to
both incorporated and unincorporated bodies operating in the UK wherever registered.
Specifically, Paragraph (2)(b) includes transferable shares of industrial and provident
societies or credit unions, or in a body constituted under the law of another EEA State in
Paragraph (1), whereas Paragraph (3) excludes shares of those from Paragraph (1) subject to
Paragraph (2).

The term ‘transferable’ in Paragraph (2)(b) refers to shares that can be freely transferred to
any person and at any time in accordance with the issuing company’s articles of association
(Companies Act 2006 c.46, s.544). Thus, transferable shares, as a part of companies’ capital
shares, are included in Paragraph (1) under Paragraph (2)(b) but excluded from Paragraph (1)
under Paragraph (3)(c) and (d). Therefore, the application of this Article depends on
interpretations of legal professions, which sometimes their opinions may differ between one
another; speculators may use this to game the system. The RAO 2001 has been updated
regularly between 2001 and 2021, but this has not yet drawn attention to the legislatures of the UK.

The mutually exclusive provision will perplex market participants: crypto-assets issued by industrial and provident societies or credit unions, or in a body constituted under the law of another EEA State can be classified as both regulated tokens (specified investments) and unregulated tokens (non-specified investments) under Articles 76(2)(b) and 76 (3)(c)(d) of the RAO 2001, respectively.

The regulatory conflict implies policy uncertainty and exposes consumers to risks. It heightens the cost of identifying relevant compliance measures; misapprehension will affect business activities, such as financial promotion, which may further misguide consumers and induce unnecessary regulatory penalties. Therefore, authorities may consider clarifying the Article, accordingly.

Regulatory Flaws under the Single Market System

The second flaw presents in the PERG 2019 in terms of e-commerce from the EEA.

According to the PERG 2019 (section 2.4), a firm registered and established a business venue in the UK shall comply with the Carrying on Regulated Activities by Way of Business wherever registered including overseas persons (PERG, 2019, section 2.4.6). However, overseas persons (PERG, 2019, section 2.9.15G) and e-commerce (except insurance businesses) from the EEA member states are exceptional to the PERG requirement under the single market system (European Commission, n.d.).

(1) In accordance with article 3(2) of the E-Commerce Directive, all requirements on persons providing electronic commerce activities into the United Kingdom from the EEA are lifted, where these fall within the co-ordinated field and would restrict the freedom of such a firm to provide services. ... (2) The Regulated Activities Order was amended by the Financial Services and Markets Act 2000 (Regulated Activities) (Amendment)
This Order creates a general exclusion from regulated activities (except for the regulated activities of effecting or carrying out contracts of insurance). Where activities consist of electronic commerce activities, an incoming ECA provider will not require authorisation for such activities in the United Kingdom.

The general exclusion may function well if the regulatory requirement of crypto-assets across the EEA countries is harmonised. For example, Bitcoin-like products that are unregulated in the UK can obtain a licence in some EEA countries and then operate in the UK through the internet.

In addition to business authorisation, the disparate regulatory regimes of crypto-assets within the EU (Brophy, 2019) and the single market system may cause another regulatory issue, which is the third flaw this paper has diagnosed. Some EU countries, such as Germany and Malta, have established regulatory frameworks for crypto-assets businesses including Bitcoin-like products (The Virtual Financial Assets Act 2018, Cap.590, s.2(2), p.3; BaFin, 2017). Although all firms that carrying on regulated activities in the UK are required to comply with the FSMA 2000, such as general prohibition and financial promotion (FCA, 2019b, pp.33-34), EEA firms may operate and promote their crypto-assets without authorisation in the UK under the general exclusion of the PERG (2019, section 2.9.15G).

Unregulated crypto-asset products and services provided by EEA firms either through the internet or in the UK can be mistakenly recognised as regulated tokens by uninformed consumers; associated market activities may mislead consumers, such as financial promotion. Authorities may consider a harmonised regulatory framework within the EEA regarding regulated token types and inform market participants, accordingly.

The second and third regulatory flaws in the UK may be patched after the EU withdrawal.

Table 1 Disparate Regulation of Crypto-assets between the UK and EU
Conclusions

This paper diagnoses several issues in the current regulatory framework of crypto-assets in the UK. These issues bring out the inconsistencies and ineffectiveness in crypto-assets regulations including regulatory flaws. The current regulatory perimeters of the FCA manifest a narrow scope applying to only the minority of crypto-asset products; the most popular crypto-assets are currently unregulated. The complicated classification of crypto-assets indirectly raises the administrative cost of firms and exposes consumers to risks. The current classification of crypto-assets is inflexible. Given the rapid development of financial technology, new varieties of crypto-assets may come into the markets. FinTech firms have to adjust product lines and business models to catch up with the developments; the UK authorities also need to adjust their regulatory scheme following markets variation, accordingly. This situation incurs uncertainty in devising long-term regulation. Authorities must take into account the dynamic connection between crypto-assets and the financial markets and structure a simpler and more practical approach.

The analytical outcome brings to light three flaws in the current legal framework in the UK. The three flaws exist in the secondary legislation, the RAO 2001 and the PERG 2019, respectively, which are the core references of the crypto-asset regulation in the UK (FCA, 2019b). The flaw in Article 76 of the RAO 2001 will cause identification issues not only to crypto-assets but to all ‘specified investments’ in the UK. The disparate regulatory frameworks between the UK and EEA countries call out a harmonised regulatory scheme for crypto-assets regardless of the EU withdrawal.
In sum, the existing regulation on crypto-assets of the FCA is somewhat unclear, incomprehensive and incomplete, and it is complicated and costly to firms. It may cripple the enthusiasm for innovation and investments. Speculators may exploit regulatory vulnerabilities and game the system, which exposes investors and consumers to risk. Such an ineffective regulatory framework can impair market confidence and integrity. Despite money laundering regulation, it is also crucial to establish a harmonised regulatory framework in the EEA to overseeing overall internet-based business activities. The authority may have to reassess the regulatory framework and consider appropriate adjustments.

This paper focuses solely on the effectiveness of the UK crypto-asset regulation; the effectiveness of international collaboration also requires a thorough examination.

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[4] The term of transferable in this definition does not refer to money transactions and remittance among individuals, which separates the security tokens from e-money tokens and exchange tokens.

[5] The court judgement is in German; thus, the information is based on Google translation.
Unregulated tokens in the UK shall comply with the Money Laundering Regulation 2019, which implements the EU Fifth Anti-Money Laundering Regulation Directive. However, anti-money laundering is not the research objective of this paper.
Table I Disparate Regulation of crypto assets between the UK and EU

<table>
<thead>
<tr>
<th>Crypto Assets</th>
<th>Require Authorisation of the FCA (FCA, 2019b)</th>
<th>EU Regulation (EBA, 2019)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Security tokens</td>
<td>Regulated under the MiFID II for financial instruments or the RAO 2001 for specified investments</td>
<td>Refer to investment tokens in the EU. Include ‘ownership rights and/or entitlements similar to dividends’, for example, ICOs. (EBA, 2019, p.7).</td>
</tr>
<tr>
<td>E-money tokens</td>
<td>Regulated under the EMR 2011 and the PSR 2017</td>
<td>Refer to virtual currencies in the EU including exchange and payment tokens (EBA, 2019, pp.6-7). ‘Current EU law does not prohibit financial institutions, including credit institutions, investment firms, payment institutions and electronic money institutions, from holding or gaining exposure to crypto-assets or from offering services relating to crypto-assets. (These types of firm are permitted, pursuant to their licence status, to carry out specified regulated financial services listed in the relevant directive’ (EBA, 2019, p.22). Firms meet certain criteria are regulated under the Electronic Money Directive (Council Directive 2009/110/EC, 2009) for e-money tokens, the Payment Services Directive (Council Directive (EU) 2015/2366, 2015) for payment instruments and the MiFID II for financial instruments (EBA, 2019, pp.7, 12 and 29), accordingly.</td>
</tr>
<tr>
<td>Exchange tokens</td>
<td>Do not require the authorisation of the FCA</td>
<td></td>
</tr>
<tr>
<td>Utility tokens</td>
<td>Do not require the authorisation of the FCA</td>
<td>Under observation (EBA, 2019, p.28)</td>
</tr>
</tbody>
</table>

1. Crypto assets classification in the UK and EU is disparate.
2. Crypto assets regulated in the EU are not necessarily regulated in the UK and vice versa.
Table 2 Regulatory Flaws

<table>
<thead>
<tr>
<th>Related Laws and Regulations</th>
<th>Identified Issues</th>
<th>Regulatory Flaws</th>
</tr>
</thead>
<tbody>
<tr>
<td>RAO 2001, Article 76</td>
<td>Mutually exclusive phrases in the Article</td>
<td>The share-type tokens of industrial and provident societies or credit unions, or in a body constituted under the law of another EEA State can be apprehended as both regulated and unregulated crypto-assets at the same time. Further clarification will help market participants to comply with the law.</td>
</tr>
<tr>
<td>PEGR 2019, Section 2.9.15G</td>
<td>Exception of authorisation for EEA e-commerce</td>
<td>EEA authorised tokens may not be regulated in the UK, however, can operate in the UK through the internet. This flaw can be patched after EU withdrawal.</td>
</tr>
<tr>
<td>EU Single Market System</td>
<td>Disparate regulation of crypto-assets between EEA and the UK (see table 1)</td>
<td>EEA authorised tokens may not be regulated in the UK. However, promoting a token using an EEA licence may confuse UK consumers. This flaw can be patched after EU withdrawal.</td>
</tr>
</tbody>
</table>