THE PAST, PRESENT, AND THE FUTURE OF CRYPTOCURRENCY

A COMPARATIVE REGULATORY PERSPECTIVE FROM US, EU AND CHINA

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Abstract

Cryptocurrency has grown rapidly since Bitcoin was launched in 2009, with market capitalization having a high of almost $3 trillion in 2021, and currently at around $1.2 trillion as of April 2025. There are now more than 1,000 various cryptocurrencies in the market. 2025, Major cryptocurrency companies including Circle, BitGo, Coinbase and Paxos are applying for U.S. bank charters or licenses, The United States and Hong Kong issue stable coins, the closer intertwining of cryptocurrency and the traditional financial industry challenge the regulation system. It is urgent to develop unified standards for regulation with flexible, compatible, consensus-based, executable policy.

In the United States, the regulation of cryptocurrency involves multiple agencies and legal frameworks at the federal and state levels. There are numerous coordination problems for the federal and state governments in cryptocurrency regulation. The regulatory framework is led by the Securities and Exchange Commission (SEC), SEC views cryptocurrency as a security applying the securities laws, and according to the 'Executive Order on Ensuring Responsible Development of Digital Assets' released by the U.S. government in March 2022, cryptocurrencies are defined as digital assets. The EU adopted the Market Regulation of Crypto Assets Act (MiCA) in 2023 with the aim of creating a harmonized regulatory framework for the crypto asset market.

China is the most stringent at present. In the interest of preventing money laundering, financial risks and protecting investors, it prohibits the circulation of cryptocurrency as currency, prohibits cryptocurrency transactions and business activities, and prohibits cryptocurrency

mining activities. However, Chinese participants are in the foreign cryptocurrency market regardless, be it as investors, technical talents, coin issuers, or exchanges.

Regulatory policies differ greatly in different nations and are indicative of great instability. This instability in regulatory frameworks can be attributed not only to the rapidly evolving nature of technology and associated business models but also by the political party, geopolitical, and political leader preferences. Cryptocurrencies have become a game-changing financial innovation, the anonymity, decentralization and borderless of cryptocurrencies challenge regulation, particularly anti-money laundering and terrorist financing. regulators must strike a balance between risk control and innovation. This thesis seeks to study the development, present status, and future of cryptocurrencies from a comparative regulatory analysis.

The findings and recommendations from this study will contribute to the development of more effective regulatory frameworks, helping to prevent future digital asset catastrophes and fostering a safer and more resilient digital asset ecosystem.

The author suggests that China, based on the experience of Hong Kong's pilot of stable coin and sandbox, can learn from the MiCA and SEC experience and replicate more proactive and flexible legislation, especially the hierarchical and categorized method adopted by MiCA in regulating virtual currencies, which can identify and contain risks more efficiently. The paper predicts that significant changes are imminent in cryptocurrency regulation in China, which may profoundly reshape the global market.

List of abbreviations

US	United States of America
SEC	Securities and Exchange Commission
CFTC	Commodity Futures Trading Commission
FinCEN	Financial Crimes Enforcement Network
EU	European Union
ICO	Initial Token Offerings
HKSAR	Hong Kong Special Administrative Region
HKMA	Hong Kong Monetary Authority
PBOC	The People's Bank of China
SPC	The Supreme People's Court of the People's Republic of China
MiCA	Markets in Crypto-assets Regulation
GDPR	General Data Protection Regulation
BCBS	Basel Committee on Banking Supervision
MAR	Market Abuse Regulation
BIS	Bank for International Settlements
IOSCO	International Organization of Securities Commissions
DFSA	Dubai Financial Services Authority
GENIUS Act	Guiding and Establishing National Innovation for U.S. Stablecoins Act
BaFin	German Federal Financial Supervisory Authority
ESMA	European Securities and Markets Authority

Introduction

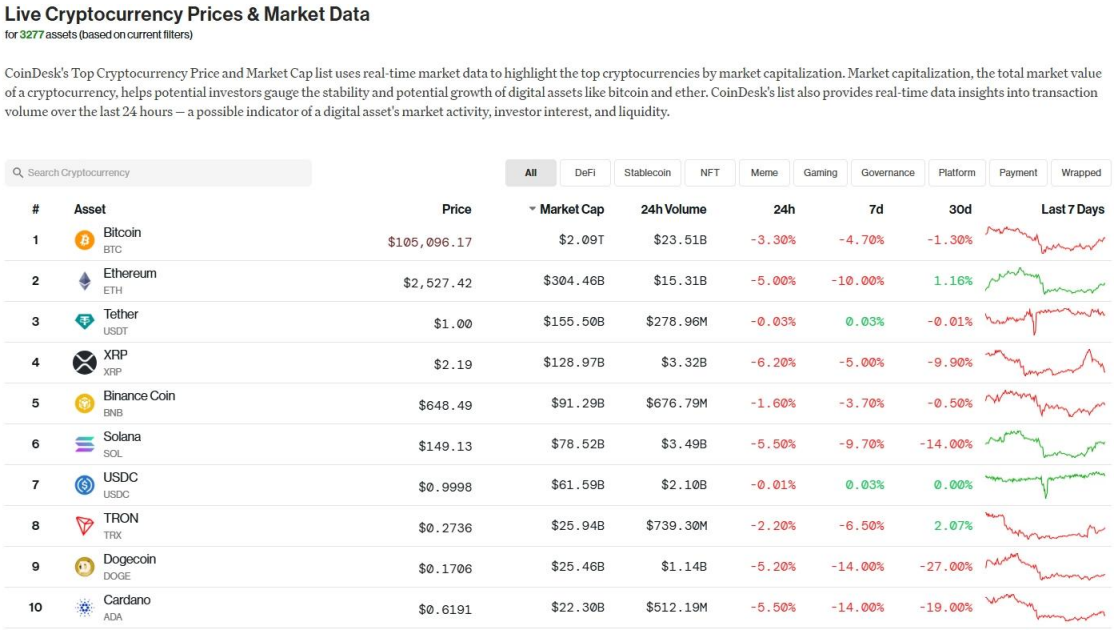
The Rise of Cryptocurrencies and the Regulatory Challenge

Since Bitcoin was introduced in 2009, cryptocurrencies have been a game-changing financial innovation, confronting conventional monetary systems and regulatory policies. The astronomical rise of the cryptocurrency market has garnered strong interest from investors, regulators, and policymakers worldwide. As of 2024, 119 nations and territories worldwide have legalized cryptocurrencies, the US dominates cryptocurrency innovation and trading. Despite China's outright ban on cryptocurrency activities, the country ranked 20th on the 2024 Global Crypto Adoption Index[1], underscoring active and strong demand.

As the market undergoes rapid transformations, regulatory frameworks have faced challenges in adapting, resulting in a convoluted and disjointed environment. This thesis seeks to examine the development, present condition, and future of cryptocurrencies from a comparative

1 The 2024 Global Adoption Index, https://www.chainalysis.com/blog/2024-global-crypto-adoption-index/

regulatory perspective, focusing on the United States, the European Union, and China.



Live Cryptocurrency Prices & Market Data

for 3277 assets (based on current filters)

CoinDesk's Top Cryptocurrency Price and Market Cap list uses real-time market data to highlight the top cryptocurrencies by market capitalization. Market capitalization, the total market value of a cryptocurrency, helps potential investors gauge the stability and potential growth of digital assets like bitcoin and ether. CoinDesk's list also provides real-time data insights into transaction volume over the last 24 hours — a possible indicator of a digital asset's market activity, investor interest, and liquidity.

Search Cryptocurrency | All | DeFi | Stablecoin | NFT | Meme | Gaming | Governance | Platform | Payment | Wrapped

#	Asset	Price	Market Cap	24h Volume	24h	7d	30d	Last 7 Days
1	Bitcoin BTC	$105,096.17	$2.09T	$23.51B	-3.30%	-4.70%	-1.30%	
2	Ethereum ETH	$2,527.42	$304.46B	$15.31B	-5.00%	-10.00%	1.16%	
3	Tether USDT	$1.00	$155.50B	$278.96M	-0.03%	0.03%	-0.01%	
4	XRP XRP	$2.19	$128.97B	$3.32B	-6.20%	-5.00%	-9.90%	
5	Binance Coin BNB	$648.49	$91.29B	$676.79M	-1.60%	-3.70%	-0.50%	
6	Solana SOL	$149.13	$78.52B	$3.49B	-5.50%	-9.70%	-14.00%	
7	USDC USDC	$0.9998	$61.59B	$2.10B	-0.01%	0.03%	0.00%	
8	TRON TRX	$0.2736	$25.94B	$739.30M	-2.20%	-6.50%	2.07%	
9	Dogecoin DOGE	$0.1706	$25.46B	$1.14B	-5.20%	-14.00%	-27.00%	
10	Cardano ADA	$0.6191	$22.30B	$512.19M	-5.50%	-14.00%	-19.00%	

Top ten coins--Live Cryptocurrency Prices & Market Data for 3277 assets (coindesk)

Literature Review

The legal framework of cryptocurrencies has become an increasingly important area of legal and financial scholarship over the last decade. With the rise of blockchain technology and decentralized finance, regulation based on traditional banking transaction models cannot adapt, and the rise of AI has brought new data governance issues. The anonymity, decentralization and borderless of cryptocurrencies make it very easy for cross-border regulatory arbitrage, how to conduct cross-jurisdictional regulate and coordination has become a hot issue. This literature review critically examines the available research pertinent to comparative cryptocurrency regulation in the United States, the European Union, and China.

Baldwin, Cave, and Lodge (2012) in Understanding Regulation provide a general model of evaluating regulatory behavior, adopting three aims: improving regulatory outcomes,

enhancing compliance, and promoting legitimacy. Their "regulatory toolkit" approach is useful in framing the diverse approaches across jurisdictions.[2]

Zetzsche et al. (2020), in their work "The ICO Gold Rush," considered cryptocurrency as the most common and important ICO, which can be seen as a conjunction of crowdfunding and blockchain. The authors argued that the absence of globally coordinated regulation has encouraged regulatory arbitrage and resulted in non-uniform standards of investor protection. They recommend international collaboration based on functional regulatory approaches.[3] Based on a database of more than 1,000 ICO white papers, the paper found that many ICOs are offered on the basis of utterly inadequate disclosure of information; more than half of the ICO white papers are either silent on the initiators or backers or do not provide contact details and the existence of an external auditor.

Arner et al. (2017) point out the development of "RegTech" and "SupTech" in enabling regulators to keep pace with innovation.[4] The study contend that the rapid development of financial technology requires a shift in the regulatory from "rule-oriented" to "technology-driven". For example, balancing innovation and risk control through regulatory technology (RegTech) and regulatory sandbox. The authors emphasize the importance of cross-border regulatory coordination, point out that differences in rules among countries may lead to regulatory arbitrage, unified standards need to be established through international

2 Baldwin, R., Cave, M., & Lodge, M. (2012). Understanding regulation: Theory, strategy, and practice (2nd ed.). Oxford University Press. https://doi.org/10.1093/acprof:osobl/9780199576081.001.0001

3 Zetzsche, D. A., Buckley, R. P., Arner, D. W., & Fohr, L. (2020). The ICO gold rush: It's a scam, it's a bubble, it's a super challenge for regulators. Journal of Financial Regulation, 6(1), 1-31.

4 Arner, D. W., Barberis, J. N., & Buckley, R. P. (2017). The evolution of Fintech: A new post-crisis paradigm? Georgetown Journal of International Law, 47(4), 1271-1319

organizations (such as the G20 and IOSCO). The paper also calls for the establishment of dynamic regulatory mechanisms, such as using AI to monitor market anomalies in real time.

Yaya J. Fanusie's study unravels the difficulties of gaming and overseeing the two ecosystems of cryptocurrencies, above and underground. Above-ground ecosystem,comprises cryptocurrency businesses that are largely adherent to anti-money laundering/know-your-customer (AML/KYC) policies. The conventional banking system is embracing cryptocurrencies. Underground ecosystem: players, platforms, and tokens are less vulnerable to regulation. This ecosystem is currently much smaller and less advanced than the formal one, but if it grows, it could facilitate significant illicit financing. Stringent AML/CFT rules have prompted banks to limit exposure to high-risk groups, pushing many consumers into the underground. Combatting illicit use in underground cryptocurrency channels demands creativity.[5]

Research Approaches: A Comparative Perspective

Why are the US, EU, and China selected and how their models portray?

The United States, the European Union, and China are the major economic powers and central actors in the world of cryptocurrencies today. The advent of stablecoins has particularly further solidified the link between cryptocurrencies and the traditional financial system, both geographically and in volume. For instance, US stablecoins are backed by the US dollar and US debt, and Hong Kong ones are backed by the Hong Kong dollar, which has turned into the

[5] Yaya J. Fanusie,'Financial Authorities Confront Two Cryptocurrency Ecosystems' Council on Foreign Relations (2018) <https://www.jstor.org/stable/pdf/resrep21429.8.pdf>.

shadow US dollar and Hong Kong dollar, and the game based on geopolitics has further made the race for regulation more complicated. A comparison of the regulation of these three economies is not only a legal issue but also has implications for prejudging the future of the monetary and financial system. These three economies, which are diversified in the dimensions of civil law and common law systems, developing and developed nations, and capitalist and socialist nations, are perfect subjects for comparative research.

The author takes a comparative approach and studies the following perspectives: Legal Definitions; Regulatory framework; Compliance requirements and enforcement; Case law study; balance between risk control and innovation.

Regulatory policies for cryptocurrencies vary widely across jurisdictions and are often unstable because of the fast-changing nature of technology and business models, as well as political and geopolitical factors. In the United States, cryptocurrency regulation is a patchwork of federal guidelines and state-specific laws. Major cryptocurrency companies are increasingly seeking U.S. bank charters or licenses to offer services similar as traditional banks, reflecting a new strategy from the White House and Congress to position the U.S. as a "Bitcoin superpower." In contrast, the European Union has adopted a more harmonized approach with the Markets in Crypto-Assets Regulation (MiCA), which came into effect in December 2024. Combined with the strict protections of the GDPR, EU legislation is not only the longest in text but also the strictest in fact. Industry and researchers are concerned that this will hinder the exist and innovation of cryptocurrencies in Europe.

China has taken the most stringent stance, prohibiting the circulation of cryptocurrencies as currency and restricting related activities to prevent money laundering and financial risks.

However, the HKSAR has a more relaxed regulatory environment than mainland China, which has seen a vibrant cryptocurrency industry in recent years, HK has learned from the UK's sandbox system to provide a more flexible regulatory environment. In 2025, Almost simultaneously with the U.S., Hong Kong also issued a stablecoin, China is responding quickly to the changes.

Large differences make regulatory arbitrage possible. The anonymity, decentralization, and borderless nature of cryptocurrencies pose significant challenges to traditional regulatory frameworks, especially in terms of anti-money laundering and combating terrorist financing. Regulators must balance innovation with risk control, while also addressing regulatory arbitrage.

This study also explores the potential for international cooperation and harmonization of standards of cryptocurrencies, to develop more effective, safer and more resilient regulatory frameworks.

Chapter 1

US: SEC-led regulatory framework and GENIUS Act

1.1 SEC and Howey test

Both the SEC and the federal courts frequently invokes the Howey test [6]to determine whether tokens are securities. under the Howey test, an "investment contract" exists when there is the investment of money in a common enterprise with a reasonable expectation of profits to be derived from the efforts of others. Most ICOs (Initial Token Offerings) are therefore considered securities, while Bitcoin and Ether are exempt due to their decentralized nature. So, in US, the main regulatory frameworks are securities laws, criminal laws with compliance requirements such as anti-money laundering. Under the Securities Act and the Securities Exchange Act, investors can sue if they have suffered losses because of fraud issue, misleading information or failure to disclose material information.

Whether a particular digital asset at the time of its offer or sale satisfies the Howey test depends on the specific facts and circumstances.[7] For example, BlockFi was penalized for not holding a securities trading license.

The SEC's indictment of Binance devotes nearly 40 pages to arguing that tokens such as SOL, ADA, MATIC, and others are ‘crypto-asset securities,’ analyzing each project in turn, which share a similar pattern: the initial token offering (ICO) process, the attribution of the tokens, the distribution of the core team and the facilitation of profit generation through the ownership

[6] SEC v. W.J. Howey Co. | 328 U.S. 293 (1946) | Justia U.S. Supreme Court Center
[7] SEC，Framework for “Investment Contract” Analysis of Digital Assets.

of these tokens. Under the U.S. Securities Act, there are only two ways to comply with the issuance or sale of any security: (i) registering the security with the SEC; or (ii) applying for an exemption from registration of the security with the SEC. For Crypto Project, having successfully navigated through the Howey test, compliance with the SEC's securities registration requirements would involve substantial costs and rigorous disclosure obligations. Crypto projects are therefore always looking for ways to comply through registration exemptions. Currently, projects can register for exemptions under Regulation D, Regulation A+, Regulation S, etc.

The SEC's risk warning to investors using virtual HoweyCoins highlights: [8]claims of high, guaranteed returns, celebrity endorsements, claims of "sec-compliance", investing with a credit card, pump and dump scams.[9]

The SEC, the Commodity Futures Trading Commission (CFTC) and state regulations constitute the most comprehensive regulation of cryptocurrencies in the US compared to other countries and regions. Entry standards and regulatory laxity vary from state to state, New York requires cryptocurrency companies to obtain a Bit License to operate legally. Texas has relatively light regulation on cryptocurrencies but still requires companies to comply with anti-money laundering and cybersecurity requirements.

The breadth of SEC enforcement and the intensity of penalties is impressive. The SEC initiated 46 enforcement activities against cryptocurrencies in 2023, 26 (57%) alleged fraud, 28 (61%)

[8] SEC Chairman Jay Clayton, 'Statement on NASAA's Announcement of Enforcement Sweep Targeting Fraudulent ICOs and Crypto-Asset Investment Products' (2018).
[9] SEC, howeycoins 'Howeycoins' <https://www.investor.gov/ico-howeycoins>.

alleged violations of unregistered securities offerings, and 17 (37%) alleged both. At the end of 2023, the SEC has imposed fines totaling approximately $2.89 billion on digital asset market participants.[10]

However, continued research on the cases shows that the SEC's approach to cryptocurrencies has varied considerably across political parties and presidential administrations, making it possible to get different results in similar cases in the time dimension. During Gary Gensler's tenure as SEC Chairman (2021-2024), the SEC adopted an "enforcement first" approach and launched many lawsuits against cryptocurrency companies, involving billions of dollars in fines. While in the Trump administration, the SEC's regulatory approach has changed significantly, taking a more relaxed regulatory attitude. Since 2025, the SEC has withdrawn several lawsuits against cryptocurrency companies, including Coinbase, Kraken, Gemini, Consensus, Robinhood, Yuga Labs, etc.

How to measure this "drift" and uncertainty? The critics say it is not fair, but the authors contend the SEC need not be invited to be static because this change in regulation is itself a part of the reaction to changes in the economy and industry, and because the SEC is the initiator of the enforcement, with the final determination being in a higher court. But the SEC has to remain fair and equal to everything it regulates within the same space and time.

1.2 AML and CFT regulation

The U.S. Department of the Treasury's Financial Crimes Enforcement Council (FinCEN) is targeting cryptocurrency money laundering and financial crime. FinCEN issued regulations in

[10] Cornerstone Research,Cornerstone Research, 'SEC Cryptocurrency Enforcement: 2023 Update'.

2013 that interpreted the definition of cryptocurrency managers and exchangers of fiat-currency convertible cryptocurrencies (stable coins) as 'cryptocurrency service providers,' which are required to register with the agency. These entities are also required to implement anti-money laundering (AML) and know-your-customer (KYC) procedures, and comply with reporting, record-keeping, and other requirements. Anti-Money Laundering (AML) and Counter-Terrorist Financing (CFT) rules require financial institutions to implement measures such as customer identification, transaction monitoring, and Suspicious Transaction Reports (STRs) to prevent the financial system from being used to launder the proceeds of crime or to finance terrorist activities.

Stablecoin and the service providers (i.e., issuers, trading platforms, custodians of funds, etc.) will be required to adhere to relevant anti-money laundering (AML) and counter-terrorist financing (CFT) requirements. These requirements are generally founded on FATF [11] standards and have been adopted and implemented by major economies including the US, EU, Japan, Singapore and others. Specific measures cover three aspects: one, institutional access management, which obliges institutions running virtual asset services (VASPs) to get registered or licensed prior to conducting business; and two, scrutiny of customer identity, which has to establish the actual identity of customers and understand the nature of the business, and more thorough investigations have to be conducted for customers with a high-risk profile.

[11] FATF, Virtual Assets, https://www.fatf-gafi.org/en/topics/virtual-assets.html

1.3 Case study

Under the Howey test, in 2017 the SEC issued an investigative report on 'The DAO' case, where it found the DAO tokens sold were 'investment contracts', which were securities and would have to be subjected to the federal securities laws. The SEC investigation of the DAO initial public offering was significant and prompted the US government to enforce securities laws on the ICO space. The SEC inquiry into the DAO initial public offering case was unusually important and was the basis of the US government's application of securities law to the ICO industry, and the SEC's embrace of a sharp 'economic substance-oriented' regulatory policy towards its inquiry has been the benchmark for ICO regulation in the United States and even globally.

In SEC v. Ripple case, Dec 2020, SEC charged two senior executives of Ripple Labs Inc. and the company itself along with two large security holders with operating an unregistered, ongoing digital asset securities offering that raised more than $1.3 billion.[12]

July 2023: A federal judge ruled that Ripple violated securities laws by selling XRP to institutional investors, but that programmatic sales through public exchanges did not constitute a securities offering.

October 2023: The SEC voluntarily dismissed the charges against two Ripple executives (Bradley Garlinghouse and Christian Larsen) without the need for a trial.

[12] SEC v. Ripple case, https://www.sec.gov/newsroom/press-releases/2020-338.

August 2024: Ripple was directed to pay a $125 million civil penalty for breaking rules in XRP token sales. The court entered a final injunction against Ripple, enjoining future breaches of Section 5 of the Securities Act, and declined waiving the "bad actor disqualification."

March 2025: Ripple reached a settlement with the SEC and agreed to pay a reduced fine of $50 million. The settlement did not require Ripple to admit any guilt.[13] Commentators are of the opinion that the SEC has made a dramatic change of heart regarding regulating cryptocurrency, being more relaxed and open to it, particularly following the change in administration. It can be observed that the ruling government has a direct influence on the control of cryptocurrencies.

Some empirical research has, however, explored the fact that there is an inherent lack of continuity between the SEC's regulatory purposes and actual outcomes on the ground in the virtual asset market and not achieving the desired regulatory purposes, fragmentation and even jeopardizing market transparency and efficiency. In spite of the White House's 2022 publication of a regulatory framework on digital asset innovation calling for a 'whole-of-government' strategy involving interdepartmental coordination, financial regulation in the United States is institutionally dispersed. the SEC and CFTC, the two principal digital asset regulators, have asserted jurisdiction over overlapping sets of digital assets, generating so-called 'turf wars'.[14] Competition within regulatory agencies affects the predictability of laws and consequences.

[13] Jonathan Stempel,Ripple Labs says it settles with US SEC, will pay reduced $50 million fine. Reuters,March 25,2025.

[14] Yuliya Guseva and Irena Hutton, 'REGULATORY FRAGMENTATION: INVESTOR REACTION TO SEC AND CFTC ENFORCEMENT IN CRYPTO MARKETS',Boston College law review 64.7 (2023): 1555–1613.

1.4 New trends and challenges

To circumvent the Howey test and securities law application, the latest compliance strategy is to remodel the conventional ICO pre-funding exercises using the SAFE model (Simple Agreement for Future Equity) by eliminating or replacing certain exercises. Under this pre-sale model, no tokens are issued to accredited investors as they buy the SAFT protocol. Nevertheless, after the project sells its tokens to the public, SAFT investors instantly receive their tokens.

In SEC v. Telegram Group Inc., the SEC contended that this was effectively a public sale of securities, and the exemption was not applicable. The court upheld the SEC's claim holding that the Howey test was also fulfilled. On the one hand, the firm would continue to promote the blockchain project after launch and reap a return on investment for the investors as well as accrue revenue for the project; the firm's written renunciation to participate in the operation of the blockchain project after launch was null and void.

July 2024 U.S. Bitcoin Strategic Reserve Act of 2024 Introduced: Senator Cynthia Lummis introduced a bill to create a national reserve of one million bitcoins by purchasing them every year, opening the policy debate of a strategic reserve of cryptocurrencies.

2025, Major cryptocurrency companies including Circle, BitGo, Coinbase, and Paxos are moving to apply for U.S. bank charters or licenses, according to sources cited by The Wall Street Journal, which would allow them to offer services like traditional banks, including

deposit-taking and lending. [15]The push for bank charters follows a new strategy from the White House and Congress, with President Donald Trump pledging to make the U.S. a “Bitcoin superpower.” It is an indication that crypto companies are attempting to re-enter the mainstream financial system after the collapse of FTX and the collapse of crypto-friendly banks. Cryptocurrency from digital assets to payments, from payments to credit, from anonymity and concealment to more detail and more extensive reporting obligations and would be subject to more regulatory oversight under federal law.

1.5 stablecoin and the GENIUS Act 2025

On 19 May, the U.S. Senate passed the GENIUS Act16（Guiding and Establishing National Innovation for U.S. Stablecoins Act of 2025, which formally incorporated the U.S. dollar stablecoin into the ‘dollar digital’ system. The bill stipulates that only federally or state-approved institutions can issue stable coins and that they must be anchored 1:1 to assets such as the U.S. dollar and short-term U.S. debt.

The GENIUS Act strengthens anti-money laundering compliance requirements by bringing stable coin issuers within the regulatory framework of financial institutions, using technology to address the global and decentralized nature of stable coin transactions. All stable coin issuing companies are considered "financial institutions" and must comply with the Bank Secrecy Act (BSA). They must fulfill the same anti-money laundering requirements as traditional banking institutions, including tracking the movement of capital and money laundering and terrorism

[15] Gina Heeb and Vicky Ge Huang, ‘Crypto Knocks on the Door of a Banking World That Shut It Out’ The wall street journal,Apr 21, 2025.
[16] the genius act 2025, https://www.congress.gov/bill/119th-congress/senate-bill/394/text.

financing prevention. The bill requires the Treasury Department to study and promote the use of new technologies (such as AI and blockchain monitoring) in anti-money laundering to improve regulatory efficiency.

Unbacked crypto assets are riskier in nature. Basel Committee on Banking Supervision (BCBS) has advised the application of a 1,250% risk weight to the conventional crypto assets such as Bitcoin.[17] Although cryptocurrencies are yet to be regulated under Basel III, the suggested regulatory approach allows room for the logical judgment of the riskiness of cryptocurrencies within the traditional financial system's risk measures.

According to "2023 Blockchain Security and Anti-Money Laundering Annual Report", a total of 57 attacks were caused by contract vulnerabilities and lost approximately $75.82 million. But contract weakness exploitation is typically accompanied by flash loan attacks, price manipulation and others. In 2023, hackers-initiated flash loan attacks 34 times, with losses of around $225 million; 14 price manipulation attacks were carried out, with losses of around $140 million. [18]

The principal threats of abuse in crypto-asset markets are insider trading, order book data manipulation (including front-running), "rug pulls", "pump-and-dump" and "wash trading". These strategies control crypto-asset markets because such markets are primarily viewed to be

[17] Parma Bains,Arif Ismail,Fabiana Melo and Nobuyasa Sugimoto, 'Regulating the Crypto Ecosystem: The Case of Unbacked Crypto Assets' (IMF).
[18] 2023 Blockchain Security and Anti-Money Laundering Annual Report <https://www.jinse.cn/blockchain/3672237.html>.

unregulated. In certain situations, there is no global measure for identification of such violations and it relies on the authorities.

Category	Stablecoin	Central Bank Digital Currency (CBDC)
Issuer	Private entities	Central bank
Backing	Pegged assets, issuer credit	National credit, legal tender
Purpose	Crypto market stability, cross-border payments, DeFi	Improve payment efficiency, financial inclusion, monetary policy
Technical Basis	Built on blockchain or distributed ledger technology	Can use blockchain, centralized, or hybrid frameworks
Risk	Issuer risk, liquidity risk, redemption risk	National credit risk
Regulation	Varies by country, generally fragmented	Strictly regulated by the central bank
Monetary Attributes	Does not fully possess monetary characteristics	Fully possesses monetary characteristics

> **Data Source:** China Galaxy Securities Research Institute

Chapter 2

EU：harmonization and overregulation？

2.1 MiCA: A clearer and more nuanced regulatory model

The crypto market of the European Union is smaller than that of the U.S., and it regulates later. MiCA (Markets in Crypto-assets Regulation) came into effect in June 2023.MiCA establishes harmonized EU market regulations for crypto-assets. The regulation addresses crypto-assets that are not already covered under pre-existing financial services legislation. Transparency, disclosure, authorization, and supervision of transactions are the main issuers' and traders' rules for crypto-assets (i.e., asset-reference tokens, e-money tokens).[19] Its five principal regulatory aims are to protect investors, enhance the transparency of markets, discourage market abuse, uphold the integrity and fairness of markets, ensure financial stability, foster innovation and competition.

MiCA requires cryptocurrency service providers and stablecoin issuers to obtain a license. Many small and medium-sized exchanges may find it difficult to meet strict capital, operational and technical requirements. MiCA has strict requirements for the reserve assets and operational transparency of stablecoins. For example, the use of stablecoins such as USDT and EURO-M may be restricted. MiCA proposes stricter requirements than before, compared with the 1,000 euro/dollar threshold set by FATF for the implementation of the "travel rule", MiCA requires all crypto asset service providers to provide information about remitters and recipients when transferring crypto assets. Without personal identification information, no amount of

[19] ESMA:Markets in Crypto-Assets Regulation (MiCA).

cryptocurrency is allowed to be transferred between accounts on its crypto asset service provider (CASP).

MiCA divides cryptocurrencies into Asset-Reference Tokens, Electronic-Money Tokens, and other crypto assets (Utility Tokens, some of NFTs). Stablecoins are divided into Significant EMTs and general stablecoins. Crypto asset service providers (CASPs) are divided into three levels with different capital requirements.

Lawyers in the industry argued that MiCA largely replicates MAR (Market Abuse Regulation), a new problem that lawmakers are trying to fix with outdated tools. It is unclear to what extent "decentralized finance" activities will give rise to liability under MiCA's anti-market abuse provisions, regarding the liability of various blockchain network participants. The absence of some safe harbor provisions under MAR, i.e., for buyback and stabilization plans and self-insiders, may create uncertainty and affect legal market behavior under MiCA.[20]

MiCA regulation

Benefits	**Drawbacks**
Clear legal requirements	Compliance costs and challenges
Investor protection and credibility	Privacy concern
Attracting traditional finance investment	Restrictions on stablecoins
Reduction in fraud and market manipulation	Uncertainty in global enforcement
Global competitive advantage	Potential gray areas
Facilitation of cross-border transactions	

[20] Barczentewicz, Mikołaj, and André de Gândara Gomes,Crypto-Asset Market Abuse Under EU MiCA, European journal of risk regulation (2024): 1–18.

The EU plans to implement comprehensive anti-money laundering (AML) regulations that will ban privacy-preserving tokens and anonymous cryptocurrency accounts from 2027. Under the new anti-money laundering regulatory rules (AMLR), credit institutions, financial institutions and crypto-asset service providers (CASPs) will be prohibited from maintaining anonymous accounts or dealing with privacy-protecting cryptocurrencies such as Monroe (Monero, XMR) and Big Zero (Zcash, ZEC).

The Bank for International Settlements (BIS), the International Organization of Securities Commissions (IOSCO) and the Financial Stability Board, are also important sources of regulation from a financial perspective.

There is also some worry about cryptocurency companies are leaving Europe and going to the United States - a friendlier jurisdiction, more industry talent, more investors. Mkrtchyan, G's research argues the introduction of an individual liability mechanism that makes executives, founders and key personnel directly responsible for regulatory violations could drive innovation away from the EU.[21] This will exacerbate the regulatory arbitrage problem that will be explored later in this article.

2.2 Case study

Case 1: Bitstamp v. BaFin — Authorization Requirement Dispute

In 2024, as one of the major cryptocurrency exchanges in the European Union, Bitstamp petitioned the German Federal Financial Supervisory Authority (BaFin) that the authority's

[21] Mkrtchyan, G.; Treiblmaier, H. Business Implications and Theoretical Integration of the Markets in Crypto-Assets (MiCA) Regulation.*FinTech* 2025.*4*, 11. https://doi.org/10.3390/fintech4020011

insistence on it going through a licensing procedure under MiCA was unjustified since Bitstamp is already licensed in Estonia as a cryptocurrency and is acting under that license.[22]

However, BaFin contended that the services offered by Bitstamp—such as yield products and interest-bearing crypto asset accounts—went beyond the realm of simple cryptocurrency asset holding and had to be further regulated. [23]The German Administrative Court supported BaFin's position, based on the premise that these kinds of service fit into the 'cryptocurrency service providers engaged in other financial activities,' thus subject to special permission.

This case reveals a profound legal uncertainty of the MiCA regime: the boundary between cryptocurrency services and conventional financial services. In spite of regulatory harmonization, EU member states continue to have substantial divergences in interpretation and application, especially for financial innovations involving lending or collateralization components.

The Bitstamp v. BaFin case showcases the discretion of member state regulators within the EU MiCA regime regarding cryptocurrency classification and authorization requirements. The outcome of the case will not only impact the entry barriers to the German cryptocurrency market but also potentially set a regulatory precedent for other EU countries and further drive the refinement of MiCA regulations.

[22] Bitstamp Secures EU CASP License Under MiCA. https://cryptonews.com/news/bitstamp-secures-eu-casp-license-under-mica-approved-by-luxembourg-regulator/
[23] Gesetz über elektronische Wertpapiere.https://www.gesetze-im-internet.de/ewpg/index.html

Case 2: Kuna Exchange & MiCA Enforcement

In January 2025, the European Securities and Markets Authority (ESMA) enforced against the Lithuania-registered crypto exchange Kuna for violating MiCA disclosure provisions in listing a new token, "GreenWind". The environmentally focused impact investment instrument promoted by the token did not have a proper white paper and did not make required disclosures under Article 6–15 of MiCA regarding token issuer identity, financial projections, and possible risks.

ESMA imposed a €1.8 million fine on Kuna and ordered the immediate delisting of GreenWind, in a historic first direct enforcement action under MiCA. ESMA made it clear that, although GreenWind was neither an asset-referenced token nor e-money token, it fell under the wide scope of crypto-assets and thus triggered MiCA obligations.

The Kuna case illustrates MiCA's disclosure regime as stringent and ESMA as ready to enforce it rigorously. The case also challenges the classification of "utility tokens" under MiCA and the exchanges' evidentiary burden in classifying each token's regulatory category.

The case illustrates how MiCA's disclosure requirement, while necessary for investor protection and the integrity of the market, can place additional stress on smaller and medium-sized exchanges. The EU has attempted to harmonize regulation through MiCA, but its day-to-day application can still mirror national legal conventions and administrative severity.

These two cases illustrate that MiCA has strict demands of transparency and business conduct, which may be onerous and expensive for small start-ups.

2.3 Comparison of EU and US cryptocurrency regulation

The U.S. has a regulation framework of collaborative multi-departmental regulatory model, with several departments involved, such as the Treasury Department, the Department of Justice and the Securities and Exchange Commission. The U.S. regulation is featured by categorical regulation, with various regulatory rules for various kinds of crypto assets and activities. The U.S. regulatory framework is more flexible and capable of adjusting to the fast-changing market situation.

Unlike the U.S., the EU has no unified enforcement agency like the SEC, but rather the financial regulatory authorities of the member countries supervise according to MiCA and laws of each country. This makes the biggest challenges faced by the EU are the harmonization of the regulation with member states. As opposed to the U.S. federal-state relation, the EU is faced with separate sovereign states. Failure to coordinate will lead to an increase in the litigation cost. The author believes that MiCA lacks a strong law enforcement agency like the SEC and relies on decentralized member states, which is a weakness. However, as the law is implemented for a few years, it may be improved through revisions.

Case studies show that member states may have disagreements with MiCA due to factors such as their own financial systems, existing financial regulations, and regulatory competition. There is no convincing solution to the dispute resolution mechanism other than initiating higher-level litigation.

MiCA sets out strands of compliance that are required, notably stringent white paper requirements, risk disclosure and institution registration. Although the model can deliver

enhanced investor protection, there is also a risk of generating excessive compliance and choking off the arrival of small innovators.

The GDPR (General Data Protection Regulation), which came into force in 2018, focusing on personal data protection and the public interest. GDPR has implications for what can be stored on the blockchain. According to GDPR regulations, personal data should not be written to the blockchain as it cannot be modified or deleted once written. Organizations need to have GDPR-compliant policies and procedures in place to ensure they are compliant and can use a policy generator to do this. One possible solution for blockchain and cryptocurrency transactions is that personal data is not stored on the blockchain, but rather personal data is stored outside of the blockchain but should linked by references generated on the blockchain.

Chapter 3

China: general banned but popular in public, Trends in relaxation

3.1 China mainland general banned but active in Hong Kong

Finding a balance between preventing financial risks, safeguarding investors and promoting innovation, the regulatory policy of China started with very tight regulation policies to prohibit cryptocurrencies. But with the capacity to adjust to the domestic and global situation in a timely fashion. In the Chinese legislative and reform practice, great policies and legislations typically precede "pilots" in a controllable scale. Effective pilots are subsequently expanded to the national level.

In 2017, seven Chinese authorities (including the People's Bank of China and the China Securities Regulatory Commission) jointly issued the "Notice on Preventing Risks in Initial Coin Offering Financing." The Notice, in Article 3, explicitly prohibits any financial institution in China from offering cryptocurrency-related services, including pricing, intermediation, or purchasing and selling cryptocurrencies.

The People's Bank of China (PBOC) prohibited the use of Bitcoin, highlighting the avoidance of financial risks.[24] In Notice on Further Preventing and Managing Risks Related to Cryptocurrency Trading Speculation (September 2021), PBOC requires severe crackdown on illegal financial activities related to virtual currency. 'Virtual currency does not have the same

[24] Notice on Further Preventing and Managing Risks Related to Cryptocurrency Trading Speculation (September 2021) https://www.gov.cn/zhengce/zhengceku/2021-10/08/content_5641404.htm

legal status as legal tender. Business activities related to virtual currency are illegal financial activities. Services provided by overseas virtual currency exchanges to residents in my country through the Internet are also illegal financial activities.'

But in practice, companies and individuals are look for regulatory arbitrage. Regulatory arbitrage undermines the efficacy of controls, heightens transaction costs and market volatility. It also negatively affects investor protection and fairness. In spite of China's ban on cryptocurrencies, a lot of the active funds and players in the US and indeed globally are Chinese. For instance, Zhao Changpeng of Binance and Justin Sun of TRON, whether they are launching exchanges, issuing coins, investing in tech, and making investments. The fact that these Chinese players are involved in overseas markets implies that the global and decentralized nature of cryptocurrencies make regulatory arbitrage possible.

However, Hong Kong cases show they have a more relaxed environment in China's judicial jurisdiction. Gatecoin Limited case, a Hong Kong-incorporated cryptocurrency trading platform, entered into liquidation in 2019. In March 2023, the Hong Kong Court of First Instance in the Gatecoin case ruled for the first time that cryptocurrencies are 'property' under Hong Kong law and interpreted the liquidator's duty to retain cryptocurrencies as 'property'. The Hong Kong Gatecoin case ruling offers clear direction on the legal status of cryptocurrencies and the further need to enhance the regulatory and insolvency and liquidation regime for cryptocurrencies in the future.[25]

[25] Ada Chui,'香港法院在具有里程碑意义的裁决中承认加密货币为财产'*Cryptonews* (26 June 2023)

China's excessively conservative and controlling regulatory strategy is being updated as cryptocurrencies like Bitcoin expand and the U.S. rushes up with the cryptocurrency trend. The Hong Kong Monetary Authority (HKMA) announced on 28 August 2024 that it had initiated a digital currency project named 'Ensemble', a sandbox, to invite financial institutions, technology companies, local start-ups, etc., to pilot the use case of tokenized assets together, and 25 organizations participated in the first phase of the sandbox trial.[26] Learn from the UK experience, Hong Kong's regulatory sandbox, which is jointly managed by the Hong Kong Monetary Authority (HKMA) and the Securities and Futures Commission (SFC), aims to provide a controlled environment for fintech companies to test their products and services. These regulatory measures give cryptocurrencies, especially stablecoins, a permissive environment for innovation. Stablecoins are more acceptable to regulation and consumers because they have backed assets-Hong Kong dollar.

3.2 Case study

On December 30, 2022, the Supreme People's Court of the People's Republic of China ("SPC") issued Guiding Case No. 199 on Cryptocurrency. Guiding Case 199 (Gao Zheyu v. Shenzhen Yunsilu Innovation Development Co., Ltd and Li Bin) –the first Chinese case to set aside an arbitration award involving Bitcoin – is one of the rare cases in recent years in which a Chinese court invoked the concept of "public interest" to set aside an award. The arbitration tribunal ruled that the respondent must compensate the applicant in RMB equivalent to the value of Bitcoin, with reference to the price of Bitcoin on the Okcoin website. The Shenzhen

[26] HK Sandbox (HKMA launches Project Ensemble Sandbox to accelerate adoption of tokenisation).

Intermediate People's Court revoked the award on the grounds that the award essentially promoted the exchange of Bitcoin for legal tender, which violated the stability of China's financial market and the public interest. [27] This guiding case sends a clear message about the Chinese courts' stance on strict supervision of cryptocurrencies, but the author wonders whether the outcome would be different if the Bitcoin exchange rate was not referenced but some other fair valuation was used to make the ruling.

In line with this, Digital asset transfer agreements are invalid. Zong V. Tan case from Guangdong Shantou Arbitration Commission, it is rulled that according to Article 5 of the Notice, 'Token issuance financing and trading involves multiple risks, including the risk of false assets, the risk of business failure, the risk of investment speculation, etc., and investors shall bear the investment risks on their own' and the provisions of the Notice, "Any legal person If any legal person, unincorporated organization or natural person invests in virtual currencies and related derivatives in violation of public order and morals, the relevant civil legal act shall be invalid, and the losses arising therefrom shall be borne by the person himself". That is, although the behavior of citizens trading 'virtual currency' is personal freedom, but the behavior is not protected by law in China, the consequences and risks caused by the transaction should be borne by the parties themselves. [28] In this case, the applicant and the respondent's transaction of BZZ coins cannot be protected by law, and both parties should bear the related legal consequences and investment risks by themselves. There is no legal basis for the Claimant to request the Respondent to return the money.

[27] Guiding Case No. 199 (the Supreme People's Court of the People's Republic of China ("SPC")).
[28] 申请人钟某某与被申请人谭某某数字资产转让无效 (广东汕头仲裁委员会Guangdong Shantou Arbitration Commission).

Not only in arbitration, but also in courts. After investing in Tether (USDT), The plaintiff Han was unable to obtain returns and principal, and signed an IOU with his friend Ji to try to recover the funds. However, the Tongzhou District Court of Nantong City, Jiangsu Province, held that Tether is not a legal currency and is not legally compensable, and rejected the plaintiff's request for repayment.[29]

This kind of regulatory approach, while guarding against local cryptocurrency risks, makes it difficult for investors to remedy their rights if they are defrauded since there is no way to absolutely prohibit Chinese people and capital from investing in cryptocurrencies outside of China. Although many Chinese legal experts have argued that virtual currencies have property attributes and should be protected by law, current judicial cases show that cryptocurrency businesses in China face huge legal risks, agreements are invalid.

But in other Chinese cases, the courts have recognized the property nature of cryptocurrency. For example, in Sun Dingshang v. Xie Zuocheng case, the court supported the direct restitution of bitcoins; in the Cheng Mou v.Shi Mou case reported by the Shanghai High Court, the plaintiff, through negotiations between the parties, abandoned the defendant's request to return one bitcoin, and instead accepted the receipt of a certain amount of RMB as compensation. The judge was explaining that bitcoins, as virtual property, have the characteristics of property and are subject to the legal norms of property rights. In the execution and delivery of bitcoins, the enforcement court will be directed by the norms of the right to request the delivery of things to

[29] 中国法院裁决：虚拟货币借据无效，USDT投资被骗损失自负https://2jmtt.com/cryptocurrency/2502/20250 2119169.html.

be disposed of, and rule whether the executor has any bitcoins for execution or not. If the executed person has no executable bitcoins, in accordance with public interest, concepts of good faith and consideration of civilization, by common agreement, both parties decided on the discount compensation price. [30] The media commented that the case was a landmark ruling, the Shanghai High People's Court has declared Bitcoin to be virtual property protected by Chinese law. The Shanghai High Court's ruling that "In actual trial practice, the people's courts have formed a unified opinion on the legal status of Bitcoin and determined it to be virtual property" created excitement in the cryptocurrency industry both in China and abroad.[31]

This view that Bitcoin is a virtual asset that should be protected by law was reflected in the ruling of Li et. al. v. Yan et. al. (2019) case [32]in Shanghai on 6 May 2020. The court also emphasized that it is not a currency or a financial product, its value should not be determined by the price published by Bitcoin exchanges that are not recognized in China. The court recognized the price agreed upon by both parties after negotiation.

In the cases of Wu and Shanghai Yaozhi Network Technology Co., Ltd. and Zhejiang Taobao Network Co., Ltd. on Internet Infringement Liability Dispute [(2019) Zhe0192 Minchu No. 1626], Li and Brandon Smit v. Yan et al. on Property Damage Compensation Dispute [(2019) Hu01 Minzhong No. 13689], and Chen v. Zhang on Return Dispute [(2020) Su1183 Minchu No. 3825], the court held that Bitcoin is generated through "mining", which requires the

[30] Shanghai Higher People's Court：Does Bitcoin have property attributes? How to implement return delivery? https://www.jfdaily.com/sgh/detail?id=732946
[31] China: Court classifies Bitcoin as virtual property and protected by law https://coingeek.com/china-court-classifies-bitcoin-as-virtual-property-and-protected-by-law/
[32] Shanghai First Intermediate People's Court,Li and Bu v. Yan, Li, Cen and Sun, (2019) Hu 01 Min Zhong No. 13689/(2019) Hu 0112 Min Chu No. 12592)

purchase and maintenance of relevant special machinery and equipment, and paying the expense of power consumption to acquire it. On the one hand, it can bring economic benefits and has value; on the other hand, the amount of Bitcoin is limited to 21 million under a constraint of the algorithm, which is scarce; finally, the owner of Bitcoin possesses, uses, utilizes and disposes of Bitcoin, which renders Bitcoin disposable, meeting the constitutive elements of virtual property.

These cases show that despite the overall regulation environment of "total ban", local judges have innovated the application of the law based on the reality of cryptocurrencies. However, due to differences across jurisdictions, serious uncertainties are a big problem. These local court rulings that recognize the property nature of cryptocurrencies have not received corrections from the Supreme Court. They have already taken effect, which is changing China's regulatory environment and people's perceptions.

In criminal areas such as fraud and anti-money laundering, China's basically consistent with other jurisdictions, crack down on illegal and criminal activities to maintaining financial order and protecting the rights of investors. In OURBIT Digital Currency Trading Platform fraud case, with 15 defendants sentenced to fixed-term imprisonment ranging from 3 to 13 years. This platform was purportedly registered in Singapore and had financial licenses in the United States and the United Kingdom. The fraudulent gang created counterfeit trading charts and virtual currency trading information.[33]

[33] Hubei Ezhou Intermediate People's Court: OURBIT Digital Currency Trading Platform fraud case, https://hb.ifeng.com/c/8iDVvISd19h

3.3 New trends and challenges

In May 2025，Jingdong Coinlink Technology Hong Kong Limited, a subsidiary of Jingdong Group, launched the 'sandbox' trial phase introduced by the Hong Kong Monetary Authority (HKMA)for stablecoin issuers. The primary goal of Jingdong for issuing stable coins is to optimize the efficiency of global supply chains and cross-border payments. This is a cryptocurrency stablecoin anchored 1:1 to the Hong Kong Dollar (HKD). Based on Jingdong's massive transaction volume and logistics, Jingdong's stable coin project is not only its important layout in the field of blockchain technology, but it may also become an important step in China's and even the global crypto-payment revolution.

The new challenges, and as the world of cryptocurrencies exists in the online world not knowing for jurisdictional borders, generates besides also regulatory competition. Since there are huge business interests behind cryptocurrencies, regulators are often afraid that being too strict will cause players to go to countries with looser regulations. When formulating regulatory policies, they will be affected by the above economic factors.

Article 21, paragraph 3, of the Banking Supervision and Administration Law of the People's Republic of China provides that ‘banking financial institutions shall strictly observe the rules of prudent management’. [34] The current regulatory approach to cryptocurrencies in mainland China—a comprehensive ban and strict enforcement—is guided by the principle of prudent

[34] 中华人民共和国银行业监督管理法 Banking Supervision Law of the People's Republic of China，https://www.gov.cn/gongbao/content/2004/content_63107.htm.

regulation, aimed at mitigating systemic risks such as money laundering, capital flight, financial fraud, and the loss of monetary sovereignty.

However, this strategy is increasingly revealing its limitations in recent global developments. The borderless and decentralized nature of cryptocurrencies renders geographical bans increasingly ineffective. Chinese capital and technical talent are highly active on overseas platforms. This reflects growing regulatory arbitrage issues, undermining the effectiveness of current policies. The ban model leaves domestic investors without legal protection. Numerous court and arbitration cases have dismissed compensation claims related to cryptocurrency transactions on grounds of violating public interest or the invalidity of digital asset contracts. As a result, victims of fraud, hacking, or contract breaches cannot obtain enforceable legal remedies, which undermines judicial credibility and investor confidence.

On 21 May 2025, Hong Kong Special Administrative Region (HKSAR) passed stablecoin bill,[35] China was implemented via the legislative process to provide for the regulation of the issuance of stablecoins by a license, such that any person who, for business purposes, issues fiat stablecoins in Hong Kong, China, or legal tender stablecoins purporting to peg the value of the Hong Kong dollar outside Hong Kong, China, will be subject to licensing by the Monetary Authority. This more permissive regime provides for secure experimentation underlying consumer protection. It attracts institutional participants and provides legal certainty, allowing Hong Kong to emerge as a hub for Web3 innovation in the Asia-Pacific region. And as a Testing Ground, Hong Kong's experience is being closely watched by mainland China. The impact of

[35] CBNC：Hong Kong passes stablecoin bill，https://www.cnbc.com/2025/05/22/hong-kong-passes-stablecoin-bill-as-more-governments-recognize-the-digital-assets-.html

stablecoins on the traditional financial system is unknown to all countries in the world and needs to be evaluated after running for a period, this reflects the cautious attitude of the Chinese government.

Chapter 4

Regulatory arbitrage

4.1 Causes and status of regulatory arbitrage

Wide variations in regulatory frameworks across jurisdictions - such as different licensing requirements, disclosure standards, and enforcement mechanisms - provide fertile ground for regulatory arbitrage, allowing firms to exploit loopholes by strategically structuring their businesses in jurisdictions with laxer regulations or lower compliance costs. The level of awareness of cryptocurrencies and their risks, the complexity of the financial system, and legal and cultural traditions are deeper causes.

The economic value of the regulatory arbitrage space is so great makes it is so attractive. Given the decentralized, anonymous and cross-border nature of cryptocurrencies, where the place of operation on a physical sense has little impact on the business; the regulatory environment is more important. For example, Tether moved its headquarters to El Salvador due to dissatisfaction with the EU's MiCA regulations. El Salvador is more open to cryptocurrencies; Tether has circumvented the EU's strict regulatory requirements by registering in El Salvador. Ripple Secures DFSA License to Offer Regulated Crypto Payments in the UAE after a four-year lawsuit was settled for $50 million, it is the first blockchain-enabled payments provider licensed by the DFSA. [36]

[36] Duncan MacRae, 'Ripple Secures DFSA License to Offer Regulated Crypto Payments in the UAE'the block (13 March 2025).

Like a game of cat and mouse, regulatory arbitrage triggers some regulatory competition. Dec 2024, South Korean cryptocurrency entrepreneur Do Kwon will be extradited to the United States from Montenegro over the collapse of two digital tokens - TerraUSD and Luna tokens. US and South Korea have been seeking Kwon's extradition, alleging that fraud led to the failure of the company behind the tokens, which sunk some $40bn from investors and rocked global crypto markets.[37] Strong enforcement and extradition by the U.S. SEC honors its commitment to investor protection and enhances investor confidence.

Some giant cryptocurrency exchanges, such as Binance, have set up branches in multiple countries and regions around the world to take advantage of regulatory differences in different countries. Binance has set up operation centers in Malta, Singapore and other regions with loose regulation to attract more users and funds. Cross-border regulatory arbitrage increases the difficulty for regulators to supervise, as cross-border transactions and activities of cryptocurrencies are difficult to track and regulate.

Cases show that excessive regulation can't necessarily halt cryptocurrency innovation, particularly from these already global giants. They can quite easily pick nearly any jurisdiction. Cryptocurrency issuers go to nations with loose regulations to minimize compliance costs. Aside from regulatory considerations, tax regime and market size and activity are significant considerations.

[37] Jacqueline Howard, 'The United States and South Korea's Race to Punish Terra-Luna: Lessons toward Avoiding Another Digital Asset Catastrophe.' *BBC news* <https://www.bbc.com/news/articles/cn7r8xr3v76o>.

4.2 Legal and economic evaluation of regulatory arbitrage

Regulatory arbitrage makes a separation of regulation, Caesar's to Caesar, Rome's to Rome,. On the surface it does not appear to have harmed innovation and strictly protects investors. But in practice it looks like such a policy is too rigid and inflexible in the evolving crypto market.

Firstly, this lacks consistency affects international cooperation in law enforcement. Secondly, it has not really been effective in protecting investors. Because cryptocurrency contracts are invalid, it leaves investors difficult to defend rights. Third, the overly harsh and rigid regulatory environment has lost many cryptocurrency companies and issuances, depriving China of those economic benefits and tax revenues that should have stayed local. As the whole industry being banned, China has lost a valuable opportunity to practice the development of the crypto market for at least 10 years.

China has developed mobile Internet and communication base stations, and advanced payment tools (such as Alipay, WeChat, and central bank digital currency) that are used by hundreds of millions of people. Are these infrastructures competitive alternatives or superior backgrounds for the development of cryptocurrencies? The author believes that these popular and almost cost-free payment tools have replaced some of the payment functions of cryptocurrencies, but there are still some transaction needs that tend to favor cryptocurrencies, especially in cross-border payment scenarios.

China is currently rolling out digital ID cards as highly reliable identification data, which provides the best reliable link for ownership and transaction records for cryptocurrencies. Cryptocurrencies are physically encrypted, but ownership must be clearly verifiable. The author predicts that China will establish a mechanism combining digital IDs and cryptocurrency

wallets. Countries without digital ID infrastructure will explore other paths to establish trust and verification in crypto assets.

4.3 International judicial collaboration

Different from traditional finance and sales industries, virtual currencies are cross-border, decentralized, and anonymous. The issuers, investors, and trading are more dispersed and more difficult to track. In addition, there is no KYC compliance process like traditional banking and securities industries, so its confirmation of ownership, custody, trading, and enforcement are faced with new regulatory challenges. Therefore, there is an urgent need for transparency and compatibility of global cryptocurrency legislation, as well as a white paper on mutual recognition matters. This will adapt to legal incompatibility issues involving extraterritorial supervision and litigation. Especially the tiered regulation of cryptocurrencies, if there is a world-recognized tiered list, it will greatly improve regulatory efficiency.

Chapter 5

Conclusions and Policy Suggestions

5.1 Conclusions

The SEC leads the cryptocurrency regulation in the United States. From recent cases, there is a trend of reconciliation and relaxation, which reflects the balance between innovation and risk. EU's MiCA provides a coordinated regulatory solution, but the implementation faces challenges from the laws of member states. From the text, MiCA is the most abundant and unified and will surely be used as a reference by legislation in various countries. Its hierarchical management is advanced and operational.

China's general ban on cryptocurrencies is an overly cautious regulatory approach that is no longer in line with the global development of cryptocurrencies. The legislative innovation and iteration process have a high degree of certainty. *A right without remedy is not a right,* the ban on the mainland has left cryptocurrency investors and players becoming 'regulatory orphans,' actively or passively seeking regulatory arbitrage. China has the advantage of the Hong Kong Special Administrative Region as a testing ground, enabling it to respond quickly within a controlled environment and thus maintain regulatory leadership on a global scale.

Cryptocurrency issuers and firms often seek jurisdictions with lax regulations to reduce compliance costs, which can undermine the effectiveness of controls and increase market instability.

The regulation of cryptocurrencies is part of national technology competition, China is a major player in the cryptocurrency market and must have regulation that is commensurate with its market influence and level of technology - it must not be overly rigid and should have more

flexibility to encourage innovation and adoption. Otherwise, it will cede the market or make it tough for consumers to defend their rights.

5.2 Policy Suggestions

To stay competitive in the digital time, China should adopt a more pragmatic attitude and seek a new balance between risk prevention, consumer protection and innovation. China should make a new written law based on the experience of Hong Kong's stablecoin and sandbox， instead of using the existing lower-level "notices" to regulate such an important and large market. The MiCA and the GENIUS Acts provide a good reference, especially to carry out classified supervision and strengthen international cooperation. Suggestions include:

1, Establish crypto-regulation pilot zones in free trade areas or technology hubs. Based on the pilot experience in Hong Kong, expand the scope of licensing for stable coins and increase acceptance of other cryptocurrencies with controllable risks.

2, Encourage cross-border regulatory coordination with HKSAR and other global partners. Strengthening cross-border regulatory coordination and harmonizing standards reduces the scope for arbitrage and protects investor interests, such as cross-border KYC, stablecoin risk disclosure.

3, Classified supervision.

Classification regulation improves transparency and predictability and helps investors judge risks. China can classify according to the issuance of licenses by referring to MiCA. However, since the current cryptocurrency exchanges are all outside of China, international cooperation is needed to investigate the basic trading conditions of these cryptocurrencies.

4, Promote judicial consistency and investor protection mechanisms.

5, Regulators can use big data analysis and artificial intelligence technologies to identify and prevent cross-border regulatory arbitrage. For example, by analyzing cross-border transaction data and user behavior, regulators can promptly detect abnormal transactions and arbitrage behaviors.

Cryptocurrency regulation is not only a legal or financial matter-it is a strategic importance in global technological competition. A prudential, inclusive, and flexible regulatory framework is essential for China to maintain leadership in the digital economy. A Chinese version of cryptocurrency regulation with good international collaboration will be beneficial to law enforcement in other countries and the global crypto market.

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