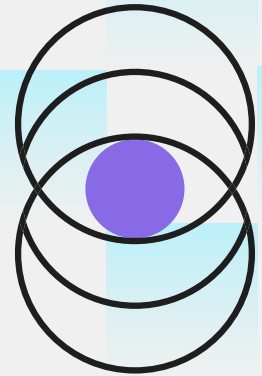


2023



Taiwan

Blockchain Industry

Report



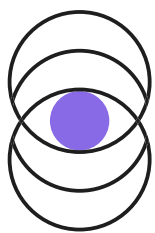


Table of Content

01 FORWARD

03 I. PAST, PRESENT, FUTURE: KEY TRENDS IN THE GLOBAL BLOCKCHAIN INDUSTRY

A. Compliance and Regulation: Reflecting on the Closure of Cryptocurrency Exchanges, the Next Mile for the Blockchain Industry

B. Experience Optimization: The Collapse of Centralized Finance Has Fostered a Greater Awareness Among Users for Self-custody of Funds, Driving Innovation in Technology and User Experience

10 II. OVERVIEW OF THE TAIWAN BLOCKCHAIN INDUSTRY SECTOR

A. CeFi (Centralized Finance)

1. Global centralized exchanges are increasingly moving towards compliance and actively applying for licenses
2. Taiwan exchange operators
3. The advantages of Taiwan's exchanges will become more apparent after losing trust in centralized exchanges

B. DeFi (Decentralized Finance)

1. Global trends in DeFi

- 1.1 The centralized trust crisis has led to an awareness of self-custody of funds
- 1.2 The increasing demand for decentralized finance (DeFi) from investors has been driving the continuous development of DeFi technology worldwide

2. DeFi operators in Taiwan

3. The challenge of balancing decentralization and compliance in DeFi

C. The NFT Industry and Trading Platforms

1. The rise and decline of the NFT industry

2. Taiwan NFT platform operators

1.1 Comprehensive open trading platform

1.2 Collecting and trading in the art field

1.3 Digital certificate

3. Transformation of NFTs: Shifting from price speculation to practical applications

D. Custody, Wallet, and Payment Industry

1. Taiwanese custodial, wallet, and payment platform operators

2. Taiwan NFT platform operators

1.1 Custody

1.2 Wallet

1.3 Payment

2. Challenges in Custody, Wallet, and Payment Industries

1.1 User entry barriers

1.2 Deposit channels

1.3 Security risks

1.4 Education Costs

3. Trends in international blockchain wallets: Reducing entry barriers, facilitating coin purchases, and exchanges expanding Web3 ecosystem

1.1 Technological innovation lowers the user entry barriers

1.2 The convenience of purchasing cryptocurrencies through credit card channels

1.3 Development of on-chain security technology

1.4. Exchange's deployment in the Web3 ecosystem

E. Infrastructure

1. Taiwanese blockchain infrastructure providers

1.1 Identity verification

1.2 Blockchain supply chain management and data verification

1.3 Blockchain mining and hashing power management

2. Examining the trend of global financial and business giants embracing blockchain services



39 III. THE DEVELOPMENT OF TAIWAN BLOCKCHAIN ECOSYSTEM

A. Interpreting the Blockchain Industry from Multiple Angles and Analyzing the Development Trends of Blockchain in Taiwan

1. Date of establishment of blockchain companies in Taiwan
2. Taiwan's blockchain company scale
3. Work patterns of Taiwanese blockchain companies
4. The office locations of Taiwanese blockchain companies
5. Target markets of Taiwanese blockchain companies

B. Bringing Together Outstanding Organizations and Leaders in the Industry to Jointly Promote the Development of the Blockchain Industry Ecosystem

1. Taiwan blockchain information aggregation and knowledge transfer
2. Taiwan blockchain association
 - 1.1 The centralized trust crisis has led to an awareness of self-custody of funds
 - 1.2 The increasing demand for decentralized finance (DeFi) from investors has been driving the continuous development of DeFi technology worldwide

C. Providing Funding for Blockchain Innovation and Accelerate the Incubation of Various On-chain Services

55 IV. REGULATORY TRENDS IN TAIWAN AND THE ASIA-PACIFIC REGION FOR BLOCKCHAIN

A. Background of Blockchain Regulation

1. The trend of cryptocurrency regulation is gradually taking shape
2. The regulatory dynamics and developments in mainstream countries
 - 1.1 United States
 - 1.2 The European Union (EU)
 - 1.3 Asia
 - 1.4 Australia
3. Regulatory developments in Taiwan

B. Explaining the Conflict and Challenges between the Spirit of Blockchain and Regulatory Attitudes through a Case Study



1. Uniswap Labs | United States

1.1 The regulatory challenges of DeFi in the United States

1.2 The regulatory and challenges faced by Uniswap

2. Perpetual Protocol | Taiwan

C. Recommendations for Regulation in Taiwan

1. Virtual Asset Service Providers (VASPs)

2. Stablecoin regulation

3. Blockchain industry-related policies

1.1 The European Union

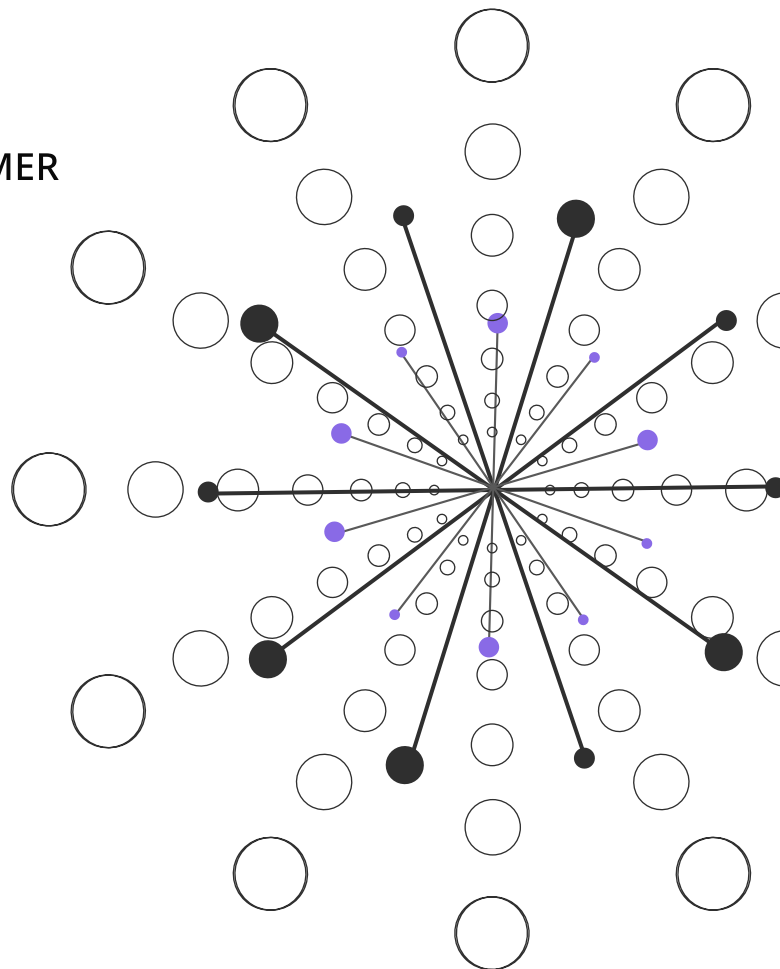
1.2 Hong Kong

1.3 Switzerland

70 REFERENCES

71 INVESTMENT RISK AND DISCLAIMER

71 COPYRIGHT NOTICE



FORWARD

Over the past year, a series of significant financial events have occurred globally, prompting governments worldwide to pay greater attention to the stability and compliance of the financial system. In addition to demanding increased transparency and risk control responsibility in centralized financial projects' asset management, there has been more discussion on issues such as anti-money laundering and counter-terrorism financing prevention in decentralized financial projects.

At the same time, due to users' distrust of centralized asset management institutions, there has been an increase in users adopting decentralized service projects. The market demand for decentralization has sparked more development efforts to reduce user learning barriers and overcome obstacles for users to enter the blockchain.

It can be seen that each market collapse has not led to the demise of the entire blockchain industry but rather has attracted more talent and resources to enter the market for construction, driving the industry towards a better future.

Based on this background, the Blockchain Industry Key Report Team has decided to conduct in-depth research on the development of the blockchain industry in Taiwan and internationally.

Using the past, present, and future of the blockchain industry as a framework, the report aims to lead readers from major events of the past two years to understand the current global consensus on the development of the blockchain industry. Through market statistics, it provides insights into user structures, industry status, competitive strategies, and potential future trends.

Furthermore, compliance and regulation are important aspects of this report. We analyze the attitudes and plans of governments in the Asia-Pacific region towards the blockchain industry, which have significant implications for the operation and development of enterprises and investors in the blockchain field. Understanding the trends and requirements of compliance and regulation helps companies formulate compliant strategies and execution plans, creating a stable and sustainable environment for the market.

Furthermore, compliance and regulation are important aspects of this report. We analyze the attitudes and plans of governments in the Asia-Pacific region towards the blockchain industry, which have significant implications for the operation and development of enterprises and investors in the blockchain field. Understanding the trends and requirements of compliance and regulation helps companies formulate compliant strategies and execution plans, creating a stable and sustainable environment for the market.

We firmly believe that in 2023, Taiwan's blockchain industry will continue to develop vigorously in sync with the international market. We hope that the "2023 Taiwan Blockchain Industry Key Report" will provide readers with diverse perspectives on industry information and assist them in quickly grasping the current status, development trends, and key participants of the blockchain industry in Taiwan.



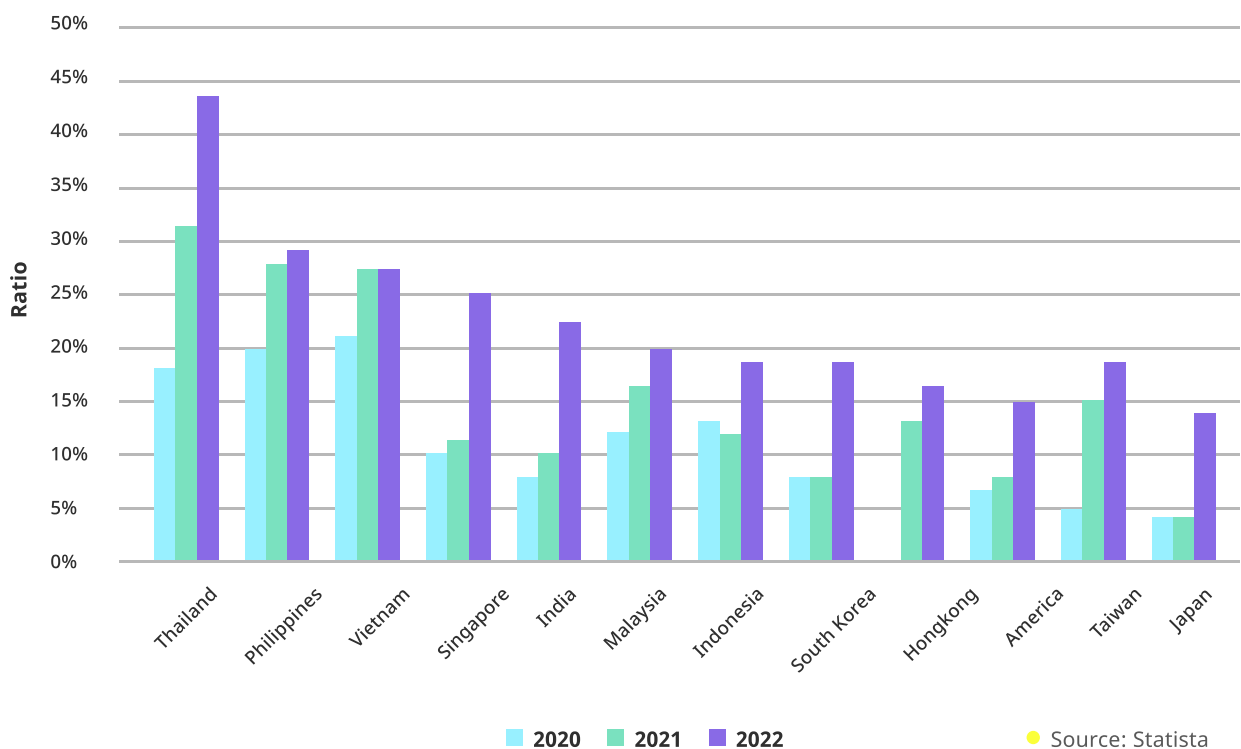
PAST, PRESENT, FUTURE: KEY TRENDS IN THE GLOBAL BLOCKCHAIN INDUSTRY

- A. Compliance and Regulation: Reflecting on the Closure of Cryptocurrency Exchanges, the Next Mile for the Blockchain Industry
- B. Experience Optimization: The Collapse of Centralized Finance Has Fostered a Greater Awareness Among Users for Self-custody of Funds, Driving Innovation in Technology and User Experience

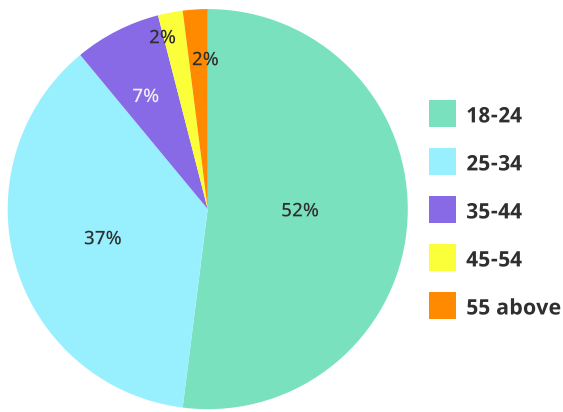
I. PAST, PRESENT, FUTURE: KEY TRENDS IN THE GLOBAL BLOCKCHAIN INDUSTRY

In the past few years, the global blockchain industry has experienced rapid growth. During this period, the industry attracted a significant number of users due to the high investment returns brought by cryptocurrencies and the popular "Play to Earn" trend, which is easily understandable by the general public. Among these users, the Asia-Pacific region has seen a steady increase in the adoption of blockchain and cryptocurrencies. (The chart below illustrates the statistical proportions of cryptocurrency holders or users among different respondents in the Asia-Pacific region from 2020 to 2022.)

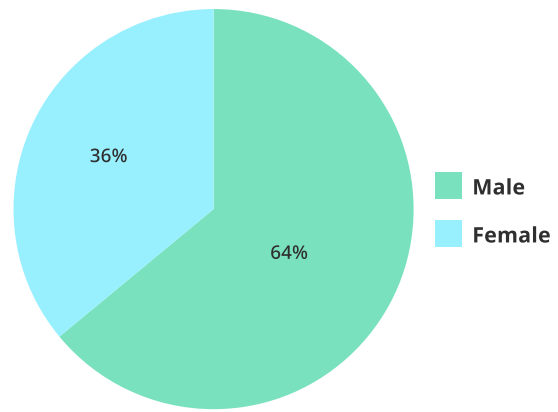
▼ Share of respondents who indicated they either owned or used cryptocurrencies in Asia-Pacific countries from 2020 to 2022



Shifting our focus back to Taiwan, cryptocurrencies are also highly favored by the younger generation. In 2023, among cryptocurrency investors in Taiwan, over 60% of them are male, and more than half of the investors are aged 24 or younger.



▲ Age distribution of cryptocurrency investors in Taiwan in 2023



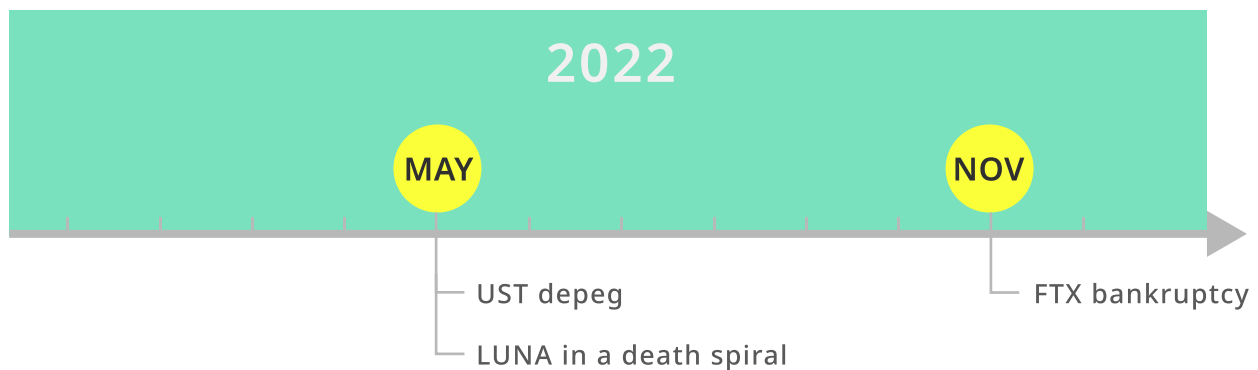
▲ Gender distribution of cryptocurrency investors in Taiwan in 2023

● Source: Statista

However, the user growth and flourishing development of the industry have also given rise to market frenzy and bubbles, leading to a series of significant global events in the blockchain industry in 2022. For example, the economic mechanism collapse of LUNA, once among the top ten cryptocurrencies by market capitalization, resulted in a global cryptocurrency market crash. Additionally, the bankruptcy of the world's top three FTX cryptocurrency exchanges due to insolvency highlighted two key trends: "compliance regulation" and "experience optimization."

A. Compliance and Regulation: Reflecting on the Closure of Cryptocurrency Exchanges, the Next Mile for the Blockchain Industry

Several important events occurred in the cryptocurrency community in mid-2022



Firstly, in May, the algorithmic stablecoin UST depegging, and the token LUNA encountered severe difficulties. The collapse of LUNA not only affected investors but also had a ripple effect on borrowers like Three Arrows Capital. This event drew regulatory attention. Therefore, the bankruptcy of the FTX exchange at the end of 2022 sounded an alarm for governments worldwide to address the need for regulation.

Next, in late 2022, blockchain media CoinDesk disclosed the financial details of the Canadian cryptocurrency trading firm Alameda Research. It revealed that Alameda incurred significant losses in a series of risky investment trades. To fill the funding gap, the CEO of FTX lent funds from the exchange to Alameda, including a portion of FTX customers' deposit assets. This report triggered market panic, leading to a mass exodus of users and creating a liquidity crisis for FTX. Ultimately, FTX declared bankruptcy on November 11, 2022.

Due to the significant influence of FTX and Alameda on the cryptocurrency market liquidity, they have shaken the entire cryptocurrency industry, forcing people to reevaluate the transparency and compliance of fund management. These instances of sudden collapses have revealed and magnified the risks and vulnerabilities present in the cryptocurrency market, such as misappropriation of customer funds, non-compliant operations, and financial opacity. These issues have resulted in market turmoil and financial losses for investors.

Overall, the closure of FTX in 2022 has shaken the blockchain industry and sparked global discussions on cryptocurrency regulation. It has also led to a consensus within the blockchain industry regarding compliance and regulation. With this, the global blockchain industry has entered the next stage of development.

In Taiwan, the blockchain industry has experienced rapid development in recent years, with various application scenarios emerging continuously. These range from financial services to supply chain management and from digital asset trading to smart contracts. With the industry's high-speed growth, issues related to compliance and regulation have gradually come to the surface, particularly in the context of financial fraud and collapse incidents. Currently, virtual asset platforms in Taiwan are regulated by the Financial Supervisory Commission (FSC). Since July 2021, regulations to prevent money laundering (AML, Anti-Money Laundering) and combat the financing of terrorism (CFT) have been implemented. Furthermore, in September 2023, further regulatory measures for cryptocurrency regulation will be proposed.

The challenges of compliance and regulation are gradually forming a consensus within the blockchain industry in Taiwan. All stakeholders in the industry recognize that compliance and regulation are necessary conditions to protect investor rights and promote industry

development. At the same time, the industry has put forward a series of reasonable demands to the government, including establishing clear regulatory standards and processes, providing a supportive and innovative policy environment, and strengthening international cooperation. These demands aim to provide a better development environment for the industry while ensuring the protection of investor and user rights.

B. Experience Optimization: The Collapse of Centralized Finance Has Fostered a Greater Awareness Among Users for Self-custody of Funds, Driving Innovation in Technology and User Experience

Meanwhile, the blockchain industry in Taiwan continues to ride the wave of blockchain growth and consistently introduces innovative services in response to market demands. To enhance compliance measures and increase the regulation, security, and transparency of funds, some exchanges have implemented asset reserve proofs, allowing users to have real-time visibility into the asset reserve status of the exchange.

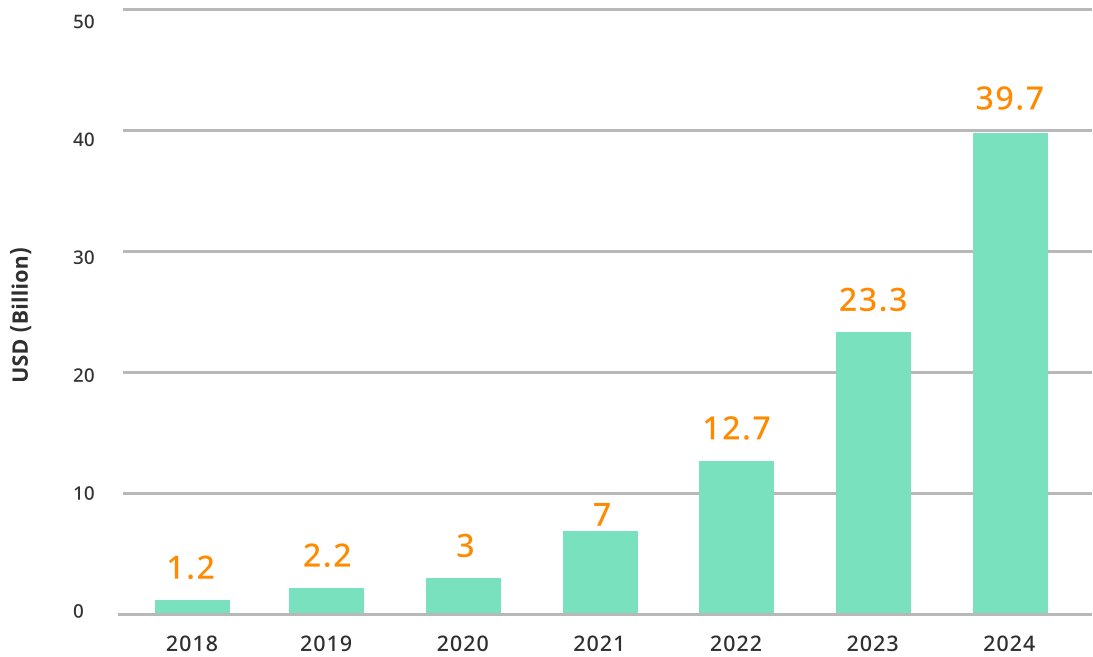
Furthermore, the lack of trust brought about by centralized asset management has driven the growth of decentralized services. The demand for decentralized solutions has shifted development efforts towards addressing the essential user requirements, reducing barriers for users entering the blockchain space. For example, users need to understand the purpose of a centralized wallet's private key and independently manage their private keys.

They also need to comprehend that transfers require the corresponding cryptocurrency as a transaction fee. These are learning-intensive aspects that require a significant amount of time for users to grasp.

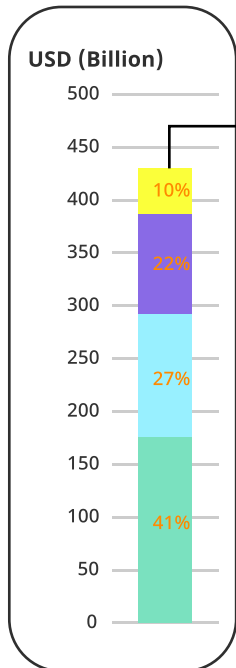
As a result, starting from 2022, more and more companies have begun researching solutions such as Multi-Party Computation Wallets (MPC Wallets) and Account Abstraction (AA). These solutions aim to assist users in bypassing the need to understand the aforementioned issues, significantly reducing the technical knowledge and learning barriers for users.

According to research conducted by MarketsandMarkets, the global market size of blockchain technology is expected to experience significant growth in the coming years. It is projected that by 2024, the market size will surpass 39 billion US dollars. Within this growth, opportunities and value will be particularly significant in the banking and financial services sectors, accounting for approximately 40% of the market.

▼ Size of the blockchain technology market worldwide from 2018 to 2024



● Source: Statista

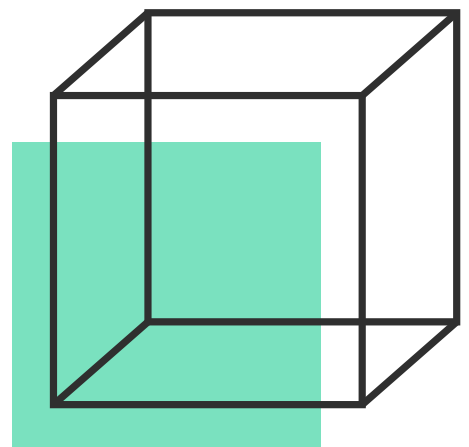


Blockchain Applications Open Up Opportunity Worth Around 43 Bn USD

- Transportation and logistics: Manage and maintain an immutable database of transport and logistic records, Real-time visibility to perform track and trace analysis
- Banking and Financial Services: Exchanges and remittances, Currency payment and settlement, Enforcement and clearing derivative contracts, Regulatory reporting
- Retail and e-commerce: Track ownership and sale of stolen goods, Payments in the form of cryptocurrency with the integration of blockchain network and Point of Sale (POS) device
- Banking and Financial Services: Exchanges and remittances, Currency payment and settlement, Enforcement and clearing derivative contracts, Regulatory reporting

● Source: Statista

Therefore, this report will continue the overview of the Taiwan blockchain industry map in 2023. It will provide an outline of various aspects, including the industrial race in Taiwan, global race track trends, and regulatory issues in Taiwan and the Asia-Pacific region. In the current fiercely competitive race track and the evolving landscape of regulatory issues, it aims to provide different perspectives and interpretations within the context of continuous industry innovation.



2 /

OVERVIEW OF THE TAIWAN BLOCKCHAIN INDUSTRY SECTOR

- A. CeFi (Centralized Finance)
- B. DeFi (Decentralized Finance)
- C. The NFT industry and Trading Platforms
- D. Custody, Wallet, and Payment Industry
- E. Infrastructure

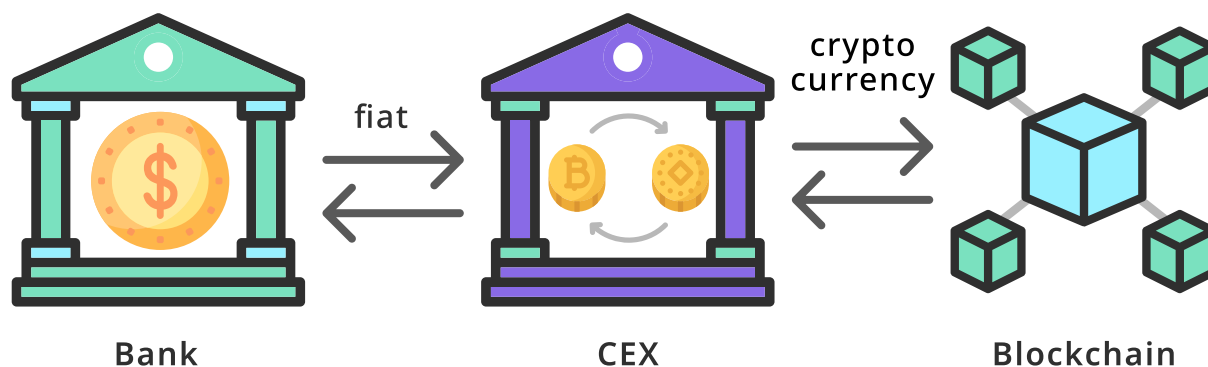
II. OVERVIEW OF THE TAIWAN BLOCKCHAIN INDUSTRY SECTOR

With the advent of the digital age, Taiwan's blockchain industry has also been actively developing in recent years. Regardless of the changing market sentiment and funding volume, several tracks such as CeFi, DeFi, NFTs, wallet custody payments, and infrastructure have been gradually growing and being built. Therefore, the research team will now elaborate on the global trends in each of these tracks and the achievements and future possibilities of Taiwan's blockchain industry.

A. CeFi (Centralized Finance)

The CeFi (Centralized Finance) sector of the blockchain industry refers to "centralized financial operators that provide services using blockchain technology." Examples of CeFi entities include centralized cryptocurrency exchanges such as Binance, BitoPro, and MAX, which are managed and operated by institutional entities to offer asset-related services. These exchanges typically involve asset management, trading, and other related services.

Trust and compliance are core elements in centralized exchanges. These exchanges must adhere to regulatory requirements to provide secure cryptocurrency trading services. Additionally, mainstream centralized exchanges often establish bridges with traditional financial institutions, such as banks, allowing users to deposit and withdraw fiat currencies (such as New Taiwan Dollar, US Dollar, Euro). Furthermore, these exchanges leverage blockchain technology to enable users to transfer cryptocurrencies to other exchanges or blockchain wallets.



1. Global centralized exchanges are increasingly moving towards compliance and actively applying for licenses:

In 2022, a series of bankruptcy events occurred in the centralized finance sector, including platforms such as Celsius, FTX, and Voyager Digital. These events revealed significant shortcomings in the transparency of user asset custody and risk management by financial institutions.

After these incidents, in order to enhance users' confidence in centralized exchanges, many of them are actively moving towards a more open, transparent, and legally compliant direction:

- **Greater transparency in user funds:** Many centralized exchanges are starting to introduce Proof of Reserve (POR) and Merkle Trees, allowing users to view the exchange's reserve assets at any time to ensure that the exchange is not engaging in improper misappropriation of assets. Additionally, some exchanges are implementing asset segregation management to ensure that user funds are kept separate from the exchange's funds.
- **Compliance with local regulatory requirements:** Domestic exchanges will need to comply with the requirements of local regulatory authorities to ensure that their services align with local laws and regulations. Global exchanges will also be more proactive in applying for licenses in various countries and adjusting the products and services they offer according to each country's legal requirements to ensure compliance.

These measures aim to enhance the security and transparency of centralized exchanges and improve users' trust in exchanges.

2. Taiwan exchange operators:

In the global trend towards compliance among exchanges, many Taiwanese centralized exchanges have collaborated with banks and adopted trust management to ensure the security of assets. This approach provides a more reliable fund custody mechanism and enhances users' confidence in the exchanges.

The following table presents some of the well-known and legally compliant centralized exchanges in Taiwan at present

Exchange	Established	Trading form	Bank Custoday	Features
MaicoIn	2013	Currency Exchange	Far Eastern	Provide USD fiat deposits and withdrawals
BitoEX	2014	Currency Exchange	Far Eastern	Purchase cryptocurrency at convenience stores
BitoPro	2018	Order book model	Far Eastern	Grid trading, debt claims
MAX	2018	Order book model	Far Eastern	Physical store, borrowing
ACE	2018	Order book model & currency exchange	KGI Bank	Debt rights, dollar-cost averaging, dual-currency wealth management, grid trading, physical store
XREX	2018	Order book model & currency exchange	Far Eastern	Providing USD fiat deposits, cross-border payments
BITGIN	2021	Currency Exchange	KGI Bank	Lending, yield farming, DeFi
Rybit	2022	Currency Exchange	KGI Bank	Lowest exchange rate for fiat to USDT
HOYA BIT	2022	Currency Exchange	KGI Bank	Cryptocurrency fixed deposit (daily interest earning)

The exchanges mentioned above have all obtained the Anti-Money Laundering (AML) declaration from the Financial Supervisory Commission (FSC) and have registered according to regulations. Most of them offer users the ability to deposit and withdraw in Taiwanese Dollars (TWD).

Based on the aforementioned commonalities, Taiwanese exchanges have developed their own unique features in terms of functionality and services:

- **Trading modes:** The main trading modes are the order book model, where buyers and sellers are matched, and the quote-based model where prices are provided by counterparties. In terms of the number of trading currencies, new entrants tend to focus on the mainstream currencies commonly purchased by Taiwanese users.
- **Financial products:** Debt, dollar-cost averaging, and lending are common product services in the industry. Dual-currency wealth management, grid trading, and DeFi provide users with more diversified investment options.
- **Physical locations:** ACE & MAX have established physical storefronts where users can visit for consultations and receive personalized services to enhance user trust.

In addition to the aforementioned centralized exchanges, there are other centralized financial models in the blockchain CeFi (Centralized Finance) space:

- **Asset management platforms:** These platforms offer customers a variety of investment product choices. After transferring their cryptocurrencies to the platform, customers can utilize the asset management platform to allocate their funds to other exchanges or decentralized finance strategies to generate returns. These platforms aim to provide customers with fixed or variable interest rate earnings. Examples of such asset management platforms include Bincentive and Wincan, which offer various digital asset investment management solutions.
- **Copy-trading platforms:** Some providers have developed platforms for automated copy-trading, allowing investors to achieve automated investment results through following and replicating the trades of other successful traders. Examples include GT Radar, which offers a one-click copy-trading platform and other similar platforms.
- **Quantitative trading strategies:** These are automated investment strategy tools that integrate big data and algorithms to optimize investment performance. By connecting to exchanges, investors can automatically enhance their investment outcomes. Examples include NiceLend and Fuly.AI.

However, in the current regulatory environment in Taiwan, cryptocurrencies are defined as "commodities" rather than currencies. As a result, service providers in the centralized financial asset management sector that do not offer strategy services do not have any regulatory safeguards for investors. This means that if users encounter platform bankruptcy or closure, their assets may be at risk of loss and they may face difficulties in seeking compensation.

3. The advantages of Taiwan's exchanges will become more apparent, after losing trust in centralized exchanges:

Due to the bankruptcy of FTX, many traditional banks have become more conservative towards the blockchain industry, imposing restrictions or closing off deposit channels for cryptocurrency users. In March 2023, some crypto-friendly banks, such as Silicon Valley Bank, Silvergate, and Signature, have also closed down, making it even more challenging for users to deposit or withdraw fiat currencies.

In comparison to international exchanges facing restrictions on deposit channels, Taiwanese

exchanges are better able to meet the needs of local users. Users can directly use their local bank accounts for deposits, without going through cumbersome international wire transfer procedures or facing restrictions from banks.

This measure provides greater convenience and significantly shortens the fund transfer time between exchanges and users. Regulatory compliance ensures that exchanges adhere to legal requirements, thereby safeguarding the security and privacy of users' funds.

	Pros	Cons
Taiwanese exchanges	Focus on serving the Taiwan market and most of them entrust their funds to local banks in Taiwan, which are regulated by the Financial Supervisory Commission of Taiwan	Fewer product and trading options, and the trading depth is insufficient, making prices more susceptible to volatile market fluctuations caused by supply and demand
International exchanges	Diversified choices, offering a variety of cryptocurrency assets for trading and providing a rich trading experience	No direct access for deposits and withdrawals in Taiwan dollars, requiring currency conversion. If the exchange faces closure or liquidation, the cross-border claims process can be complicated

Overall, these negative events in the industry have brought many restrictions and inconveniences to industry participants in the short term. However, this is also an inevitable path for the entire industry to develop in a long-term and stable manner.

B. DeFi (Decentralized Finance)

DeFi, short for Decentralized Finance, is a financial services model that operates in contrast to CeFi, or Centralized Finance. In the world of DeFi, there is no need for centralized financial institutions as intermediaries. Instead, it is built upon blockchain technology, forming a financial ecosystem. DeFi utilizes blockchain smart contracts and decentralized applications (DApps) to execute financial transactions.

The scope of DeFi applications is vast and covers activities such as the issuance, trading, lending, derivatives, and insurance of digital assets. Decentralized finance platforms operate on the blockchain, reducing operational costs and improving service efficiency. In DeFi, transactions are executed through smart contracts without the involvement of traditional financial institutions. This means that transactions can be conducted faster, with transparency and security, and participants have direct control and management over their assets without relying on third-party intermediaries.

1. Global trends in Defi:

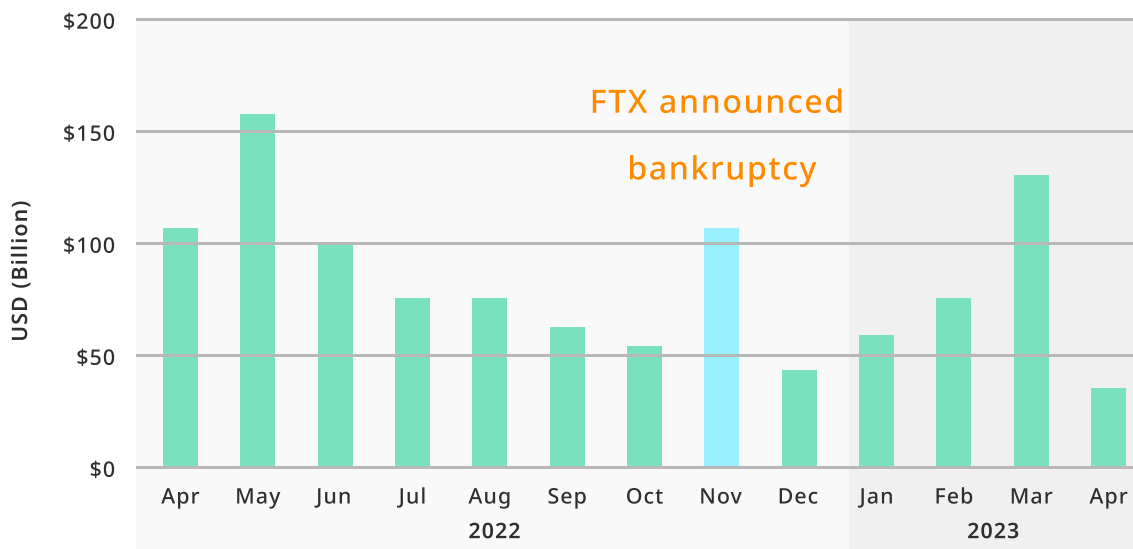
The closure of centralized exchanges has raised concerns among users regarding the security of their funds. As users become aware of the importance of self-custody of funds, it has further propelled the growth of DeFi. With the increasing demand for decentralization, DeFi technology continues to innovate to provide faster transaction speeds and lower costs.

Let's first discuss the growth of DeFi users based on decentralized exchange trading data, and then explore the technological innovations in the DeFi space.

1.1 The centralized trust crisis has led to an awareness of self-custody of funds

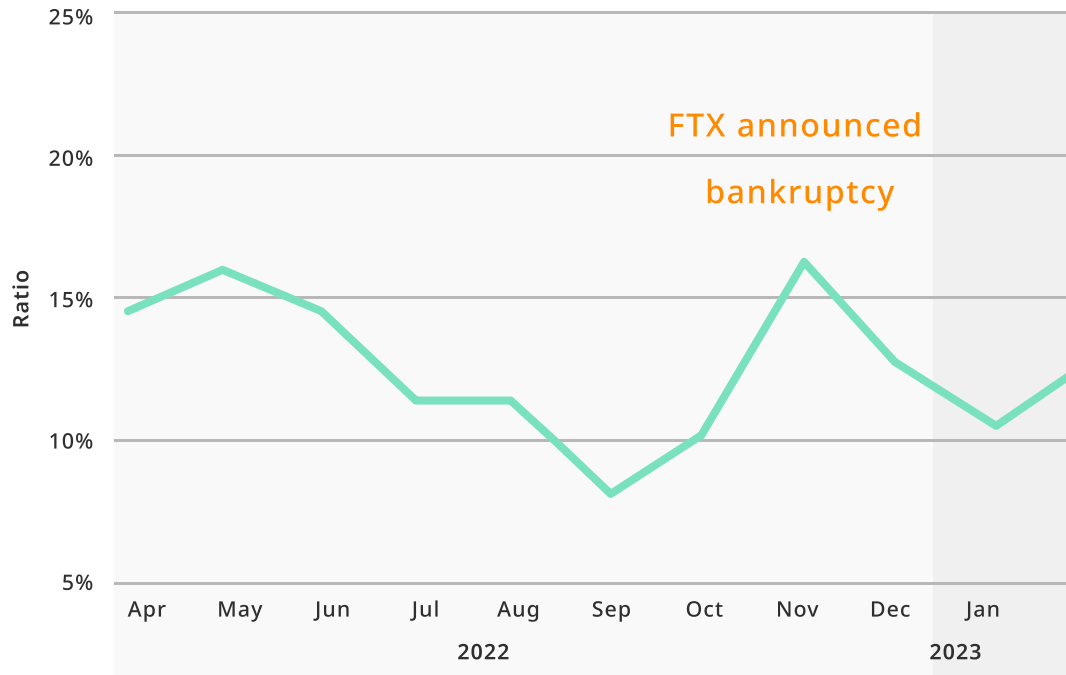
After the malicious closure events of centralized exchanges in 2022, users began seeking safer and more decentralized ways to self-custody their funds, which led to the growth of users in decentralized services. From the on-chain data in Chart 1, it can be observed that more funds flowed into decentralized exchanges when FTX announced bankruptcy.

▼ Chart 1: DEX Volume



Source: THE BLOCK

▼ Chart 2: DEX to CEX Spot Trade Volume



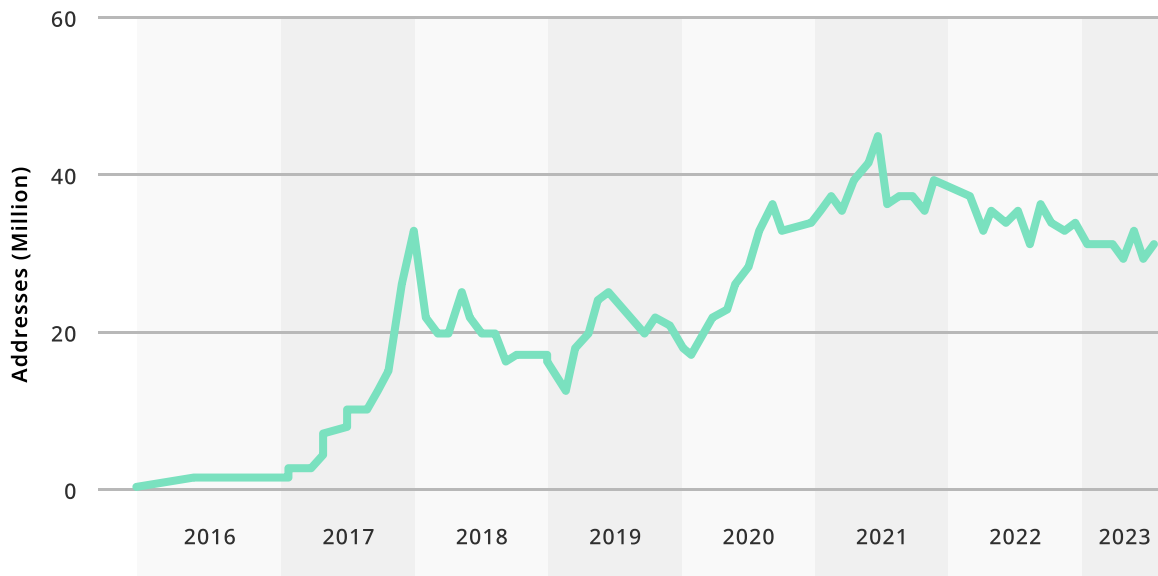
● Source: THE BLOCK

Additionally, in the trading volume data shown in Chart 2, we can see that the market share of decentralized exchanges compared to centralized exchanges has reached 16%, marking the highest point since the beginning of 2023. This reflects the increasing awareness among users about controlling their own funds and a shift towards using decentralized exchanges.

1.2 The increasing demand for decentralized finance (DeFi) from investors has been driving the continuous development of DeFi technology worldwide

DeFi achieves secure asset custody and transaction execution through the use of smart contracts and blockchain technology, providing higher security and decentralization without the need for intermediaries. The increasing number of active addresses on the Ethereum blockchain, as shown in the chart below, indicates a growing trend of users shifting towards conducting their trading activities on DeFi platforms.

▼ Number of active addresses on the ETH network



Source: THE BLOCK

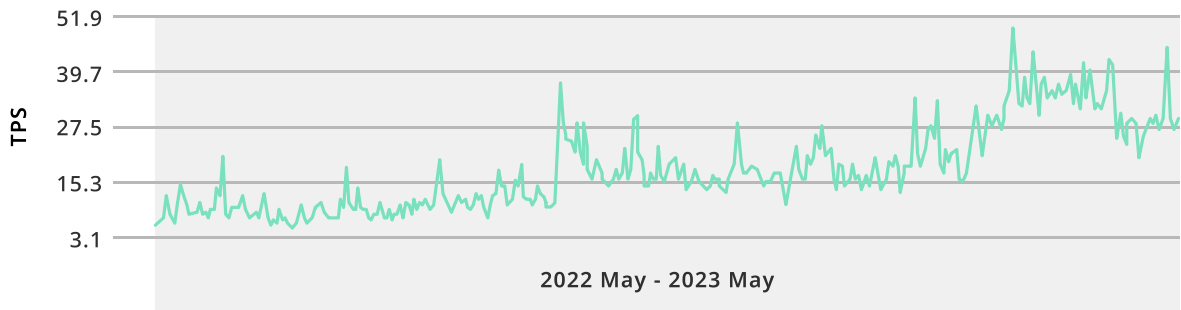
With the increasing demand for DeFi, there have been innovative developments in the overall technological aspects, primarily manifested in the following two areas:

- **Decentralized exchanges:** The leading decentralized exchange, Uniswap, launched its v3 version in 2021, which further enhanced the liquidity of decentralized exchanges. With the expiration of patents after two years, various decentralized exchanges have innovated based on its technological framework, such as
 - PancakeSwap provides a simpler way for general users to compose liquidity.
 - DoDo allows professional LP liquidity providers to create leveraged market-making pools
- **Layer 2:** Generally, when more users engage in transactions on the blockchain, on-chain transactions tend to become slower and more expensive. This phenomenon is especially evident on the Ethereum mainnet, leading to the emergence of Layer 2 solutions. Layer 2 solutions process a significant amount of work off-chain before submitting it back to the Ethereum mainnet. This improves the transaction speed and capacity of Ethereum, thereby reducing transaction costs for users and allowing them to experience the advantages of blockchain technology.

As shown in the graph below, over the past year, the overall transaction activity on Layer 2 has been consistently increasing, indicating a growing demand for Layer 2 solutions from users.

The emergence of Layer 2 and the thriving development of its ecosystem are crucial for the growth of cryptocurrencies and the DeFi sector. It addresses congestion issues on the Ethereum mainnet while providing a better user experience.

▼ Transactions activity on Layer 2



Source: L2BEAT

While the core advantage of DeFi lies in users having control over their asset management, the current vehicles and gateways for DeFi still primarily rely on decentralized wallets. Therefore, reducing the friction cost for users to enter DeFi and providing a simple and user-friendly onboarding experience will be a trend in future product development. This will help attract more users to participate in DeFi and further drive the development of the DeFi space.

2. DeFi operators in Taiwan

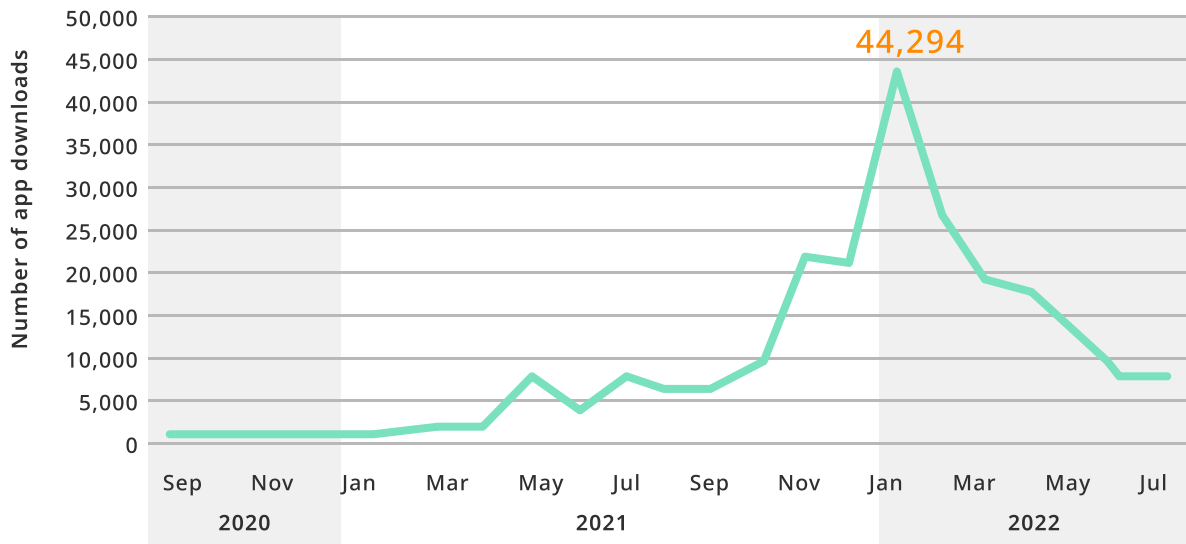
Taiwanese DeFi operators have also made progress in various fields. The following table illustrates some well-known DeFi operators in Taiwan:

DeFi Protocol	Established	Type	Description
Perpetual Protocol	2019	Transactions and fund movement	Based on the foundation of vAMM, establishing a decentralized sustainable contract trading platform

Hakka Finance	2020	Transactions and fund movement	Providing diversified DeFi derivatives and tools, such as integrating decentralized stablecoin exchanges from various protocols and offering hedging interest rate derivatives for lenders and borrowers
Cream Finance	2020		Centralized lending platform that offers highly liquid asset pools and integration with other DeFi protocols
Furucombo	2020	Transaction aggregation platform	DeFi aggregation platform that enables users to create various complex financial products based on their
Dappio	2021		Integrated one-stop yield aggregation service platform for projects including NFTs, GameFi, DeFi, etc., where users can view investment returns in blockchain games, NFT attributes, various DeFi protocols, and more

In the world of DeFi, there are no geographical restrictions. Investors only need to have a decentralized wallet to connect to the web and engage in transactions. Generally, Taiwanese investors primarily use the MetaMask wallet when entering the DeFi market. Based on data from the past two years, the download volume of the MetaMask wallet application in Taiwan is shown in the graph below. It can be observed that it reached its peak in early 2022 in terms of new user additions, with a monthly download volume of approximately 44,000. However, following the cooling of the market, the monthly download volume gradually declined, reflecting the situation in the Taiwanese market and the level of interest among investors in DeFi.

▼ Number of downloads of the MetaMask wallet app in Taiwan



● Source: Statista

Due to the volatility and risks of the DeFi market, the level of investor participation may be influenced by market conditions and risk preferences. However, as an emerging financial sector, DeFi still holds significant potential and attractiveness, and it may continue to attract more attention and participation from investors in the future. At the same time, DeFi projects lack the regulatory oversight seen in centralized finance, so investors must carefully research the security and risks of participating in DeFi projects.

3. The challenge of balancing decentralization and compliance in DeFi

The core concept of DeFi is to leverage blockchain smart contract technology to eliminate intermediaries and achieve a more open, transparent, and interactive financial system. However, with the rapid development of DeFi and the emergence of trust crises in centralized exchanges, regulatory authorities are seeking to expand their oversight to ensure the security of user funds, including applying regulatory requirements to the DeFi space.

Although DeFi systems are fundamentally independent of traditional financial institutions, the operational activities of some DeFi platforms may still involve compliance and legal risks. For example, hackers use mixer services like Tornado Cash to obfuscate transaction records on the blockchain, making it difficult to trace illicit funds without the need for identity verification. As a result, regulatory agencies have begun to recognize the need to enhance regulation in the DeFi space to protect user rights and maintain the stability of the financial system.

Overall, DeFi is likely to face a trend of expanding regulatory scope in the future. However, the core goal of blockchain is to create a network infrastructure that is not controlled by any single entity or country, enabling autonomy of assets and information. Therefore, the challenge of finding a balance between decentralization and compliance still exists, requiring collective efforts to find appropriate solutions for the sustainable development of DeFi.

C. The NFT Industry and Trading Platforms

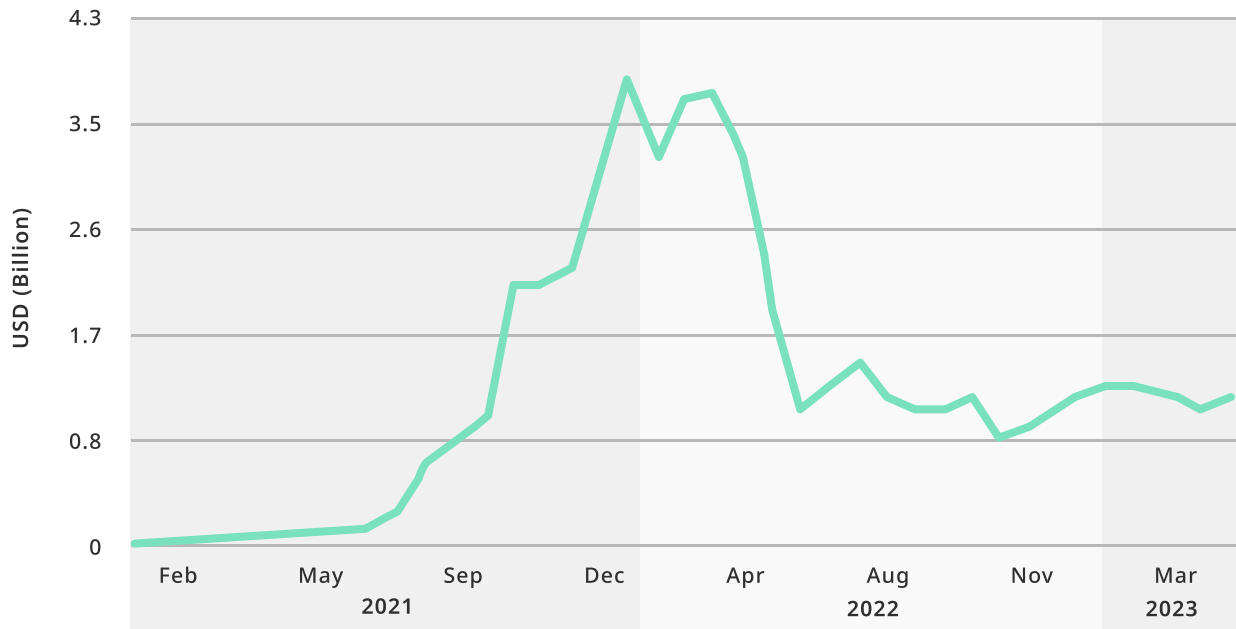
NFT (Non-Fungible Token) is a type of digital asset that is different from cryptocurrencies like Bitcoin or Ethereum. Each NFT is unique and cannot be replaced.

First, let's take an overview of the overall trends in the NFT industry, then discuss the current situation of relevant businesses in Taiwan, and finally, present potential changes that the NFT industry may face.

1. The rise and decline of the NFT industry

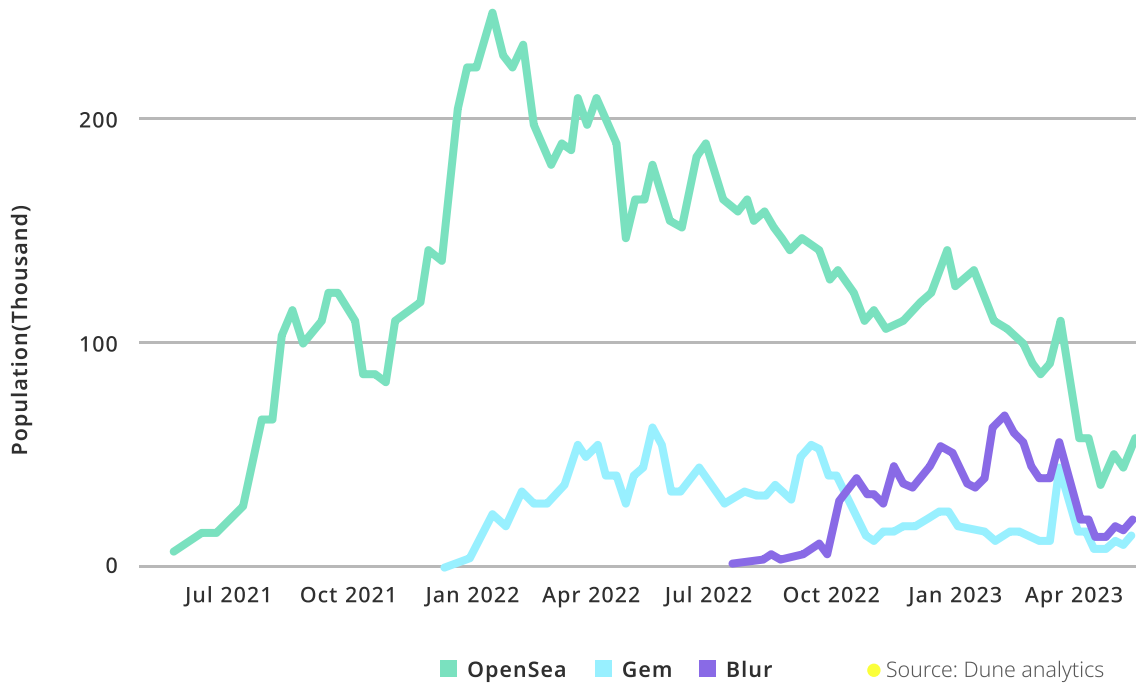
In the NFT frenzy of 2021, many NFT projects, communities, and applications emerged, heralded as the "NFT boom." The overall market value reached its peak of approximately \$21 billion in early 2022. However, after the collapse of the Luna ecosystem, funds were withdrawn from the cryptocurrency market, resulting in a bearish market for DeFi and causing the value of many NFTs to evaporate overnight. The total market value of the entire NFT market dropped by nearly 70%. Additionally, the number of participants in major NFT trading platforms worldwide has significantly decreased over the past two years.

▼ The market cap of NFT fell by nearly 70%



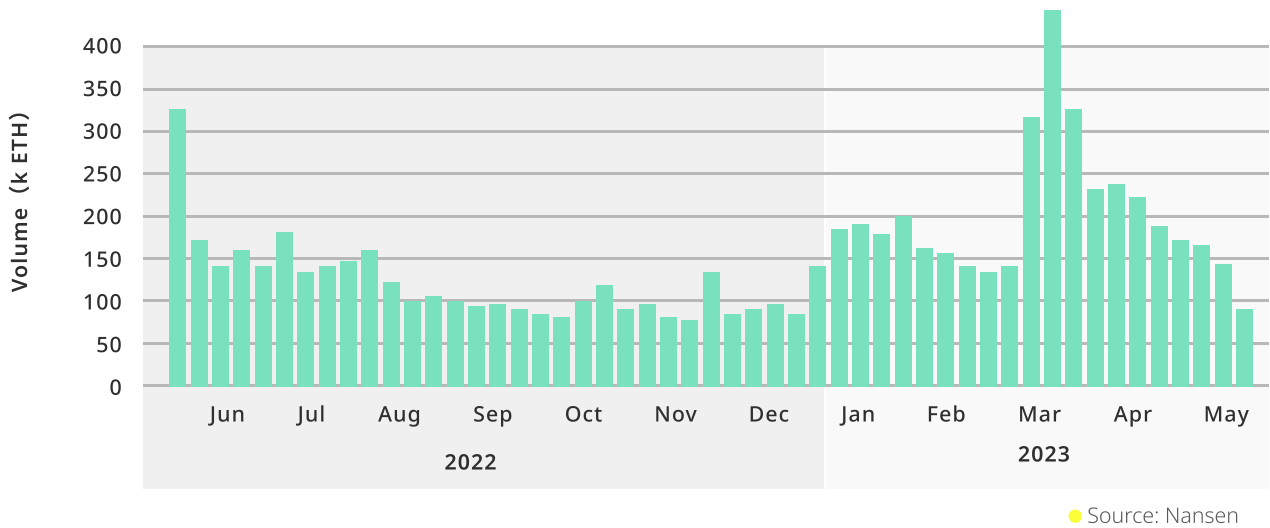
● Source: NFTGO

▼ The number of NFT users has dropped sharply



Until the first quarter of this year, 2023, the NFT market's trading volume started to recover with the launch of the Blur trading platform and token airdrop campaigns.

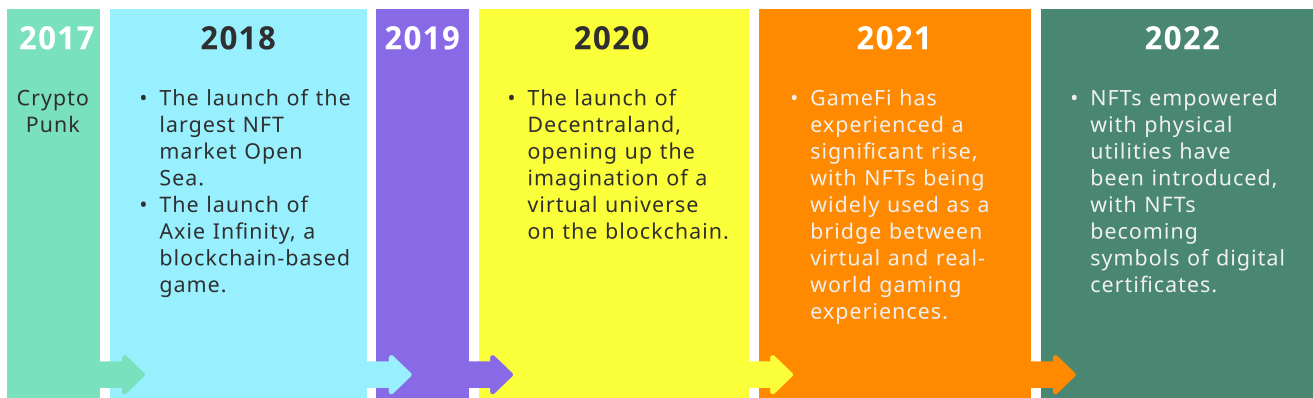
▼ NFT transaction volume raised in the first quarter of this year



2. Taiwan NFT platform operators

Despite the market being in a downturn, the NFT sector in Taiwan continues to develop. Starting from the initial art collecting field and expanding into blockchain-based games, Taiwan witnessed many traditional industries entering the NFT space in 2022, exploring various commercial applications of NFTs. Additionally, NFTs are also seen as digital certificates on the blockchain, applied in industries such as food and beverage, ticketing, and physical goods exchange. As a result, many platforms adopting the OMO (Onchain Merge Offchain) business model, which integrates online and offline operations, have started to emerge.

▼ Progression of NFTs



With the booming development of the NFT market, NFT trading platforms have become key in providing a secure and reliable trading environment for users to mint, trade, and manage their NFT assets. These platforms are dedicated to ensuring the security and trustworthiness of transactions while offering users convenient features to view and manage their NFT assets.

NFT platforms in Taiwan	Established	Types	Known Projects
OurSong	2018	Comprehensive open trading platform	Shi Yuan Salted Popcorn Chicken
Lootex	2018	Comprehensive open trading platform	Game virtual treasures, National Palace Museum
SOYL	2022	Collecting and trading in the art field	Jin Chi Ping, Huang Hai Xin, Zhang Xu Zhan
Fansi	2019	Collecting and trading in the art field	Zhang Yu Sheng, Power Station
Jcard	2021	Digital certificates	Thunderbolt Puppertry
RE:DREAMER	2021	Digital certificates	Exploring the Universe and collecting chapters in the Sanchong creative life park

The NFT services and trading platforms in Taiwan can be categorized into the following types:

1.1 Comprehensive open trading platform

- **OurSong:** Register and you can issue various types of NFTs and engage in transactions. For example, in 2021, the popular food item Shiyuan Salted Crispy Chicken issued NFTs with consumer empowerment features.
- **Lootex:** Starting from NFT trading of in-game virtual assets, Lootex has expanded into a comprehensive platform. They use NFTs to help projects build intellectual property (IP) and provide customized NFT marketplaces to meet the needs of various projects."

1.2 Collecting and trading in the art field

- **SOYL:** Focuses on Art Collectibles. Bringing together curation, trading, media, management, and other functions to create an integrated platform for art-oriented NFTs.
- **Fansi:** Focuses on the Music Creation Field. On one hand, it provides creators with income through NFT transactions, and on the other hand, it offers fans the opportunity to interact with the creators.

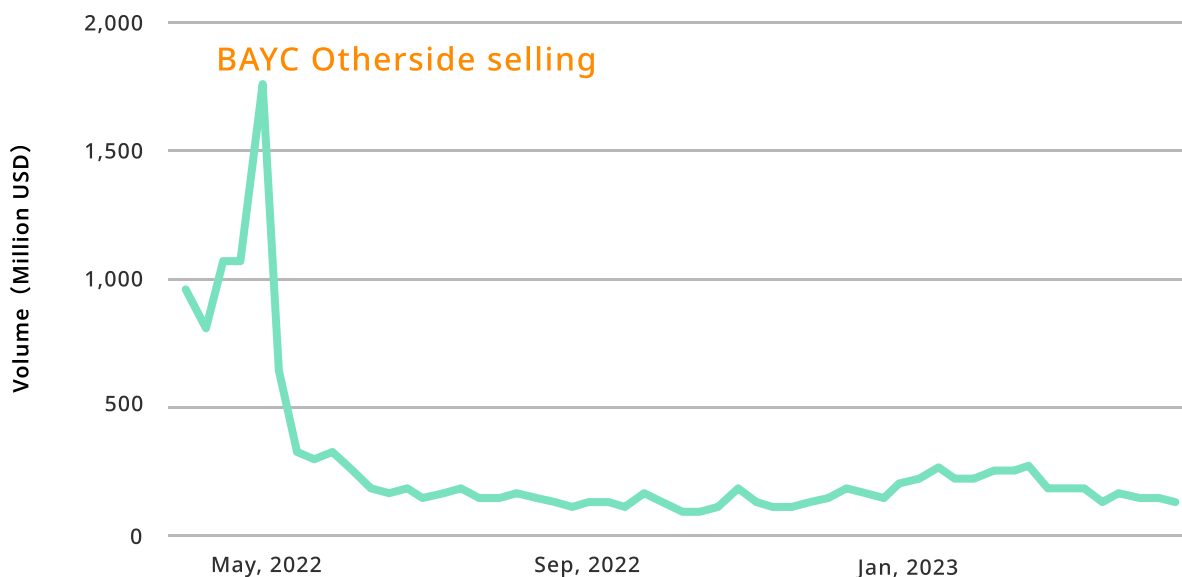
1.3 Digital certificates

- Jcard: Provides digital ticket verification, IP collaborations, card integration, 3D exhibition halls, and other applications, offering a more diverse integration of virtual and physical experiences.
- RE:DREAMER: As a well-known project for verifying and redeeming physical industry certificates, it has recently achieved new technological milestones. RE:DREAMER has developed a new standard protocol, ERC-6672, based on ERC-721, which enables multiple redemption of NFTs. By scanning the QR code based on the attributes of the NFT, holders can redeem various physical products or services once or multiple times, opening up imaginative scenarios for verification applications.

3. Transformation of NFTs: Shifting from price speculation to practical applications

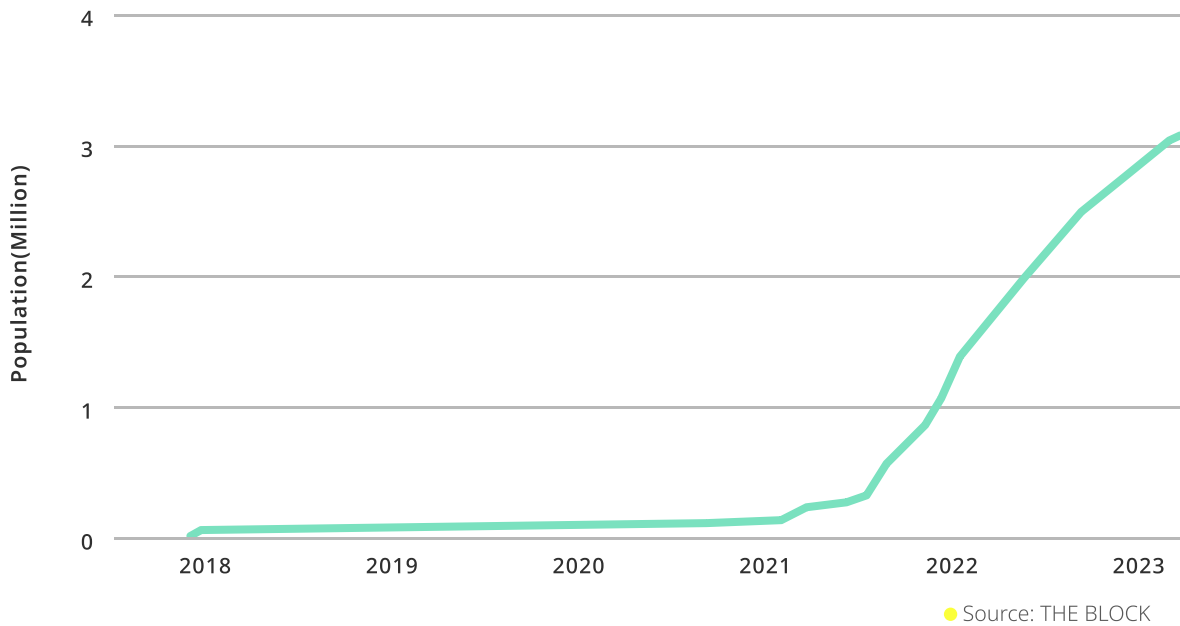
In late April 2022, the NFTs of Bored Ape Yacht Club (BAYC) on the platform generated renewed attention from investors and collectors, leading to increased activity in the NFT market (as shown in Figure 1). However, the market collapse triggered by the sharp decline of LUNA and UST in May of the same year, coupled with the previous excessive speculation in NFTs, resulted in a significant exodus of funds from the cryptocurrency market. This particularly affected the NFT market, causing a drastic decline in transaction volume and a significant decrease in trading activity. This marked the official departure of NFTs from the phase of price speculation.

▼ **Figure 1. The NFT trade volume surged after BAYC Otherside selling**



Source: THE BLOCK

▼ Figure 2. The population of NFT transactions has grown steadily



Despite the decline in trading activity, the number of NFT traders continues to grow steadily (as shown in Figure 2), indicating that the demand and appeal for NFTs remain strong. It has also been observed that many businesses are shifting their focus towards the development of functional NFTs, exploring more use cases for NFTs. Here are a few examples of well-known practical applications from overseas:

- Starbucks offers users an immersive coffee experience by issuing NFTs to cultivate customer loyalty.
- GUCCI introduces NFTs for exchanging ceramic sculptures.
- Louis Vuitton launches a mobile game where users collect NFTs to unlock the founder's story, as well as knowledge about Louis Vuitton's art design and technical craftsmanship.

From the above examples, it is evident that despite the challenges faced by the overall market, the NFT industry is continuously evolving and exploring new application areas. It is expanding its horizons from enhancing intrinsic value to functional utility, offering investors and users a diverse range of choices and opportunities.

Furthermore, the application prospects of NFTs in the ticketing market are also very promising. Many ticketing companies have shifted their focus towards blockchain technology in recent years. For example, Ticketmaster is exploring the use of NFTs for ticket authentication, verification, privileged access, and ensuring uniqueness. Compared to traditional paper tickets,

NFTs offer advantages such as high anti-counterfeiting measures and easy traceability, which can provide better security and user experience in the ticketing market.

In the gaming industry, NFTs have also found widespread applications. Players can own their virtual assets through NFTs, allowing them to be circulated between different games while retaining their exclusivity and value. The emergence of NFTs brings more opportunities and revenue to the gaming industry, reducing the economic collapse caused by excessive issuance and bridging the value between real-life and virtual economies. Additionally, real-world assets (RWA) are gradually being tokenized as NFTs, integrating the trust and automation efficiency of blockchain technology into RWAs.

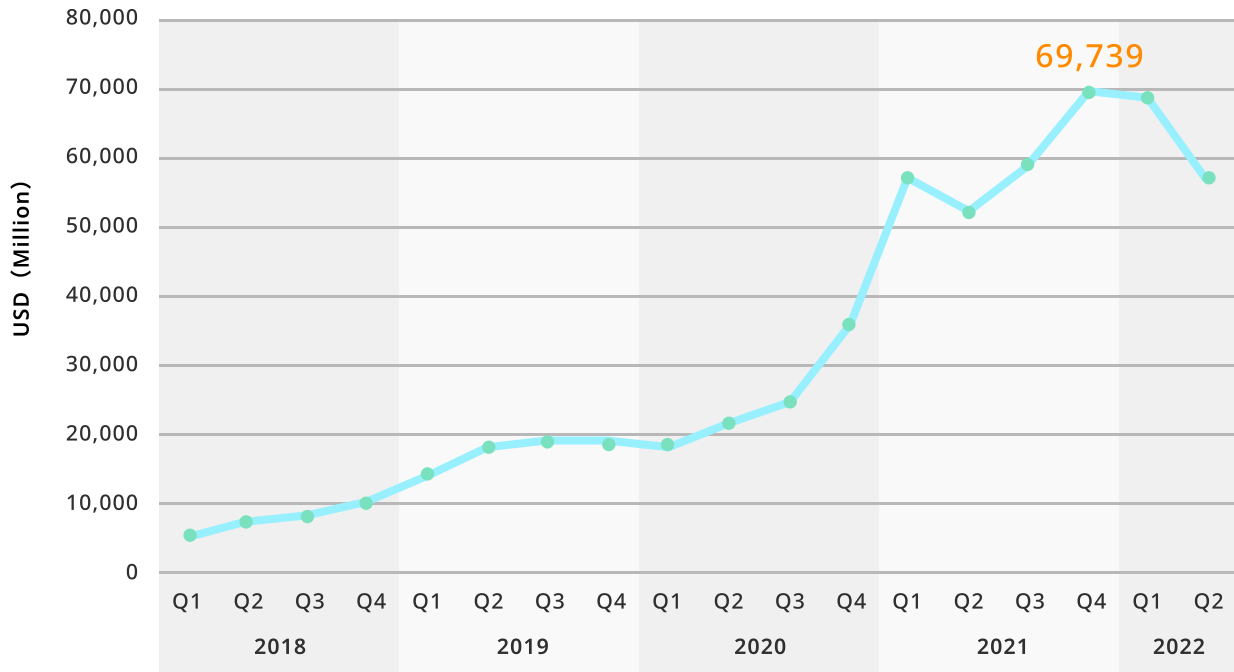
To meet the needs of high-value NFT holders for capital utilization, some NFT platforms have introduced NFT lending services, such as Blur and X2Y2. These platforms allow NFT holders to use their NFT assets as collateral and borrow fiat currency or other cryptocurrencies. This mechanism provides more ways for NFT holders to leverage their assets and encourages more investors to participate in the NFT market. These platforms offer services such as market value assessment, risk management, and transaction mechanisms to ensure transparency and security in the lending process.

Overall, NFTs are gradually shifting from being purely speculative in the art world to being more functional. The application scenarios for NFTs are continuously expanding. In the future, NFTs will bring changes and innovation to more industries, bringing blockchain technology closer to real-life applications.

D. Custody, Wallet, and Payment Industry

Since early 2018, the global assets under management (AUM) of cryptocurrency hedge funds have continued to grow (as shown in the figure below). In 2020, the cumulative AUM of cryptocurrency hedge funds surpassed the \$20 billion mark for the first time, reaching a peak of \$69.7 billion in the fourth quarter of 2021.

▼ Cumulative AUM of crypto funds worldwide



Source: Statista

Despite facing challenges such as regulation and custody issues, cryptocurrency hedge funds maintained an average AUM value of around 58.5 million US dollars by the end of 2021. This indicates that the demand for cryptocurrency assets continues to rise, and investors are willing to allocate funds to cryptocurrency funds.

The rapid growth of cryptocurrency funds reflects the increasing interest and confidence of investors in cryptocurrency assets and blockchain technology. They provide investors with opportunities to participate in the cryptocurrency market while offering tools and strategies for hedging and asset management.

Due to Taiwan's leading technological advancements in the information technology industry, its performance in the blockchain sector has been quite impressive. First, let's introduce relevant players in Taiwan, then discuss the current challenges faced by blockchain wallets, and finally, outline the trends in the international blockchain wallet industry.

1. Taiwanese custodial, wallet, and payment platform operators

Operators	Established	Categories
CoolWallet	2014	Cold Wallet
CYBAVO	2018	Digital asset custody

Operators	Established	Categories
Aegis Custody	2018	Digital asset custody
Blocto	2019	On-chain wallet
KryptoGo	2019	On-chain wallet
Qubic	2021	On-chain wallet
PO Wallet	2022	On-chain wallet
BackerPay	2022	Payment

1.1 Custody

The renowned Taiwanese startup company CYBAVO focuses on the custody and security of digital assets in the B2B sector. If centralized exchanges mentioned earlier can be compared to banks in the blockchain world, then CYBAVO can be considered the safe deposit box of blockchain banks.

Many major Taiwanese exchanges collaborate with banking institutions for their fiat businesses, while their cryptocurrency assets are stored in cryptocurrency vaults like CYBAVO.

In 2022, CYBAVO was also acquired by Circle, the issuer of the world's second-largest stablecoin, USDC, providing an opportunity to expand its customer base further into the European and American markets.

1.2 Wallet

If CYBAVO is considered the safe deposit box of the blockchain industry, then a hardware wallet is the investor's safe deposit box.

CoolWallet, developed by KuCoin Technology, began its journey in hardware cold wallet technology as early as 2014 and launched its hardware cold wallet in 2016. To date, CoolWallet has sold over 500,000 units worldwide, reaching more than 100 countries. It is one of the top three manufacturers of cold wallets globally and was recognized as one of the world's top 50 blockchain companies by CB Insights in 2020. KuCoin Technology has raised over \$30 million in funding to date.

After the DeFi boom in 2021, many industry players noticed that the interface of hot wallets posed a higher barrier to entry for novice users. As a result, many companies focused on simplifying the wallet onboarding experience. For example, the Qubic wallet allows users to

create an account and log in using their Google, Facebook, or Apple accounts, eliminating the need for private keys or mnemonic phrases to enter the decentralized world. Additionally, Qubic supports credit card payment functionality, enabling consumers to purchase NFTs without first acquiring cryptocurrencies. This feature has made Qubic the preferred partner for various enterprises such as ZhenFund, Cathay Life Insurance, and Taishin Bank.

Furthermore, Blocto Wallet, founded by Portal Technologies and supporting Web3 users, has reached 1.6 million users and completed a Series A funding round with a valuation of \$80 million in 2023. In 2021, Blocto previously secured pre-Series A funding led by Animoca Brands. According to a press release by Blocto after the Series A funding, the overall valuation of Blocto has increased eightfold.

1.3 Payment

In the field of cryptocurrency payments, there is still room for development in the total transaction volume of global cryptocurrency payments. As countries gradually implement regulations for stablecoins, more people are recognizing the security and convenience of using stablecoins for payments.

As the general public increasingly accepts digital payments, Taiwan has also seen companies developing technology for cryptocurrency payments. For example, BackerPay, a cryptocurrency payment solution, has been adopted by over 30 merchants in the Shida area. Consumers can make cryptocurrency payments directly through QR codes, creating a diverse payment environment. In addition to offline payments, BackerPay also provides API integration for online merchants, offering a wider range of payment options.

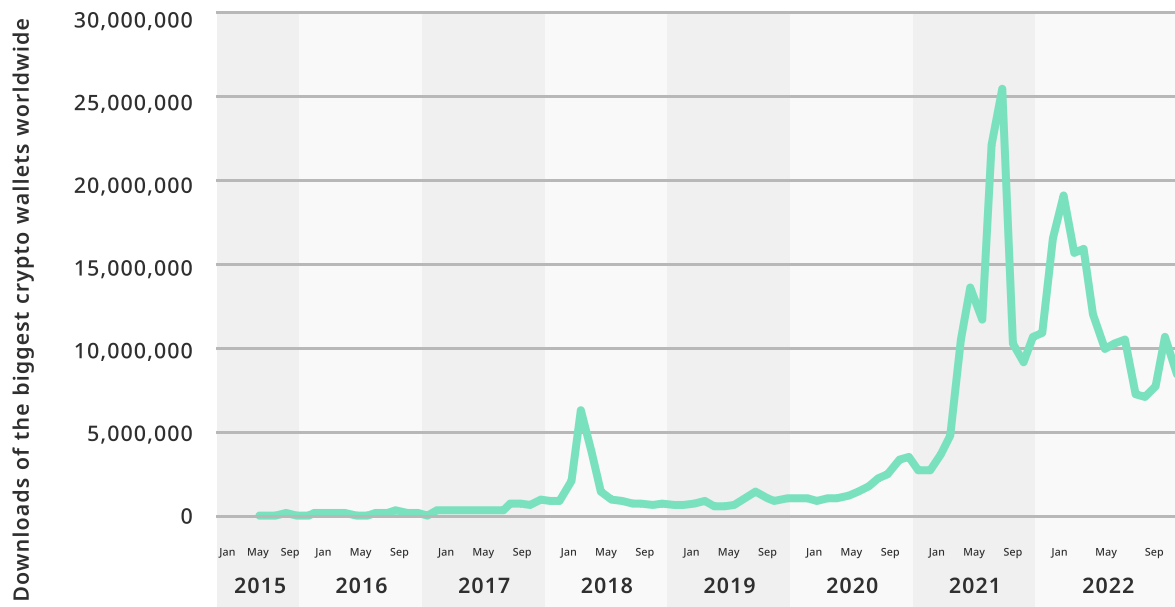
Overall, in the fields of custody, wallets, and payments, Taiwan's industry has performed well and gained widespread attention and recognition, securing a place in the global market. As cryptocurrency regulations are gradually implemented worldwide, the technology and market prospects for cryptocurrency wallets and payments will become even more extensive in the future.

2. Challenges in Custody, Wallet, and Payment Industries

Blockchain wallets, as key tools for managing and storing cryptocurrencies, are widely used globally. The estimated and aggregated download volume of various applications such as Coinbase, Blockchain.com, Metamask, Trust, and Binance from January 2015 to October 2022 is shown in the following chart. The download volume of cryptocurrency wallets has significantly

increased after 2020, with overall demand experiencing a substantial boost during the DeFi boom.

▼ Downloads of the biggest crypto wallets worldwide



● Source: Statista

However, as the blockchain industry continues to develop, blockchain wallets face several challenges, including high user entry barriers, security risks, inconvenient deposit channels, and educational costs.

1.1 User entry barriers

To reduce user entry barriers, various approaches can be adopted through technological innovation to provide users with easier ways to get started with blockchain. These include features such as account abstraction and MPC (Multi-Party Computation) wallets.

1.2 Deposit channels

Once users have created a wallet in a convenient manner, the next challenge is the deposit process. Convenient deposit channels are essential factors for attracting new users and promoting the use of blockchain wallets. Blockchain wallets should actively seek partnerships with financial institutions and payment service providers to establish convenient and cost-effective deposit channels. Through collaborations with banks and third-party payment providers, wallets can offer options for users to directly purchase cryptocurrencies using bank transfers or electronic payment methods.

1.3 Security risks

Due to the rapid development of the blockchain industry, fraud and security risks have increased. International blockchain wallets need to strengthen their security measures to protect user assets. In addition to private key protection and encryption techniques, wallets can consider incorporating security mechanisms such as multi-signature and biometric authentication.

Furthermore, enhancing risk monitoring and anti-fraud mechanisms is crucial. Providing real-time risk alerts can help users identify and prevent fraudulent activities.

1.4 Education Costs

In addition to the aforementioned three aspects, blockchain wallets should also focus on user education and support. This can be achieved by providing comprehensive user guides, FAQs, tutorial resources, and 24/7 customer support services. These measures help users resolve issues and receive professional advice, thereby increasing trust in the wallet and enhancing user engagement.

3. Trends in international blockchain wallets: Reducing entry barriers, facilitating coin purchases, and exchanges expanding Web3 ecosystem

Based on the challenges and issues mentioned above, the widespread adoption and application of blockchain technology are driving the development of international blockchain wallets. These wallets not only provide secure storage and management of digital assets but also strive to lower the entry barriers for users, enabling more people to easily enter the world of blockchain. Currently, mainstream wallets are moving towards the following trends:

1.1 Technological innovation lowers the user entry barriers

In order to attract more new users, blockchain wallets provide more convenient entry methods through technological innovation. One innovation is "social recovery of private keys," which allows users to split their private keys into multiple parts and store them in a trusted social circle. When users need to recover their private keys, they only need to obtain sufficient agreement from members of the social circle. Additionally, MPC (Multi-Party Computation) wallets are another innovative approach that utilizes mathematical algorithms and cryptographic techniques to disperse private keys across multiple devices, enhancing security and reducing the risk of key loss. own ecosystems and attract more users but also provide users with comprehensive education and support. By offering a seamless experience and a unified platform, users can easily manage their assets and access various services.

1.2 The convenience of purchasing cryptocurrencies through credit card channels

In order to enable more novice users to access blockchain services, blockchain wallet providers collaborate with financial institutions and payment service providers to offer users a direct channel to purchase cryptocurrencies using credit cards. This eliminates the cumbersome process of transferring funds and significantly reduces the entry barriers.

1.3 Development of On-Chain Security Technology

Various techniques are employed by hackers to conduct on-chain attacks, ranging from complex smart contract attacks or phishing attempts to common tactics like deceiving users into granting unauthorized access to their wallets. To mitigate these risks, some crypto wallets have started adopting biometric authentication, utilizing fingerprint or facial recognition for user verification, thereby preventing malicious theft.

Furthermore, several Web2 antivirus software providers have ventured into Web3 by developing on-chain security technologies. For example, they offer browser extensions that collect and analyze data to detect malicious websites, phishing URLs, and fraudulent links. When a user encounters such threats, a warning window pops up to alert them. These measures help enhance the security of on-chain transactions and protect users from potential risks.

1.4. Exchange's deployment in the Web3 ecosystem

The competition between blockchain wallets and exchanges is increasingly aggressive, with many exchanges engaging in mergers, in-house development, or strategic investments to seize Web3 traffic.

- Bitget Wallet and Bitkeep Exchange have initiated a collaboration, allowing Bitget Wallet users to conveniently access Web3 product features on the Bitkeep Wallet, while also increasing the traffic and user base of both platforms.
- OKX Exchange has also developed its own wallet, enabling users to manage their assets and conduct trading operations on the same platform, providing an integrated user experience.
- Binance Exchange has strengthened its competitiveness in the blockchain wallet field by acquiring Trust Wallet, allowing users to conveniently store and manage their encrypted assets.

The collaboration and integration between exchanges and wallets not only help expand their own ecosystems and attract more users but also provide users with comprehensive education and support. By offering a seamless experience and a unified platform, users can easily manage their assets and access various services.

E. Infrastructure

During the pandemic, digital technologies have been more widely accepted and used by people. Blockchain technology has gained adoption and attention from many businesses and organizations in recent years. Traditional financial institutions in various countries have also invested in researching and developing blockchain technology. For example, they have explored on-chain identity and verification frameworks, conducted cross-border settlement tests, and more, all with the aim of enhancing the efficiency of financial services.

Although the development is still in its early stages, with the accelerating trend of digitization, blockchain has become an important infrastructure for new types of financial technology.

We will introduce the infrastructure of related businesses in Taiwan and then analyze the deployment of international financial institutions in the blockchain sector.

1. Taiwanese blockchain infrastructure providers

Company	Established	Category	Description
CTBC Bank Co Blockchain Lab	2016	Financial Institution	Utilizing blockchain technology to assist Taiwanese companies in connecting with the international market, enhancing industrial competitiveness, and creating business value
BiiLabs	2017	Infrastructure	Assisting various industries in their digital transformation and addressing key challenges such as trust, security, growth, and efficiency for customers in their applications
KryptoGO	2019	Infrastructure	Facilitating the connection between businesses and users on the blockchain with real identities through compliance, artificial intelligence, and blockchain technology
BSOS	2018	Infrastructure	Building a supply chain for the transformation of Real World Assets (RWA) into digital assets

Company	Established	Category	Description
Baasid	2018	Infrastructure	Dedicated to data protection, identity verification, Web3, and supply chain finance
GPUMINE	2018	Mining	Providing integrated mining services and creating a stable and efficient mining environment
MIDAS LABS	2020	Mining	Providing high-end chip design services with the aim of becoming the leading hardware and chip supplier in the blockchain industry

Various types of infrastructure can not only increase the efficiency of financial transactions but also enhance security and bring forth more innovative technologies and value. The following are examples of such infrastructure in Taiwan:

1.1 Identity verification

In the field of identity verification, companies like KryptoGO utilize decentralized identity recognition technology to enhance the protection of personal information. They also provide tools and services related to anti-money laundering, which can help businesses and financial service providers improve compliance efficiency.

1.2 Blockchain supply chain management and data verification

Emerging blockchain companies like BSOS and Baasid offer services in blockchain supply chain management and data verification. They apply blockchain technology to real-world problems, providing greater financial flexibility for suppliers and bringing new opportunities and solutions to various industries in the financial sector.

1.3 Blockchain mining and hashing power management

Companies such as GPUMINE and MIDAS LABS provide various mining services and hashing power products. They assist users in effectively managing and controlling computing power, improving mining efficiency while reducing energy consumption and carbon emissions, thus contributing to environmental conservation efforts.

Overall, the infrastructure and applications of blockchain technology bring more solutions to the financial sector. With innovative and practical technology, they drive the application and development of financial technology, bringing more value to society and users.

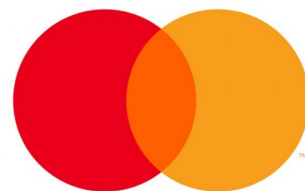
2. Examining the trend of global financial and business giants embracing blockchain services

The rapid development of blockchain technology has attracted active participation from international banks and internet giants. Many renowned foreign institutions have adopted blockchain-related services to enhance the efficiency, transparency, and security of financial and online transactions. They aim to shorten cross-border settlement times for traditional financial institutions.

For example, JPM Coin, launched by J.P. Morgan Chase, is a stablecoin based on blockchain technology, built on J.P. Morgan's private blockchain platform. It is primarily used for foreign exchange and cross-border payments, enabling participants to complete international transactions in seconds. Furthermore, due to the immutability and transparency of blockchain, it enhances the security and traceability of funds.



In addition, payment giants like Visa and Mastercard have started collaborating with centralized exchanges to introduce debit cards that support blockchain transactions. This means that users can make payments at merchants that support blockchain transactions while facilitating the settlement between virtual assets and traditional currencies. This makes blockchain-based transactions more convenient, driving the adoption and popularization of blockchain technology.

The VISA logo, consisting of the word 'VISA' in a bold, blue, sans-serif font.

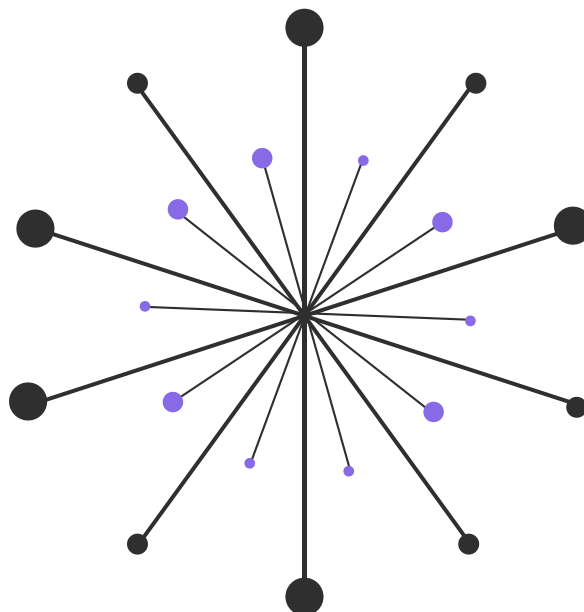
The involvement of these international banks and internet giants has brought significant momentum to the development of blockchain technology, indicating the immense potential and value of blockchain in the financial and transactional fields.

In addition to the international financial institutions mentioned earlier, other renowned organizations are also exploring and applying blockchain in various ways, such as:

- French bank Societe Generale has launched a Euro stablecoin compliant with the latest EU regulations, known as MiCA. This initiative aims to adhere to the EU's regulations on crypto assets and provide a Euro-based stablecoin as a payment and settlement tool.
- The cross-border transfer network system SWIFT (Society for Worldwide Interbank Financial Telecommunication) is also conducting tests on blockchain-based cross-border settlements. SWIFT is an international communication network between financial institutions, and they are exploring how to leverage blockchain technology to improve the efficiency and speed of cross-border payments and settlements.



In general, financial institutions worldwide have recognized the problems and challenges associated with traditional international financial transactions. These include the lack of transparency in existing systems, difficulties in tracking and verifying transactions, and the low speed and efficiency of cross-border transactions. As a result, international financial institutions are particularly focused on the areas of cross-border payments and settlements. Blockchain technology is seen as a promising solution to address these issues, as it has the potential to improve the efficiency, security, and traceability of international financial transactions.



3 /

THE DEVELOPMENT OF TAIWAN BLOCKCHAIN ECOSYSTEM

A. Interpreting the Blockchain Industry from Multiple Angles and Analyzing the Development Trends of Blockchain in Taiwan.

B. Bringing Together Outstanding Organizations and Leaders in the Industry to Jointly Promote the Development of the Blockchain Industry Ecosystem.

C. Providing Funding for Blockchain Innovation and Accelerate the Incubation of Various On-chain Services.

III. THE DEVELOPMENT OF TAIWAN BLOCKCHAIN ECOSYSTEM

As blockchain is an emerging industry, it is still in the early stages in terms of market promotion, education, policy adaptation, and investment environment. Therefore, in promoting the development of the blockchain industry, apart from the development of infrastructure and application services, media, associations, legal policy consultants, and capital operations play important roles in driving and supporting industry growth.

Firstly, media plays a crucial role in promoting the development of the blockchain industry by quickly and easily disseminating the latest blockchain information to the public, thereby increasing public awareness and understanding of blockchain.

Secondly, blockchain-related associations play an important role in promoting blockchain knowledge and applications by coordinating cooperation among various parties and organizing conferences, seminars, and other activities.

Lastly, legal consultants and venture capital firms providing funding play vital logistical roles in the field. They help companies comply with legal and policy requirements and assist teams in accessing capital and foreign resources, thereby accelerating the overall industry development.

The following report will provide data statistics on the investigation of Taiwan's blockchain-related companies to reflect the entrepreneurial environment of Taiwan's blockchain industry. It will also introduce relevant media, associations, policy consultation, and venture capital institutions within the industry.

A. Interpreting the Blockchain Industry from Multiple Angles and Analyzing the Development Trends of Blockchain in Taiwan.

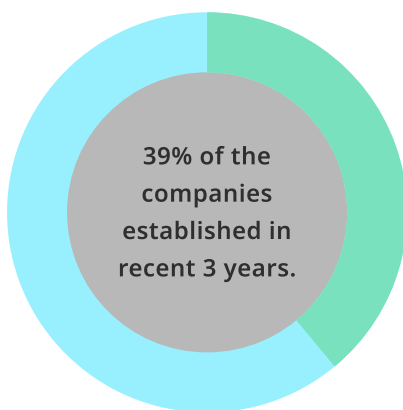
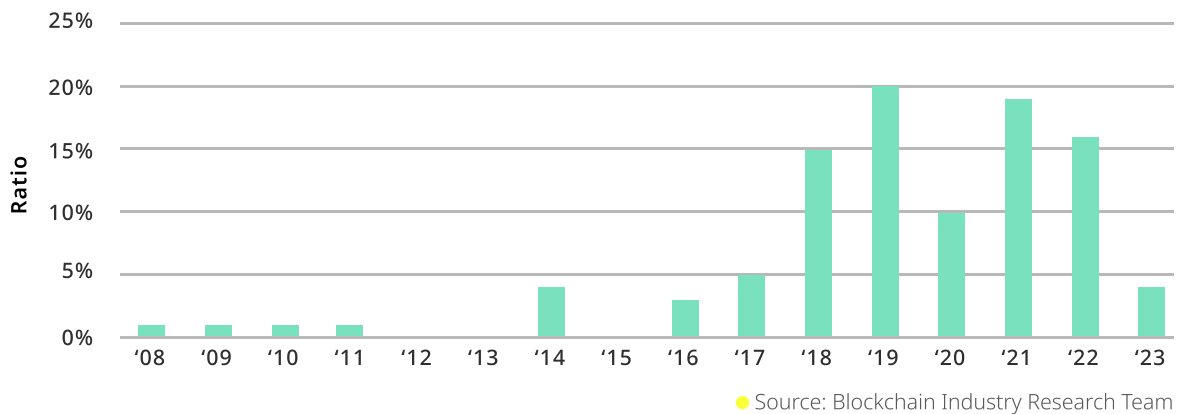
Based on a survey conducted on 75 blockchain-related companies in Taiwan, the following analysis is provided to give an overview of the blockchain industry in Taiwan.

1. Date of establishment of blockchain companies in Taiwan

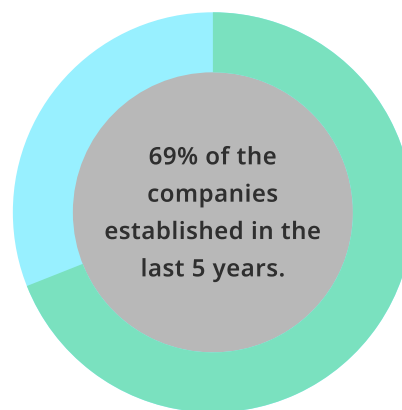
Close to 40% of blockchain companies were established in the past 3 years, while nearly 70% of blockchain companies were established in the past 5 years. This indicates the thriving

development of the blockchain industry in Taiwan in recent years, with blockchain technology being increasingly adopted across various sectors. It has attracted a growing number of startups and companies to enter this field.

▼ The year of the company establishment distribution



Source: Blockchain Industry Research Team



2. Taiwan's blockchain company scale

In terms of company scale, 40% are micro-companies with fewer than 10 employees, while there are only 5 companies with a scale of over 100 employees. This reflects the current state of Taiwan's blockchain industry. Considering the earlier mentioned establishment years of these companies, it is highly likely that many of them are newly established startups or fall under the category of light entrepreneurship. This highlights two phenomena in Taiwan's blockchain industry

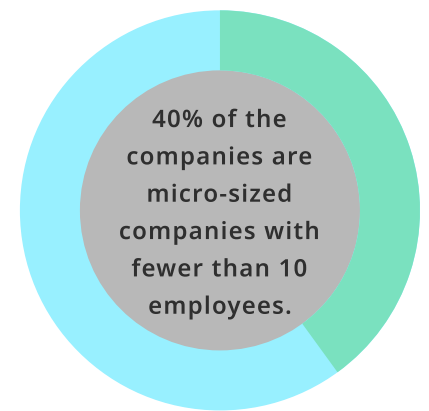
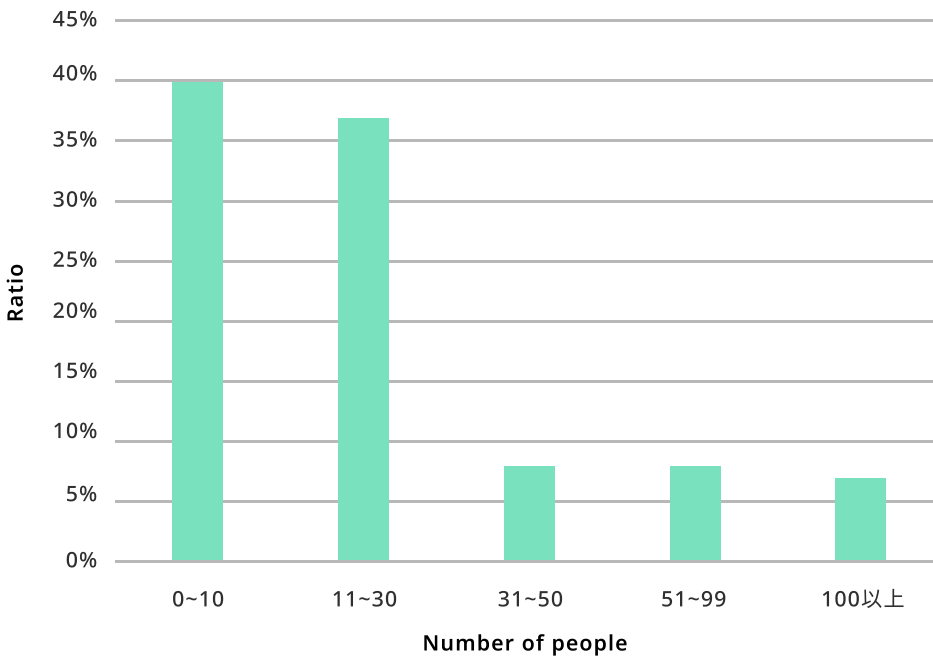
- Taiwan is still in the early stages in the blockchain industry of development, and has some distance to cover compared to foreign counterparts.

- Generation Z is currently embracing the trend of "asset-light entrepreneurship" and "micro-entrepreneurship," overturning the traditional notion that starting a business requires significant capital and connections. The blockchain industry is particularly suitable for this type of light entrepreneurship.

The exchanges mentioned above have all obtained the Anti-Money Laundering (AML) declaration from the Financial Supervisory Commission (FSC) and have registered according to regulations. Most of them offer users the ability to deposit and withdraw in Taiwanese Dollars (TWD).

Based on the aforementioned commonalities, Taiwanese exchanges have developed their own unique features in terms of functionality and services:

▼ The size of the company distribution

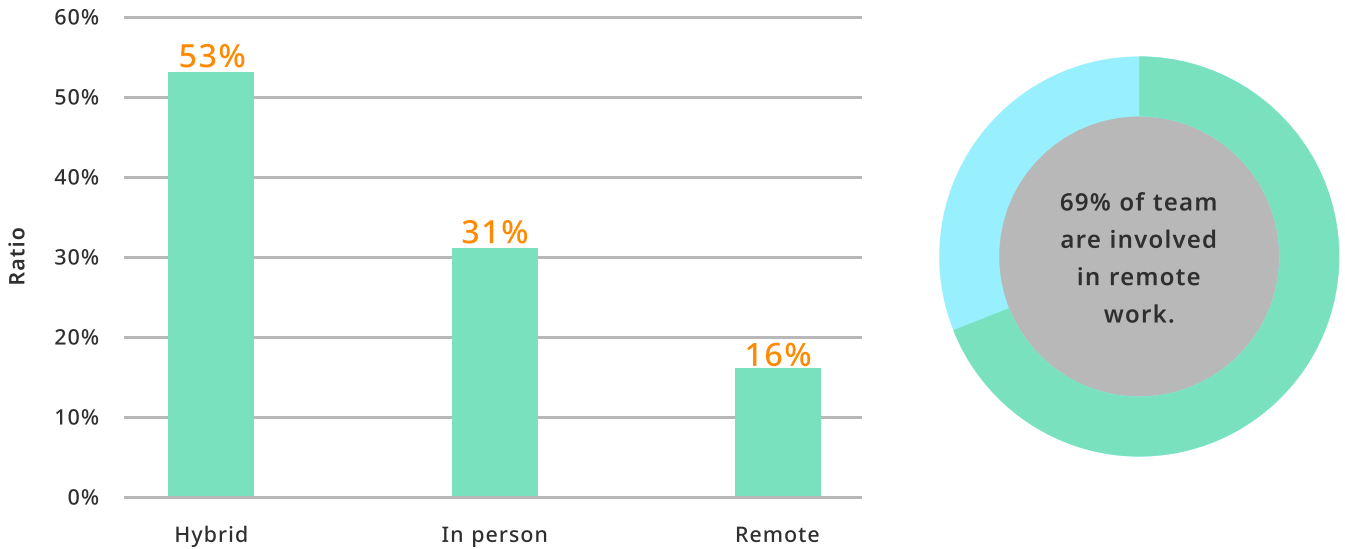


● Source: Blockchain Industry Research Team

3. Work patterns of Taiwanese blockchain companies

In terms of working arrangements, 31% of companies primarily work from physical offices, while 16% of companies have all employees working remotely. The majority of companies adopt a hybrid approach, allowing for remote work with occasional office work or in-person meetings as needed. Overall, nearly 70% of companies involve some form of remote work, indicating a higher proportion of remote work in the blockchain industry compared to traditional industries.

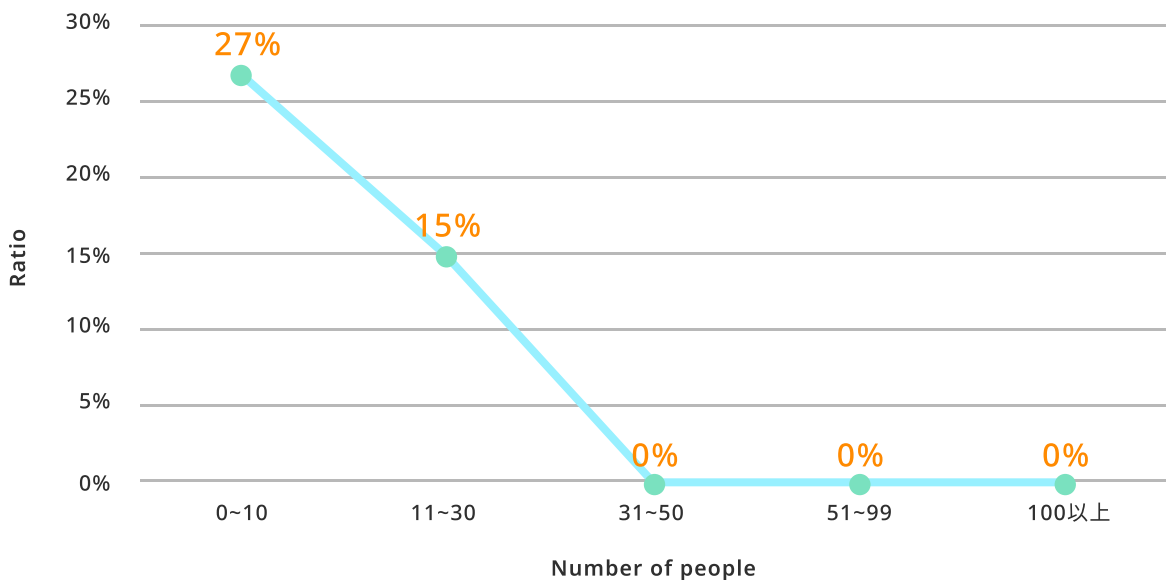
▼ The distribution of the workplace location



● Source: Blockchain Industry Research Team

However, even in the blockchain industry, there are some challenges associated with full remote work, such as limitations in collaboration and communication. Therefore, among micro-sized companies with less than 10 employees, the proportion of full remote work is about 27%. In small-sized companies with 11 to 30 employees, the proportion is approximately 15%. In larger companies with more than 31 employees, there are no cases of full remote work for all employees.

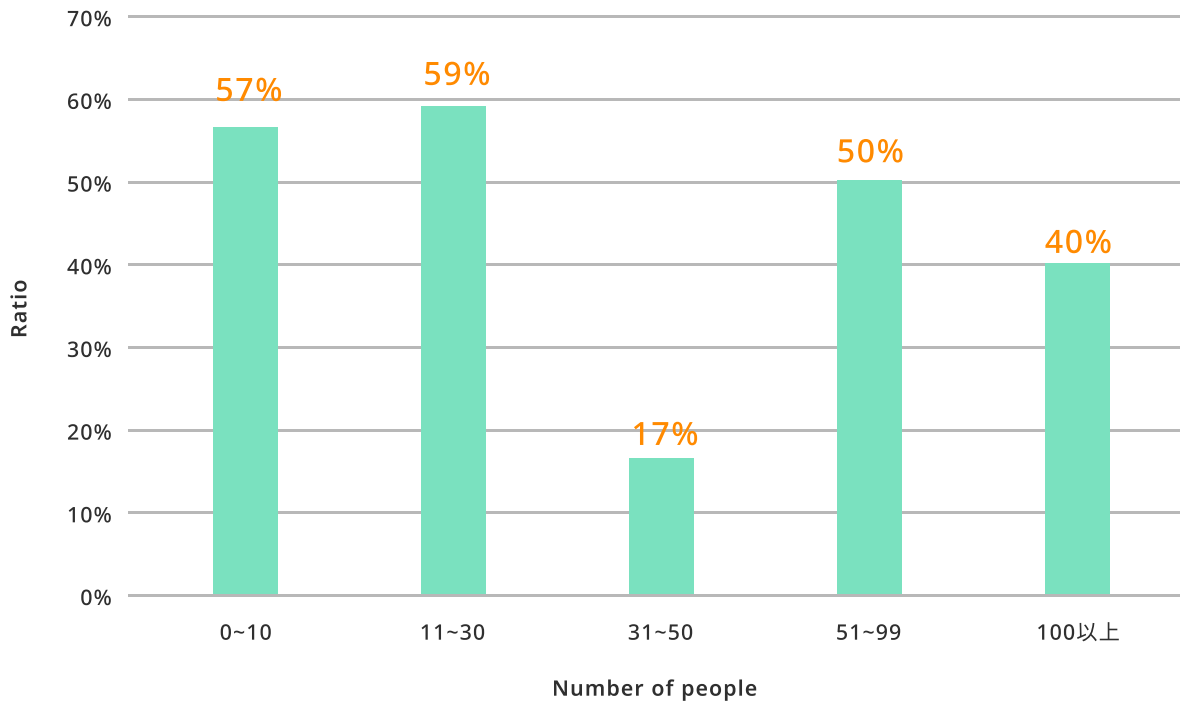
▼ As the company grows larger, the phenomenon of remote work for all employees becomes less common.



● Source: Blockchain Industry Research Team

However, a hybrid work model may still be a trend in the current blockchain industry, with a certain percentage observed across companies of various sizes.

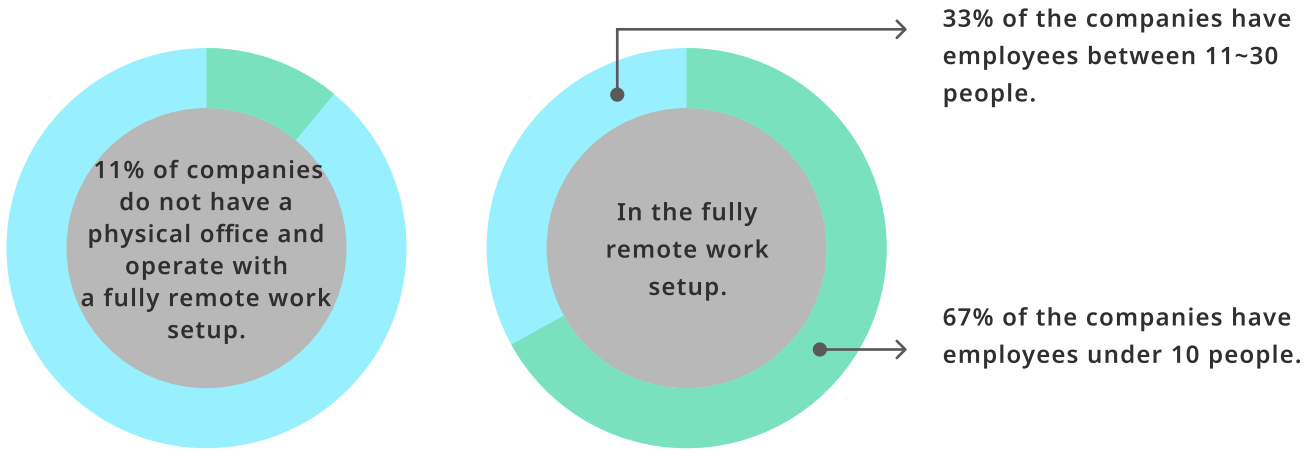
▼ Hybrid work models have a certain percentage in different scales of the companies



Source: Blockchain Industry Research Team

4. The office locations of Taiwanese blockchain companies

In terms of office locations, 11% of companies do not have a physical office space. These companies operate with a fully remote work setup. Among them, two-thirds of the companies have fewer than 10 employees, and one-third have between 11 and 30 employees. This reflects the trend of remote work, which allows small businesses with fewer than 30 employees to avoid the costs of leasing office space. It also enables them to hire talent from around the world, thereby increasing flexibility and efficiency within the company.



Source: Blockchain Industry Research Team

Among the companies that have established office locations, over 90% of them are located in Taipei City, with 5% of companies choosing New Taipei City. This indicates that Taipei and New Taipei City, as the business centers of Taiwan, possess abundant resources and talent, attracting numerous companies to set up their offices there.

Office locations



Source: Blockchain Industry Research Team

In addition, among the companies with office locations, 26% of them have offices set up outside of Taipei City and New Taipei City. These additional office locations are mostly found in international business or financial centers such as Singapore, New York, Hong Kong, Shanghai, and Kaohsiung. It is worth noting that not all of these companies with multiple office locations are large-scale enterprises. In fact, 65% of them have fewer than 30 employees. This indicates the demand and trend for cross-border expansion in the blockchain industry. Many companies are establishing offices in different cities and countries, engaging in collaborations, and

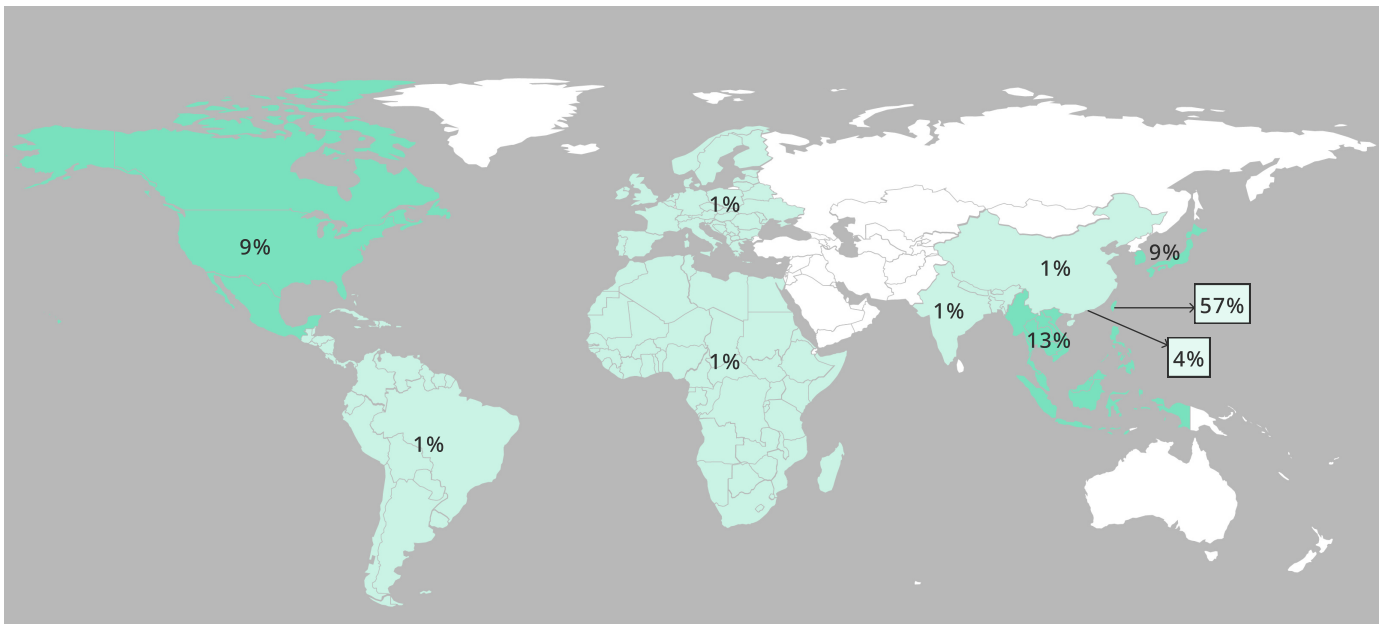
connecting with investors from various nations to expand their international business.

5. Target markets of Taiwanese blockchain companies

In terms of target markets, it can be observed that the main focus is still on Taiwan, accounting for 61% of the companies. This may be due to the advantages of local familiarity and networking resources. The next target markets are North America, Southeast Asia, and Northeast Asia, accounting for approximately 9%. These regions are both mature in terms of blockchain technology and applications and may also benefit from their geographical proximity to Taiwan.

China and Hong Kong account for 5% of the target markets. The relatively low percentage for China and Hong Kong may be attributed to government regulatory policies. However, with Hong Kong recently opening up to the crypto industry, it remains to be seen if more companies will establish a presence there in the coming year. Lastly, South America, Africa, Europe, and India each account for less than 2% of the market share. This may be due to a lesser familiarity with these regions compared to the Taiwan market.

▼ The main target market for each company

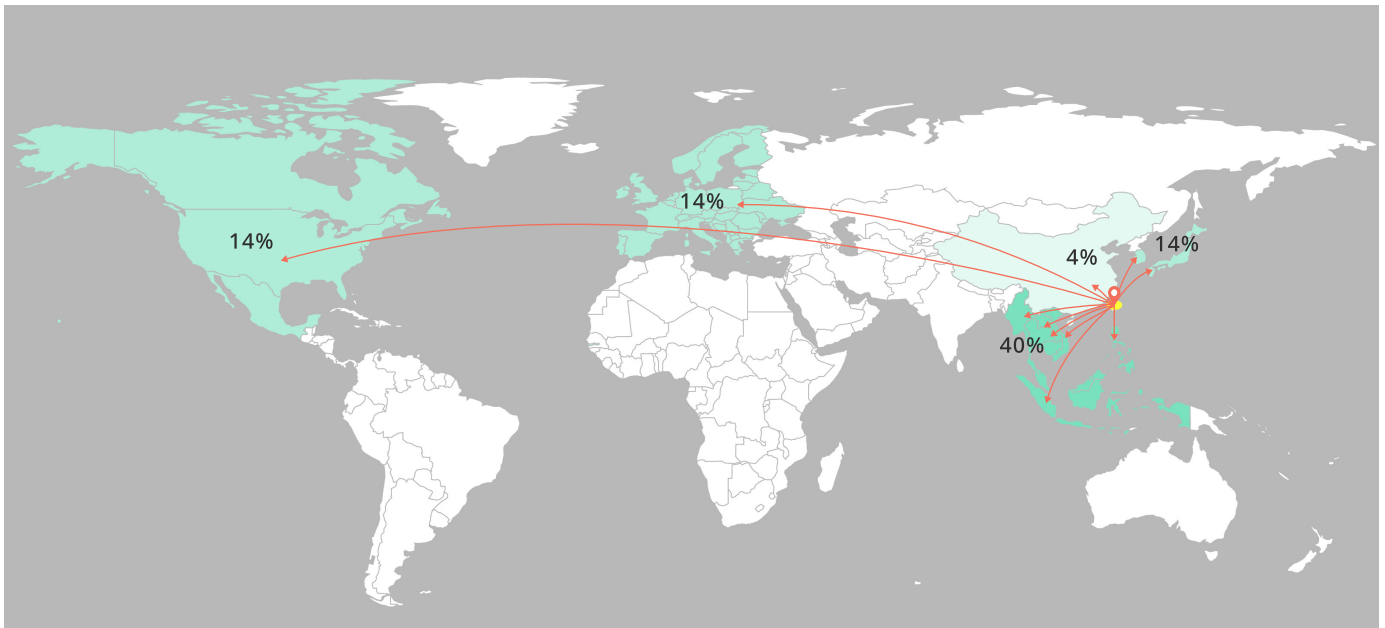


In addition, regarding the plans for overseas markets among companies that primarily target the Taiwanese market, it can be observed that 40% of the companies plan to develop in the Southeast Asian market, ranking first in the survey. This indicates that geographical proximity remains an important consideration for companies. However, Northeast Asia (14%) and China/

Hong Kong (4%) also have geographical advantages, but due to stricter regulations, companies may have a lower willingness to expand into these markets.

Additionally, 14% of the companies have plans to further develop the North American and European markets. Another 14% have tentative plans for overseas market expansion, indicating that further market evaluation is needed to formulate clearer strategies.

▼ Companies that primarily target the Taiwanese market and their plans for overseas expansion



*The above data represents the findings from the surveyed sample and may not fully represent the situation of all blockchain companies in Taiwan.

B. Bringing Together Outstanding Organizations and Leaders in the Industry to Jointly Promote the Development of The Blockchain Industry Ecosystem

For investors interested in Taiwan's blockchain industry, it is usually necessary to engage in self-learning to gain in-depth understanding of industry trends, learn about the latest technologies and innovative cases, and collaborate and communicate with practitioners. Therefore, the research team has compiled information on Taiwanese blockchain media, Taiwan's blockchain associations, and important events, providing readers with valuable self-growth resources. The aim is to enable readers to stay informed about the blockchain industry and explore more opportunities.

1. Taiwan blockchain information aggregation and knowledge transfer

The blockchain industry encompasses vast and complex information that requires real-time updates. Much of this information originates from foreign media outlets and Twitter. As a result, Taiwanese blockchain media plays a crucial role in bridging the gap, delivering major global blockchain news and assisting investors in staying abreast of information and overall market trends across various blockchain sectors.

Within Taiwan's blockchain media industry, prominent players include BitAsset, ChainNews, BlockTempo, BlockTempo, BlockTempo, Zombit, CryptoCity, Chainclass, and the blockchain channel Web3+ by DIGITIMES. Additionally, NONE LAND, launched by pioneering capital firm, provides a diverse range of blockchain information and educational resources to users, exerting a significant influence on the development of the blockchain industry in Taiwan.

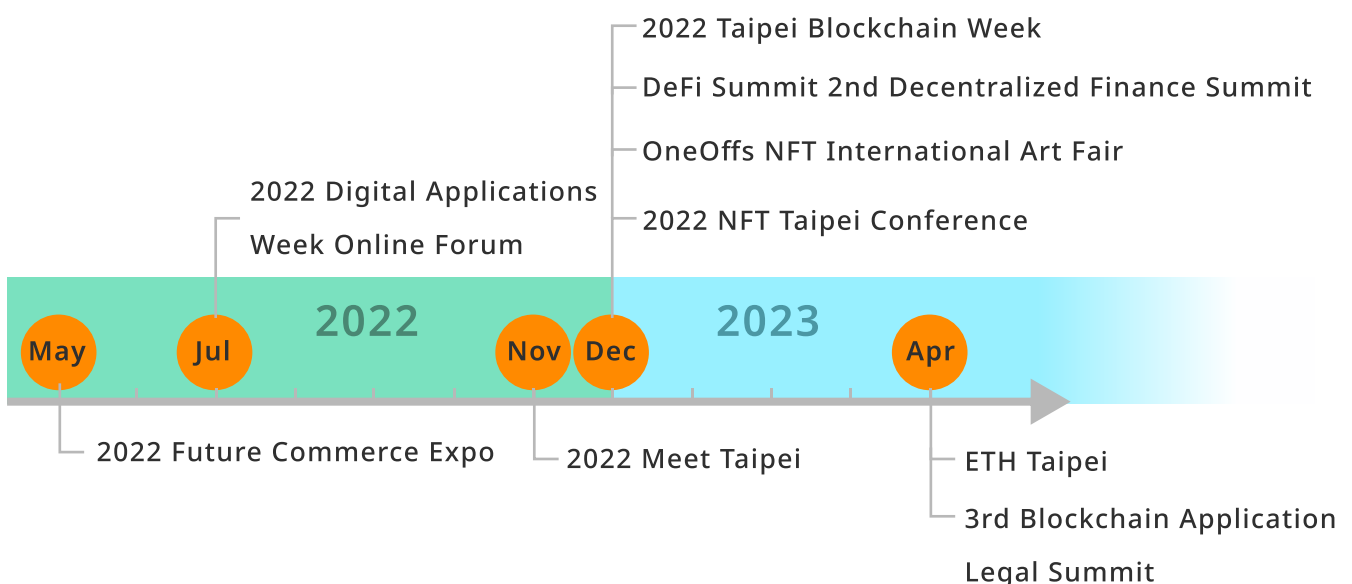
Furthermore, in terms of knowledge transfer and dissemination within the blockchain field, Taiwan is home to notable institutions such as The Z Institute, an online blockchain academy, and the CBA Asia Blockchain Academy. These platforms offer online courses covering blockchain-related knowledge and cryptocurrency investment, contributing to the cultivation of professional technical talents within the industry.

2. Taiwan blockchain association

Association	Established	Mission
Taiwan FinTech Association	2017	Through the ecosystem of crowd innovation, it stimulates disruptive innovation and promotes collaborative cooperation, fostering healthy competition. This transformation assists financial institutions in upgrading and enhances Taiwan's international competitiveness and vitality in the fintech industry
Taiwan Blockchain University Alliance	2017	Establishing a communication platform facilitates two-way information exchange between the industry and the government, promoting domestic and international collaborations, driving field applications, fostering talent development, and creating a favorable environment for entrepreneurs' growth
Taiwan Blockchain Alliance	2019	Promoting blockchain technology exchanges among major universities in Taiwan and aligning with trends in big data and artificial intelligence research in countries like the United States and mainland China
Taiwan Blockchain Enthusiasts Association	2019	Increasing the public's understanding of blockchain technology, allowing them to experience the features of cryptocurrencies and tokens, and assisting businesses in evaluating key knowledge for adopting decentralized applications

Association	Established	Mission
Taiwan Blockchain Association	2019	Blockchain certification talent training and enterprise transformation for blockchain technology application strategy planning
Taiwan Virtual Currency Anti-Money Laundering Association	2021	Bringing together professionals with expertise in virtual currency anti-money laundering, organizing seminars and educational lectures to guide the market and industry practitioners in acquiring correct knowledge and concepts related to anti-money laundering and combating terrorist financing
Bitcoin and Virtual Currency Development Association of Taiwan	2021	Promoting the adaptation of regulations related to virtual currencies, as well as the application and development of virtual currencies
Taiwan NFT Association	2022	Promoting the application and technological development of the NFT industry, accelerating its widespread adoption, and facilitating the connection between Web2 and Web3 industries. Our goal is to drive resource sharing and integration across various industries

Taiwan's various associations also organize various events and forums, making significant efforts to promote blockchain awareness in Taiwan. For example, the 2022 Future Commerce Expo, 2022 Digital Applications Week Online Forum, 2022 Meet Taipei 7th Taiwan Blockchain Enthusiasts Annual Conference, 2022 NFT Taipei Conference International Forum, OneOffs NFT International Art Fair, DeFi Summit 2nd Decentralized Finance Summit, and more. These offline events bring blockchain into the public eye, encouraging industry stakeholders to actively engage and interact.



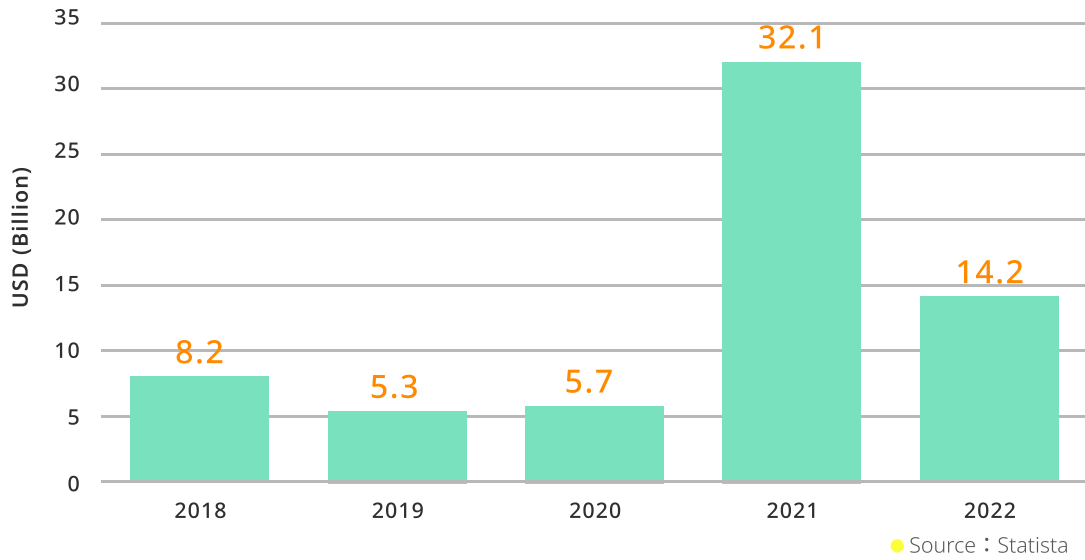
In addition, there are major events organized by the community, such as the 2022 Taipei Blockchain Week, or events organized independently by blockchain professionals, such as the ETH Taipei held for the first time in 2023, co-founded by Yanwen Feng, Co-founder of Perpetual Protocol, Chen Changwu, Chief Scientist of imToken, Xuanting Zhu, Founder of Furucombo, Anderson Chen, Co-founder of Diamond Protocol, Songsheng Li, Developer Relations at Quantstamp, and Cheng De Zheng, Developer at Lyra, who utilized their spare time to prepare for the event.

In terms of regulations, the 3rd Blockchain Application Legal Summit brought together legal professionals and industry experts in various financial technology regulations, including Hengye Law Firm, Ernst & Young United Accounting Firm, and Creatique Law Firm. Apart from engaging in discussions with public sector representatives to explore the legality of blockchain applications, they also discussed investment protection and asset separation through trust structures with compliance representatives from institutions such as KGI Bank, Far Eastern International Bank, and CTBC Bank.

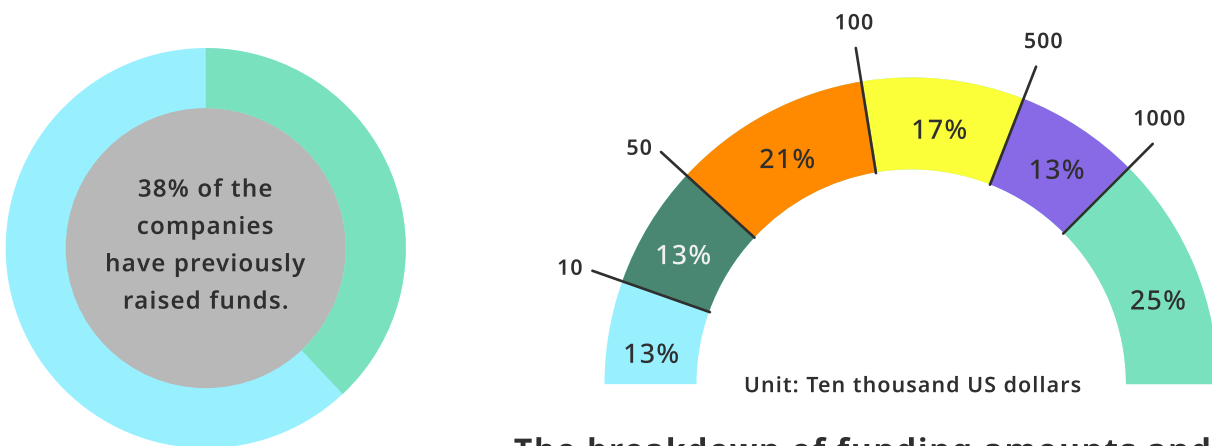
C. Providing Funding for Blockchain Innovation and Accelerate the Incubation of Various On-chain Services.

In the blockchain industry, venture capital (VC) firms play a vital role as logistical support. Blockchain-focused VC firms typically seek out blockchain enterprises and projects with high growth potential and innovation, providing them with funding and support through their networks. According to a report published by KPMG, one of the Big Four accounting firms, the blockchain and cryptocurrency industry attracted over \$32 billion in global investments in 2021, including venture capital, private equity, and mergers and acquisitions. This amount is approximately six times higher than the investments made in 2020. In the first half of 2022, the investment amount reached \$14.2 billion.

▼ Global VC, PE and M&A investment in blockchain



According to a survey and statistics conducted by the team behind the Blockchain Industry Map, over 50% of blockchain companies in Taiwan have funding and capital needs. Approximately 38% of these companies have previously raised funds. Among the companies that have secured funding, the average amount raised is around \$8.6 million, with a median of \$1.2 million.



▲ The breakdown of funding amounts and their respective proportions among the companies.

Source: Blockchain Industry Research Team

Among this series of blockchain companies, those that raised less than 500,000 US dollars are mostly involved in the media or community sectors. On the other hand, companies that raised

over one million US dollars mainly focus on the development of underlying technology or international exchanges to drive their global market expansion.

In addition to providing financial support, venture capital firms also offer business or marketing strategic resources to help companies develop and expand their markets. The presence of these venture capital firms also attracts the attention of foreign institutional investors to the Taiwanese market. For example, Cherubic Ventures received additional support from domestic and international mainstream institutional investors last year, with a total fundraising amount of 110 million US dollars for its fifth fund. Mafia Capital has successfully assisted startups such as XREX and CYBAVO in securing strategic investments at an international level in the past two years. Additionally, Infinity Ventures Crypto (IVC) is an active fund in the Asia-Pacific region with partners worldwide, investing in markets such as Taiwan, Southeast Asia, Europe, and the United States. These examples highlight the important role of venture capital firms in driving the development of the blockchain industry in Taiwan.

In addition, domestic venture capital firms in Taiwan also provide important resources for the development of the blockchain industry. For example:

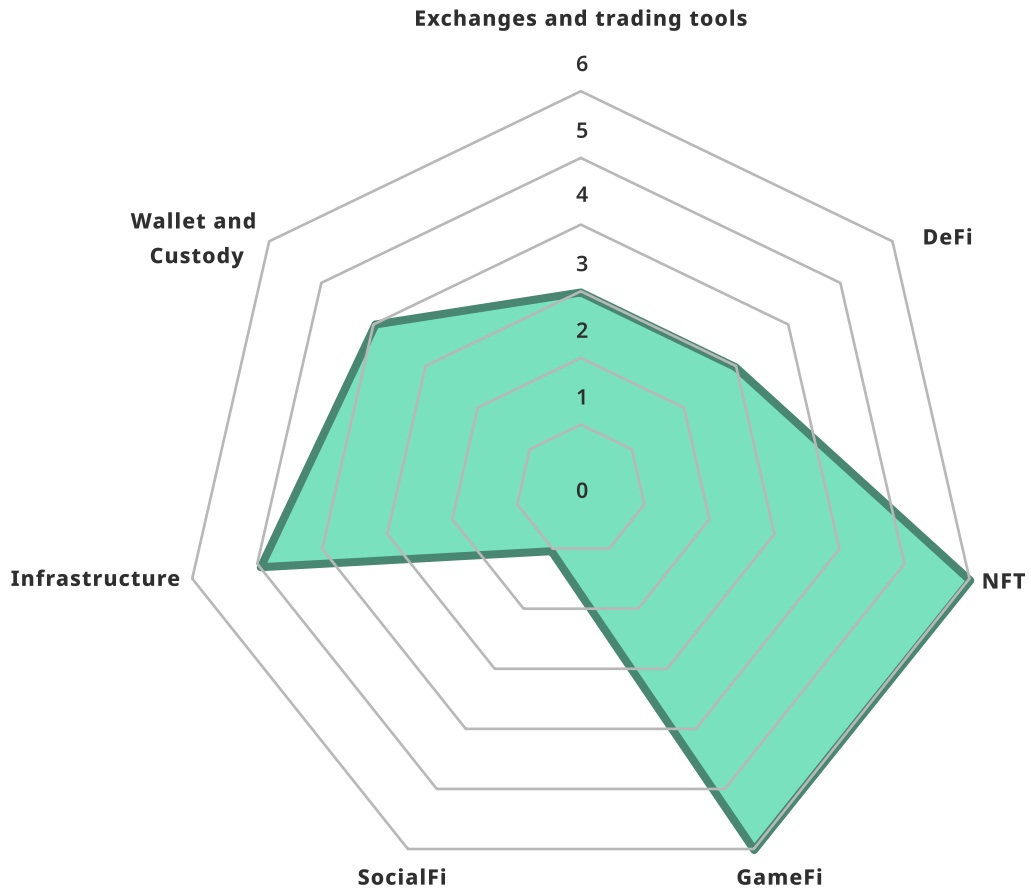
- Lead Capital established a \$1 million ecosystem fund in 2022 to promote blockchain innovation and growth in Taiwan.
- AppWorks has invested in over 200 entrepreneurs from the Web3 sector as of the end of 2022.
- Red Building Capital is Taiwan's first venture capital firm dedicated to blockchain technology and digital innovation. In 2022, they assisted Taiwan's DeFi project Dappio in raising over \$10 million within three months.
- Hive Ventures, in addition to investing in startups focused on big data infrastructure and technology building blocks, has become a source of funding for many startups in Taiwan.

Venture capital firms	Investment amounts	Taiwanese based projects	Overseas projects
Lead Capital	21	Blocto	SSV Network
Cherubic Ventures	164	OurSong, Lootex, XY Finance, Kikitrade, Bitmark	MetaCRM, Cassava Network, Our Happy Company, Kyoko.finance

Venture capital firms	Investment amounts	Taiwanese based projects	Overseas projects
Red Building Capital	40+	KryptoGO、Ambrus Studio、FST Network、波波錢包、Dappio	MetaCRM、Balthazar NFT Gaming、GoFreight、Kyoko.finance、Compendium Finance
Infinity Ventures Crypto	77	XY Finance	TreasureLand、Cedro Finance、Kingdomverse、Fungify、NF3
AppWorks	76	Kikitrade、Teahouse Finance	Parcel、Flow
New Economy Ventures	5	KryptoGO、CYBAVO、XREX	Not disclosed
Hive Ventures	14	Lootex、KryptoGO	LatticeFI
Evernew Capital	37	Teahouse Finance、Lootex、Yield Guild Games Southeast Asia	Hashflow、Souq G-Commerce、Chain Crisis、Exotic Markets
Sora Ventures	41	Not disclosed	VirgoCX、Forkast.News、Pendle Finance

*The investment projects are primarily based on public information from the websites of the respective risk investment companies or platforms like Crunchbase.

Taking an overview of the overall situation, venture capital firms have a wide range of investment areas, with the highest proportion of investments in GameFi and NFT projects. However, most of these investments are in overseas projects. The next prominent areas are infrastructure, wallets, and custody, which happen to align with the strengths of Taiwan's technology industry. Therefore, through the funding from various venture capital firms, Taiwan has nurtured many high-quality projects that hold significant positions globally in the fields of infrastructure, wallets, and custody.



▲ investment areas covered by various capital firms.

4

REGULATORY TRENDS IN TAIWAN AND THE ASIA-PACIFIC REGION FOR BLOCKCHAIN

A. Background of Blockchain Regulation

B. Explaining the Conflict and Challenges between the Spirit of Blockchain and Regulatory Attitudes through a Case Study

C. Recommendations for Regulation in Taiwan

IV. REGULATORY TRENDS IN TAIWAN AND THE ASIA-PACIFIC REGION FOR BLOCKCHAIN

As mentioned in the preface of this report, significant incidents in the cryptocurrency industry have highlighted the risks and regulatory deficiencies in the virtual asset market. As a result, countries around the world have accelerated the formulation and implementation of regulations. Understanding the regulatory backgrounds of these countries will contribute to a comprehensive understanding of the global trends in blockchain regulation. This provides businesses and investors with a clearer perspective, ultimately protecting the interests of investors and promoting the continued development of the industry.

Against this backdrop, we will explore the regulatory trends in Taiwan and the overall regulatory landscape of the Asia-Pacific region. Our research will focus on the regulatory backgrounds of mainstream countries in the field of blockchain regulation. We will analyze the evolving regulatory trends in different countries and regions, supplemented by case studies and regulatory recommendations specific to Taiwan.

A. Background of Blockchain Regulation

1. The trend of cryptocurrency regulation is gradually taking shape

Since the emergence of cryptocurrencies, blockchain technology has sparked financial innovation and speculation. Prior to regulatory intervention, many investors did not consider the risks associated with virtual asset operators, resulting in losses.

These risks include decentralized exchanges being hacked and funds being drained from liquidity pools, or centralized exchanges misusing user funds and facing liquidity issues. In addition, the lack of regulatory norms for derivative financial products or unclear regulatory approaches have led to excessive leverage, forcing users into liquidation. These situations go beyond the scope of traditional financial regulatory frameworks. Moreover, blockchain finance is sometimes used by criminals for money laundering and terrorist activities.

As blockchain finance continues to develop, users who embrace mass adoption of blockchain financial technology and applications will inevitably face regulatory frameworks in various countries. Blockchain regulatory compliance aims to maintain the healthy development of the blockchain ecosystem, protect the rights and interests of users and the market, and provide

a secure, transparent, and reliable environment to promote the widespread application of blockchain technology. Establishing and implementing appropriate regulatory frameworks ensure the effective handling of issues such as the security of digital assets, privacy protection, anti-money laundering, and prevention of financial crimes.

In recent years, many countries have started to formulate relevant regulations to align with their local regulatory systems in order to protect the rights of investors and combat money laundering and terrorist financing activities. Additionally, as the blockchain industry flourishes, its applications have gradually expanded to traditional industries such as securities, payments, savings, and derivatives, attracting the attention and regulation of regulatory authorities in various countries. Compliance has become one of the areas that the blockchain industry must pay attention to.

Current regulatory trends in many countries include:

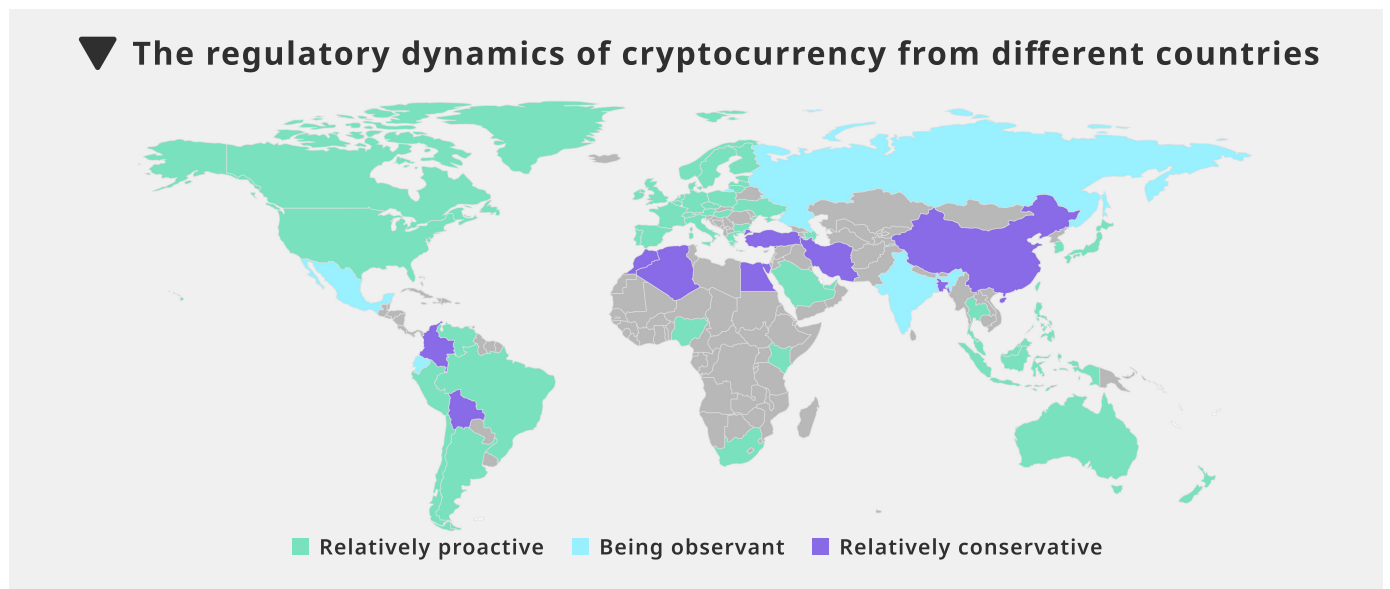
- **Anti-Money Laundering (AML) Measures:** In order to enhance anti-money laundering and counter the financing of terrorism in relation to cryptocurrency assets, cryptocurrency exchanges are required to implement identity verification and Know Your Customer/Anti-Money Laundering (KYC/AML) procedures. This means that users must provide identity documents for verification when registering on the exchange. Additionally, exchanges need to establish internal controls and monitoring systems to detect suspicious transactions and money laundering activities. These measures help to increase the security of exchanges, reduce the risks of illicit activities and financial crimes, and maintain the stability of the financial system.
- **Taxation:** In order to strengthen taxation regulation regarding cryptocurrencies, investors are required to report their cryptocurrency assets and income to the local tax authorities. This means that investors need to comply with the relevant tax laws and include their cryptocurrency investments in their tax declarations. Tax authorities may request investors or centralized exchanges to provide relevant information and transaction records to verify the accuracy of the reports. This measure aims to ensure that cryptocurrency trading activities comply with tax requirements, enhance tax compliance, and ensure the functioning of a fair tax system.
- **Technical and Privacy Aspects:** To strengthen regulation of blockchain technology, blockchain companies are required to comply with local data privacy regulations and designate dedicated personnel responsible for information security requirements such as anti-penetration measures. This means that blockchain companies need to establish strict data protection mechanisms to ensure the confidentiality and security of user data.

Additionally, they need to take preventive measures to prevent penetration attacks and data breaches. This measure aims to protect user privacy, ensure data security, and build public trust in blockchain technology, promoting its sustainable development.

In addition, following the conclusion of the G20 summit held in India in 2023, the world's 20 largest economies announced that the comprehensive document prepared by the International Monetary Fund (IMF) and the Financial Stability Board (FSB) would serve as the basis for global cryptocurrency regulatory rules. They also highlighted the urgency of establishing a global regulatory framework for cryptocurrencies.

The approach, attitude, direction, and plans of governments worldwide regarding blockchain regulation are undergoing a series of changes and developments. Looking back over the past few years, many countries have adopted a stance of prohibition or restrictions towards blockchain technology. However, in recent years, there has been a significant shift, with regulatory authorities in various countries working to formulate corresponding regulations and policies to balance innovation and risk.

2. The regulatory dynamics and developments in mainstream countries



In early 2022, compared to the Asia-Pacific region, Western countries adopted a more open attitude towards cryptocurrency regulation. However, following the events involving LUNA and FTX, there has been a shift in the attitude of countries towards cryptocurrencies.

1.1 United States

Although the United States has gradually become more crypto-friendly in 2021, following the FTX incident in late 2022, the U.S. Securities and Exchange Commission (SEC) has started closely monitoring cryptocurrencies and implementing a series of regulatory measures. This includes issuing warnings to stablecoin issuers like Paxos and exchanges such as Gemini, Kraken, and Coinbase to ensure compliance with regulatory requirements. U.S. Treasury Secretary Janet Yellen has also stated that establishing a strong regulatory framework for cryptocurrencies is crucial.

1.2 The European Union (EU)

With the passing of the MiCA (Markets in Crypto-assets) regulation in 2023, the European Union (EU) has implemented comprehensive regulation for crypto-assets related to tokens, particularly focusing on stablecoins and the registration of various projects. As for the DeFi sector, the European Central Bank (ECB) has defined it as a new way of providing financial services. However, MiCA does not cover DeFi and NFTs as they differ from other fungible cryptocurrencies. Therefore, the regulation does not extend to the DeFi and NFT sectors.

1.3 Asia

- **Relatively conservative:** Some countries in the Asia-Pacific region adopt a cautious or prohibitive approach towards cryptocurrencies due to a lack of understanding and perceived threats. Policy regulations regarding cryptocurrency may not be clearly established, as seen in countries like Pakistan and China.
 - **Observant approach:** Many countries in the Asia-Pacific region are observing the nature of cryptocurrencies, which can be challenging to define. Although there are still blockchain companies operating in these countries, government agencies are continuously exploring regulatory frameworks for overseeing cryptocurrencies.
- **Vietnam:** Cryptocurrencies are popular in Vietnam, but the government does not support them as a form of payment, nor are they considered assets or foreign currencies. There is also no information available regarding licensing and registration. However, the Vietnam Blockchain Association has begun exploring regulatory

frameworks for industry development in collaboration with the Vietnamese government and the State Bank of Vietnam (SBV). The Prime Minister of Vietnam has instructed the SBV to prioritize the legal framework for cryptocurrencies, with a target of completion by the end of 2023.

- **India:** While the Indian government maintains a cautious stance towards cryptocurrencies, it is open to the application of blockchain technology and distributed ledger governance. The Reserve Bank of India (RBI) initially imposed a ban on regulated entities dealing in cryptocurrencies, but the ban was declared unconstitutional by the Supreme Court in 2020. The RBI has mandated regulated entities to comply with customer due diligence, anti-money laundering (AML), and know-your-customer (KYC) requirements. However, there is currently no specific regulatory framework or licensing framework for cryptocurrencies in India, and the RBI maintains a cautious approach to banks and financial institutions participating in virtual asset transactions. The government believes that any regulatory or prohibitive measures regarding cryptocurrencies must be aligned with international cooperation, as the ripple effects of any legal guidance on cryptocurrencies extend beyond national boundaries. Due to the unique characteristics of cryptocurrencies, it is difficult to attribute their regulatory oversight to a single department. As a result, authorities in Taiwan are actively working with industry associations and organizations to develop regulatory frameworks that are compatible with cryptocurrencies.
- **Taiwan:** Due to the unique characteristics of cryptocurrencies, it is difficult to attribute their regulatory oversight to a single department. As a result, authorities in Taiwan are actively working with industry associations and organizations to develop regulatory frameworks that are compatible with cryptocurrencies

- **Relatively proactive:** In the backdrop of blockchain finance impacting and influencing traditional markets, some Asia-Pacific countries have adopted proactive regulatory measures. For example:

- **Japan:** The Japanese government considers Web3 as an important pillar for economic growth and has formulated the Web3 Promotion Program to facilitate the development of the digital asset economy. Depending on the product structure of their cryptocurrencies, they are subject to different financial regulatory aspects. For example, according to the Payment Services Act (PSA) in Japan, cryptocurrencies can be used for

settlement but are not considered legal tender or assets denominated in legal tender. Stablecoins (PSA) can be used for settlement and are denominated in legal tender. Cryptocurrency exchange service providers must register with the Financial Services Agency (FSA) in Japan, and the regulation of cryptocurrencies under the PSA must comply with the Financial Instruments and Exchange Act (FIEA) and follow the guidance of the FSA and the Japan Virtual Currency Exchange Association (JVCEA). Exchange service providers are required to keep only 5% of customer funds in hot wallets, while the remaining funds must be stored securely, such as in cold wallets.

- **Singapore:** Restrictions on advertising have been imposed on Digital Payment Token Service Providers (DPTSP), prohibiting the promotion of digital payment token services in public transportation, social media, print media, and ATMs in public places. The Monetary Authority of Singapore (MAS) has also launched the Guardian Program to test the feasibility of digital assets and DeFi applications, as well as to manage financial stability and integrity risks. MAS aims to establish a regulatory framework to ensure that well-regulated stablecoins become reliable digital transaction mediums.
- **Hong Kong:** In June 2022, the Securities and Futures Commission (SFC) of Hong Kong announced the implementation of a mandatory licensing regime for Virtual Asset Service Providers (VASPs) that hold customer assets and provide virtual asset trading services. This regime is expected to come into effect in 2023. At the same time, Hong Kong also plans to strongly support the cryptocurrency industry starting from June 2023. In the "Policy Statement on the Development of Virtual Assets in Hong Kong," Hong Kong demonstrates an open attitude and proactive approach towards virtual assets. This showcases Hong Kong's support for the virtual asset industry and provides a favorable environment for its development.
- **Thailand:** The Securities and Exchange Commission (SEC) of Thailand has also established a relatively comprehensive framework for regulating cryptocurrencies. It defines digital assets as cryptocurrencies and digital tokens. While cryptocurrencies are restricted from being used as a payment method, the authorities have planned to exempt them from value-added tax. This move aims to encourage financial innovation while emphasizing the importance of risk management mechanisms and scrutiny for virtual asset service providers to safeguard the security of investors' assets.

1.4 Australia

In December 2021, the Australian government agreed to establish a regulatory framework for

digital assets and conducted various studies, including licensing and custody regimes, decentralized autonomous organization structures, cryptocurrency taxation policy frameworks, and feasibility studies on central bank digital currencies. In a consultation held in March 2022, key objectives for regulating cryptocurrencies were identified, including ensuring appropriate regulatory objectives, technological neutrality, and manageable risks, as well as creating a predictable, convenient, consistent, and concise legal framework to avoid unnecessary restrictions. Currently, Australia does not have a dedicated regulatory framework for cryptocurrencies unless these assets fall within the existing regulatory scope of financial products and general consumer laws. However, the Australian Securities and Investments Commission (ASIC) considers cryptocurrencies as one of its core strategic projects and will continue to support the development of effective regulatory frameworks, with a focus on consumer protection and market integrity.

Overall, Japan, Hong Kong, Singapore, Australia, and the European Union have taken a more proactive approach to cryptocurrency regulation. They have implemented regulations such as obtaining relevant licenses for conducting cryptocurrency-related businesses in their jurisdictions. This approach is in stark contrast to the stance taken by the United States, especially following the FTX incident.

3. Regulatory developments in Taiwan

In Taiwan, the government has gradually taken relevant actions towards regulating cryptocurrencies and has started to formulate regulations on how to regulate virtual assets. The initial step can be traced back to late June 2021 when the Executive Yuan designated the Financial Supervisory Commission (FSC) as the competent authority for anti-money laundering of "virtual currency platform and trading business." The FSC then issued the "Anti-Money Laundering and Counter-Terrorist Financing Measures for Virtual Currency Platforms and Trading Businesses" to prevent money laundering and counter terrorist financing. However, at that time, the specific regulatory mechanisms for cryptocurrencies were not clearly defined.

It wasn't until January 2023 when the Legislative Yuan proposed to the Executive Yuan to formulate regulatory mechanisms for cryptocurrencies, which were subsequently included in the central government's budget. Since late March 2023, the Executive Yuan has announced that the FSC will be responsible for regulating the cryptocurrency field in Taiwan, taking into account international regulatory trends (such as those in the EU, Singapore, Japan, South Korea, and Israel).

However, given the diverse types of cryptocurrency assets and their various applications (such as cryptocurrencies, commodities, NFTs, payments, stablecoins, derivatives), the responsible authorities are still formulating the regulatory framework for each asset type.

Due to the complexity and diversity of cryptocurrency assets, the current approach of the Taiwanese government is to adopt a phased regulatory approach and work with industry associations to develop relevant standards, taking reference from other countries' regulatory frameworks for virtual assets. Additionally, the government is planning to designate the cryptocurrency industry as a licensed industry and is developing a regulatory framework focused on "investor protection," "product listing review," and "asset segregation." This includes measures such as separating and safeguarding customer funds from cryptocurrency platforms, regulating fairness in transactions, implementing review mechanisms for token listings on cryptocurrency exchanges, and addressing the cybersecurity concerns of cold and hot wallet transactions.

As most countries have shown a proactive attitude towards cryptocurrency regulation in 2023, it is expected that Taiwan's regulatory approach towards virtual assets will gradually improve.

B. Explaining the Conflict and Challenges between the Spirit of Blockchain and Regulatory Attitudes through a Case Study

The core appeal of blockchain is to create a network infrastructure that is not controlled by a single entity or country, enabling autonomy over assets and information. However, there has been a long-standing debate between complete autonomy and limited autonomy.

In contrast to centralized finance, which is inherently closer to traditional financial institutions and provides convenient services to users within certain limits of autonomy, while charging corresponding fees and accepting government regulations and protections on behalf of the people, proponents of centralized finance prioritize convenience as the more important choice. On the other hand, DeFi proponents value privacy and advocate for asset values that are not diluted by opaque operations of governments and financial institutions, as well as for protection against privacy infringements caused by human abuse. This is the reason blockchain technology emerged to address these concerns. Consequently, DeFi has always been a regulatory blind spot, as users can engage in transactions on the blockchain without the need for Know Your Customer (KYC) procedures. Although DeFi regulation has started to receive attention and exploration by various countries in the past two years, there are still significant gaps in terms of infrastructure, regulatory frameworks, and practical feasibility in regulating

decentralized applications. As a result, the regulatory focus of most countries currently remains on centralized finance (CeFi), while the regulation of DeFi is still being explored.

Some well-known DeFi products in the United States and Taiwan are listed below. We will discuss the challenges they faced in complying with local regulations and their corresponding approaches.

1. Uniswap Labs | United States

1.1 The regulatory challenges of DeFi in the United States

Many DeFi platforms issue platform governance tokens, which according to the standards established by the U.S. Securities and Exchange Commission (SEC), can be deemed as securities. Issuing unregistered securities is considered a violation of SEC regulations and falls under illegal activities within the framework of commodity and securities laws. Additionally, DeFi platforms primarily provide lending services through smart contracts, and offering services in this manner without regulatory oversight is also deemed illegal. Although the terms of service of many DeFi platforms mention that they do not offer services to U.S. residents, if these DeFi platforms have operational entities, they are theoretically required to comply with local regulatory rules.

In terms of anti-money laundering (AML) measures, the Financial Action Task Force (FATF) proposed a regulatory framework for AML in the DeFi sector in 2019. Even for DeFi services operated through smart contracts, they are considered virtual asset service providers and should be subject to regulations, including conducting Know Your Customer (KYC) procedures for users participating in DeFi transactions and complying with relevant regulations such as the Travel Rule. This framework poses challenges to user privacy within DeFi protocols.

1.2 The regulatory and challenges faced by Uniswap

In 2021, the chairman of the SEC in the United States acknowledged that DeFi platforms posed certain challenges to the investor protection efforts of the Securities and Exchange Commission. As a result, Uniswap Labs became the subject of a civil investigation by the SEC.

In response, Uniswap started to comply with regulations and provided information to regulatory authorities to assist in any investigations. During this period, Uniswap made the decision, without community voting, to hide synthetic assets that could potentially be deemed securities from the front-end interface of its website, avoiding potential controversies regarding securities laws.

In 2022, Uniswap updated its privacy policy and stated that it would collect on-chain and off-chain wallet-related data of users to help prevent illegal activities. Additionally, if users fund their Uniswap transactions with credit cards through MoonPay, they are required to complete KYC procedures. Although the KYC process itself is not conducted on the Uniswap platform, partnering with more compliant virtual asset service providers and offering services to the general public with proper compliance measures is becoming a trend.

Although there is currently no specific regulatory framework for the DeFi sector, and the SEC did not take enforcement actions following its investigation, the actions taken by DeFi protocols after SEC involvement suggest a potential convergence between DeFi projects and regulatory frameworks. While the current regulatory framework may not be fully applicable to DeFi protocols, and most users still primarily enter the DeFi space through CeFi platforms, the focus of regulation currently lies on CeFi. With an increase in compliance awareness, it is expected that the friction between the DeFi sector and regulation will diminish, and the DeFi space will gradually align with compliance requirements.

2. Perpetual Protocol | Taiwan

In recent years, as there have been no corresponding regulatory mechanisms under the regulatory frameworks of various countries, DeFi has become the target of many decentralized protocols. Perpetual Protocol, a Taiwanese DeFi project, has gained popularity among cryptocurrency investors worldwide and has quickly become one of the DeFi unicorns.

Perpetual Protocol operates a decentralized perpetual futures exchange as its main business. Due to its decentralized nature, Perpetual Protocol does not custody user funds. Users have full control over their assets and can engage in perpetual futures trading in a fully transparent manner. However, even so, the operation of the perpetual futures exchange business in Taiwan may face regulatory risks under Article 8 of the Futures Trading Act, which states that "the establishment of a futures exchange shall require the permission of the competent authority and the issuance of a license." As a result, the front-end website of Perpetual Protocol excludes users from Taiwan and the United States.

Overall, the decentralized nature of the blockchain industry has made anonymity projects a norm. These projects often choose to expand their business scope into unregulated markets or focus on a global market during their early stages, before engaging in discussions with local governments regarding regulatory issues, once they have sufficient operational data and have gained trust within the industry.

In addition, there are major events organized by the community, such as the 2022 Taipei Blockchain Week, or events organized independently by blockchain professionals, such as the ETH Taipei held for the first time in 2023, co-founded by Yanwen Feng, Co-founder of Perpetual Protocol, Chen Changwu, Chief Scientist of imToken, Xuanting Zhu, Founder of Furucombo, Anderson Chen, Co-founder of Diamond Protocol, Songsheng Li, Developer Relations at Quantstamp, and Cheng De Zheng, Developer at Lyra, who utilized their spare time to prepare for the event.

In terms of regulations, the 3rd Blockchain Application Legal Summit brought together legal professionals and industry experts in various financial technology regulations, including Hengye Law Firm, Ernst & Young United Accounting Firm, and Creatique Law Firm. Apart from engaging in discussions with public sector representatives to explore the legality of blockchain applications, they also discussed investment protection and asset separation through trust structures with compliance representatives from institutions such as KGI Bank, Far Eastern International Bank, and CTBC Bank.

C. Recommendations for Regulation in Taiwan

In view of the various financial application characteristics of cryptocurrencies and the lack of a comprehensive regulatory framework, the Financial Supervisory Commission (FSC) currently adopts a self-regulatory code of conduct for industry participants and guidelines from supervisory authorities. The specific details of legislation will be formulated based on international trends.

However, regarding the implementation of regulatory measures for the blockchain industry in Taiwan, we believe that the key focus should be on "establishing self-regulatory standards" and "creating industry associations". Considering the diverse range of businesses in the Taiwanese blockchain industry, which includes large-scale exchanges and small asset management or wallet providers, the scope is broad and varied. Therefore, self-regulatory standards should be formulated based on the attributes and nature of each type of business, as relying solely on a single standard may overlook certain areas or hinder the overall development of the industry.

Implementing a self-regulatory model for industry participants can avoid excessive constraints on industry space and operating models. However, it is also necessary to ensure the effective enforcement of relevant self-regulatory measures. Currently, Taiwan does not have established industry associations for businesses related to cryptocurrencies. To achieve the aforementioned goals, we have long believed that establishing industry associations and introducing

mechanisms for industry self-regulation are necessary. Through the tripartite cooperation and consensus among the industry, associations, and relevant departments, the blockchain industry in Taiwan can establish a robust and adaptable regulatory environment to ensure the healthy development of the virtual asset market and protect the rights of investors. This will help build confidence among market participants and promote sustainable industry growth.

1. Virtual Asset Service Providers (VASPs)

As of the current regulatory framework and policies in various countries, the United States federal government has not yet established separate legislation specifically for the regulation of cryptocurrencies. However, based on statements from federal agencies following the FTX incident, it is evident that the US government is expected to soon introduce a more comprehensive regulatory framework for cryptocurrencies.

Regarding the regulatory model for Virtual Asset Service Providers (VASPs), our country adopts an anti-money laundering declaration, which differs from the regulatory frameworks of other countries that often follow a licensing system. If the future direction moves towards a licensing system, with the Financial Supervisory Commission (FSC) overseeing unified regulation, the operational aspects, such as the volume and scope of services provided by virtual asset service providers and whether they operate under a reporting system, can refer to Singapore's Payment Service Act. This act establishes different levels of licenses based on the volume criteria for different types of virtual currency businesses, but operators are also required to meet additional requirements, including anti-money laundering standards, technical cybersecurity requirements, platform risk controls, and user authentication, among others.

Types of licenses by the Monetary Authority of Singapore	Services Provided
Money-Changing License	Conducting currency exchange
Standard Payment Institution License	Variety services
Major Payment Institution License	Wide range of services without restrictions on transaction volume

Furthermore, the Dubai model can also be considered, where a four-stage licensing system is used to differentiate between levels of operators for layered regulation. Implementing layered regulation based on different volumes and service scopes can allow more virtual asset service

providers to enter the market, while providing flexibility in service scopes based on their operational capabilities and compliance with regulatory requirements. This approach progresses in stages, starting from obtaining provisional approval to acquiring a minimum viable product license, allowing virtual asset service providers to have increasing flexibility in their operations.

2. Stablecoin regulation

It can be referred to the standards in the United States or the European Union, which require operators to hold reserves, prohibit lending and leverage operations, and mandate stablecoin issuers to maintain a 1:1 collateral ratio and provide disclosure requirements. However, the current regulatory framework in the United States does not have provisions for regulatory authorities to intervene in stabilizing the market in the event of a stablecoin platform's insolvency, as they do for traditional banks. Therefore, if regulatory authorities were to intervene in the regulation of stablecoins, a clear regulatory framework would need to be established to protect users and stabilize the market.

3. Blockchain industry-related policies

Many countries have already developed specific policies for the blockchain industry or collaborated with local industry associations to provide corresponding subsidies and programs, establishing an environment favorable to industry development.

1.1 The European Union

In 2023, the European Union introduced the European Blockchain Regulatory Sandbox, aiming to promote communication and dialogue between regulatory authorities and cross-industry companies. Through the regulatory sandbox, the EU seeks to advance the adoption of distributed ledger technology (DLT) across industries and borders. Startups registered in EU member states that are involved in DLT-related technologies can apply for the sandbox.

Projects that pass the evaluation process not only receive grants but also get paired with relevant national or EU regulatory authorities to discuss regulatory issues. Companies can also raise their needs for regulatory guidance and legal requirements, enabling a dialogue to establish appropriate regulations.

1.2 Hong Kong

The Hong Kong government has issued a "Policy Statement on the Development of Virtual Assets," expressing an open and embracing attitude towards virtual assets and Web3. They plan to open the licensing for virtual asset service providers in 2023. Additionally, the Hong Kong Web3.0 Association has been established, and the Cyberport Web3 Base in Hong Kong has received HKD 50 million in support from the government's budget, actively promoting the development of the Web3 ecosystem. The establishment of the Web3 Hub Fund aims to attract more Web3 enterprises to Hong Kong, including renowned blockchain company Consensus, which has set up its presence in Cyberport and received investments. Furthermore, Hong Kong-based game company Animoca Brands and virtual asset trading platform HashKey are also located in Cyberport.

1.3 Switzerland

Switzerland, known as "Crypto Valley," has been promoting the development of the blockchain industry since 2013. It has adopted a friendly and flexible approach to regulating the cryptocurrency industry and has attracted multinational blockchain companies through low-tax incentives. In 2021, Switzerland enacted a blockchain law that established a leading regulatory framework globally. It has nurtured a thriving ecosystem for the industry, hosting renowned public blockchains such as Ethereum Foundation, Cardano, Polkadot, and Dfinity. The Crypto Valley Association (CVA) in Switzerland integrates academic, private, corporate, and government resources to promote various tech activities and facilitates the understanding of Switzerland's blockchain ecosystem by businesses from around the world.

The attention and efforts shown by governments and industries in the aforementioned countries towards the blockchain industry are worth considering and learning from for the Taiwanese government and industry. However, a sound regulatory framework requires gradual and collaborative discussions among regulatory bodies, industry players, and industry associations. When there are discrepancies or loopholes between industry practices and the existing regulatory framework, continuous communication and cooperation between operators and associations are necessary to establish industry standards and regulatory frameworks. It is hoped that the cryptocurrency industry will thrive within a comprehensive regulatory structure, ensuring a win-win situation for operators, users, investors, and regulatory authorities.

REFERENCES

- ASIC (2023). **Crypto-asset information sheet 225**. From <https://asic.gov.au/regulatory-resources/digital-transformation/crypto-assets/> (Retrieved 2023.06.13)
- Chen Ruiqi(2022). **Switzerland Zug's Innovation and Openness to Build a Blockchain Ecosystem**. From https://www.taipeiecon.taipei/article_cont.aspx?MSid=1162347233473463721&MmmID=1203&CatID=1161725557556510053 (Retrieved 2023.06.13)
- Decrypt (2023). **Paxos Halts BUSD Minting as SEC Prepares Lawsuit**. From <https://decrypt.co/121182/paxos-halts-busd-minting-as-sec-reportedly-prepares-lawsuit/> (Retrieved 2023.06.13)
- Helen Partz (2023). **SEC of Thailand issues crypto custody provider rules**. From <https://cointelegraph.com/news/sec-of-thailand-issues-crypto-custody-provider-rules> (Retrieved 2023.06.13)
- Hong Kong Financial Services and the Treasury Bureau (2022). **Policy Statement on the Development of Virtual Assets in Hong Kong**. From https://gia.info.gov.hk/general/202210/31/P2022103000455_404825_1_1667173459238.pdf (Retrieved 2023.06.13)
- Legislative Yuan Finance Committee(2023). **The 2nd Plenary Committee Meeting of the Finance Committee of the 7th Session of the 10th Legislative Yuan**. From <https://ivod.ly.gov.tw/Play/Clip/1M/143677> (Retrieved 2023.06.13)
- National Regulatory Database(2021). **Anti-Money Laundering and Counter-Terrorist Financing Measures for Virtual Currency Platforms and Trading Businesses**. From <https://law.moj.gov.tw/LawClass/LawAll.aspx?pcode=G0380268> (Retrieved 2023.06.13)
- SYGNA (2021). **SEC Investigates UniSwap: What's Next For DeFi Regulation?** From <https://www.sygna.io/blog/sec-investigates-uniswap-whats-next-for-defi-regulation/> (Retrieved 2023.06.13)
- Thomson Reuters (2023). **Cryptos on the rise 2022**. From <https://www.thomsonreuters.com/en/reports/cryptos-on-the-rise-2022.html> (Retrieved 2023.06.13)
- The Financial Supervisory Commission (2023). **The Financial Supervisory Commission is responsible for promoting the regulation and development of virtual asset platforms with financial investment or payment nature**. From https://www.fsc.gov.tw/ch/home.jsp?id=2&parentpath=0&mcustomize=news_view.jsp&dataserno=202303300001&dtable=News (Retrieved 2023.06.13)

INVESTMENT RISK AND DISCLAIMER

The above analysis is provided for general information purposes only and is based on the available data and public resources at the time of preparation. The content of the report, including graphs, charts, and other visual aids, is provided for reference purposes and should not be considered as a basis for investment, legal, or financial decisions. Please refrain from making any investment decisions solely based on this report. None Capital and the Bitcoin and Virtual Currency Development Association are not responsible for the investment outcomes of users.

The viewpoints expressed in this document represent the anticipated assumptions and forward-looking perspectives of None Capital and the Bitcoin and Virtual Currency Development Association. Given the unknown risks and uncertainties, actual results, performance, or events may differ significantly from the expressed viewpoints and assumptions. Within the foreseeable range, such forward-looking assumptions may not be realized or may deviate greatly from actual results. By reading this report, you agree to accept the terms and conditions of this disclaimer.

COPYRIGHT NOTICE

The copyright of this industry map report belongs solely to None Capital and the Bitcoin and Crypto Currency Development Association. Without written permission, no institution or individual may infringe the copyright through reproduction or any other form.

CONTACTS

None Capital : contact@none.capital

Bitcoin and Crypto Currency Development Association : contact@bcda.tw