

Central Bank Digital Currency in the PRC and its implications for financial inclusion

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1. Introduction: Central bank digital currencies (CBDC)

- **Definition:** CBDC is a digital currency which is a liability of a central bank
- CBDC proposals can be classified into the following main types:
 - Targeting general public (retail)
 - Account-based
 - Digital-token-based
 - Targeting financial institutions (wholesale)
- There are many alternative ways to implement CBDC
- Motivations
 - Falling use of cash
 - Improve financial inclusion and support digitalization
 - Increase efficiency, competition and inter-operability of payment system
 - Increase redundancy of retail payment system
 - Potential to have negative interest rates
 - Non-anonymous system could improve monitoring of transactions

2. CBDC in the PRC

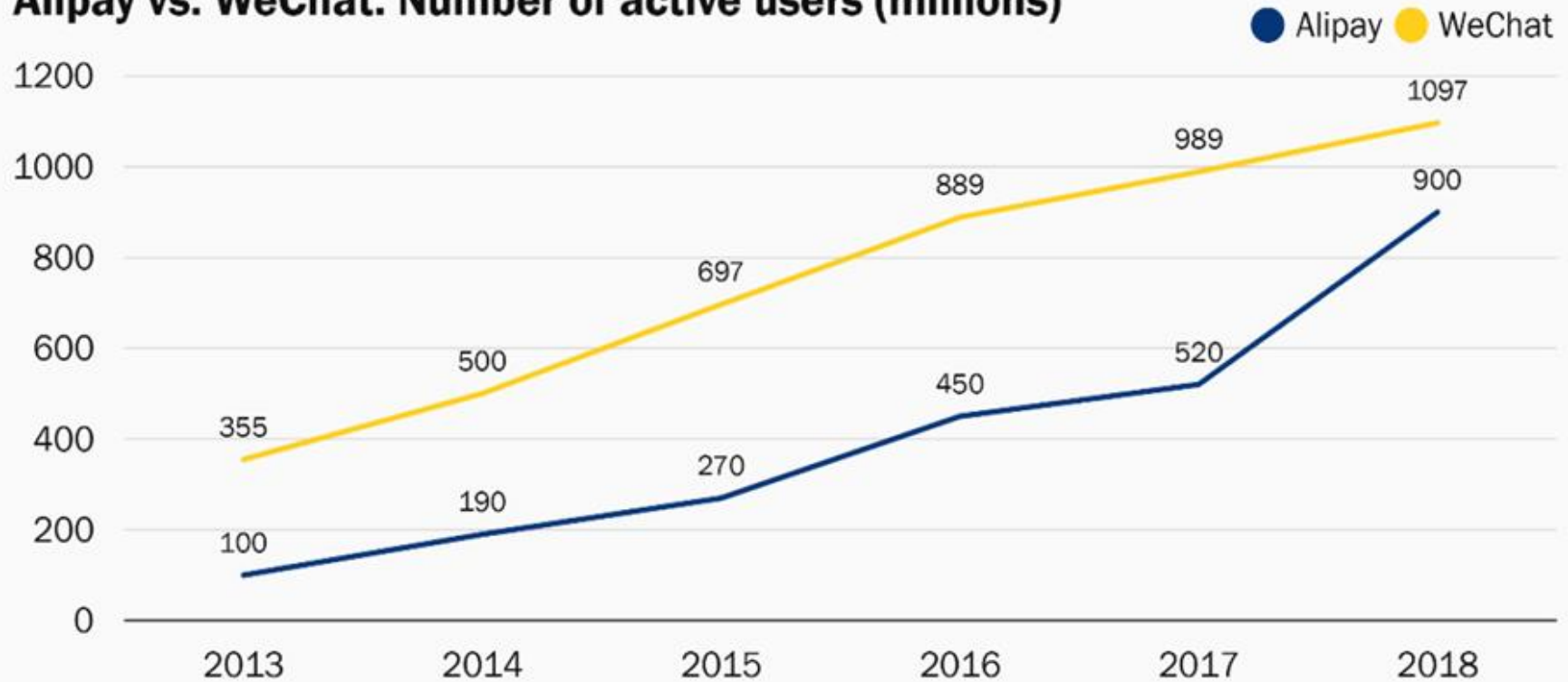
- The Digital Currency Electronic Payment (DCEP or e-CNY) has been managed by the PBOC since 2014 under a centralized system
- It is a retail CBDC with legal tender status
- The PBOC has been conducting pilot tests involving in many major cities, at 20 private companies, and the 2022 Beijing Winter Olympics
- 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 institutions
 - This makes it a two-tier system, where the central bank does not directly interact with the public.
 - This will help avoid competition with existing financial institutions, which otherwise could lead to financial disintermediation.
- It is token-based, and hence does not require a link to a bank account. This makes it accessible to foreigners as well as Chinese residents
- It supports “managed anonymity” with 4 levels of KYC

3. Status of financial inclusion in the PRC

- Financial inclusion in the PRC is already high, both in terms of account ownership and digital payments by adults
 - Accounts: almost 90%
 - Digital payments: over 80%
- The digital payments space is currently dominated by two private giants: AliPay and WeChat
 - These two systems are not inter-operable, although nearly everyone is connected to both
 - They both have created large financial eco-systems around the payments base
 - This has resulted in a huge concentration of transaction-related information in the hands of these two companies, an outcome not necessarily welcomed by the regulatory authorities
- In light of this background, the potential contribution of e-CNY to domestic financial inclusion seems limited

Penetration of users of digital payments in PRC

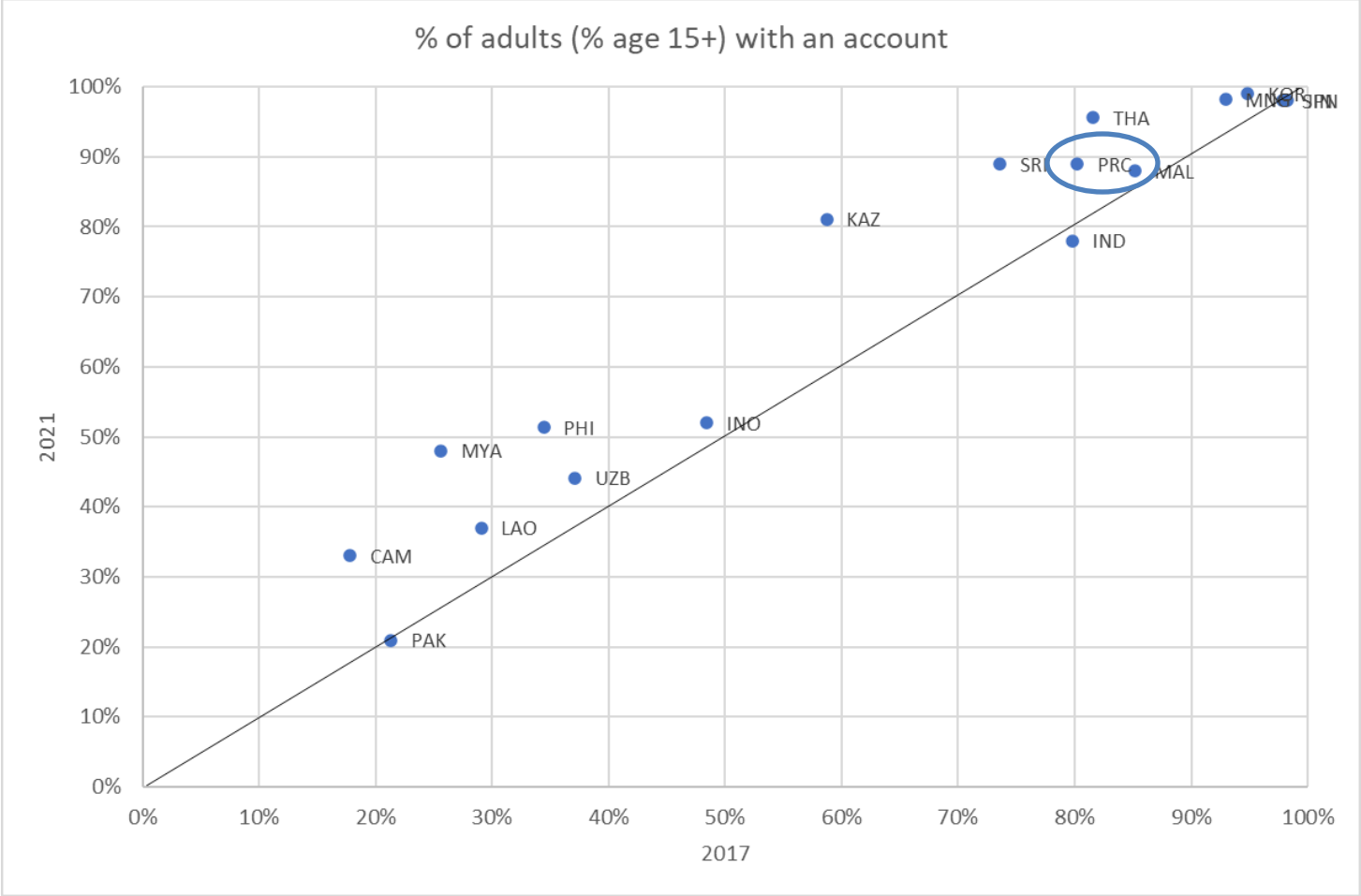
Alipay vs. WeChat: Number of active users (millions)



Source: Statista, China.org.cn, XinhuaNet, Technisia

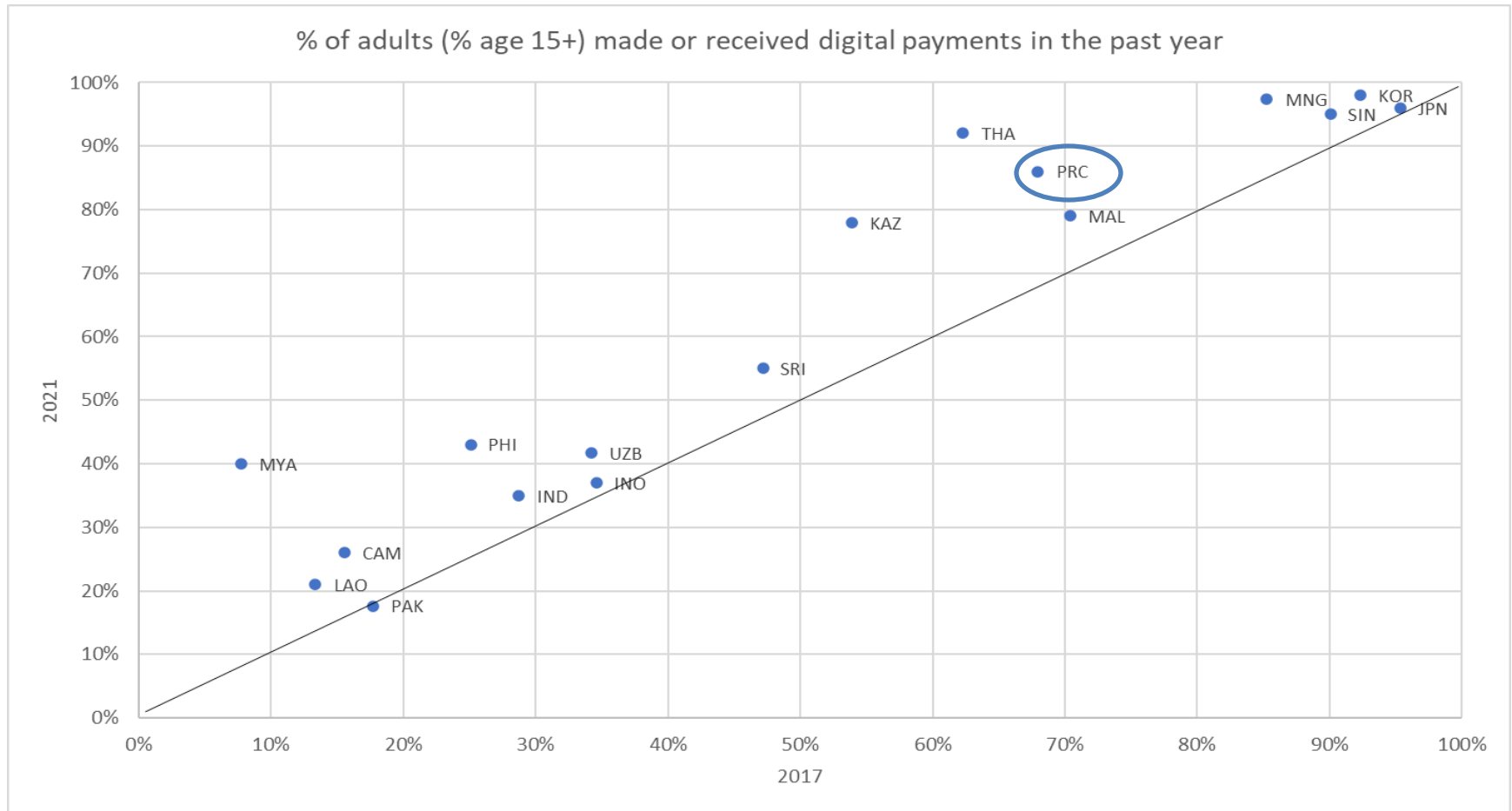
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Individuals: Share of adults age 15 and over with a financial account



Source: World Bank Global Findex Database (2022)

Individuals: Share of adults who made or received digital payments



Source: World Bank Global Findex Database (2022)

4. Risks associated with CBDCs

- A CBDC that closely competes with bank deposits could lead to deposit outflows and thereby depress bank credit and output, while a cash-like CBDC may lead to the disappearance of cash
 - The answer to the first risk is adoption of the two-tier system
 - Cash has already largely disappeared in the PRC in response to the development of private digital payment systems!
- A CBDC may face increased exposure to cyber-attacks
- Disadvantaged groups may find it harder to access and use CBDC, reflecting inadequate infrastructure and digital financial literacy, possibly leading to an increase in the digital divide
- A secure, stable and efficient internet infrastructure is needed
- Individuals with lower digital financial literacy face risks of fraud, phishing and hacking

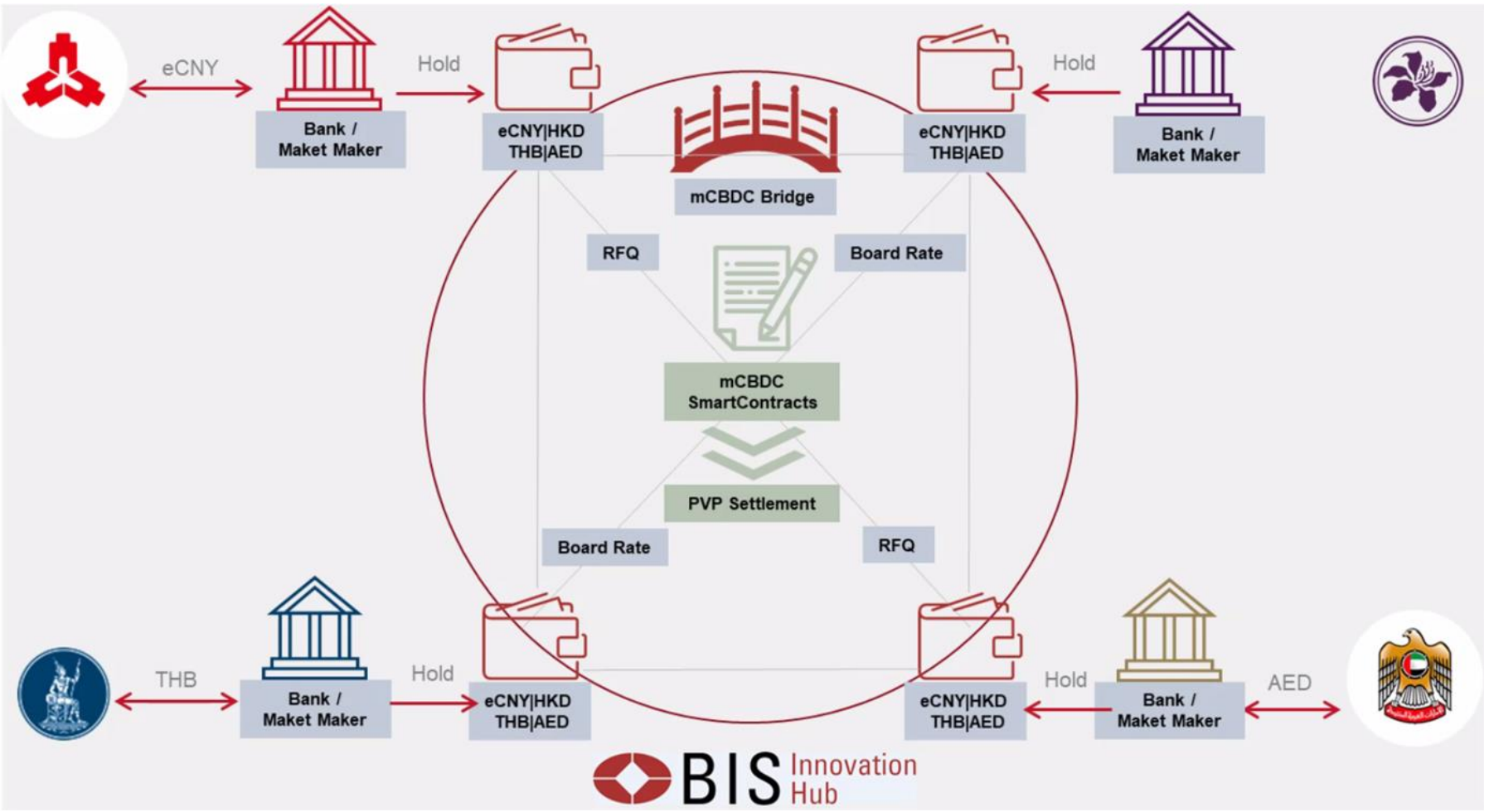
5. CBDC opportunities in the broader context of financial inclusion

- Potential contributions to financial inclusion
 - Increase access to payment systems where the reach of private systems is more limited
 - Increase the potential for direct government transfers, including social security payments, to individuals, thereby increasing efficiency and reducing potential for waste and corruption
 - Such payment systems could also deliver financial education and digital financial education
 - Lower costs of remittances and e-commerce
- Potential areas of opportunity
 - Act as an intermediary for distribution of CBDC
 - Promote development of e-commerce

6. CBDC and cross-border payments

- Although many Asian countries depend significantly on remittance income from overseas workers, the high cost of remittances (6%-7%) remains a barrier to financial inclusion
- The high cost of foreign exchange transactions is also a barrier for e-commerce
- Implementation of CBDCs has the potential to significantly reduce these costs if they can be coordinated across countries
- A number of pilots are being conducted to study this issue, including mBridge project, which includes the PBoC
- Such implementation still faces many hurdles, though, since multiple CBDC systems need to interact efficiently

The mBridge project for cross-border payments



7. Conclusions

- China's implementation of the e-CNY represents one of the most advanced CBDC projects anywhere among major economies
 - It is likely to increase competition in the payments system
 - Nevertheless, the domestic use case is not strong, given that there are already well-developed domestic payment systems and a high level of financial inclusion
- The potential impact on financial inclusion may be greater in countries where the current degree of financial inclusion is lower
 - However, it is not clear that the e-CNY has more potential to reach the under-banked than alternative options
- Ironically, the most attractive use case for CBDCs is for cross-border payments, where there appears to be significant potential to reduce costs in the areas of remittances and e-commerce
 - But this requires implementation of CBDCs in multiple countries and difficult tasks of coordination

Thank You

