

FinTech Development Roadmap (2.0)

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Financial Supervisory Commission

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Chapter 1 Preface

To support FinTech innovation and increase the competitiveness of the financial market, the Financial Supervisory Commission (FSC) has promoted FinTech since 2015 and published the "FinTech Development Roadmap (1.0)" in August 2020 which outlines a 3 years plan to promote FinTech development in Taiwan. The Roadmap included 60 implementation measures in 8 major strategies with the aim of attaining inclusion, innovation, resilience, and sustainability. It seeks to create a friendly FinTech ecosystem to promote service or business model output and increase the efficiency, accessibility, usability, and quality of financial services. Since it release, all measures have been implemented in phases according to plans, with a number of tangible results.

In views of the rapid development of FinTech, the FSC aims to maintain innovation momentum by understanding the current state of all roles in the ecosystem, the challenges, and policy recommendations to continue to improve and enhance development based on its existing achievements. It appointed the FinTech Co-creation Platform to conduct a research project in June 2022 to gather the recommendations of stakeholders in the ecosystem regarding FinTech development and provide concrete recommendations for the next phase of FinTech development in Taiwan.

With the expansion and applications of FinTech, more countries and regions are beginning to pay attention to FinTech development and adopted measures such as enhanced supervision and policies to promote FinTech innovation. The continuous international cooperation and exchange of ideas in the field of FinTech have demonstrated the FinTech development in the world is still on the rise. The aforementioned commissioned research referenced the success stories of countries that have taken the lead in FinTech development, analyzed various FinTech

development issues and trends, and summarized the important advantages and disadvantages of Taiwan in FinTech development compared with other countries in Asia or leading countries such as the United Kingdom and the United States. The FSC will also understand the challenges, necessary resources, and development niches, so as to improve the overall FinTech innovation environment in Taiwan.

In conclusion, the FSC published the "FinTech Development Roadmap (2.0)" with the aim of using the 4 major implementation aspects and 15 implementation measures (totaling 65 detailed implementation items) for creating a more inclusive, fair, and sustainable FinTech ecosystem and a FinTech development ecosystem in line with international standards.

Chapter 2 International Development Trends

I. World Bank Group "Fintech and the Future of Finance" Report

The World Bank Group published the "Fintech and the Future of Finance: Market and Policy Implications" report on March 31, 2023. The report explores the impact of FinTech and the digital transformation of financial services on the financial market. It also discussed regulations and regulatory measures and how they interact with each other. The key points of the report are as follows:

- (I) FinTech is rapidly transforming the landscape of the finance industry and has significant impact on policies: FinTech has expanded to many countries in the form of mobile money, banking applications, financial services provided by large-scale tech companies and new online banks, and the rapid rise of crypto and central banks digital currencies. New infrastructure, suppliers, products, and business models are reshaping the structure of the financial market. These technological advancements are blurring the boundaries between FinTech companies and financial institutions. For instance, financial institutions have increased their reliance on third parties to provide products and services while more non-financial firms have incorporated financial services into their products.
- (II) Core policy objectives of a well-functioning financial system: The core policy objectives of a well-functioning financial system must include financial inclusion as well as financial stability and integrity, efficiency, fair competition, cybersecurity, data privacy, and consumer and investor protection. Allowing market forces to drive FinTech development may be detrimental these objectives. For

instance, the economics of scale and economics of scope may lead to market concentration, which could have adverse effects on competition, innovation, and financial stability.

(III) Regulators must ensure that market outcomes are aligned with core policies objectives, including:

1. Manage risks while fostering beneficial innovation and competition.
2. Broaden monitoring horizons and reassess regulatory perimeters.
3. Review regulatory, supervisory, and oversight frameworks.
4. Monitor market structure and conduct to maintain competition.
5. Modernize and open financial infrastructure.
6. Strengthen cross-border coordination and sharing of information and best practices.

II. Japan

Japan is the world's third largest economy and a developed country located near Taiwan. Japan and Taiwan have similar legal systems and financial environment and the development of Japan's regulations and policies has become a model for observation and reference for Taiwan when conducting international analyses. The Financial Services Agency (FSA) of Japan published the "2022 JFSA Strategic Priorities - Track Records and Operation Plan" in 2022. It stated that it is fully committed to supporting FinTech development, including the establishment of the FinTech Support Desk and FinTech POC Hub by FSA. It will continue to provide assistance for FinTech operators and financial institutions as well as strengthen international cooperation on FinTech. The important measures taken by Japan for

promoting FinTech in recent years are as follows:

- (I) The FSA and the Personal Information Protection Commission of Japan jointly published the "Guidelines for the Protection of Personal Information in the Financial Sector" in April 2022 with the aim of requiring financial institutions to adopt more prudent measures in addition to general provisions (e.g., the Act on the Protection of Personal Information) when processing personal information. The FSA also established the "Practical Guidelines on Security Control Measures Under the Guidelines for Protection of Personal Information in the Finance Sector" in the same month in accordance with Article 8 of the Standards to prescribe details such as the security management mechanisms for personal data held by financial institutions.
- (II) Digital talent cultivation:
 - 1. The Ministry of Education, Culture, Sports, Science and Technology (MEXT, equivalent to the Ministry of Education, National Science and Technology Council, and Ministry of Culture in Taiwan) and the Ministry of Economy, Trade and Industry (METI, equivalent to the Ministry of Economic Affairs of Taiwan) jointly convened a meeting for promoting digital talent development in September 2022 to discuss digital talent development mechanisms and other issues under the framework of industry-government collaboration. The specific policies proposed by the MEXT included: The Ministry shall establish a fund to provide subsidies to universities and research institutes with computer science departments. It shall implement the "AI Strategy 2019 and Accreditation System for Mathematics, Data Science and AI

Education Programs" to set up model courses and alliances with universities across Japan for the purpose of cultivating professionals for teaching mathematics, data science, and AI. Other specific policies proposed by the METI included the establishment of a nationwide policy for digital talent development platform (e.g., establishment of an online education website, education projects for case studies, and online study projects in collaboration with local businesses). It will also focus on local policies such as digital talent development for the semiconductor industry (Kyushu) and battery industry (Kansai).

2. The FSA assigns instructors to seminars convened by local Finance Bureaus and business associations as a part of a program to strengthen the cultivation of talent in the finance industry.

III. Singapore

Singapore is the third largest financial hub in the world and its FinTech development also leads the world. It attracts foreign talents and capital. According to statistics, Singapore invested a total of US\$3.9 billion in FinTech in 2021, up 59% compared to 2020. Lawrence Wong, Deputy Prime Minister and Minister for Finance of Singapore, announced the "Financial Service Industry Transformation Roadmap 2025" in 2022. The Roadmap calls for the creation of 20,000 job opportunities in the finance industry within 5 years and includes the following: The Monetary Authority of Singapore (MAS) will collaborate with the industry to strengthen the capabilities of FinTech industry, promote the digitization of financial infrastructure, expand cross-border payment networks, explore distributed ledger technology,

and cultivate technological talents, among other FinTech related strategies.

The MAS oversees FinTech-related matters in Singapore. MAS set up the "FinTech & Innovation Group" in August 2015. The Group includes several working groups with different business operations and they are responsible for the overall FinTech supervisory framework and promoting FinTech development. Singapore has adopted a "light-touch" regulatory approach for FinTech regulation. It promotes open finance and digital identity authentication through cooperation between the government and private enterprises or associations for setting up large-scale digital infrastructure. It also promotes sandbox experiments, provides active guidance for companies, and offers different application and review criteria for different companies. These measures speed up the review process of sandbox experiments and facilitate FinTech innovation and development.

In addition, Singapore has set clear objectives for promoting FinTech department. As an example, the MAS implements "Financial Sector Technology and Innovation (FSTI)" for the purpose of accelerating the technology and innovation and development in the finance industry, supporting large-scale innovation projects, and cultivating local FinTech talent. It will also focus on different areas of FinTech development in each stage. It started with open banking and electronic payment and recently focused on the development of artificial intelligence, insurance technology, and green FinTech. In terms of talent cultivation, the government and companies of Singapore are acutely aware of the shortage of tech talents. Therefore, they actively cultivate cross-disciplinary talents with both financial know-how and technology backgrounds through online courses offered by industry-academia collaboration. They also match

graduates from related fields to jobs in the FinTech industry.

To increase international competitiveness, the Inland Revenue Authority of Singapore (IRAS) established tax exemption schemes to reduce the tax burdens of startups and provide subsidies for overseas expansion. It also actively signed FinTech cooperation agreements with governments around the world. As of April 2022, the government of Singapore has signed 36 FinTech cooperation agreements with 29 countries. The contents of the agreement included the exchange of data, cooperation in FinTech development, exchange of talents, and related mutual cooperation measures.

IV. United Kingdom

London is a financial hub and the United Kingdom was the first country in the world to introduce open banking and regulatory sandbox system, which made it a pioneer in FinTech development. The UK government adopted an open approach for regulating the FinTech industry and encourages innovation. The FinTech industry in the UK received the highest amount of investment among European countries in 2018. The United Kingdom is home to numerous entrepreneurs and tech talents, an open regulatory and policymaking system, immense capital and professional know-how, and vibrant startups, which work in concert to support the development of FinTech in the UK.

The Financial Conduct Authority (FCA) of the UK launched the Regulatory Sandbox in 2016 and updated related regulations to meet practical needs in recent years. It provides extended services such as sandbox or licensing fee estimation as well as "Innovation Pathways" for businesses that seek to learn about regulatory regulations during the business model testing phase. The UK recently announced that the Treasury, Bank of England, and FCA are working together to develop

the Financial Market Infrastructure (FMI) sandbox, which will be activated in 2023 to support infrastructure service companies that wish to use new technologies and operations to support the market.

The UK government announced in 2022 that people can use digital means to quickly prove their identity without relying on traditional physical identity documents. The Department for Digital, Culture, Media & Sport (DCMS) established the Office for Digital Identities and Attributes (ODIA) to take charge of digital identity businesses. ODIA will be authorized to issue trust certificates to certified digital identity organizations to prove they meet the information security and privacy standards required by the government. In addition, the Digital Identity and Attributes Trust Framework proposed by DCMS remained in the drafting phase as of the end of 2022. The United Kingdom has adopted a similar federated mechanism to established a framework for identity verification and data exchange, which is different from the Public Key Infrastructure (PKI) used by other countries to create digital identity verification mechanisms. In the UK's federated mechanism, different industries can propose different identity authentication schemes for the relevant competent authority to verify the technical specifications and implement certification measures. Institutions that pass the certification shall conduct identity verification and exchange of data in the industry.

In terms of increasing international appeal and competitiveness, the UK regards the FinTech industry as an important source of future economic growth in its overall policies. In addition to its domestic markets, the UK also actively cooperates with other countries to expand international markets. For example, UK government agencies such as the Department for International Development (DFID) have

long advocated using FinTech to increase the opportunities for providing financial services in developing countries, which in turn attracts FinTech companies from all over the world to operate in the UK and pave the way for its domestic FinTech companies. With government assistance, these companies can enter foreign markets more easily. In addition, the UK also signs FinTech agreements with other countries with advanced FinTech development (e.g., Australia and Singapore) through the FinTech Bridge Programme. By trusting each other's regulatory oversight systems, the procedures of entering each other's markets can be streamlined, which can lower the threshold for domestic FinTech startups to expand into overseas markets. At the same time, the government agencies of both countries can also engage in discussions and cooperation on FinTech development and promote cooperation in FinTech and regulatory mechanisms between countries. These measures thus encourage in cross-border investment and interactions between companies in both countries.

V. United States

The United States is the engine of global economic growth and its financial market is the most advanced capital market in the world. It also leads the world in FinTech, which is mainly powered by the private sector, such as cultivation plans, hedge funds, and venture capitalists. Due to the widespread adoption of FinTech, the US government also pays close attention to related regulatory measures. Its FinTech sector faces challenges in the form of inconsistencies between regulations and expectations. However, it still endeavors to adjust the regulatory framework to keep up with the development of emerging technologies with the aim of facilitating continuous growth of FinTech under government oversight.

To promote innovation, the Consumer Financial Protection Bureau (CFPB) of the United States published the No-Action Letter and Compliance Assistance Sandbox policies in the Federal Register in September 2022. To enhance personal data protection, it issued advance notice of proposed rulemaking in accordance with Section 1033-Consumer Data Access Right of the Dodd-Frank in 2020, and further promoted a draft rules on the rights to personal financial data. In terms of identity verification, the Senate actively promoted the Improving Digital Identity bill to establish a public-private partnership digital identity work group to develop secure means for government agencies to protect personal privacy and security. It also studies the digital identity verification system created with public and private partnership and provides government funding for implementing digital identity verification applications.

The development of FinTech in the United States is different from that of other countries. It is mainly market-driven and supported by government policies, which resulted in rapid digital transformation. The COVID-19 pandemic gave rise to the rapid adoption of contactless transactions, which indirectly contributed to the wide adoption of FinTech in all age groups. The use of FinTech in the United States is not confined to the younger generation. In addition, the US has adopted a more relaxed approach in its FinTech development, which is distinct from the policy-oriented FinTech policies adopted in Taiwan. The US provides operators with opportunities for innovation and quickly sets up regulatory policies based on the risks they found. In specific areas, the US first provide a certain degree of flexibility for development sector, and then regulate it based on actual risks that arise. This help to encourage more technical and service model innovations.

VI. Australia

FinTech development in Australia is led by the government, which establishes clear key points for development and enacts comprehensive regulations and guidelines while providing businesses and investors with clear information online. In addition, FinTech development in Australia is based on "ecosystems" that include the regulators, FinTech operators, investors, and incubators. Some unit also play a role in resource matchmaking and integration functions to help FinTech operators access resources necessary for their development with greater ease.

In terms of financial supervision, Australia has adopted a more open approach and created a review system with "prior approval" or "prior notification" based on the business risk. It lowers the entry barriers for the sandbox and resolves the issue of the huge compliance cost when businesses enter the sandbox. In addition, Australia adopted a nationwide and cross-industry approach for planning FinTech policies. The design of the two systems, Consumer Data Right (CDR) and Australian Trusted Digital Identity Framework (TDIF), are used as examples. The CDR was jointly launched by the Australian Securities and Investments Commission (ASIC) and the Australian Competition and Consumer Commission (ACCC). To help businesses transmit data, the ACCC and the Office of the Australian Information Commissioner (OAIC) jointly established API standards. They expanded the scope of the TDIF certification system in the TDIF legislation and included the participation of the private sector, consumer privacy protection, and clear regulatory framework. It is thus clear that Australia avoided assigning different competent authorities for different industries in its FinTech development. This would prevent discontinuity in the regulatory mechanisms or gray areas which would disrupt and delay

innovation and development.

VII. European Union

The EU included FinTech development as a priority development policy but there is no EU-level legislation that incorporates all aspects of FinTech development. Instead, different activities are governed by different regulations. Therefore, the EU has also been actively promoted EU-level supervision and legislation in recent years to create a common market designed for innovative financial services and adapt to rapid changes in technological developments while ensuring consumer and investor protection and financial stability. The European Commission passed the "Digital Finance Package" in September 2020 to create an overall structure for FinTech in the EU. It also promulgated the Digital Operational Resilience Act (DORA) in November 2022 to monitor information and communication security and risk management, and permitted financial supervisory agencies to directly supervise operators that provide information and communication technology (ICT) services to financial institutions. It enters into force in 2025.

In terms of data utilization and identity authentication, in addition to the General Data Protection Regulation (GDPR), which has created significant changes for multinational enterprises, the Data Governance Act (DGA) was formally adopted in May 2020 (and is expected to enter into force in August 2023). It has become a key pillar of Europe's information strategy, indicating the EU is taking more proactive legislative measures for data governance, access, and reuse. The EU also uses the electronic Identification, Authentication and trust Services (eIDAS) as a framework for creating secure and reliable electronic identity authentication, certification, and trust services for

individuals, businesses, and the public sector in the EU, and it is not confined to the finance industry. eIDAS helps individuals and businesses use electronic means for identity authentication and it can also be used for online transaction authentication inside and outside the EU.

In addition, the EU actively develops blockchain technologies, including the European Blockchain Services Infrastructure (EBSI) and the European Blockchain Partnership (EBP). Public entities are permitted to develop, connect, and use EBSI infrastructure application services and it will ultimately be expanded to the private sector. In addition to blockchains, open finance and AI are also key areas of EU FinTech development in recent years.

Chapter 3 Current State of FinTech Development in Taiwan

The FSC published the "FinTech Development Roadmap (1.0)" in August 2020 with 60 implementation measures in 8 major strategies to build solid foundations for FinTech development in Taiwan. To obtain information on the views of different sectors on the implementation results of "FinTech Development Roadmap (1.0)" and their expectations and recommendations for FinTech development in Taiwan, the RegTech Group of the FinTech Co-creation Platform of Taiwan Financial Services Roundtable (TFSR) assisted in processing related outsourced research projects¹ in 2022. It interviewed eight types of respondents, including government agencies, financial institutions, academic and research institutions, FinTechSpace, startups, investment institutions, financial consumers, and other FinTech-related entities (including associations of financial industries, FinTech associations, related peripheral organizations, and tech companies in specific fields), to examine the strengths, weaknesses, and key issues for FinTech development in Taiwan.

The current state of FinTech development in Taiwan is reviewed and analyzed based on four major perspectives including FinTech legislation and policies, supporting resources and talent development, FinTech technologies and applications, and financial inclusion and digital finance adoption. The implementation results of the "FinTech Development Roadmap (1.0)" since its promotion are reviewed and the feedback and recommendations proposed by all parties are also reviewed to examine the issues to be resolved or matters for continuous improvement in the next phase of FinTech development in Taiwan.

¹ The research report can be accessed from the following website: [Taiwan Financial Services Roundtable \(tfsr.org.tw\)](https://www.tfsr.org.tw)

I. FinTech legislation and policies

The public-private partnership completed several measures for FinTech legislation and policies during the implementation of the "FinTech Development Roadmap (1.0)". They are summarized below:

- (I) The TFSR established the "FinTech Co-creation Platform" in November 2020. Through its four implementation teams, namely the Capacity Building Group, Data Governance Group, RegTech Group, and Promotion and Communication Group (the conveners are the Taiwan Academy of Banking and Finance, Joint Credit Information Center, Taiwan Depository & Clearing Corporation, and Taiwan Financial Services Roundtable respectively), adopted a forward-looking and comprehensive approach to jointly promote FinTech development and implement related policies.
- (II) The financial regulatory sandbox was implemented since April 2018 and business trial mechanisms were established for three financial industries including banks, insurance enterprises, and securities and futures firms in 2019. The sandbox and business trial mechanisms which run in parallel have help to promote financial innovation in Taiwan. To encourage financial institutions and FinTech companies make use of the latest technologies for innovative solutions, the FSC launched the "Digital Identity Authentication and Authorization" thematic regulatory sandbox and business trials in January 2022. Its aim is to meet people's needs and businesses' requirements for risk management to introduce secure and reliable solutions with convenient digital certification and authorization for people to access digital financial services with greater ease and security.
- (III) To meet the demand for open restricted licenses under the

aforementioned regulatory sandbox mechanisms, regulations for electronic payment and securities sector have been adjusted and restricted licenses have been issued. In July 2021, the FSC promulgated "The Act Governing Electronic Payment Institutions", which added provisions for the management of the small-amount remittances by foreign migrant workers. This brought the small-amount remittance operators for foreign migrant workers under the supervision of the FSC. The FSC also issued restricted licenses and adopted the proportionality principle for tiered management. The FSC granted restricted licenses for "proprietary securities dealers that only engage in proprietary trading security token offerings (STO)" and "securities brokers that only engage in brokerage business for trading and exchanging beneficial certificates of funds" in January 2020 and May 2021 to support FinTech development, capitalization in the securities market, and diverse investment and transaction models.

- (IV) The FSC established the "Guidelines for Data Sharing between Financial Institutions" in December 2021 and issued letters to the associations of the financial industry to notify their members of the guidelines and thus complete the evaluation and discussions regarding the scope, regulatory adjustment, and management mechanisms of customer data sharing between financial institutions in the financial market. According to a survey conducted in 2022, 99.15% of the financial institutions that had implemented data sharing before the promulgation of the Guidelines had completed internal control regulations in accordance with the Guidelines and had obtained approval from the board of directors. Nearly 20

financial institutions have added data sharing measures in accordance with the Guidelines and more than 90 financial institutions are currently planning additional data sharing in the future to increase the convenience of customer transactions and operational efficiency and thereby enhance consumer interests and business performance.

- (V) In terms of setting up cross-market customer data sharing mechanisms and regulations, the Joint Credit Information Center (JCIC) has compiled the requirements and opinions of the associations of the finance industry and related peripheral organizations and prioritized the processing of data that financial institutions can access through the MyData platform. The FSC issued an official letter to the Ministry of Digital Affairs in March 2023 to request it to evaluate the incorporation of the requirements of businesses into the MyData platform. The FSC will also evaluate whether to set up a data sharing platform or provide API connections for data that cannot be immediately included into the MyData platform to help financial institutions access the information they need.
- (VI) As financial services in Taiwan are managed based on the types of businesses and institutions, regulations or self-regulatory rules for digital financial services are dispersed in related regulations of the industries. To help external entities search, use, and adjust such regulations, the FSC has continuously reviewed related regulations for digital financial services and examined the omissions or inconsistencies since August 2021 to evaluate amendments or adjustments based on the urgency of requirements. The FSC has amended the "Standards for Security Management of Electronic Banking Business of

Financial Institutions", "Regulations Governing the Dedicated Deposit Account of Specialized Electronic Payment Institutions", and "Directions for Insurance Enterprises Conducting Electronic Commerce", "Regulations on Compliance Matters for the Security/Claim Alliance Chain Business of Insurance Enterprises", "Standards Governing the Establishment of Securities Firms", and "Regulations Governing Securities Firms". The FSC will also continuously (semi-annually) publish related information on the "FinTech Information Disclosure" section on the FSC's website.

However, there are still some issues that need to be resolved or improve in the current legislative system and policy environment for FinTech development in Taiwan. They include:

- (I) Businesses think that the cost of participation in FinTech innovative experiments (regulatory sandbox) is too high. Factors include unclear review and approval time and the high amount of manpower and time required to discuss the feasibility of landing. The imperfect landing mechanisms and the uncertainties after exiting the sandbox discourage new businesses from applying to participate in innovative experiments.
- (II) Data access is a key for the entry of FinTech into the market. However, external entities have not yet fully understood the related regulations of the Personal Data Protection Act (PDPA) and practical data sharing operations (including the scope of data that can be shared and methods of sharing). This creates uncertainties in the use of data which in turn affects the development of the technology or businesses' models of data

sharing or data governance technologies by companies.

- (III) New technologies can help reduce costs, increase efficiency, and support the development of the financial market. However, there may be potential risks in terms of the accuracy and integrity of information, information security and privacy, fairness for the disadvantaged, morality, and ethics. Therefore, financial regulatory authorities should continue to communicate with businesses and formulate high level policies and common guidelines based on the needs of the industry, so that financial consumers can safely enjoy the convenience of financial services brought about by technological advances manner when financial institutions introduce new technologies.

II. Supporting resources and talent development

After the FinTech Co-creation Platform integrated resources and reviewed the external opinions, several measures for the supporting resources on FinTech development and talent cultivation in related fields have been implemented. They are summarized below:

- (I) To promote FinTech innovation and help the responsible persons, managers, or department managers of financial institutions achieve diverse and interdisciplinary development, the FSC amended the "Regulations Governing Responsible Persons and Associated Persons of Securities Firms", "Regulations Governing Responsible Persons and Associated Persons of Securities Investment Trust Enterprises", "Regulations Governing Responsible Persons and Associated Persons of Securities Investment Consulting Enterprises", "Regulations Governing Responsible Persons and Associated

Persons of Futures Commission Merchants", and "Regulations Governing Qualification Requirements and Concurrent Serving Restrictions and Matters for Compliance by the Responsible Persons of Banks" in 2020 to include qualifications in professional disciplines such as information technology, technology, law, e-commerce, digital economy, finance and accounting, marketing, and human resources as accepted qualifications.

- (II) The FinTech Co-creation Platform completed the two-stage FinTech Proficiency Certification Mechanism for basic competencies (technical, financial, and coding know-how) and professional competences (6 career categories including banking, securities, and insurance) to cultivate FinTech talents and accelerate the development and utilization of talents in Taiwan. The professional competence courses commenced in September 2022 and the FSC also established incentives to encourage professionals to obtain FinTech licenses and meet the demand for FinTech talents.
- (III) To help startup teams with compliance and strategy formulation and accelerate their entry into the market, FinTechSpace organized and provided the "one-stop compliance support service", including Regulatory Clinic, Regulatory Checkup, and startup seminars and compliance assistance for specific cases organized from time to time. As FinTech-related businesses often involve cross-industries or cross-regulatory responsibilities, the FSC has expanded the participating units in the regulatory clinic since 2020 to strengthen communication efficiency. It invites relevant government agencies, bureaus, related peripheral

organizations, and associations to participate based on the clinic topics. FinTechSpace also organizes seminars on different topics from time to time to communicate and exchange views on finance-related legislation or developments.

- (IV) To help startup teams obtain funding and increase their brand recognition, FinTechSpace continued to organize matchmaking events, to assist startups in fundraising and matchmaking, and assisted FinTechSpace-incubated teams in applying for National Development Fund, and arranging venture capital guidance. In addition, it also established and maintained a list of FinTech startups for different FinTech business models or technical services to provide reference information for different roles in the ecosystem. It connects the advantages of all businesses to jointly attain synergy in FinTech development.
- (V) To expand the digital sandbox validation sites and accelerate FinTech innovation and validation talents, FinTechSpace commenced collaboration with departments related to FinTech in National Taiwan University of Science and Technology, National Chung Cheng University, and National Sun Yat-sen University in 2021 to launch the "Digital Sandbox Authorized Campus-based Experiment (SPACE)" in Northern, Central, and Southern Taiwan. They also organized regular end-of-term exhibitions for student projects. Innovative and validated applications are used for the development of validation talents and enhancement of campus validation results and connection with the industry. It effectively increases the FinTech capacity on campus and the cultivation of FinTech innovation talents on

campus continue to promote FinTech innovation and transformation.

- (VI) The first FinTech Taipei Awards was held in 2022 and 3 winning teams with "Rising Star Award" were selected. FinTechSpace later provided resources such as assistance in foreign regulations guidance, subsidies for foreign exhibitions and business travel, and international markets landing guidance to the winning teams. Taiwan's overseas missions and international accelerators were also used to help them expand their businesses and build up their network and business opportunities.
- (VII) Events such as the "FinTech Taipei Awards" and "FinTech Taipei" exposition were used to help startups increase their exposure and gain opportunities for partnerships. The FinTechSpace also continues to organize matchmaking activities and related matchmaking platforms for business opportunities, and facilitate one-on-one consultation between startups and financial institutions or venture capital. This further help startups for fundraising and find business partners.
- (VIII) The Taiwan Academy of Banking and Finance completed the "FinTech learning map for regulators " in December 2021 and started the "regulatory personnel and seed instructor FinTech course" since March 2022. This help regulatory personnel understand FinTech issues and the development trends of new business models, thereby increasing their knowledge and helping them carry out regulatory supervision tasks.

With the implementation of the aforementioned measures, a solid foundation has been created for the assistance and human resources

necessary for FinTech development in Taiwan. However, most businesses consider FinTech to be an issue for cross-government agencies. The integration of existing resources in administrative agencies and additional enhancements for existing assistance measures would provide more beneficial for FinTech development in Taiwan.

III. FinTech technologies and applications

Under the guidance of the "FinTech Development Roadmap (1.0)", Taiwan has made significant progress in FinTech development and applications. The implementation measures that were completed are summarized as follows:

- (I) In terms of open finance, Taiwan has implemented "open banking" since 2019 and it has now entered into phase 2 "consumer information inquiry". Through in the ePASSBOOK app of Taiwan Depository and Clearing Corporation (TDCC), investors can inquire their securities positions and bank deposits. At the same time, the "open securities" initiative commenced the phase 1 "public data inquiry" in June 2023. In terms of insurance, the Life Insurance Association launched the "insurance policy passbook" for policyholders to access information on all their policies. The "Preservation/Claim Alliance Chain" provides policyholders with the service of submitting any contract change or claim applications to any insurance company. The services then used a related platform to push the application to other insurance companies for simultaneous processing.
- (II) The FSC allowed domestic registered partnership organizations/companies with no more than 3 adult partners/shareholders who have Taiwanese citizenship to open

digital deposit accounts in November 2021. It also allowed securities firms to accept telecommunication or electronic account opening applications from specific legal entities (according to the Company Act of Taiwan, they included companies with no more than 3 registered shareholders in which the responsible person and shareholders are all adults with Taiwanese citizenship) in October 2022.

- (III) The Financial FIDO Alliance was officially established in May 2021 and the alliance has completed the preliminary development functions, establishment of technical standards, and inventory of permitted business activities in 2022. The related identity verification systems have also been launched. In addition, the Financial FIDO Alliance formulated the "Guidelines for Security Management of Financial FIDO Mechanism Conducted by Financial Institutions" to strengthen the security control of Financial FIDO mechanisms. The FSC issued official letters to the associations of financial institutions in April 2023 to forward the Guidelines to their members. The guidelines will be revised on the rolling basis based on the results of related trial operations by financial institutions.
- (IV) FinTechSpace has build a "Financial Innovation Test Field in FinTechSpace" since October 2021 to accelerate the testing on the potential and development of the market, evaluate emerging risks, and increase the willingness of financial institutions to work with startup teams. It allows innovative financial services to be validated within a limited scope of risks without violation of regulations. FinTechSpace later launched the "Collaborative Innovation Validation" in 2022 to expand the scope of validation to joint validation between different

financial institutions. They target the common pain points in the financial industry and discuss feasible landing solutions, and can be used as preliminary research for future applications of business trial or regulatory sandbox, to reduce the cost of compliance for businesses.

- (V) FinTechSpace organized the first "Taiwan RegTech Challenge" from 2020 to 2021 and sought RegTech solutions from domestic and foreign teams. The competition was conducted in four steps: "building consensus on the theme", "open recruitment of innovation solutions", "public evaluation", and "promotion of results". FinTechSpace later completed the "feasibility study of practical applications of FinTech innovations" in phase 2 of the Taiwan RegTech Challenge in September 2022 to review the solutions of the winning teams and propose recommendations for subsequent implementation. It facilitated the adoption of 3 solutions including "eKYC digital identity authentication", "changes in internal regulations connected to regulatory changes", and "semi-automatic operations for AML user background information collection and validation" partnering by 3 operators and 3 financial institutions.
- (VI) JCIC launched the program for FinTech companies to access the JCIC's data to accelerate FinTech innovation and improve consumers' financial experience and service quality. The service provides encryption and decryption services to eligible FinTech companies on the existing online credit report viewing services. This allows individuals to transfer their personal credit rating to FinTech companies in a more convenient and secure manner based on their consent. JCIC has accepted

applications from FinTech companies since March 2022.

Taiwan benefits from strong technological development, a high level of digitalization in finance, and diverse technical applications. However, external parties still recommend continuous improvements based on existing results and more broadly adopt technological applications in practical financial operations (including services, data, and supervision) to leverage the power of FinTech and maximize its overall effectiveness. In addition, industry participants also recommended that Taiwan should identify technologies or applications with development advantages and prioritize related supporting resources on such sectors to maximize resource usage efficiency.

IV. Financial inclusion and digital finance adoption

The FSC promotes sustainable finance and pays close attention to whether digital financial services can reach more people and reduce potential gaps in digital finance. The FSC therefore took the following measures during the implementation of the "FinTech Development Roadmap (1.0)" with the aim of increasing financial inclusion:

- (I) To enhance the protection of foreign migrant workers in Taiwan and implement inclusive finance policies, the FSC announced the inclusion of foreign migrant worker remittance companies as financial services enterprises specified in Article 3, Paragraph 1 of the in October 2021. As such, in the event of consumer disputes involving the products or services provided by foreign migrant worker remittance companies, foreign migrant workers can not only protect their rights and interests in accordance with the Consumer Protection Act based on the "Handbook for Foreign Workers in Taiwan", but also have an additional remedy for ombudsman services after the

announcement of the inclusion of foreign migrant worker remittance companies as financial services enterprises in the Financial Consumer Protection Act. This will increase the protection of the rights and interests of foreign migrant workers.

- (II) The FSC has organized "FinTech Taipei" exposition for the public or "FinTech Taipei forum" for professionals since 2018 to attract FinTech talents, capital, and technologies, and increase matchmaking business opportunities for companies through the exchange of ideas and exhibitions. As of the end of 2022, the events have accumulated more than 120,000 visitors and more than 200 institutions participate in the events each year. The events showcase the results of FinTech development in Taiwan and help people understand the latest FinTech developments.
- (III) Considering the needs of offshore fund investors to reduce the average holding cost and diversify investment risks when subscribing offshore funds, the FSC has announced in May 2020 to allow securities firms to accept clients' applications for offshore fund subscription at regular intervals for different amounts, provided that they meet certain requirements, based on Article 10, Paragraph 1 of the "Regulations Governing Securities Firms Accepting Orders to Trade Foreign Securities".
- (IV) The FSC completed the planning for the application of artificial intelligence in RegTech in February 2021 and designated the processing of complaints from the people and review of meeting minutes of the board of directors and supervisor as prioritized applications for the AI applications. In terms of the

AI RegTech applications, the "people's complaint cases - simulated responses" has been introduced and "review of the meeting minutes of the board of directors and supervisors" is being tested. In addition, the FSC's supervision system for Internet-only banks and digital supervision platform for bills finance companies were activated in December 2020 and June 2021.

As technologies continue to progress and the financial environment continues to change, the related policies and measures for FinTech development should be continuously examined based on international trends, market development conditions, and the practical needs of the industry. The following measures can be implemented to further enhance the financial inclusion and digital finance adoption in Taiwan in the next phase of FinTech development:

- (I) In response to the rapid development of technology, government agencies must improve the use and response speed of technologies. To make the best use of technologies for enhancing supervision, related technologies must be introduced to improve supervision efficiency.
- (II) FinTech benefits inclusive finance but when financial institutions adopt technologies on a large scale, it may also lead to greater gaps in digital finance for disadvantaged consumers, thereby creating new forms of discrimination, exploitation, or harm. Supervisory agencies must focus their efforts on ensuring that disadvantaged customers can benefit from digital financial services in a fair manner and reduce the gaps in digital finance.

In conclusion, of the 60 implementation measures promoted since

the start of the "FinTech Development Roadmap (1.0)", 57 have been completed and continuously implemented. 1 item is not yet due (expected to be completed by the end of August this year), 1 item will be implemented based on the schedule for the expansion of FinTechSpace, and 1 item remains incomplete. The 2 latter items have been incorporated into the detailed implementation items of "FinTech Development Roadmap (2.0)". After reviewing the FinTech development policies and related measures implemented in Taiwan in recent years and analyzing the issues that need to be improved in the FinTech development in Taiwan, all parties have reached a consensus on the important advantages and disadvantages, challenges, necessary resources, and development niches of the FinTech development in Taiwan. The FSC therefore formulates the vision, goals, and strategies for the next phase of FinTech development based on the existing foundation.

Chapter 4 FinTech Development Roadmap (2.0)

In response to the rapid development of FinTech and to maintain the momentum for innovation, the FSC used outsourced studies and onsite interviews to gather recommendations from stakeholders in the ecosystem on FinTech development in Taiwan. It also referenced the success stories of leading countries in FinTech development, analyzed international FinTech development issues and trends, and reviewed the current state of the financial market and FinTech ecosystem in Taiwan as well as the objectives of supervisory policies of the FSC for the launch of the "FinTech Development Roadmap (2.0)". The FSC aims to use the 4 major implementation aspects and 15 implementation measures (totaling 65 detailed implementation items including 39 enhancements of the results of FinTech Development Roadmap (1.0) and 26 innovative initiatives) for creating a more inclusive, fair, and sustainable FinTech ecosystem and a FinTech development ecosystem in line with international standards.

I. Vision

Create a more inclusive, fair, sustainable, and international FinTech ecosystem in line with international standards.

II. Goals

(I) Inklusiveness: Create a FinTech ecosystem where all individuals with needs or willingness can participate.

(II) Fairness: Share the progress and achievements of FinTech development fairly while actively protecting consumer interests and supporting innovative companies and innovators to facilitate competition and innovation.

(III) Sustainability: Incorporate sustainability into the core values and practices of FinTech while adhering to the high standards of

governance and ethical principles for FinTech and ensuring data security and privacy protection.

- (IV) Internationalization: Create an ecosystem in line with global FinTech development and promote cross-border cooperation and connections. Promote international cooperation and exchange ideas with partners in the FinTech ecosystem in different countries and regions to share resources and know-how while enhancing the international visibility of Taiwan's financial system.

III. Implementation strategies

(I) Optimizing legislation

The Financial Stability Institute (FSI) of the Bank for International Settlement proposed the "FinTech tree" concept in January 2020 and adopted "policy enablers" as the foundations for FinTech development. Financial services are highly regulated industries in Taiwan and only a comprehensive and transparent legal system can provide businesses with a solid foundation for development. Therefore, the FSC plans to study the feasibility of adjusting the current FinTech development legal system and enhance policies based on practical requirements and the development progress in Taiwan. The FSC will continue to collect and evaluate information on the needs of businesses for adjustments of related regulations. It will also follow international FinTech development trends and enact related application guidelines for emerging technologies (e.g., AI) and help financial institutions accelerate FinTech development in compliance with related regulations.

(II) Enhancing resources

The competitiveness of the financial market relies on continuous innovation. In addition to the research and development by financial institutions, support for FinTech startups must also be provided. The growth of startup companies relies on diverse fundraising channels and investment in supporting resources, which will support the development of the entire financial service market. In addition, the cultivation of professional competencies of related professionals is absolutely essential for the entire industry. In conclusion, the FSC intends to use diverse channels to enhance the resources of all parties, including diversify funding for FinTech innovation, promoting advanced programs for FinTechSpace, further cultivating future professional FinTech talents, and enhancing international cooperation and overseas business development to provide businesses with more support and strengthen the development capabilities of FinTech in Taiwan.

(III) Expanding technologies

Building upon the aforementioned "FinTech tree" concept of the FSI, the successful growth and development of FinTech activities (the canopies) in the FinTech tree requires clear legislation and policies (the roots) as well as solid technologies as the trunk and branches. As such, the FSC plans to follow international trends and the overall objectives of Taiwan's policies to focus on issues such as identity authentication, open finance, green (sustainable) FinTech, corporate finance digitalization, and AI utilization to make full use of the Taiwan's FinTech development advantages and increase the international visibility of the overall finance industry in Taiwan. The FSC shall also

actively provide support for the development of digital finance to improve financial digitalization in Taiwan.

(IV) Increasing inclusiveness

The greatest difference between digital finance and traditional finance is that the former can leverage technologies to improve service accessibility, so that more people can benefit from financial services, including people who are unable or unwilling to use financial services under the traditional financial framework. However, when financial institutions adopt technologies on a large scale, it may create even greater gaps in digital finance for disadvantaged consumers, thereby creating new forms of discrimination, exploitation, or harm. In addition, digital finance adoption does not merely involve the supply of services by financial institutions to their customers, it also includes whether the financial supervisory agencies can keep pace with technological development and adopt more efficient regulatory measures. In conclusion, the FSC plans to adopt RegTech for the next phase, promote the "Accessible Digital Finance Development Program", and continue certain implementation measures in the "FinTech Development Roadmap (1.0)" with the aim of enhancing financial inclusion and digital finance adoption across the board in Taiwan and create a friendlier FinTech innovation ecosystem.

IV. Implementation aspects and implementation measures

(I) Implementation aspect 1: Optimizing FinTech legislation and policies

- **Implementation measure 1-1: Feasibility study of the amendment of the "Financial Technology Development and Innovative Experimentation Act"**

Reasons for implementation

The "Financial Technology Development and Innovative Experimentation Act" (hereinafter referred to as the Innovative Experimentation Act) entered the 5th year of implementation this year. As businesses continue to propose recommendations for the amendment of the innovative experimentation system, and the FSC also believes that there remains room for adjustment for the landing method after the experiments, the FSC plans to obtain information on related measures taken in other countries and evaluate the feasibility of amending the Act.

Detailed implementation items

Request the RegTech and Research Application Group of the FinTech Co-creation Platform to outsource the research on the "Financial Technology Development and Innovative Experimentation Act" and evaluate the feasibility of regulatory adjustments.

➤ **Implementation measure 1-2: Establishment of the "FinTech Regulatory Adjustment Platform"**

Reasons for implementation

In response to the rapid development of FinTech and to ensure that financial regulations meet practical requirements and trends in a volatile financial environment and help businesses gain opportunities for innovation, the FSC continues to review and adjust regulations to enhance the overall competitiveness of the finance industry in Taiwan. The FSC therefore plans the establishment of the "FinTech Regulatory Adjustment Platform" to collect and review regulatory adjustments needs from associations and FinTechSpace in the process of financial innovation or industrial digitalization every six months.

Detailed implementation items

1. Collect information on detailed requirements and opinions.
2. Evaluate the feasibility/necessity of adjustments.
3. Disclose the progress of the work to the public.

➤ **Implementation measure 1-3: Enhance data sharing**

Reasons for implementation

- I. The FSC published the "Guidelines for Data Sharing between Financial Institutions" in December 2021 and provide clear guidance on the model, scope, and management mechanisms of customer data sharing between financial institutions. This will help financial institutions improve customer experience and increase their efficiency in operations. To continue to support financial innovation and development while taking into account risk management, protection of customer rights and interests, and business development, the FSC will work to open up data sharing between financial institutions and non-financial institutions and enhance data sharing mechanisms.
- II. In addition to data sharing between financial institutions, the Co-creation Platform has collected and compile cross-market data and information sharing requirements of financial institutions. Due to the vast quantities of requirements, it is necessary to continuously using inter-ministerial meetings to discuss whether it is feasible to adjust existing regulations, whether MyData can be used, or whether data can be obtained from related government agencies through API connections.
- III. In terms of practical operations for data sharing between institutions, many financial institutions mistakenly believe that customer data processed via de-identification technologies no longer constitute personal data as specified in the Personal Data Protection Act. However, these

technologies only help to improve personal data protection and risk management. Such data still needs to be processed in accordance with the relevant regulations of the Personal Data Protection Act. However, it is necessary to issue guidelines on data classification and data governance to clarify relevant concepts.

IV. According to the "Surveying Current State and Future Prospects of the Fintech Ecosystem in Taiwan" report, financial institutions still have questions regarding the scope and practices of data sharing in the aforementioned "Guidelines for Data Sharing between Financial Institutions" and wish to learn more.

Detailed implementation items

1. Organize personal data protection seminars or workshops to help financial institutions and FinTech companies learn about the essence and applicable scope of the Personal Data Protection Act, "Guidelines for Data Sharing between Financial Institutions", and other regulations related to personal data or data sharing.
2. Establish a data sharing practice working platform for companies to propose ideas for technologies or business models related to data sharing or data governance. Engage with the competent authorities to jointly discuss the feasibility of regulations and technologies and match companies for co-creation.
3. In terms of cross-market data and information sharing requirements, the FSC will target key sectors (e.g., reducing risks of financial criminal activities, improving consumer protection measures, and promoting sustainable financial development) to continue through inter-ministerial meetings for discussing the feasibility of adjusting existing regulations

and restrictions or evaluating the establishment of data sharing platforms or provide API connections methods as well as related measures.

4. Publish data governance guidelines for cross-market data sharing to provide companies with detailed guidance for data governance in compliance with personal data regulations and maximize the benefits of data sharing.
5. Encourage financial institutions and certain non-financial institutions (e.g., academic institutions and telecom companies) to cooperate on small-scale pilot programs for data sharing in full compliance with the Personal Data Protection Act.
6. Evaluate whether to expand the scope of the "Guidelines for Data Sharing between Financial Institutions" to data sharing between financial institutions and non-financial institutions.

➤ **Implementation measure 1-4: Establishment of guidelines for the financial industry's use of AI**

Reasons for implementation

- I. New technologies can help reduce costs, increase efficiency, and support the development of the financial market. However, there may also pose potential risks in terms of the accuracy and integrity of information, information security and privacy, fairness for the disadvantaged, morality and ethics. Therefore, the FSC pays close attention to risk management and consumer protection as it encourages financial institutions to adopt new technologies.
- II. Financial institutions may face challenges and opportunities as they adopt AI technologies. The FSC will continue to communicate with businesses on financial innovation, risk management, consumer protection, information security, and

protection of the digital rights of disadvantaged groups to create a friendly and innovative financial environment and help financial institutions comply with related regulations as it accelerates FinTech development. This will help people enjoy convenient access to financial services made possible by technological advancements on the basis of responsible innovation.

Detailed implementation items

1. Establishment of core principles for the financial industry's use of AI.
2. Establishment of guidelines for the financial industry's use of AI.
3. Supervise the Bankers Association to establish the AI self-regulatory rules for the use of AI and promote compliance by financial institutions.

(II) Implementation aspect 2: Enhancing supporting resources and talent development

➤ Implementation measure 2-1: Diversify funding for FinTech innovation

Reasons for implementation

- I. The competitiveness of the financial market requires continuous innovation. In addition to in-house research and development by financial institutions, it is also necessary to support the development of FinTech startups which can inject the latest technological and innovative applications. The growth of startup companies relies on an abundant, continuous, and diverse supply of funding. However, the investors in Taiwan are not yet familiar with FinTech field, which results in a low number of investment projects. The FSC must help investors or review experts acquaint

themselves with technologies or applications of FinTech, and cultivate talents that specialize in evaluations and reviews, and increase the contact between investors and FinTech companies.

- II. To increase the diversity of funding for startup teams, the FSC will help startup teams in FinTechSpace learn more about the assistance, subsidies, or investment resources in the public and private sectors, and encourage startup teams to make the most use of the Taiwan Innovation Board and Pioneer Stock Board of Taiwan Stock Exchange (TWSE) and Taipei Exchange (TPEX) for fundraising and improving their market visibility.

Detailed implementation items

1. Organize networking conferences for investors to promote the information exchange and communication between investors, and help them learn more about FinTech related applications and technologies as well as potential investment targets, etc.
2. Regularly review assistance or subsidies resources for startup teams provided by the Ministry of Digital Affairs, Ministry of Economic Affairs, National Science and Technology Council, and National Development Fund, etc. and publish them on the website of Taiwan Financial Services Roundtable and FinTechSpace. In addition, it can be explained to startups through promotional events.
3. FinTechSpace shall plan a subsidy mechanism (e.g., fees for listing review or assistance provided by securities firms) for startup teams that intend to apply for listing on the TWSE or TPEX (including GISA, Pioneer Stock Board, and Taiwan Innovation Board) to help them raise capital in the capital market.

➤ **Implementation measure 2-2: Promote advanced programs for FinTechSpace**

Reasons for implementation

- I. The current sites of FinTechSpace on Nanhai Road in Taipei City are organized by the Taiwan Financial Services Roundtable which outsourced operations to the Institute for Information Industry. Since its establishment in September 2018, its operations and performance have received wide acclaim from startup teams and the general public. However, due to the restrictions in terms of the current scale of the sites, manpower, funding, and other resources, FinTechSpace currently mainly focus on providing support to startups that have set up offices in the area and financial institutions that participate in Innovation Lab, making it difficult to plan FinTech development projects from the perspective of the entire financial market.
- II. To balance regional development in Southern Taiwan and Northern Taiwan, the Executive Yuan has approved the Kaohsiung's Asia New Bay Area plan to support industrial development in Southern Taiwan. The School of Banking and Finance of National Sun Yat-sen University was established as a key national project for the finance industry. To help the School strengthen FinTech talent development and technology and application development, the FSC, helps Kaohsiung City Government set up FinTechSpace in the Asia New Bay Area in Kaohsiung (hereinafter referred to as FinTechSpace Kaohsiung) to support development and maximize the benefits of the industry cluster.
- III. As FinTechSpace remains an important incubator for FinTech in Taiwan, the government should invest more resources to expand the scope of its services and thereby support the

overall development of the finance industry in Taiwan.

(Note: As FinTechSpace Kaohsiung is not yet built, the FinTechSpace specified in this Roadmap refers to the FinTechSpace on Nanhai Road, Taipei City; the division of work for common tasks shall be negotiated after the establishment of FinTechSpace Kaohsiung)

Detailed implementation items

1. Expand the space and functions of FinTechSpace, including operation space and establishment of security and surveillance systems in compliance with ISO 27001 standards.
2. Provide subsidies and assistance for setting up FinTechSpace Kaohsiung in the Asia New Bay Area in Kaohsiung to balance economic development in Southern and Northern Taiwan, create a friendly FinTech ecosystem, promote the launch of services or business models.
3. Amend related regulations for subsidies (donations) of the FSC and set up a dedicated review committee (or review panel) to review the subsidies for each FinTechSpace. Increase the amount of annual subsidies provided by the FSC to FinTechSpace starting from 2025 to help it increase services and expand influence.
4. Provide clear explanation to external parties regarding the expansion of the recipients of services for FinTechSpace to include startup teams in FinTechSpace as well as financial institutions and other tech companies that make payments, so that it becomes an accelerator for increasing innovation in the overall financial market.
5. Facilitate the establishment of cooperation mechanisms between FinTechSpace and Fin & Tech Innovation Village, and provide financial institutions with digital transformation solutions. Organize the following matchmaking, partnership,

- and awards and training programs.
6. Refine matchmaking functions:
 - (1) Study the feasibility of setting up a matchmaking website to help stakeholders find partners with greater ease.
 - (2) The matchmaking targets and activities include financial institutions, startup teams, campuses, talents, funding, technologies, events, and faculty.
 7. Expand industrial-academic cooperation: Increase cooperation and resource connections with departments and institutes in universities related to FinTech through mechanisms such as internship programs, campus elite talent programs, and validation base programs. Identify talents on campus and guide them to contribute to the financial market.
 8. Expand cooperation with companies: FinTech can be used in different business scenarios. To provide opportunities for creative brainstorming between businesses in different fields, various activities will be launched to expand opportunities for exchanges of ideas and connection with enterprises. Furthermore, encourage financial institutions to organize contests or awards with FinTech startups and enterprises to create business opportunities for cooperation.
 9. Expand the connection of resources: Engage in bilateral cooperation with the accelerators, incubators, and incubation centers of other government agencies or foundations to organize domestic and foreign activities, exhibitions, exchange of business information, and talent recruitment to connect resources and increase the capacity for innovation.
 10. Set comprehensive plans for suitable awards, training, and exhibition activities to increase the exposure of startups.

➤ **Implementation measure 2-3: Train future FinTech talents**

Reasons for implementation

- I. Taiwan has set up the "FinTech Proficiency Certification Mechanism". To further improve the professional competencies of FinTech talents, the FSC intends to adjust the training and certification content or offer thematic courses to ensure that the course design meet the latest trends in FinTech development, and rapidly respond to international development and market needs, to provide more forward-looking talents for the financial market.
- II. It is necessary to continuously and steadily introduce and reserve FinTech talents to ensure innovation and competitiveness of the financial market. Therefore, the FSC plans to work with related departments in universities to integrate the resources of academic institutions and provide FinTech talents with more in-depth and professional training.

Detailed implementation items

1. Analyze the results of the implementation of the FinTech Proficiency Certification Mechanism (nature and number of participants/certified personnel, methods for cost bearing, satisfaction survey, etc.).
2. Upgrade the FinTech Proficiency Certification Mechanism: Measures include the separation of training and tests, cooperation with related departments of universities, adjustment of the contents of training, or adding incentives/subsidies for participation in training.
3. Launch of thematic training courses: Organize a series of thematic training courses in response to technology development and international trends, business needs of the financial market, and national policies.

➤ **Implementation measure 2-4: Enhance international**

cooperation and overseas business development

Reasons for implementation

- I. In addition to the domestic market, FinTech companies in Taiwan that wish to grow must expand their business or technologies to overseas markets to attract more talents and capital. Therefore, the FSC can leverage cooperation with foreign regulators and participate in international organizations to provide domestic FinTech companies with more support and help them expand overseas.
- II. Taiwan faces geopolitical risks and adopts a more prudent approach in finance and the oversight of foreign capital, which may slow the development of innovative business models. However, success may be attained more easily in information security, process management, and RegTech. Therefore, the FSC may provide more resources in specific fields to help FinTech companies enhance their research and development.
- III. Domestic financial institutions also require overseas expansion in technologies and business models in their development of digital finance. It is advisable to provide them with support and help them seize overseas business opportunities.

Detailed implementation items

1. Increase the number of overseas business development personnel in FinTechSpace: FinTechSpace shall assign foreign business development personnel as the contact person for supporting FinTech business development and compile a list of teams that wish to expand into overseas markets as well as related information (e.g., target markets, target customers, products and services, and domestic track records). It shall work with Taiwan External Trade Development Council

- (TAITRA) to help domestic FinTech business expand into global market through market surveys, buyer credit investigation, and exhibition coaching.
2. Continue to organize international team selection and guidance activities.
 3. Identify technologies or applications with advantages for development in Taiwan (e.g., automated audits, cybersecurity, RegTech, identity authentication, and risk management) and provide related assistance.
 4. Continue to establish diversify international resource matchmaking mechanisms with institutions that have signed MOU and engaged in collaboration with FinTechSpace (including talents, teams, technologies, applications, funding, and mentorship).

(III) Implementation aspect 3: Expanding FinTech technologies and applications

➤ Implementation measure 3-1: Launch the Financial FIDO V2 project

Reasons for implementation

- I. After the launch of Financial FIDO mechanism in 2021, the technical standards and security guidelines have been completed, and related authentication systems have also been launched. Financial institutions are currently filing applications for business trials in accordance with these protocols.
- II. As identity authentication forms a key part of digital infrastructure, and Financial FIDO mechanism is critical for helping people use digital financial services, the FSC plans to expand the scope of application and promote cross-system Financial FIDO connection services to accelerate the

development of digital financial services and increase the overall benefits of Financial FIDO.

Detailed implementation items

1. Expand the business items or scope of services for Financial FIDO.
2. Expand the Financial FIDO mechanism to applications outside financial institutions such as utilization in MyData, financial peripheral organizations, or situations that require real name registration.
3. Allow financial holding companies to serve as Financial FIDO servers (authentication centers) and provide services to their subsidiaries (e.g., issue a interpretation order under Article 36 of the Financial Holding Company Act to clarify that setting up Financial FIDO servers by a financial company is within the scope of management of the financial holding companies over its subsidiaries).
4. Establish the cross-system "Financial FIDO authentication and connection hub" to connect the existing Financial FIDO systems. With the consent of the parties concern, the hub will provides services and reasonable use to enable users to verify their identity across different systems, thereby improving the interoperability of identity authentication.

➤ **Implementation measure 3-2: Continue to promote open finance**

Reasons for implementation

- I. The FSC has implemented open banking since 2019. The second phase "consumer data query" has been completed. The first phase of open securities initiative "public data inquiry" will be launch in 2023. In terms of the securities market, the TDCC has launched the ePASSBOOK app which

allowed investors to view their securities positions and bank deposits with their consent.

- II. The FSC plans to implement additional related measures based on the aforementioned progress to create more convenient financial service experience for financial consumers.

Detailed implementation items

1. Promote the third phase of open banking.
2. Study the feasibility of launching second phase of open securities.

➤ **Implementation measure 3-3: Promote green (sustainable)**

FinTech

Reasons for implementation

Green (sustainable) finance and FinTech are key areas of developments in the international financial market and are also important financial policies advocated by the FSC in recent years. FinTech companies have the potential to help green (sustainable) finance, particularly by using technologies to resolve the pain point of insufficient data, and by combining consumer needs, regulatory policies and related cooperation networks to create new application areas. The FSC launched a "Green FinTech" thematic campaign in 2023, including hosting a Taiwan-UK Green FinTech Forum, participating in the Cross Border Testing(CBT) Cohort 2.0 held by the Global Financial Innovation Network (GFIN), and encouraging businesses to engage in innovative experimentation, business trial, and proof-of-concept (PoC). The FSC plans to further implement related measures to deepen the use of technologies in green (sustainable) finance.

Detailed implementation items

1. Collect information on the needs of the industry in using technologies to promote green (sustainable) FinTech.

2. Organize education campaigns to explain the meaning of "green (sustainable) FinTech" to the general public.
3. Organize green (sustainability) FinTech contests and separate the participating teams into financial institutions, FinTech companies, and universities into different categories.
4. Organize exhibitions of the results of green (sustainable) FinTech contests to increase the exposure of winning teams.

➤ **Implementation measure 3-4: Promoting digitalization of corporate financial services**

Reasons for implementation

- I. Businesses face challenges in the process of develop digital corporate financial services. To address these pain points, the FSC will review related assistance measures based on the actual conditions and key development priorities of each financial institution.
- II. As the use of third-party electronic signature platforms has become a global trend, allowing banks to use the services of such platforms is in line with the FSC's policy goals of aligning with international standards and promoting financial digital transformation.
- III. Banks are currently permitted to accept online account opening applications from domestic legal persons with no more than three natural shareholders with Taiwanese nationality. The American Chamber of Commerce in Taiwan and European Chamber of Commerce Taiwan recommend further relaxation of regulations to increase the digital competitiveness of corporate finance. To help banks develop online businesses, the FSC issued a letter to the Bankers Association on July 3, 2023 to study the incorporation of other types of legal person customers as eligible applicants

for opening digital deposit accounts and to allow them to open digital deposit accounts through online applications and offline identity verification.

Detailed implementation items

1. Request the Bankers Association to continue to collect related recommendations for digitalization of corporate financial services and evaluate the priority of the recommendations for implementation.
2. Promote banks to use electronic signature technologies for related businesses and supervise the Bankers Association to complete the draft of "Standards for the Security Management Operation of Electronic Banking Business of Financial Institutions" to facilitate industry compliance.
3. Study management mechanisms for allowing legal persons with more than 3 shareholders to open accounts online.

(IV) Implementation aspect 4: Increasing financial inclusion and digital finance adoption

➤ Implementation measures 4-1: Launch of phase 2 RegTech

Reasons for implementation

- I. The FSC has implemented digital supervision mechanisms since 2019 and the supervision system for Internet-only banks and the digital supervision platform for bills finance companies were launched at the end of December 2020 and the end of June 2021, respectively. In terms of the AI RegTech applications, the "People Complaint Case - simulated responses" is under implementation, and "Review of the meeting minutes of the board of directors and supervisors" is being tested.
- II. The FSC seeks to make the best use of technologies to increase supervision efficiency in response to the rapid advancement

of technologies. It is advisable to incorporate related technologies to help FSC personnel increase the efficiency and accuracy of their day-to-day supervision activities.

Detailed implementation items

1. Enhance the supervision of the liquidity of domestic banks and set early-warning indicators to enhance real-time alert and notification mechanisms.
2. Supervise the JCIC in the establishment of the credit risk analysis system for banks.
3. Implement the establishment of the digital reporting and analysis platform for banks' supervision data in separate phases.
4. Set up a server environment for computer audit tools for the FSC to optimize large-scale data processing performance and increase the efficiency of examinations.
5. Study related enhancement measures for the digitalization of data reported by various financial institutions to the FSC and related peripheral organizations.
6. The FSC shall use emerging technologies (e.g., data collection with web crawlers as well as AI analyses) to collect public ESG information from financial institutions in trial or small-scale validation projects, and produce reports based on the needs for supervision of FSC personnel.
7. FinTechSpace shall use AI and related technologies to develop validation projects of Q&A on FinTech regulations, providing responses for inquiries that are as easy to understand as natural language.

➤ **Implementation measure 4-2: Implement the "Accessible Digital Finance Promotion Program"**

Reasons for implementation

- I. FinTech benefits financial inclusion but when financial institutions adopt technologies on a large scale, it may create even greater gaps in digital finance for disadvantaged consumers, thereby creating new forms of discrimination, exploitation, or harm.
- II. To reduce the digital finance gap, governments and financial institutions have proposed several measures to ensure the fair treatment of disadvantaged customers and enhance the protection of customer interests. For instance, the "Guidance for firms on the fair treatment of vulnerable customers" published by the Financial Conduct Authority (FCA) of the United Kingdom in 2021 requires that the design of financial products and services should meet requirements of inclusive to facilitate the use of vulnerable customers. The FCA also implemented "New Customer Duty" to require financial institutions to anticipate the obstacles and difficulties that consumers may encounter and take preventive actions.
- III. To reduce the digital finance gap, the FSC plans to refer to relevant practices of fair treatment of vulnerable customers and enhance protection of customer interests in foreign countries to develop related guidelines and digital experience courses.

Detailed implementation items

1. Increase the inclusiveness of digital financial services and establish related guidelines: Ensure that financial institutions fully consider the needs of the elderly, people in remote areas, and disadvantaged groups when applying new technologies and avoid the crowd-out effect or discrimination due to the design of the services.
2. Promote financial education digital experience courses: The Financial Education Promotion Team shall design digital

experience courses based on their know-how (e.g., teaching the elderly how to open digital accounts, use electronic payment, and use the insurance policy passbook) to make FinTech more accessible to people who are not familiar with FinTech.

➤ **Implementation measure 4-3: Others [including ongoing items of the "FinTech Development Roadmap (1.0)"]**

Reasons for implementation

- I. As FinTech continue to progress and the financial environment continues to change, the related policies and measures for FinTech development should be continuously examined based on international trends, market development conditions, and the practical needs of the industry, in order to create a friendlier FinTech innovation ecosystem.
- II. The FSC shall consider the matters that require improvements in existing measures and consider the implementation of appropriate measures based on market conditions. Some of the implementation measures listed in the "FinTech Development Roadmap (1.0)" are ongoing initiatives and are thus included in this Roadmap for continuous implementation and enhancement of FinTech development in Taiwan.

Detailed implementation items

1. Expand the "RegTech Group" of the FinTech Co-creation Platform to the "RegTech and Research Application Group", to increase the research capability on the technologies and applications of digital financial services (e.g., federated learning and transfer learning), and accelerate the FinTech development in Taiwan.
2. Enhance the online service measures for financial institutions.
3. Customer experience satisfaction survey: Through outsourcing

research projects to gain insights on the consumers (including natural persons and corporate customers) experience and related recommendations in financial services provided by financial institutions/FinTech companies (e.g., whether there are break points in links, whether their personal data are infringed, and their needs for digital financial services). The FSC can also publish the research report to encourage financial service providers to improve services and measures.

4. (Continuous implementation items from 1.0 2-2) Continue to promote the information disclosure systems for Cooperation between financial institutions and TSPs.
5. (Continuous implementation items from 1.0 4-2-2) Review the job competency standards for FinTech position in each financial industry, as a reference for future recruitment and training by financial institutions.
6. (Continuous implementation items from 1.0 4-4) Reference the "FinTech learning map for regulators" to organize training programs. Set an appropriate number of course hours and encourage personnel to complete the learning map.
7. (Continuous implementation items from 1.0 6-3) Establish and maintain the FinTech startup directory for businesses with different FinTech business models or technical services.
8. (Continuous implementation items from 1.0 6-6-3) Organize FinTech awards, evaluations, and FinTech solution contests.
9. (Continuous implementation items from 1.0 7-3) Evaluate the feasibility of adjusting the mode of conducting FinTech Taipei expositions and organize FinTech forums primarily for professionals to explore the important FinTech development issues and showcase the achievement of FinTech development in Taiwan.
10. (Continuous implementation items from 1.0 7-4) Take the

initiative to identify the needs of domestic digital financial service providers in expanding cross-border business operations. Engage in dialogue with countries that have signed cooperative agreement with Taiwan (including GFIN) to discuss the possibility of cooperation or conducting cross-border testing.

Chapter 5 Conclusion

As FinTech continues to develop and evolve rapidly, the FSC is committed to promoting financial innovation and enhancing competitiveness of the financial market in Taiwan. Significant results have been achieved since the launch of FinTech in 2015, and in 2020, the FSC published the "FinTech Development Roadmap (1.0)" to create a more inclusive, innovative, resilient, and sustainable FinTech ecosystem.

Looking back on the past efforts, we have witnessed the positive contributions of FinTech on financial services, which has increased efficiency, accessibility, and quality. The FSC thus gains knowledge on the challenges for FinTech and future development opportunities. Therefore, the FSC is not only continuing to improve existing measures but also soliciting recommendations from stakeholders to adopt a more forward-looking viewpoint to support the future development of FinTech in Taiwan. The FSC also pays close attention to international development trends and actively participates in international cooperation and exchanges. By learning from the experience of leading countries in FinTech development, the FSC can understand the various FinTech development issues and trends in international arena, and further optimize the overall financial innovation environment in Taiwan.

There is always room for improvement for the financial industry as it adapts to the developments and applications of digital technologies. Through the promotion of "FinTech Development Roadmap (2.0)", the FSC aims to optimize legislation, enhance resources, promote technologies, and increase inclusiveness, and thus maintain the healthy development of the financial system. These four major items will bring more innovation, progress, and inclusiveness to Taiwan's financial service industry, thereby create new value for Taiwan's financial industry and achieve the goal of financial inclusion.