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Free banking theory: literature review and relevance to the regulation of cryptocurrencies debate.

Structured abstract

Purpose

Free banking theory as developed in Adam Smith's 1776 treatise, '*The Wealth of Nations*', is a useful tool in determining the extent to which the 'invisible hand of the market' should prevail in regulatory policy. This study's principal purpose is to provide a timely review of the literature, evaluating the theory's relevance to regulation of financial technology generally and cryptocurrencies (cryptos) specifically.

Design/methodology/approach

The methodology is qualitative, applying free banking theory as developed in the literature to technology-defined environments. Recent legislative developments in the regulation of cryptocurrencies in the United Kingdom, European Union, and the United States, are drawn upon.

Findings

Participants in volatile cryptocurrency markets should bear the consequences of inadvisable investments, in accordance with free banking theory.

The decentralised nature of cryptocurrencies and the exchanges on which these are traded militate against coordinated oversight by central banks, supporting a qualified free banking approach.

Differences regarding statutory definitions of cryptos as units of exchange, tokens, or investment securities, and the propensity of these to transition between categories across the business cycle, render attempts at concerted classification at the international level problematic.

Prevention of criminality through extension of Suspicious Activity Reporting to exchanges and intermediaries should be the principal objective of policy makers, rather than definitions of evolving products which risk stifling technological innovation.

Originality

The study proposes that instead of a traditional regulatory approach to cryptos which emphasises holders' safety and compensation, a free banking approach combined with a focus upon criminality would be a more effective and pragmatic way forward.

Keywords. Free banking. Blockchain. Adam Smith's Wealth of Nations. Hayek. Cryptocurrencies. Money laundering.

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1. Introduction

The concept of free banking has a long history. Countries in which it has been applied include Scotland (1716-1845), Switzerland (1851-1906), Sweden (1830-1860, and 1860-1902) and the USA (1837-1863) (Rolnick and Weber, 1983; Gorton, 1985; Lakomaa, 2007). Its characteristics are that there is no central bank which acts as lender of last resort, banks competitively issue their own currencies, and there are no additional banking laws to augment those applicable to companies. Advocates of free banking, including Dowd (1992), Selgin (1988) and Hayek (1976), focused upon the perceived adverse consequences of providing central banks with a monopoly over the production of monetary assets. If these have repeatedly proven incapable of preventing systemic failure or ameliorating the effects of banking crises, and have failed to regulate the supply of credit money, then what is the justification for such a monopoly? (Lall, 2012).

This study's research questions are as follows. First, what is the current state of the free banking literature? Second, how effective have recent regulatory and legislative initiatives been in the UK, EU, and US regarding cryptocurrencies, henceforth cryptos, and does free banking have relevance in this context? Finally, what are the reasons for and against a traditional regulatory approach to cryptos? It is arranged as follows. The next section provides a review of the free banking literature. Section 3 explains the characteristics and qualities of cryptos. Section 4 describes the present state of regulatory efforts in the UK, EU, and US. Section 5 explores the reasons why free banking may be relevant to cryptos, and the reasons for and against traditional regulation of these products. Section 6 concludes, with recommendations.

2. Literature review

In free banking theory there are no capital or liquidity requirements stipulated by a central bank (Hayek, 1976). There are no state- administered safety nets or deposit insurance schemes: if depositors neglect to monitor the institution with which they entrust their deposits, they are assumed to have recognised and consented to the consequences if it fails due to undercapitalisation, risky lending, or weak governance (Evensky, 2011). Bentson and Kaufman (1996, p.688) critiqued a perspective in conventional regulation that banks are structurally fragile due to maintaining low ratios of cash reserves to assets (fractional reserves), and capital to assets (high leverage) relative to short-term debt. They observed (1996, p. 688):

Most economists agree that an unregulated system of enterprise tends to achieve an optimal allocation of resources, given four important assumptions: (a) a given endowment of wealth among individuals; (b) a competitive market; (c) government regulation cannot improve administrative efficiency; and (d) there are no externalities that could justify government interference.

Regarding assumption (b), there is no reason to believe that a market for banking services would not be competitive in the absence of government regulation. For Bentson and Kaufman and paradoxically, banking monopolies and cartels have been an unintended consequence of government policy that restricts entry, or which subsidises a favoured bank or banks. Regulation can stifle competition and act as a barrier to new entrants. This is the present concern of policy makers looking for effective options to regulate the emerging cryptocurrency and blockchain technologies (Yeoh, 2017; Ferreira and Sandner, 2021). In contrast, Goodhart (1991, p. 15) proposed that

competition can be destructive as risk-preferring banks opt to take on higher yielding, riskier loans, resulting in a period of ‘euphoric’ overexpansion by otherwise prudent bankers keen not to lose out on business. In such instances bank assets become over-expanded, leading to bank failure followed by wider economic crisis. In contrast, Boyd and De Nicolo (2005) proposed that competition does not increase banking risk in all contexts. For them, literature proposing that when confronted with increased competition banks rationally choose more risky portfolios has had a significant effect on attitudes of regulators and central bankers but is founded upon evidence which is inconclusive or nuanced. They proposed that there is a risk-incentive mechanism on the asset side of the balance sheet that operates in the opposite direction, causing banks to become riskier as their markets become more concentrated. All things being equal, as competition declines banks earn more rents in their loan markets by charging higher loan rates. This process is exacerbated when so-called ‘ninja (no income, no job, no assets) borrowers are not able to ‘shop around’ for alternative loan sources due to the parlous state of their creditworthiness. For Boyd and De Nicolo (at p. 1330), higher loan rates would imply higher bankruptcy risk, the effect being further reinforced by moral hazard on the part of borrowers who, when confronted with higher interest costs, optimally increase their own risk of failure. A principal characteristic of regulated banking systems which is eschewed in free banking models, state control of production of monetary assets, is considered next.

2.1 Free banking and monetary control

Selgin (1988) explained the relationship between free banking and monetary control with reference to (1) the freedom of banks to issue notes as well as deposits, where

banknotes are a more perfect substitute for base money; (2) a tendency for banknotes to displace completely base money in the currency holdings of the non-bank public; and (3) absence of statutory reserve requirements. For Selgin and White (1994), a *laissez faire* monetary regime comprises no government control of the quantity of exchange media, no state sponsored central bank, no legal barriers to the entry, branching, or exit of commercial banks, and no restrictions on the quantities, types, or mix of debt or equity claims a bank may issue, or on the quantities, types or mix of assets it may hold (Boettke and Smith, 2016). There are parallels with cryptos: issuers are free to issue coins without prior formal authorisation, hence the proliferation of thousands of coins, and there are no legal obstacles to the process. Investors are presumed to be cognisant of the risks inherent in novel and illiquid issues, although as will be seen in section 3 of this study, recent caselaw in the US has held that issuers must comply with prospectus rules as provided in the Securities Act 1933. In free banking there are no deposit guarantees, and no restrictions on the terms agreed between banks and their customers beyond the requirement that they adhere to the legal rules governing business contracts.

For Hayek (1976), in free banking governments withdraw from control of the money supply, and money becomes ‘denationalised’. Private firms are then able to issue competing monies in units of their own choosing such as Mengers, Ducats, Florins, and Talents, and are prevented from over-issuing and collecting seigniorage by the simple constraint of reputation (Grossman and Van Huyck, 1986; Bohn, 2019). In regulated environments, if governments over-issue a monopoly legal tender (no other firms can issue their own notes), thus causing inflation, there is no alternative currency into which depositors can reallocate wealth. However, in a competitive free banking environment,

if one ‘brand’ of money is depreciating, undermined by a firm’s over-issuance, then wealth holders can abandon it in favour of another note or brand (Fink, 2014). Currencies compete by establishing reputations as reliable, stable, medium-term stores of value (Fernandez-Villaverde and Sanches, 2019). Curott (2017) noted that for Smith, competition could automatically regulate the supply of money where each commercial bank is free to issue its own brand of redeemable, fractional reserve banknotes. However, Ahiakpor (2019), suggested that Curott misrepresented Smith’s monetary and banking analyses. Specifically, he alleged that in failing to recognise Smith’s adoption of David Hume’s 1752 quantity theory of price levels and the price-specie-flow mechanism, and Smith’s distinction between money and credit and their sources, and in neglecting Smith’s suggestion of real rather than “fictitious” bills as safer for private bank lending, Curott’s critique of Smith’s theory represents an oversimplification.

Selgin’s claim in a paper in 1988 that the best monetary system to maintain monetary equilibrium is a fractional reserve banking one, has been criticised by Bagus and Howden (2010). The proposition holds that 100 percent reserve banking as well as central banking has economically detrimental effects because it cannot maintain monetary equilibrium, resulting in costly and unavoidable recessions. For Bagus and Howden (at p. 31), fractional reserve free banking not only fails to restore the monetary equilibrium it alleges to create but also generates effects, inflation and deflation, as a consequence of monetary disequilibrium across the business cycle, which most free banking advocates consider detrimental (Horwitz, 1996; Cochran and Call, 2000). Monetary equilibrium is defined by Selgin as “the state of affairs that prevails when there is neither an excess demand for money nor an excess supply of it at the existing

level of prices” (1988 at p. 54). For Selgin, a fractional reserve free banking system adjusts the supply of money to changes in demand, keeping the value of money constant. However, Bagus and Howden (at p. 34) doubted that a heightened precautionary reserve requirement would limit a coordinated credit expansion and maintain monetary equilibrium, as implicit in Selgin’s analysis. They also suggested a confusion between savings and the demand for cash holdings in a fractional reserve free banking system, and between increases in money held with increases in real savings, exacerbating economic cycles when fiduciary media is issued equally under both scenarios. Bagus and Howden’s critique of fractional reserve free banking and Selgin’s support for it was subsequently challenged by Selgin (2012) for being flawed in its understanding of monetary theory, the Austrian theory of the business cycle, and apoplithorismophobia; however, further discussion of Selgin’s response would exceed this study’s remit.

2.2 Free banking and competition between currencies

Hayek’s model in which governments abandon involvement with the money supply has been criticised. For Friedman (1959, at p.6), Fama and Jensen, (1983, at p.13) and Selgin and White (1994), if such an unregulated system has several competing currencies, higher transaction costs might result than would otherwise be the case if a single currency alone was permitted. Briones and Rockoff (2005) noted that high transaction costs could lead to the adoption of one currency so that the unit of account becomes a natural monopoly. For them, and for Friedman (1959) and Fama and Jensen (1983), if one firm emerges with a monopoly it could then be tempted to over-issue, just as a government monopoly issuer would. For Friedman (1969, at p.38) however, a

loosely regulated banking system would permit free entry subject to compliance with company laws, and the freedom to issue currency and hold deposits and pay interest on both. Banks would also be freed from required holdings of non-interest-bearing reserves. But in line with the Smithian model, Friedman's concept required banks to contractually bind themselves to redeem their liabilities in a common base currency; in contrast, cryptos are not formally convertible in this way. For Selgin and White (1994, at p.1719), 'This base currency would both define the unit of account and serve as the banking system's ultimate means of settlement'. In contrast, Smith (1776) envisaged a system of free banking in which a standard form of 'high-powered money' defined the monetary unit, usually in the form of a gold or silver coin. Banks would be legally bound to convert their notes on demand into standard money, there would be a ban on delayed redemption, and a limitation on the size of the notes that could be issued. In other words, in Smith's theory bank behaviour would be restricted by a combination of contractual obligation (a right of conversion) and legal restrictions on the volume of notes in circulation.

Hayek (1976) contemplated free banking as a system in which government absents itself from money creation, and competition between issuers is based upon the relative reputations of the currencies issued. In contrast, Smith's interpretation of free banking takes a more nuanced approach including the imposition of restrictions, and absence of government involvement from the monetary system is not a prerequisite. Stakeholder behaviour is tangentially addressed in both the Hayekian and Smithian models of free banking. For both, stakeholders choose between competing currencies: a subjective process based upon rational expectations of the future performance of that currency. For Hayek, the reputation of a currency would be its principal attraction, yet this too

involves subjective judgment: a choice by stakeholders between competing currencies. Free banking is therefore founded in part upon informed choices by depositors between competing banks or currencies (Fullarton, 1844). For Aghion *et al.* (2000), contagion is the main risk associated with free banking; to counteract this, Smith advocated restrictions on banks' abilities to issue currency, and enhanced conversion rights for stakeholders. The risk of over-issuance of notes is raised to oppose the withdrawal of the state from the monetary system.

2.3 Free banking and over-issuance of bank notes

Friedman (1959) criticised the practicality of free banking: it resulted in bank money being over-issued and 'inherent instability' which arises from a fractional reserve banking system. Rolnick and Weber (1983, at p.1081) responded to Friedman's critique with a clarification:

Observing instability in banking does not necessarily mean that the instability is inherent. Recent theoretical work suggests, in fact, that government intervention, supposedly aimed at safeguarding the system, may have produced the observed problems.

Free banking can also result in liquidity crises should banks be unable to fund the claims of depositors. Friedman and Schwartz (1986, at p. 53) commented:

A liquidity problem is not likely to remain confined to a single bank. The difficulty of one bank gives rise to fears about others, whose depositors, not

well-informed about the banks' condition, seek to convert their deposits into cash. A full-blown liquidity crisis of major dimensions can be prevented only if depositors can somehow be reassured. An individual bank may be able to reassure its depositors by borrowing cash on the collateral of its sound assets from other banks and meeting all demands on it. But if the crisis is widespread, that recourse is not available. Some outside source of cash is necessary. A central bank with the power to create outside money is potentially such a source.

By analogy, cryptos present a similar problem. Specifically, if a crypto is withdrawn or discontinued, or the exchange upon which it is traded is shut down, then holders are left without a remedy. In this context, the absence of a central bank as lender of last resort is significant. In the rational expectations model, if stakeholders are assured that their funds will be safe then they are less likely to panic, less likely to withdraw their funds precipitously, and therefore less likely to trigger a wider panic (Selgin, 1987). Cryptos lack any similar reassurance that central bank intervention will follow, should the currency collapse or fall dramatically in value; asset bubbles, panics, and value manipulation are characteristics of such currencies, and holders are assumed to be aware of this (Yeoh, 2017). Central bank reassurance would obscure this reality, resulting in holders not fleeing from one currency into another as a precautionary measure, even if prompted by unfounded rumours.

Critics of free banking favour regulation for several reasons. First, they argue that central banks are needed to underwrite the system as lender of last resort, since without such an assurance depositors will behave irrationally in withdrawing their funds in response to rumours of financial fragility (Garrison, 1996). Depositors in other banks,

observing this flight of funds and fearing that they will in turn lose theirs, behave rationally in response and withdraw their funds. A bank panic follows in which funds are withdrawn from the financial system, resulting in a wider liquidity crisis which only a central bank can reverse (Selgin, 1988; Bentson and Kaufman, 1996). Second, due to informational asymmetries depositors are unable to differentiate between safe and unsafe banks (White, 1999). A state-administered licensing regime in which banks comply with rules relating to capital buffers, liquidity, or deposit insurance, provides reassurance to stakeholders that individual banks are sufficiently robust to withstand short term crises (Barth *et al.*, 2004). Third, the state, being able to overcome informational asymmetries, is a more effective overseer of a bank's activities and internal governance than the bank's stakeholders (Dell'Ariccia, 2001; Kishan and Opiela, 2006). It is able, via a regulator, to demand trading information, restrict a bank's lending or deposit-taking activities, and suspend its licence when these are deemed excessively risky or opaque (Acharya, 2009). These powers are not available to depositors. In the absence of these system stabilisers, depositor behaviour can become more volatile, unpredictable, and potentially damaging to the wider economy. This was confirmed by Levy-Yeyati *et al.* (2010) in the context of bank runs in Argentina and Uruguay between 2000-2002. Macroeconomic risk affects deposits regardless of traditional bank-specific characteristics, and generalised deposit runs can be random events or be triggered by contagion transmitted from other parts of the financial system (Schotter, 2009; Samitas and Polyzos, 2015).

2.4 Free banking and depositor risk

White (1984) and Gorton (1985) compared the free banking experiences of Scotland and the USA in the nineteenth century, concluding that it was a success in the former (low number of bank failures and fewer panics) but a failure in the latter (frequent bank crises and capital flight). White attributed these contrasting experiences to differences in legal regulations. In Scotland during this period, bank equity holders had unlimited liability; in contrast, during the American free banking period the liability of equity holders was limited to the initial paid-in value of their equity. Gorton observed that for White, this difference in approach to liability was the distinguishing feature in ensuring the robustness or otherwise of banking systems. When losses were realised in the USA, noteholders ‘ran’ because their stake in the bank was at risk. In contrast, in Scotland noteholders were able to fall back on the reassurance that any losses would ultimately fall upon equity holders who could not evade their financial liabilities. The distinction arises from informed consent to risk. In the Scottish experience, equity holders accepted the risk of exponential losses in return for potentially greater rewards. In contrast, in the USA equity holders’ losses were limited to their stakeholdings and nothing more, placing the risk of meeting unsatisfied liabilities onto others, including noteholders. Liability in terms of the assumption of burden (for example, falling upon shareholders rather than noteholders) and quantum (limited or unlimited) was determined by legal contract and not by separate banking regulations. This section has considered the present state of the free banking literature; the next section considers the characteristics of cryptocurrencies as a precursor to discussion of the relevance of the concept to technology-defined products and markets.

3. Cryptocurrencies: characteristics

Cryptocurrencies are units of exchange which exist in digital form. The European Union Markets in Crypto-Assets Regulation 2023/1114, (hereafter, MiCA), Article 3 (1) no. 2 provides a useful definition. A ‘crypto-asset shall mean: ‘A digital representation of a value or a right that uses cryptography for security and is in the form of a coin or a token or any other digital medium which may be transferred and stored electronically, using distributed ledger technology or similar technology’. Transactions are verified and records maintained on an open public ledger known as blockchain. The blockchain ledger contains a history of all verified financial transactions and controls the creation of additional cryptos of that class; in this regard there is a control of the supply of coins to the market, but not under the auspices of a central authority such as a central bank (Spithoven, 2019). In contrast, sovereign fiat money is controlled by a central authority such as a central bank which has a monopoly over its issuance. It is transferred through regulated financial institutions: in contrast, cryptos do not require intermediation and transactions take place directly, peer to peer.

A currency’s provenance and transfer of ownership is secured and verified by a decentralised system using cryptography, and not by a central authority such as a central bank. This decentralised structure means that they are beyond the purview or regulation of governments or central banks. As assets cryptos serve as a store of value which can be used to purchase goods or services. Cryptos are traded on decentralised electronic marketplaces: there is no central authority and the traditional conduits of a regulated system, principally banks, are absent. They move electronically through exchanges and across geographical jurisdictions, making regulation difficult in the absent of concerted

and coordinated approaches by regulators at the international level. In common with free banking, there is no restriction on who can issue cryptos; this has led to the issuance of thousands of cryptos in recent years.

3.1 Drivers of volatility

Cryptos vary in stability, volatility, and liquidity (Ghorbel and Jeribi, 2021). The most notable include Bitcoin, Ethereum, Litecoin, Ripple, and Cardano. Each crypto has its own blockchain in which transactions are recorded. Cryptos are known as coins: in contrast, tokens are units of value that represent projects that are built on top of an existing blockchain. For example, ether is the currency traded and recorded on the Ethereum blockchain. But a token such as dai is built using Ethereum. Dai is a stablecoin, intermediating between physical financial markets and the crypto world. A stablecoin is a form of cryptocurrency where the value is pegged to a widely accepted and recognised asset which may be fiat money, commodities traded on regulated exchanges such as gold or platinum, or to another relatively liquid and widely traded cryptocurrency (Fiedler and Ante, 2023). This tracking of a stable reference point is intended to make stablecoins less volatile compared to non-referenced cryptos the values of which are principally determined by speculative activity of traders and holders. However, the record of stablecoins has been less successful in achieving this goal, their instability exacerbated by the reality that issuers have failed to maintain adequate reserves to support value. Tether is presently the world's largest market capitalisation stablecoin.

3.2 Holders' risks

Coins are highly volatile and subject to varying degrees of regulation worldwide. If a crypto collapses or is withdrawn, there is no lender of last resort in the form of a central bank, no investor protection, and limited legal recourse against those who perpetuate a crime or fraud other than the criminal law which may be of limited protection given that the perpetrators may reside in other countries in which a court's jurisdiction may not be recognised. The value of a coin can be affected if it is discontinued, delisted or there are technological issues. These actions may be arbitrary and unpredictable: holders assume they have a store of value, but then in an instant it is lost. Owners of cryptos are responsible for safeguarding their assets: there is no depositor insurance or safety net provided by state authorities if these are lost or misappropriated by criminals. However, if held online they are susceptible to hacking by criminals; an alternative is 'cold storage' in which assets are kept in an electronic device or vault which is not connected to the internet (Grobys, 2021). These are more expensive options, and there is the risk of losing or forgetting the private key which unlocks the digital wallet.

Cryptos provide an alternative store of value that provides protection from capricious expropriation by governments, or measures aimed at affecting a currency's value in accordance with government objectives. Consequently, several developing countries have been trialling cryptos as mainstream currencies. They enable the unbanked and underbanked to create their own financial alternatives in an efficient and scalable manner (Edwards *et al.*, 2019). These assets can be kept in an internet-based virtual wallet, which makes it easier and quicker to trade on exchanges. In the context of developing countries where financially unstable governments may misappropriate

foreign currency holdings, the physical action of carrying currency notes in bulk across a geographical border, or ‘stashing it under a mattress’, may be problematic (Agenor and Khan, 1996). In this context us Swaleheen (2008) found a correlation between corruption and capital flight, adversely affecting gross national saving rates. Exchange controls, combined with extensive foreign exchange dealings reporting obligations placed on financial institutions, mean that citizens are effectively trapped; capital flight might not be an option in such circumstances. In contrast, cryptos which exist in electronic form can be transferred instantly, and without attracting the attention of predatory state authorities.

4. Cryptos: recent attempts at regulation

Policy makers are aware that strict regulation of crypto assets may impede technology innovation and investments; however, non-intervention may expose investors and consumers to risks (Ferreira and Sandner, 2021; van der Linden and Shirazi, 2023). Cryptos can often be classified within multiple categories, and regulatory processes and definitions may be too complicated for investors. Cryptos may also transition from one category to another during their business cycle (Tomczak, 2022; Koenraadt and Leung, 2022). The use of blockchain by virtual currencies like bitcoin eradicates the need for central authorities as well as the need to trust them (De Flippin, 2016; De Filippi and Loveluck, 2016). The UK, EU, and US have adopted different regulatory approaches, resulting in a lack of cohesion or clarity at the global level, and are considered next.

4.1 The United Kingdom perspective

Huang (2021) observed that the effectiveness of primary and secondary legislation in the UK and EU is weak and flawed for several reasons. She noted how the UK regulator, the Financial Conduct Authority (FCA), proposed a regulatory framework for crypto assets in 2019 under the Financial Services and Markets Act 2000 (Regulated Activities) Order 2001 SI 2001/544 (RAO 2001) and the Perimeter Guidance Manual 2019 (PERG 2019), and categorised crypto assets into four types: security tokens, e-money tokens, exchange tokens and utility tokens. This corresponded to the three crypto classifications in the European Union's MiCA, approved by the European Parliament on 20 April 2023, to become law in July 2024 (Tomczak, 2022). Of these, Huang noted (at p. 338) that 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, the regulations are convoluted and overly complex. 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. As a further criticism, a crypto-asset may fit into multiple categories; for example, utility tokens can be identified as investment tokens, exchange tokens, or e-money tokens. The regulatory regime is inflexible and inefficient in response to rapid technological innovation in the financial sector. It also does not recognise the reality that coins can 'flip flop' between different categories over the business cycle (Smith, 2019).

4.2 The European Union perspective

Yeoh (2017) noted that the European Parliament has voted to adopt a hands-off approach to regulating blockchain technology, combining two different initiatives: the creation of a Virtual Currency Task Force, and the inclusion of virtual currency exchanges within the ambit of European Anti-Money Laundering Directives. For Yeoh (at p. 203): ‘Therefore, for the moment, the EU’s message is that a permissionless environment is needed to truly innovate and that premature regulation would only stifle the application of virtual currencies and shared ledgers (Patrick, 2016)’. In this regard a form of free banking is applied; regulation is minimal, principally justified by a desire not to impede development of the markets (Prisco, 2016). Implicit in this is an assumption that investors and holders are fully appraised of the risks associated with crypto-assets and have the technical skills to administer and keep safe online virtual wallets.

4.3 The United States perspective

In the United States, the legal status of cryptos has been developed through judicial interpretation and application of existing legislation, principally the Securities Act 1933. Goforth (2021) explained how, in *SEC v. Telegram Group Inc.* and *SEC v. Kik*, both cases decided in the Southern District of New York in 2020, courts held that a large social media company had conducted a crypto offering in violation of federal securities laws. In the former case Telegram was ordered to return \$1.2 billion to investors and pay a \$18.5 million penalty to settle the Securities Exchange Commission’s charges. In the latter case Kik was ordered to pay a \$5 million penalty.

In neither case was criminal conduct an issue: instead, the problem was failure to register the sales as securities offerings or to comply with exemption from registration. This judicial approach reinforces the SEC's earlier pronouncement in 2017 that it has authority over transactions involving the sale of cryptoassets and that a transaction involving cryptoassets must be regulated under the securities laws if the sale in question involves an investment contract as defined by the *Howey* investment contract test (Gosforth 2021, at p. 647). This provides that "an investment contract for purposes of the Securities Act [of 1933] means a contract, transaction or scheme whereby a person invests his money in a common enterprise and is led to expect profits solely from the efforts of the promoter or a third party....". If Telegram's issue was a currency or commodity, the issue would have fallen outside the Securities Act 1933. Gosforth concluded that the approach was an unnecessarily overbroad application of securities law which protected neither investors nor capital markets. Crypto entrepreneurs would be deterred from issuing in the United States, and American investors would be denied opportunities to participate in a potentially desirable technological revolution. The decisions, supporting the SEC's position, have, according to Gosforth, effectively shut down one crypto offering and seriously interfered with another, in the absence of evidence of fraud or wrongdoing, based solely on the issuer's failure to register the tokens issued.

In summary, Chiu (2019) noted that the European Union 's approach has not yet resulted in definitive policies or a legislative framework for the crypto-economy. The crypto economy is not merely a financialised space, and new technologically innovative activity is taking place which would benefit from a more holistic policy development rather than regulation focussed on securities and investment. Implicit in Chiu's

observation is a view that over-regulation can stifle financial innovation. This coincides with research by Griffith and Clancey-Shang (2023) which found that an outright ban on cryptos by the Chinese authorities in 2021 led to a market-wide price drop, a spike in volatility, and a deterioration in price resilience. Accordingly, a systemic and not a sectoral approach should be adopted, the latter being the regulatory field for finance, the former being a more broad-based regulatory agenda that extends beyond financial sectoral regulation. The latter focuses on similarities between crypto-fund raising and assets, and conventional financial market equivalents. The former involves a new suite of regulations fashioned for the unique features of the crypto-economy. The US approach appears to be taking the latter, with the SEC attempting to adapt the *Howey* test to capture cryptos within a broad definition of investments and consequently falling within the Securities Act 1933 listing rules, as seen in the SEC v. Telegram, and SEC v. Kik, cases. This section has considered diverse efforts at crypto regulation in the UK, the EU, and the US; the next section applies free banking to this environment.

Section 5. Regulation of cryptos: relevance of free banking

Free banking would suggest that cryptos should not be regulated for several reasons. First, compliance with regulations gives a crypto an *imprimatur* or the state's validation that it is safe, that regulations have been complied with, and traders and exchanges are authorised; this can lead to moral hazard. In this context Avgouleas and Sereakis (2023) have warned: 'In order to avoid moral hazard and not give investors the false impression that crypto lenders are safe too-big-to-fail institutions, we suggest that crypto lenders should not enjoy the full protection of prudential regulations. In particular they should not be offered lender of last resort support and they should not be allowed to subscribe into a deposit insurance scheme'. Instead, holders must be cognisant of the reality that

such products are inherently risky, exacerbated by the fact that they do not exist in a physical, fungible form but instead in an abstract electronic environment. An absence of regulation, and robust signalling by the authorities that these markets are not protected, will not be bailed out by a central bank acting as lender of last resort, and do not reach standards expected of other physical markets, should be sufficient warning to speculators that the *caveat emptor* (let the buyer beware) principle applies.

A second reason for light touch regulation comparable to free banking is that it is for issuers to establish value for their coins through sustained stability and extending its use by and acceptability to private individuals and businesses. For example, an issuer may convince businesses to accept payment in its currency and in this way create liquidity, reputation, and usability. These factors distinguish recognisable cryptos such as Ethereum or Ripple from more esoteric alternatives. Third, as in free banking, losses will fall on holders and users: these cannot be underwritten by the state given that the magnitude of risk can never be accurately evaluated. In this regard it is not for the state to take on an unknown and potentially unlimited risk. Fourth, exchanges can exist beyond the purview of a state or a central bank; it is not possible for the state to give reinsurance or take on underwriting of risk commitments in respect of assets traded on exchanges which exist beyond its control or scrutiny.

However, there are reasons why a free banking approach may not be suitable to cryptoassets regulation. First, contagion may be transmitted between cryptos, which may in turn generate a wider panic in traditional currency markets and exchanges (Duran and Griffin, 2021; Matkovskyy and Jalan, 2019; Antonakakis *et al.*, 2019). Avgouleas and Seretakis (2023) observed that even though it has been suggested that

crypto markets pose no risk to the regulated sector due to limited interconnectedness, it should be noted that due to the high leverage of crypto investors, the real risk to the regulated sector comes from the possibility of them massively liquidating their positions in other asset markets. Stablecoins also mean that volatility in the physical market- the specific assets or commodity to which they are referenced- may in turn be transmitted into the crypto exchanges. In other words, contagion may work in the opposite direction (Fiedler and Ante, 2023).

The second reason for taking a traditional regulatory approach to cryptos is that they are used by criminals for money laundering and terrorist financing (Teichmann, 2022). Financial Action Task Force (FATF) rules do not apply and for this reason there is a risk of an ungoverned space which can be exploited by terrorists. The FATF Know Your Customer requirement of intermediaries and exchanges will be difficult to enforce. Transactions are not entirely anonymous as per popular misconception, since details of these are stored publicly on the blockchain, although only the individual involved in the transaction has access to an account and Bitcoin wallet. In this regard cryptos are pseudoanonymous. Criminals may use crypto mixing services in which holdings are mixed with those of other users; in this way connections between addresses of identifiable holders become opaque. Once mixed, as in the traditional integration stage of money laundering, criminals can transfer their holdings into cash without being identified. Many wallet providers and crypto exchanges do not apply anti-money laundering Know Your Customer rules; there is no obligation to verify or record or report the origin or destination of funds, or the individuals behind them. The third justification is that lack of regulation, and lack of 'Know Your Customer' rules, can make taxation of gains problematic. Baer *et al.* (2023) have noted that policymakers

are struggling to accommodate cryptocurrencies in tax systems not designed to handle them. The pseudonymity of cryptos militates against third party reporting, whilst identification and calculation of gain is hindered by cryptocurrencies'' dual nature as investment assets and means of payment.

6. Conclusion and recommendations

Regulators and policy makers are struggling to develop mechanisms which accommodate the unique characteristics of cryptocurrencies. Their task is made difficult by three factors: the pseudonymity of cryptos; their propensity to change in terms of pre-determined classifications, transitioning from one category to another as the business cycle changes; and the fundamental question as to whether they function as a medium of exchange like any other traditional coin or note or are instead an investment opportunity for speculators (Ammous, 2018). Draganidis (2023) has identified three alternative regulatory regimes: BitLicense, the 5th Anti-Money Laundering Directive, and the European Commission's Proposal for a Regulation on Markets in Crypto-Assets. He described how national/state/regional policy makers have already failed to create arbitrage-proof regulatory frameworks by acting exclusively within their jurisdictional limits. He proposed regulatory competition and international harmonisation (although these may be dichotomous) as alternative solutions to inappropriate and ineffective national/regional legislative approaches. This diversity reflects in part a desire by national governments not to stifle technological innovation by over-regulating, or inappropriately regulating, these new electronic assets which do not exist in tangible form.

There are three principal concerns relating to cryptos from a regulatory perspective. First, they are highly volatile and prices susceptible to manipulation, destroying the wealth of uninformed market participants. A fool and their money are soon parted. Second, a crisis affecting the crypto markets can transmit to the real physicals market, resulting in instability and, potentially, bank runs. Third, cryptos are used in money laundering, evading the scrutiny and reach of law enforcement agencies. Traditional measures available to agencies in respect of suspect bank accounts, such as *Mareva* injunctions or freezing orders, are not available against decentralised exchanges in which assets are held in virtual electronic wallets. Taking each in turn. In previous eras of free banking, banks were able to issue their own currencies; these found their own values and acceptability based on the capital strength of the issuer and the extent to which losses fell, not on depositors, but instead shareholders or noteholders. Given that there are thousands of cryptos and hundreds of exchanges on which they are traded in existence, it is impossible for regulators to look for evidence of price manipulation. Potential losses on crypto holdings can be vast; Sam Bankman Fried's FTX exchange collapsed in 2023, losing 40 billion dollars in two weeks. For this reason, potentially unlimited losses cannot be underwritten by either coin issuers or the state.

The UK, EU, and US appear to be adopting a *laissez faire*, light touch approach for the time being, not wishing to stifle technological innovation. This approximates with a quasi-free banking position; strong currencies will drive out weaker ones, principally by engendering trust and becoming widely used and accepted as stores of value (Fantacci, 2019). Cryptos provide a technology-driven virtual alternative to the unbanked but also to those in developing countries the currencies of which are unstable, and governments arbitrarily misappropriate the savings of citizens (Glick and

Hutchinson, 2005). Sacks of paper currency no longer need to be carried across geographical borders in the middle of the night; instead, transfers can be made instantly and largely without trace or trail. Free banking impedes the ability of the state via a central bank to regulate, control, or obstruct this process: the monetary system is decentralised and traditional conduits of capital become redundant. A free banking approach protects exchequers against the consequences of cryptocurrency failure since there is no lender of last resort, whilst avoiding the stifling effect of monochrome regulation unable to deal with the ever-changing, ever evolving nature of cryptoassets. If instead policy makers regulate through a crime avoidance lens, given the association of cryptos with money laundering and terrorist financing, by extending and adapting suspicious activity reporting regimes to which banks are subject in most jurisdictions (Albrecht, 2019; Norton, 2018), this may be more effective than focusing upon civil remedies and compensation for ill-informed speculators who have had their fingers burnt, playing in markets which they do not understand.

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