‘Crypto-currencies are dangerous and should be regulated’. Discuss.

The introduction of cryptocurrencies and the base of their blockchain networks into consumer financial markets has recommended a course of action for considering how trust operates in modern economic spaces, and whether these technologies and their associated trust is financial, regulatory, or ethical. In past circumstances, trust between consumers and firms has been thoroughly anchored through factors such as reputation, and interpersonal relationships between consumerism alongside the credibility of centralised organisations and banks, and accountability through regulatory perspectives. As a number of cryptocurrencies have permeated financial services on a global landscape and digital retail operations, questions have arisen regarding how these mostly non-regulated systems influence the operation of traditional economic values, and whether consumers are aware of their operations. The most vital question is whether the technical properties of cryptocurrencies themselves such as the transparency of records, immutability, and the consistency throughout algorithms are able to replace the psychological and social functions that trust has supported conventionally, or whether the absence of the regulatory oversight that regulated financial operations permits leaves consumers vulnerable to misinformation and fraud. This essay argues that whilst the technology introduces powerful systems that can streamline the operations of companies and institutions, they cannot inherently substitute for trust, and due to severe market failures such as asymmetric information, concentration of market power, and negative externalities, cryptocurrencies are dangerous in the free-market form and require regulation.

Advocates for cryptocurrencies argue that the technology, in itself, removes the danger of failure within central organisations by operating the system as a ‘trustless’ agent. Through the operation of decentralised ledgers and cryptography, the technology provides an irrefutable guarantee of data integrity that does not depend on the credibility or trust of any bank or government. De Filippi, Mannan and Reijers (2020) had categorised this not as a replacement of direct trust, yet as a ‘confidence machine’ where consistency attempts with mathematical calculations replace the judgement of humans. From an economics perspective, the claim that this allows for cryptocurrencies to be deemed safe is not justified. De Filippi et al. argue that whilst the blockchain does not eliminate trust, it reallocates it into the governance of the network and code, where the aspect of danger becomes a primary concern. Analysis from a real-world economic standpoint performed by Makarov and Schoar (2021) highlighted that networks such as Bitcoin are very far from being democratised, as they are dominated through ‘players’ with large concentration, such as massive mining pools and ultra-wealthy individuals. Therefore, the argument of decentralisation of cryptocurrencies is largely theoretical rather than purely true. In actuality, retail consumers are reallocating their trust into highly concentrated, unregulated oligopolies of developers and miners whose high-return incentives do not align with public welfare. This high concentration of power within markets makes the environment susceptible to manipulation which renders it a deeply dangerous environment for standard consumers who lack regulatory safety nets of traditional banking and oversight from regulatory powers.

This danger is further dangerously shared through the extreme amounts of asymmetric information which causes market failure within economics. In a perfectly competitive market, consumers possess perfect knowledge as do producers which enables for equal decision making and power within situations. However, in the unregulated market of cryptocurrencies, there is an extremely large knowledge disparity through advocates who are technologically sophisticated and retail consumers, ‘investors’, who are not fully fledged on the workings of cryptocurrencies. Consumers are commonly interested as a result of the ‘speed and efficiency’ of the blockchain technology and speculative of ‘missing out’ of the opportunities, without understanding the extreme danger of the volatile

algorithms of the lack of regulatory oversight, despite the extreme amounts of advertising, which can pose significant risks to their behaviour and allow for them to make uninformed decisions. The literature on the behaviour of consumers underscores that technology in itself cannot satisfy the prerequisites of trust, and instead, consumers must rely on the cognitive assessments of the competence of institutions. As noted in industry surveys (Banking Exchange, 2025), a significant majority of consumers would only be willing to try digital assets such as 'stablecoins' if issued by their own regulated banking institution, with a significantly smaller proportion of individuals trusting unregulated providers. When operating outside of regulatory perspectives, unwarranted trust occurs which causes danger in savings and the perspectives of safety in consumers. When unregulated, and 'opaque', cryptocurrency exchanges collapse, consumers uninformed of their positions face financial losses which means that regulation is essential to mandate transparency, correct the asymmetry in information within the emerging market, and prevent adverse results which can negatively make consumers vulnerable.

Beyond the vulnerabilities of consumers, cryptocurrencies generate a significantly large number of negative production externalities which pose physical and dangers in systems. The consensus of 'proof-of-work' which major mechanisms use requires vast amounts of computational power which results in exorbitant amounts of energy consumption leading to heavy contributions within environment degradation. As this market is unregulated, the marginal social cost of cryptocurrency mining exceeds the marginal private cost to the 'miners', and without government intervention such as Piguovian taxes or regulations mandating sustainable energy usage within cryptocurrencies, miners have no incentive economically to internalise this externality which leads to a socially inefficient over-allocation of resources.

In terms of social impact and macroeconomics, the adoption of cryptocurrencies widespread threatens the levers of state monetary policies. Both frameworks, whether it is Keynesian or Monetarist, rely on the ability of the central bank to adjust interest rates and manage the supply of funds during shocks to stabilise the economy. If consumers and businesses operate within a decentralised setting, then centralised institutions can no longer utilise features such as quantitative easing or act as a lender which strips the economy of defence mechanisms against severe recessions which exemplifies systemic financial risks and forces the economy to become dangerously fragile without safeguards to prevent incidents.

As a consequence, the social and economic dangers of cryptocurrencies make the argument for regulation of these technologies undeniable. However, by implementing the regulations into cryptocurrencies, it introduces a dilemma which Cengiz (2023) frames as a 'profound governance dilemma', this is due to the fact that the technology had emerged from a culture of distrust towards central authoritarian figures and government institutions. Therefore, through the regulation of technology, it heavily risks turning the tool designed for transparency into an instrument utilised by governmental organisations for state surveillance which may lead to consumer revolt against organisations. Therefore, governments face the challenge of managing the risks of privacy, bias and ethics within the technology without destroying structural properties which make blockchain an extremely valuable tool. Regulation should not seek to ban the technology and its aspects, rather integrate it safely into the economy. This can be performed through a range of steps such as applying (anti-money-laundering) AML standards, requiring capital reserves for digital exchanges to prevent simple dissolution and enforcing compliance with (know-your-customer) KYC laws within smaller markets. Trust must be constructed actively through choices in governance rather than relying on the technology itself which would implement a variety of safeguards, ensuring the technology would not

be as dangerous to consumers as it had previously been described as.

Therefore, in sum, the claim that cryptocurrencies are extremely dangerous and should be regulated is accurate to a high degree. Whilst the fundamental technology in itself offers remarkable procedures for improving operational efficiencies within a variety of systems and processes, alongside ensuring data integrity, this cannot override the irreducible social construct of trust and safeguards that consumers seek in technology. Through the technology's bypass and overriding of institutional safeguards, cryptocurrencies in their unregulated state are severe market failures which facilitate dangerous concentration of market power in an attempt to seem decentralised, exploit consumers through highly asymmetric information, and threaten the stability of countries and macroeconomics whilst generating extreme amounts of negative externalities. Algorithms can improve the assessment of competence within organisations and their operations, however, they cannot manage the functions of human vulnerability which means that for cryptocurrencies to function safely and efficiency in consumer markets, the technologies must be overhauled with significant and comprehensive regulatory frameworks which transition these systems into secure and trust-enabling economic tools, whilst preserving their inherent features of transparency and algorithmic immutability.

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