

Financial Technology for Regional Cooperation in Central Asia Regional Economic Cooperation Countries

China (third draft)

February-2024



- Introduction
 - Fintech overview in China
- Fintech indicator system
 - Institutional arrangement and regulatory frameworks
- China's Fintech development in CAREC region
- Globalization of Chinese Fintech companies
- Legal issues and further consideration





INTRODUCTION

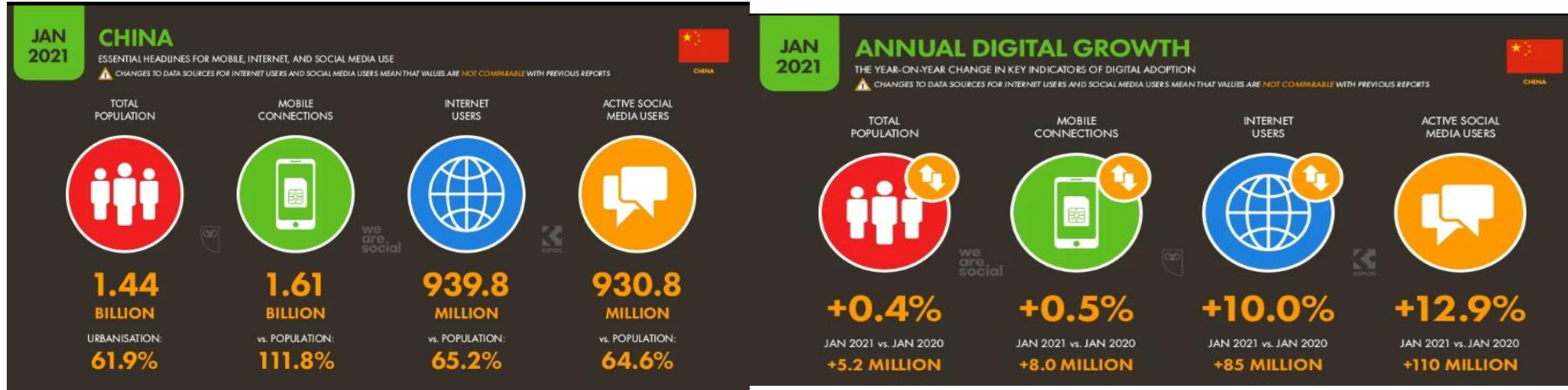
	China
Population	1.4 billion
Population density	145 persons per km ² / (83 rd)
Urban population	65%
Capital city	Beijing

Industry	32.6%
Wholesale	9.7%
Financial intermediation	8%
Agriculture	7.6%
Construction	7%
Real estate	6.8%
Transport, Storage and Post	4.1%
Information transmission software and IT service	3.8%
Leasing and bus services	3.1%
Hotels & Catering service	1.6%
Others	15.8%





FINTECH OVERVIEW



Source: www.datareportal.com

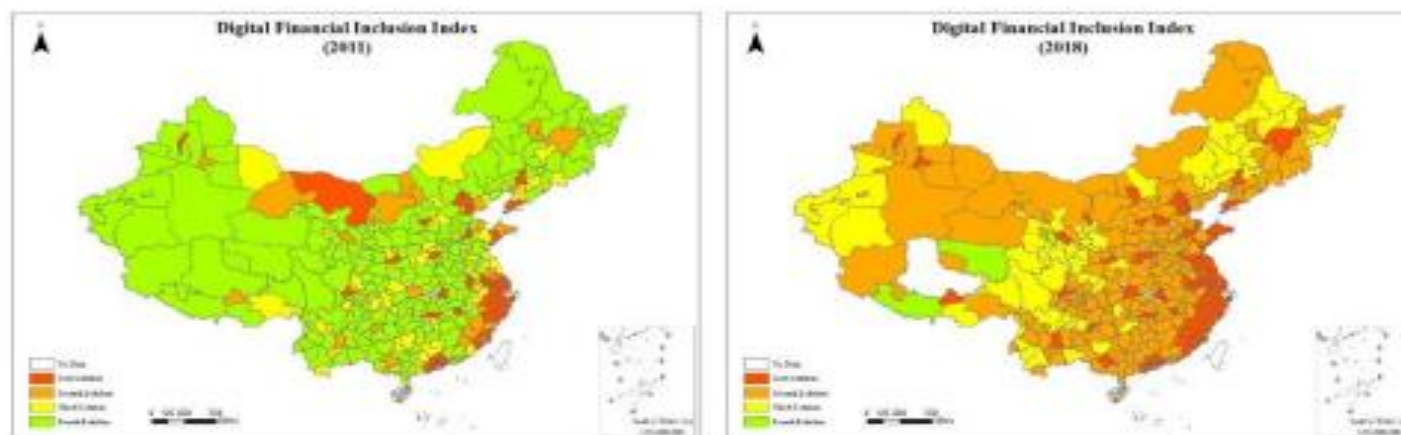
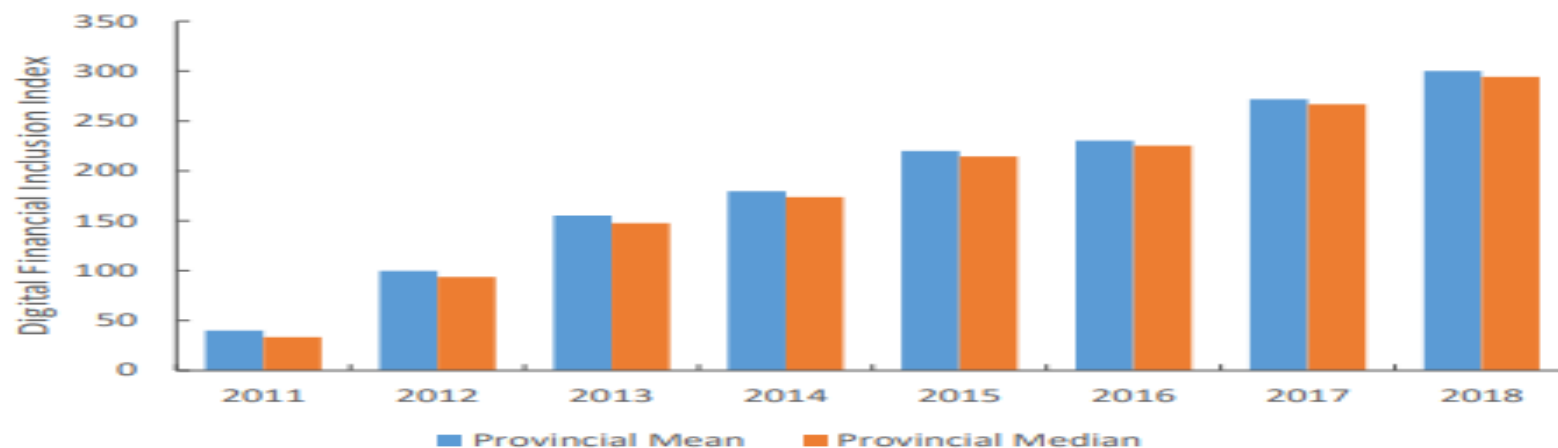
Commonly used fintech products:

- payment, clearing, and settlement
- deposits, lending, and financing
- investment management
- underlying technical services

	2013	2018
Alipay	100 million	900 million
We chat	350 million	1.1 billion
Provincial median index	33.6%	294.3%
Official financial sector	12.8 trillion Yuan	19.3 trillion Yuan



Convergence of regional finetch development in China, 2011 and 2018



Note: Each year, municipalities are divided into four tiers according to levels of development in that year: tier 1 (red, most advanced), tier 2 (orange), tier 3 (yellow) and tier 4 (green, least developed).



Major institutions:

- People's Bank of China (PBC)
- China Banking and Insurance Regulatory Commission (CBIRC)
- China Securities Regulatory Commission (CSRC).
- local financial regulatory bureaus (LFRB)

Major macro policies:

- *The Internet Finance Development Opinions.*
- *The 13 th Five Year Development Plan for Information Technology in Chinese Financial Industry*
- *Fintech Development plan 2022-2025*





Major regulations in subdivided fields:

- *Opinions of the state council on promoting the innovative Development of Cloud Computing and Cultivating New Business Forms of the Information Industry issued by State Council in January 2015*
- *Guiding opinions of the state council on Vigorously advancing internet plus action issued by the State Council in 2015*
- *Notice of the State council on issuing the Action outline for Promoting Development of Big Data*
- *Notice of the State council on issuing the Development Plan new generation of Artificial Intelligence.*
- *Interim Measures for the Administration of the internet loans of commercial banks in July 2020.*
- *Administrative Measures for the Payment Services provided by non-financial institutions in June 2010.*
- *Regulations on non-banking payment institutions.*
- *Interim Measures for the Administration of the Business Activities of Online lending information intermediary institutions in 2016*
- *Administrative Measures for online Micro credit Business in 2020*
- *Cybersecurity Law of the People's Republic of China in 2016*



In April 2020, four Chinese government departments led by the PBC issued opinions on financial support for the construction of the Guangdong-Hongkong-Macao greater Bay Area in which mechanism to study and establish a cross-border financial innovation regulatory sandbox proposed, and it is also the first time that the concept of sandbox regulation has been directly stated in the Chinese financial regulatory rules.

Main factors for China's Fintech Development:

- Unregulated
- Government investment
- Supply shortfalls in formal sector
- Strong demand /SME and low and middle income families in rural area
- Economics of scale





China Fintech development in CAREC

Internet Infrastructure, access, and usage

Country	Internet Users, 2019 (million)	Internet Penetration, 2019 (% of population)	Households with Internet Access, 2018 (% of households)	Households with a Computer, 2018 (% of households)	Mobile Connections, 2019 (million)	3G Network Coverage, 2018 (% of population)	4G Network Coverage, 2018 (% of population)
Afghanistan	7.65	20	6	3.43	26.92	30.3	14.9
Azerbaijan	8.05	80	78	64.10	11.29	95.0	48.1
PRC	854.50	59	60	55.00	1,610.00	98.0	99.0
Georgia	2.70	68	70	62.11	5.57	100.0	85.0
Kazakhstan	14.73	79	88	78.50	25.45	92.7	75.0
Kyrgyz Republic	3.06	47	21	23.29	9.73	75.0	50.0
Mongolia	2.20	68	23	36.45	4.42	95.0	27.3
Pakistan	76.38	35	22	16.15	164.90	78.5	54.7
Tajikistan	2.42	26	12	14.83	10.04	90.0	80.0
Turkmenistan	1.56	26	11	10.73	4.79	na	67.0
Uzbekistan	18.34	55	80	38.50	25.14	75.0	43.0
CAREC-10*	137.09	50	41	35.00	288.25	73.0	55.0
All CAREC countries	991.59	51	43	37.00	1,898.25	75.0	59.0
World	4,540.00	59	55	47.10	7,950.00	86.0	69.0





China Fintech development in CAREC

Electronic Payment Capacity and Use, 2017

Country	Share of Respondents Who					
	Own a Debit Card	Own a Credit Card	Used a Debit or Credit Card to Make a Purchase	Used the Internet to Pay Bills or Purchase Online	Made or Received Digital Payments	Used Mobile Phone or Internet to Access Account
Afghanistan	2.7	1.1		0.5	10.8	0.9
Azerbaijan	24.6	5.3	7.4	9.4	24.6	2.0
PRC	66.8	20.8	41.9	48.8	67.9	39.8
Georgia	39.9	14.6	18.5	13.5	53.0	9.4
Kazakhstan	39.7	20.0	25.5	24.3	53.9	18.2
Kyrgyz Republic	19.3	3.6	6.7	5.0	36.1	5.8
Mongolia	75.7	3.2	60.8	17.1	85.3	38.4
Pakistan	8.3	1.0		8.0	17.7	7.6
Tajikistan	15.9	5.7	10.8	12.8	43.9	8.3
Turkmenistan	37.9		5.6	2.0	34.3	2.2
Uzbekistan	24.1	0.6	25.0	7.1	34.2	6.7
CAREC-10*	28.8	6.1	20.0	10.0	39.4	10.0
All CAREC countries	32.3	7.6	22.5	13.5	42.0	12.7
World	47.7	18.4	32.6	29.0	52.3	24.9



- Ant and Tencent's primary motivations and strategies for fintech globalization
 - Chinese and international digital payment network or e-wallets.
 - Support and invest in current and future fintech leaders around the world.
- Alibaba's focus has been on investing larger sums or controlling stakes in a relatively small select number of firms in the fintech, e-commerce and supply chain sector,
- Tencent invest smaller individual stakes in a wider range of companies including: online media, content creation and gaming.
- Chinese officials are moving away from infrastructure-heavy lending and development to focus on health (i.e. Health Silk Road), green technology (Green Silk Road), and consumer and digital services (Digital Silk Road), raising the profiles of these offshoots formed over the past few years.
- Launched in 2016, the Digital Silk Road serves to leverage the innovations and capital of China's private and state-owned tech firms.
- China's technology development model has already set a precedent, especially for emerging market economies across Asia, Latin America and Africa.

Legal issues:

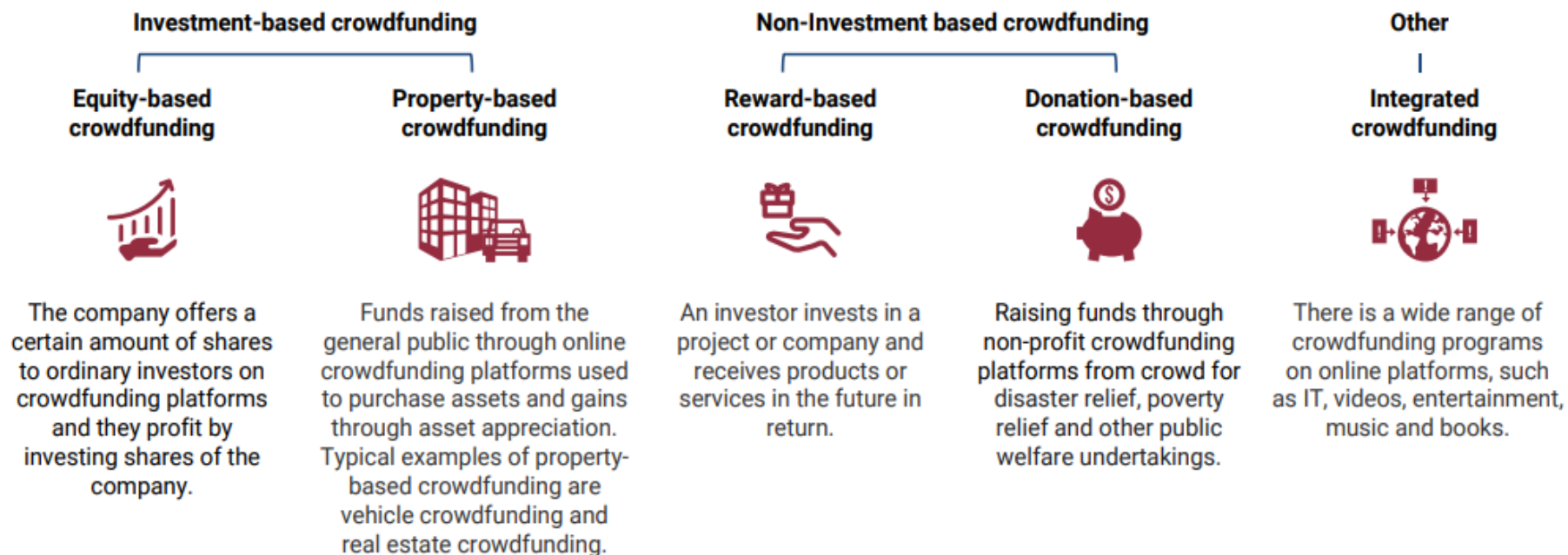
- Legal uncertainties
- Legal transactions
- Abuse of data

The current system needs to be reorganized to manage financial stability in the modern digital world:

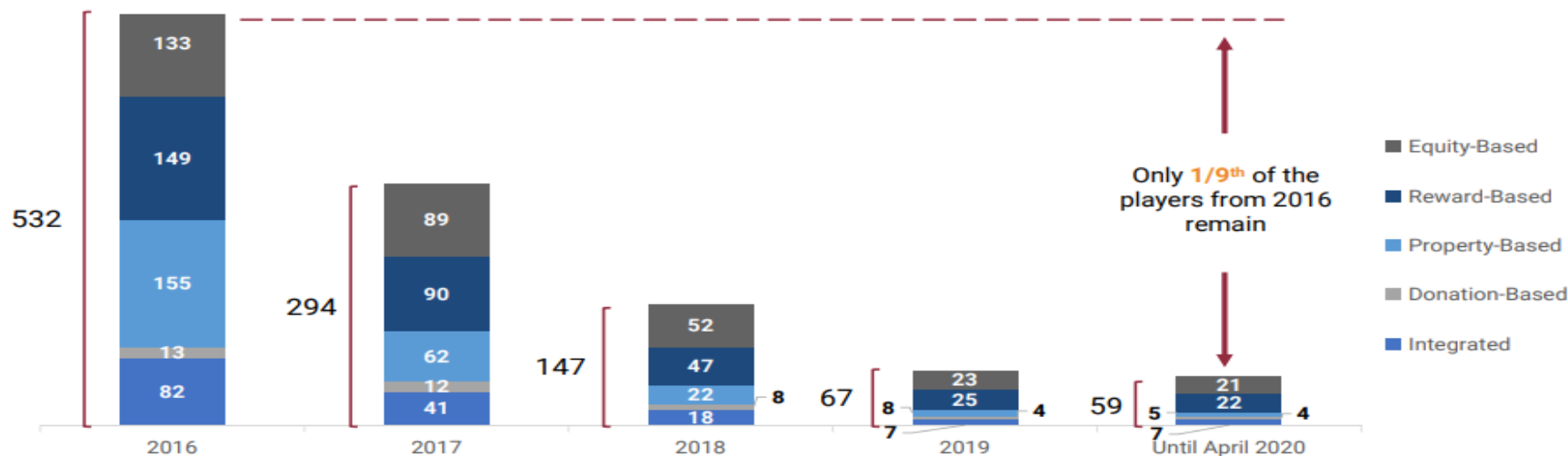
- the regulating structure needs to be changed from an organization-oriented to a function-focused.
- regulation framework should be developed based on universal banking model which is relied on evidence and reality.
- regulators need to use innovative policy tools to monitor and manage financial risk
- Support for innovation and fair competitiveness
- Strengthen consumer protection

CROWDFUNDING READINESS ASSESSMENT AND COMPARISON BETWEEN CHINA, GEORGIA, AND MONGOLIA

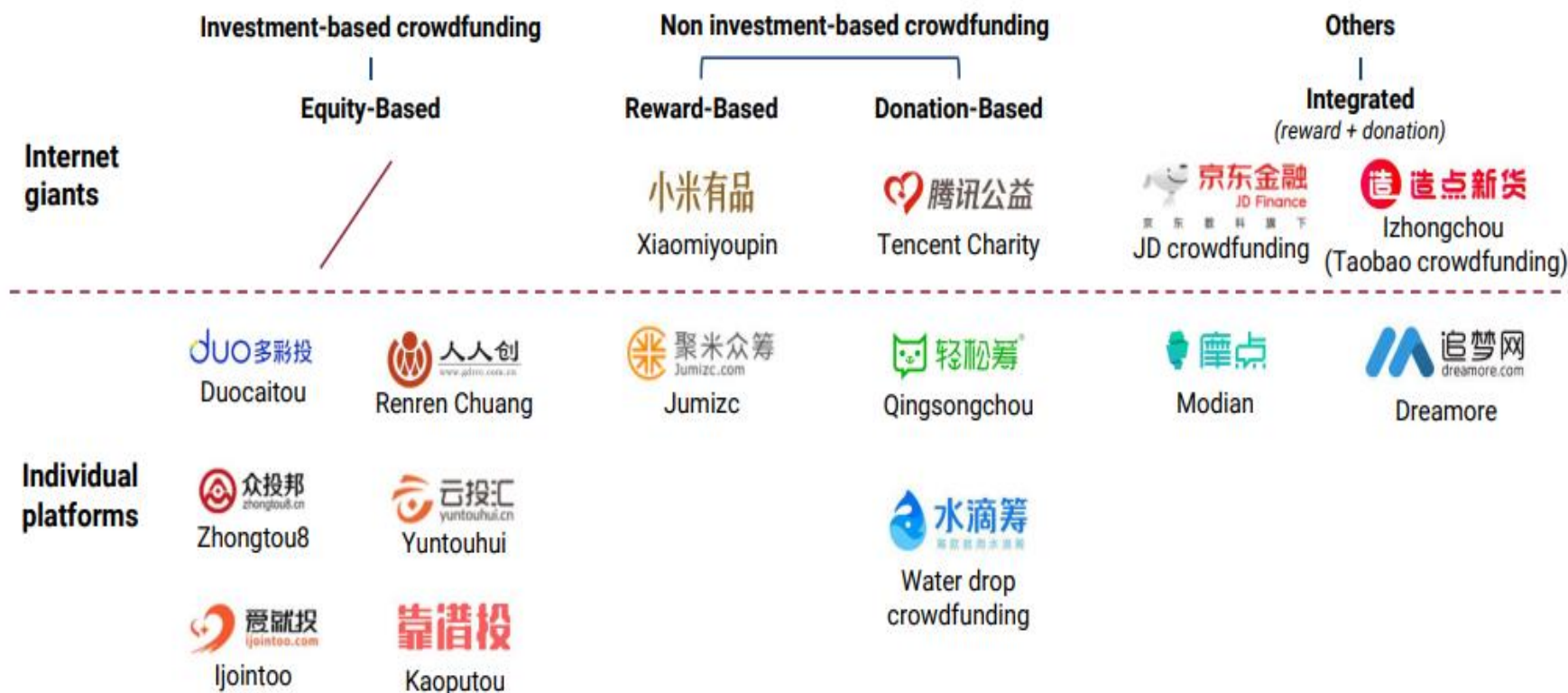
Crowdfunding categories in China



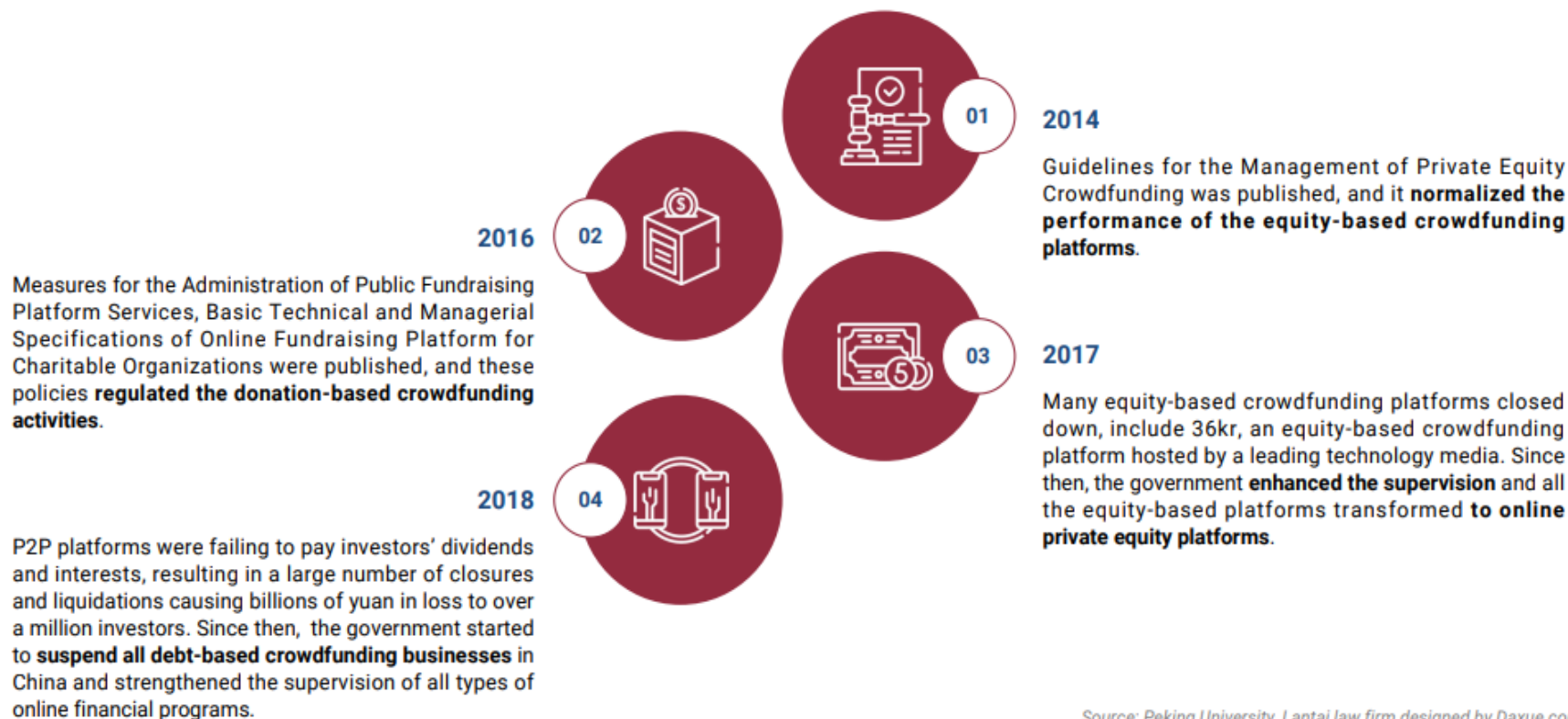
The number of platforms trends last 4 years in China



China's large capitals are concentrated on non-investment platform



Financial platform scandals stimulated government's supervision



Source: Peking University, Lantai law firm designed by Daxue cons

There are less regulations on reward-based crowdfunding

There are no specific laws for reward-based crowdfunding, which falls under the application range of Contract Law and Administrative Measures for Online Trading.

For IP derivatives, Intellectual Property Law regulates that investors should invest in the usage of IP rather than the IP itself because all the revenue shall be made based on usage

Policies standardize equity-based crowdfunding platforms

Must have at least 5 million CNY registered capital in China and two or more senior managers with 3 or more years of working experience in finance or information technology

Any individual or company can not launch any equity-based crowdfunding activity without the permission of China Securities Regulatory Commission

Number of investors for each program should be less than 200 and public advertisement is not allowed

Not allowed to provide external guarantee* or equity entrustment** for crowdfunding projects or provide services for the transfer of equity or other forms of securities

Prohibited to concurrently engaged in P2P lending or online microfinance business.

Not allowed to finance themselves or related parties

The legal definition of donation-based crowdfunding activities is uncertain

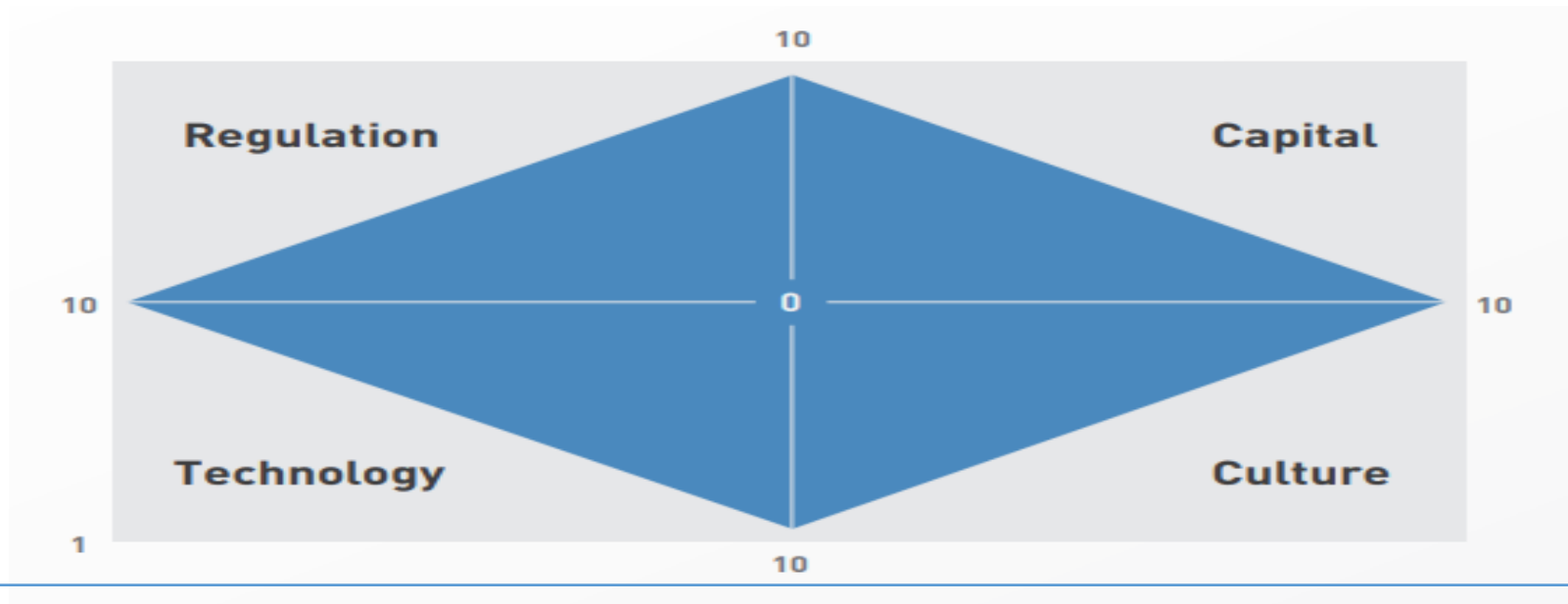
Policies for the Administration of Public Fundraising Platform Services and China's Basic Technical Specifications for Charitable Organizations' Internet Public Fundraising Information Platforms specify that individuals are not allowed to publicly raise charity funds online.

According to Basic Technical Specifications of Online Fundraising Platform for Charitable Organizations and Basic Managerial Specifications of Online Fundraising Platform for Charitable Organizations, personal help and online mutual assistance are not charity fundraising, and the information provider is responsible for authenticity

Since donation-based crowdfunding does not belong to charity fundraising, it doesn't not fall under the constraint of Charity Law, and beneficiaries do not have the obligation to guarantee the transparency of the fund usage by law



CROWDFUNDING READINESS ASSESSMENT AND COMPARISON BETWEEN CHINA, GEORGIA, AND MONGOLIA



Technology and education are necessary components.

Does a **culture** of entrepreneurship exist and is entrepreneurship considered a reputable career path?

Regulation can both enable and deter entrepreneurship and crowdfunding depending on its structure and scope.

The availability of **capital** is usually one of the most prominent missing elements when attempting to build a successful entrepreneurial ecosystem.

Georgia: challenges and opportunities

- **Resources and competences/capabilities:** Based on Georgia's unique R&C, limited potential for **Market-driven** crowdfunding ecosystem.
- Thus **Policy-driven** approach: Focus on the key stakeholders' engagement and facilitating interactions among them.
- **Ecosystem around CF** – government and international institutional banks create a **supportive mechanism** for leading the innovation; **business incubator** to support the start up candidates to be advertised on the CF and **marketplace** embedded on the CF to support commercialization as well as access to local and international markets for local investors



- **Demographics and market size** - relatively small country and population.
- Already the great reach to SMEs via **strong and digitally agile banking sector** - Georgian banks were not burdened with legacy systems and built internal processes from scratch using relevant IT solutions, which has made them more agile and able to absorb innovation.
- Insignificant **number of the startup companies**.
- **Investment culture and literacy**
- **Strong middle class**
- *Government support to incentivize retail investments*



- **Policy** - legal system, including Banking legislation is being harmonized with the EU. Open Banking, Digital Banking regulation are based on ECB guidelines. Georgia is ranked # 6th by the easy doing business by World Bank.
- **Talent** - Georgian banking sector has developed significant talent base in the past three decades. It could be seen as a certain advantage (though not the core) for the development of the CF platforms.


Mongolia: challenges and opportunities



- Relatively small market
- Banking sector dominance
- FDI inflow mostly to mining sector
- Lack of institutional investment
- Limited investment fund
- Weak of capital market development

- High account ownership
- Mobile phone usage
- Wider base of young generation
- Neighbouring and high trade volume with China
- Strong traditional banking sector
- Strong support from government on digitalization





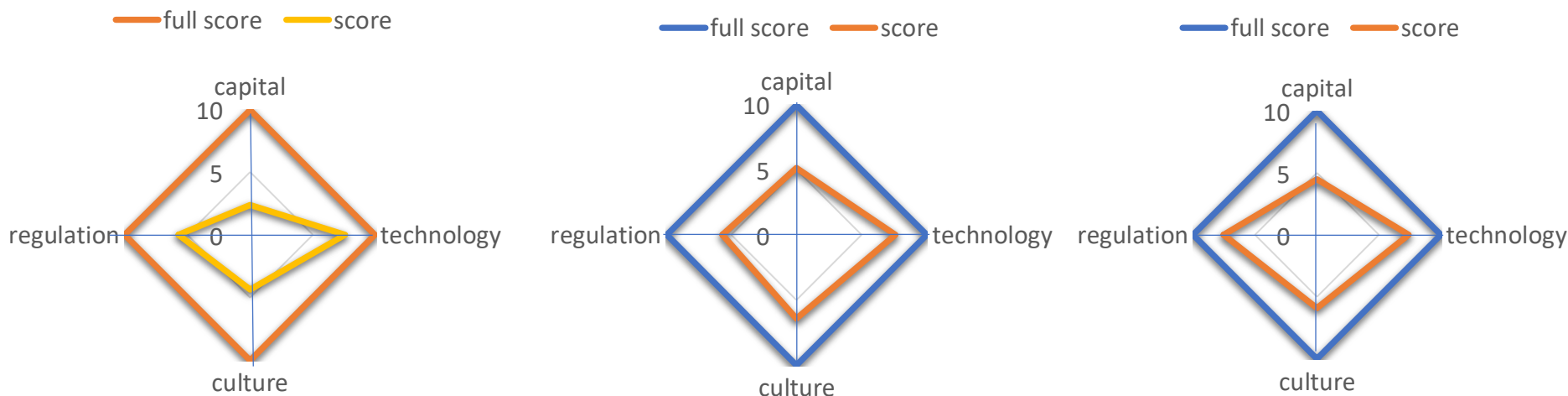
	Score	Current assessment in Mongolia
A. Technology	7.6	Engage in events and use technology and social media to promote crowdfunding and crowdfund investing as a mechanism for promoting entrepreneurship, innovation and jobs
B. Culture	4.3	Continue training and mentorship programs, launch broader initiatives that engage early success stories in actively building the ecosystem, create external linkages for additional capacity.
C. Regulation	5.7	Governments should encourage the use of donation and reward-based crowdfunding and promote a framework for crowdfund investing
D. Capital	2.4	Governments should consider why the private capital markets are not bigger. Is there too much regulation, bureaucracy, costs?
Overall average score	4.9	There is a good chance crowdfunding can be successfully implemented. Rewards-based crowdfunding should be fostered as a first step towards crowdfund investing.

	Score	Current assessment in Georgia
A. Technology	7.4	Engage in events and use technology and social media to promote crowdfunding and crowdfund investing as a mechanism for promoting entrepreneurship, innovation and jobs
B. Culture	5.9	Continue training and mentorship programs, launch broader initiatives that engage early success stories in actively building the ecosystem, create external linkages for additional capacity
C. Regulation	7.5	The country is ready for crowdfund investing. Governments and private sector should look at buy, build or white-label options for crowdfund investing platforms.
D. Capital	4.5	Governments should understand what changes have taken place to encourage capital formation in the private sector and further foster that
Overall average score	6.2	With enabling policy in place, market participants can consider technology platforms they can buy, build or white-label to deploy a credible crowdfunding ecosystem. Government should engage in crowdfunding educational outreach, training and hold crowdfunding events

Mongolia

China

Georgia



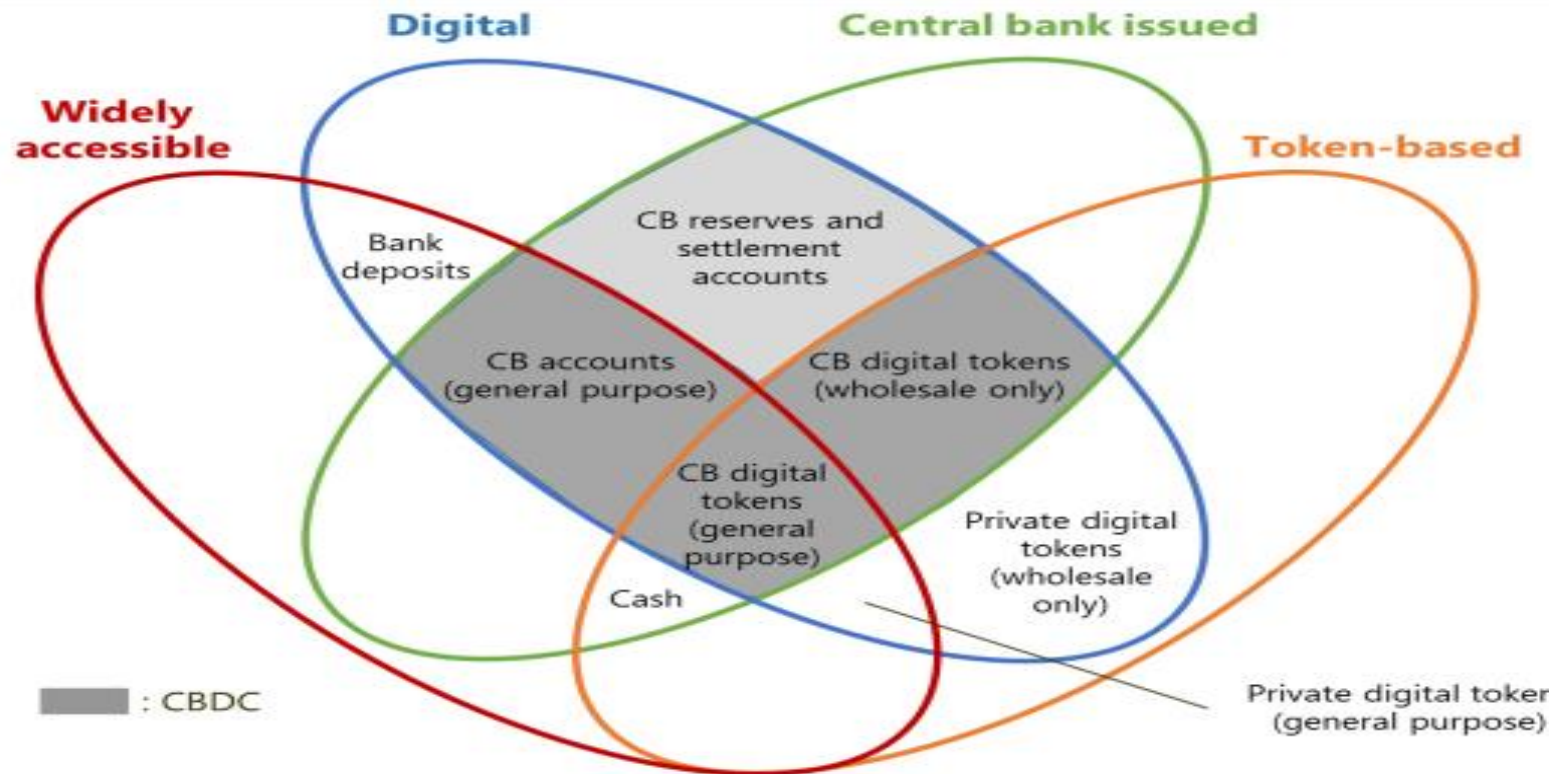
Key takeaways from China to Georgia and Mongolia

Mongolia	Georgia
Invest infrastructure	Invest infrastructure
Regulate companies sensible way while strenghten consumer protection	The Availability of capital
The Availability of capital	Investment culture and education
Investment culture and education	Ensure fair competitiveness for innovation
Ensure fair competitiveness for innovation	Policy driven approach for Crowdfunding development



CBDC INTRODUCTION

Taxonomy of money



Source: Bech and Garatt (2017)

DIFFERENT TYPES OF MONEY COMPARISON

	Central Bank currency			Private sector digital money		
	Digital Money	Central Bank Store Money	CBDC	Electron money	Stablecoins (LIBRA)	Cryptocurrency
Official	Yes	Yes	Yes	Yes	No	No
Digital mode	No	Yes	Yes	Yes	Yes	Yes
24/7 use	Yes	No	Optional	Yes	Yes	Yes
Intermediaries	No	Yes	Optional	Optional	No	No
Pay interest	No	Yes	Optional	No	No	No
Public use	Yes	No	Optional	Yes	Yes	Yes
Make limitation	No	No	Optional	No	No	No

Source: Research combination of Bruegel (2018), Adrain (2019), Viñuela (2020)



CBDC in Mongolia

CBDC and its impact relatively new concept

CBDC requires many factors such as legal environment, infrastructure, human resource etc...

Observing the results of research and experiments are crucial in other countries

Decent financial inclusion in Mongolia





E-CNY INTRODUCTION

CBDC research started in 2014.

In 2016, the PBOC started working on the e-CNY and established the Digital Currency Research Institute

The PBOC began working with commercial institutions in late 2017 to develop and test digital fiat currency

Completed the top-level design, function development, and system testing.

The PBOC has initiated pilot programs in some representative regions, while ensuring that the pilots run in a consistent, safe, managed, innovative, and practical manner.





BACKGROUND INFORMATION OF E-CNY

E-CNY is the digital currency issued by the central bank

- Same as physical form of RMB. e-CNY performs all of the basic functions of money,
- E-CNY is the digital equivalent of China's national currency
- E-CNY represents the central bank's public liabilities.
- E-CNY is backed by sovereign credit and has the status of legal tender.
- It is token-based, and hence does not require a link to a bank account.
- The e-CNY is a coupled hybrid of digital currency and electronic payment, issued by the central bank, but operated and exchanged by authorized financial institution

E-CNY operates on a two-tier operational system and a centralized management model.

E-CNY will coexist with physical RMB as a replacement for cash in circulation.

E-CNY is a public retail CBDC

- the issuance of e-CNY will fully meet the public's daily payment needs, improve the efficiency of the retail payment system, and lower the cost of retail payment.

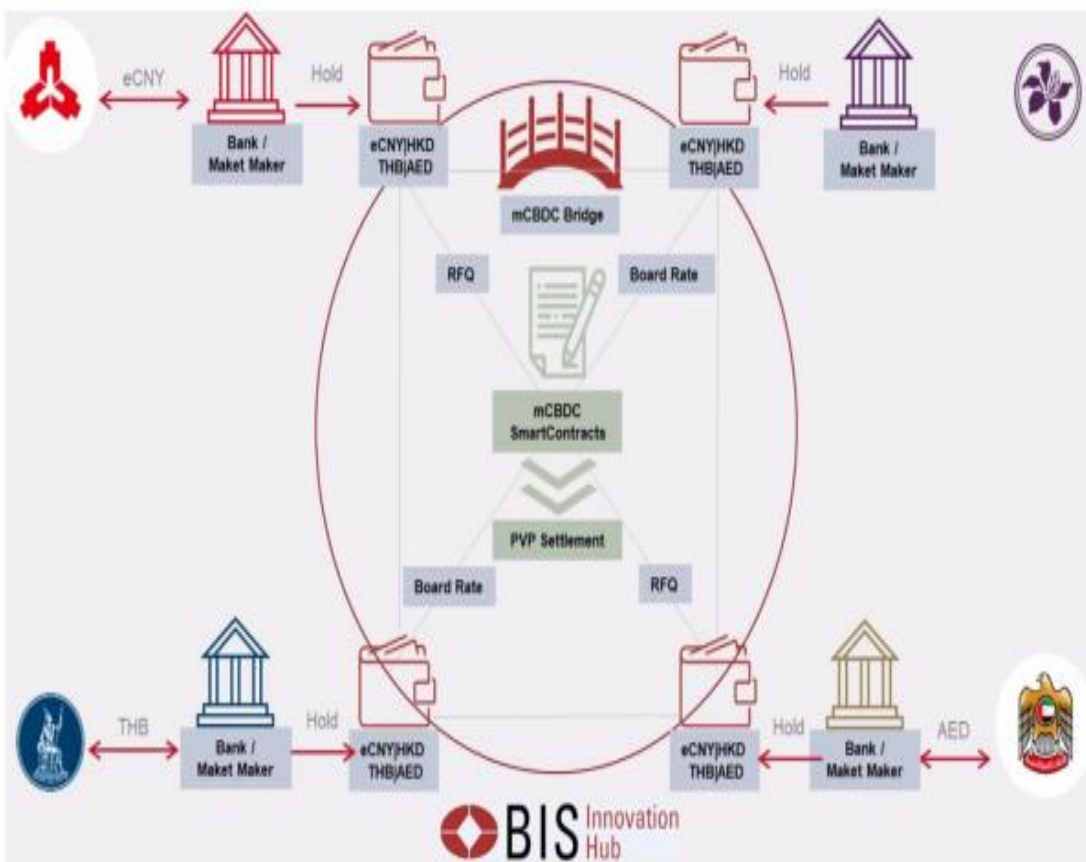


CBDC objectives

- The e-CNY aims to provide the general public with a form of digital cash and it should improve financial inclusions in China.
- Encourage fair competition, efficiency, and the security of retail payment services
- The e-CNY will improve the efficiency of cross-border payments. (mBridge project)



mBridge project



- New blockchain based
- Support real-time, peer-to-peer, cross-border payments and foreign exchange transactions using CBDCs.
- Ensures compliance with jurisdiction-specific policy and legal requirements,
- A pilot involving real corporate transactions centered around international trade was conducted on the platform among participating central banks, selected commercial banks and their customers in four jurisdictions.

Source: ADB institute



E-CNY design

The concept of the e-CNY system is "safe and inclusive, innovative and user-friendly, and time-evolving."

Principles for design

- *Compliance with laws and regulations*
- *Security and comfort*
- *Compatibility and openness*

Design features of E-CNY

- *Hybrid payment instrument that is account-based, quasi-account-based, and value-based.*
- *Loosely coupled with bank accounts, and thus payments through e-CNY wallets are settled upon payment, according to settlement finality*
- *E-CNY adheres to the principle of "anonymity for low value and traceability for high value," and places a high value on protecting personal information and privacy.*

Regulatory framework

- *PBOC is authorized by the People's Bank of China Law to issue RMB and supervise its circulation*
- *The regulatory goals are to establish a management system for e-CNY business, make clear regulatory requirements for authorized operators, implement AML/CFT laws and rules, strengthen user data protection, and create a safe, enabling, and regulated environment for e-CNY use.*



CBDC implications

Some argue that retail CBDC competes with bank deposits and may result in financial disintermediation, narrow banking, and credit squeeze, whereas others argue that easy availability of CBDC can improve policy rate transmission to the money and credit markets.

Assumptions on monetary policy

- i. Individuals and businesses can easily convert bank deposits into CBDC, resulting in financial disintermediation and increased volatility.
- ii. Adoption two tier system mitigate bank deposit outflow.
- iii. CBDC will have little impact because quick interbank transfers are already possible with current e-payment systems.

Risks associated CBDC

- i. Cyber attack
- ii. Internet infrastructure needed across the country
- iii. Proliferating hacks and fraud for individuals who has lower digital financial literacy



CURRENT STATUS

IN TERMS OF ITS READINESS FOR NATIONAL IMPLEMENTATION, THE PRC'S E-CNY IS ONE OF THE MOST DEVELOPED CBDCS IN THE WORLD.

PREVIOUS WORK OF PBOC AND PERFORMANCE

- The e-CNY R&D project started at the end of 2017
- Three main e-CNY functions created: *exchange and circulation management, interoperability, and wallet ecosystem.*
- Complete standard system developed based on the e-CNY R&D framework by covering general criteria, business operation, interoperability, wallet security and regulation.
- Launched e-CNY pilots in Shenzhen, Suzhou, Xiong'an, Chengdu since 2019. *E-CNY had been used in over 1.32 million scenarios as of June 30, 2021, including utility payments, catering services, transportation, shopping, and government services. Over 20.87 million personal wallets and 3.51 million corporate wallets had been opened, with a total transaction volume of 70.75 million and a transaction value of RMB34.5 billion.*
- Focused on the innovation of e-CNY application models during the pilot.
- Exchanged views with international organizations such as the Financial Stability Board, the Bank for International Settlements, the International Monetary Fund, and the World Bank during the R&D and pilot phases.



CURRENT STATUS

OUTLOOK

- PBOC will proceed with the pilot R&D project in a prudent and orderly manner
- The PBOC will strengthen the relevant institutional arrangements and rules
- The PBOC will expand research into major issues





THANK YOU

