

MCM Fintech Update¹

Friday, February 1, 2019

A BIS survey of central banks found that 55 are actively engaged in digital currency issuance research, with motivations broadly consistent with those summarized in the November IMF SDN. Large technology firms continue to expand into financial services. Crypto-asset markets drifted lower through January, and the market for initial coin offerings is moribund. This edition includes a special feature on the Chinese peer-to-peer (P2P) lending market.

Innovation

A BIS [working paper](#) summarized a survey of central banks regarding digital currency (CBDC) issuance plans. Its findings were in line with the IMF [staff discussion note](#) published last November. It found that EM CBDC interest is motivated mainly by domestic payment efficiency and financial inclusion, whereas for AE central banks it is payment safety and financial stability. Cross-border payment efficiency was low in importance for both. The survey found that 55 of the 63 responding central banks are engaged in retail CBDC work, and two EM central banks said they might issue retail CBDC within the next three years. For example, the Bank of England [confirmed](#) that it is actively researching CBDC feasibility, although the Reserve Bank of India has [reportedly](#) shelved its CBDC launch plans.

Large technology companies (“[BigTech](#)”) continue to expand into financial services including payments services, credit, insurance, and wealth management products. Examples include China’s [WeChat Pay](#) (that grew from [Tencent](#)’s instant messaging and online gaming platforms) and Alipay (from Alibaba’s e-commerce platform). Facebook is [working](#) on creating a crypto-asset that will let WhatsApp messaging app users transfer money across borders, focusing first on the remittances market in India. WhatsApp has been [testing](#) a payments feature in India since last February, and Banco do Brasil has [launched](#) a service that allows account holders to withdraw cash via WhatsApp.

Mobile payments are making inroads in Japan, as the government pushes to increase non-cash payments. Japan is highly cash-dependent, with cash in circulation amounting to about [20 percent](#) of GDP in 2016, versus 9 percent among all member countries of the [Committee on Payments and Market Infrastructures](#). The government push includes [amendments](#) to the Banking Act, requiring banks to provide open [application programming interface](#) (API) access to make electronic customer account interfaces accessible to third-party developers by 2020, and [tax breaks and subsidies](#) to businesses that accept electronic and other cashless payment options. The [aim](#) is to increase the proportion of non-cash payments from 20 to 40 percent by 2025. In response, various incumbents, including Mitsubishi UFJ and Mizuho, [are testing](#) blockchain-based retail payment platforms, and China’s Tencent and Alibaba are [entering](#) the market.

¹ Prepared by John Kiff and Hunter Monroe, reviewed by Jihad Alwazir and cleared by Peter Breuer (all MCM), with a feature contributed by Tao Wu (ICD). This issue covers developments since the December 20, 2018 edition. The information herein has not been verified through official channels. For an explanation of fintech concepts, see [Fintech and Financial Services: Initial Considerations](#).

New distributed ledger technology/blockchain applications continue to roll out. In the past year, HSBC [processed](#) more than 3 million FX transactions worth \$250 billion using blockchain technology, although it is a sliver of its overall FX business. Euro Exim Bank will [become](#) the first bank to use the crypto-asset XRP on the Ripple’s xRapid platform to send payments across borders without storing money in nostro accounts in foreign countries. The National Bank of Kuwait [launched](#) NBK Direct Remit, a cross-border remittance product based on Ripple’s blockchain technology. SWIFT [will test](#) its global payments innovation (gpi) Link with R3’s Corda platform, whereby all authorizations and confirmations will be handled by gpi Link, although payments will be settled by the corporates’ banks.

Regulations

New proposals to tighten crypto-asset regulations were made. The U.K. government [said](#) it “stands ready” to give the FCA more crypto-asset oversight power, warning of a “Wild West” market that poses risks to consumers. The [European Banking Authority](#) and [European Securities and Markets Authority](#) (in separate reports) said that new rules may be needed to better protect consumers from crypto-asset risks, prevent money laundering and stop diverging national regulations from creating unfair competition. The Dutch central bank [called](#) for a national licensing regime for crypto exchange platforms and crypto wallet providers to ensure more effective AML/CFT standards compliance. The South African Reserve Bank [outlined](#) potential ways of tightening crypto-asset regulations.

Nevertheless, the regulatory environments in some jurisdictions are being seen as too loose. For example, the Fund’s Malta Article IV [concluding statement](#) notes that the country’s crypto-asset hub drive is creating “significant” ML/TF risks. Similarly, Lithuania’s e-money licensing regime is being [criticized](#) as being too relaxed. The concern is that, under the EU’s passporting rules, a Lithuanian license extends to the entire EU. For example, [Google Pay](#) and U.K. pre-paid card provider [Revolut](#) secured Lithuanian e-money licenses that allow them to offer current accounts and loans across the EU. The Revolut [announcement](#) did not mention Lithuania at all, and boasted that deposits will be protected by the [European Deposit Insurance Scheme](#), which is still only a proposal.

Commentary and Research

The BIS published a [working paper](#) that was highly critical of crypto-assets, such as Bitcoin, that use proof-of-work (PoW) transaction verification protocols. It argues that PoW is an extremely costly way of ensuring timely payment finality, and that these systems will not be able to generate transaction fees that are adequate to guarantee payment security in future. It concedes that methods other than PoW might help, but these might require coordination mechanisms, implying support from a central institution, which is the very thing that crypto-assets have sought to avoid.

A JP Morgan [research report](#) concluded that crypto-asset value is still unproven and blockchain technology will not make any real difference to banks for at least three to five years. It saw blockchain as unlikely to re-invent the global payments system, but instead providing marginal improvements to various parts of the process, with trade finance likely to benefit the most. It concluded that public blockchain mass adoption faces challenges as

projects that provide better decentralization and security often lack the required scalability, while those that provide better security lack the desired decentralization.

Distributed Technologies Research ([DTR](#)) launched its Unit-e research project to create a globally scalable decentralized payments system. DTR is a Swiss-based non-profit that funds research and development of distributed technologies, and the [Unit-e project](#) is led by academics from [seven](#) U.S. colleges. They [aim](#) to launch the Unit-e later this year, with a goal processing up to 10,000 transactions per second, compared to the current average of up to 7 for Bitcoin and 30 for Ethereum, and Visa's average of about 1,700 per second. MIT researchers are also [working](#) on a new crypto-asset that drastically reduces the data users need to join the network and verify transactions, and makes the network more scalable.

Market Developments

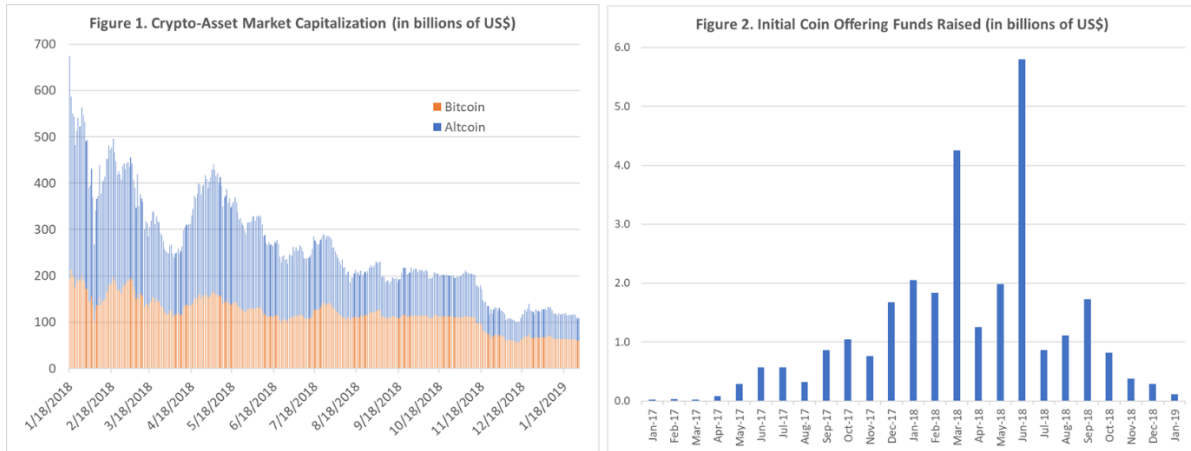
Crypto-asset [market capitalization](#) declined over the month (Figures 1). At \$110 billion, it is down about 15 percent since end-December, with [Bitcoin](#) finishing January at about \$3,500 (down about 15 percent since end-December), with [Ethereum](#) off about 5 percent, and [XRP](#) 20 percent. Meanwhile, the market for initial coin offerings continues to wither (Figure 2). [Issuance](#) in 2018 far exceeded that of 2017 (\$21 billion versus \$7 billion) but most of it was in the first half (\$4 billion in H2 versus \$17 billion in H1).

Cryptocurrencies stolen from exchanges and scammed from investors surged more than 400 percent in 2018 to around \$1.7 billion, [according](#) to [CipherTrace](#). Two groups are behind at least 60 percent of them [according](#) to [Chainalysis](#), a crypto-asset forensic analysis firm, one is a large tightly controlled organization partly driven by nonmonetary goals, and the other a less organized and smaller organization absolutely focused on the money.

The Marshall Islands are planning to launch their SOV cryptocurrency in 2019 despite criticism from the [IMF](#) and the [U.S. Treasury](#). The team behind the SOV [say](#) they have made “significant progress in finding partners, investors, and developers” to realize the project. The team now includes Peter Dittus, a former BIS Secretary General, and [Tangem](#) has been brought in to produce the digital banknotes and [ID PASS](#) to provide identity and pre-paid card solutions. They are currently finalizing the technological framework and have [offered](#) opportunities to review and provide feedback on the draft documentation.

Russia is [talking](#) about issuing ruble-backed crypto-assets, apparently not central bank issued. Iran could also [unveil](#) a state-backed crypto-asset but details are also sketchy.

Several new fiat-pegged [stablecoins](#) were introduced. The aforementioned Mizuho blockchain-based retail payment platform is based on its J Coin Yen-backed digital currency. Singapore start-up [Rate3](#) is [launching](#) a Singapore dollar-backed stablecoin ([SGDR](#)), money transfer platform Bitspark [launched](#) Hong Kong dollar-pegged Sparkdex.HKD and South Korean fintech firm BxB [launched](#) a Korean won-backed KRWb. Meanwhile, all of the major stablecoins remained [pegged](#) to their fiat currencies, although the [Synthetix](#) U.S. dollar pegged [SUSD](#) briefly dropped below 90¢ several times. SUSD is not fiat-backed, but [self-collateralized](#) making it prone to such spikes.



Sources: Figure 1: <https://coin.dance>; Figure 2: <https://coinschedule.com>

Table 1. Other Fintech-Related Developments
Square is refiling its application for a U.S. industrial loan company charter, as it looks to launch “Square Financial Services” which would allow it to take FDIC-insured customer deposits.
Finance Canada released a consultation paper on the merits of open banking, following the appointment of the Advisory Committee on Open Banking in September 2018.
The number of financial technology startups in Latin America has increased by about two thirds since May 2017, according to an Inter-American Development Bank study .
Spring Labs is partnering with 16 U.S. lenders and fintech firms to test a system to eliminate centralized entities like credit bureaus from their role in granting loans.
Signature Bank is launching a new U.S. dollar fast payments platform for institutional clients powered by a permissioned version of the ethereum blockchain.
ING Bank is set to acquire an unlimited number of licenses for R3’s Corda Enterprise platform to implement Corda’s decentralized applications across its global business infrastructure.
Customs authorities in Saudi Arabia have concluded a pilot scheme linking its cross-border trade platform FASAH with IBM and Maersk’s TradeLens blockchain platform.
More details became available on the United Arab Emirates and Saudi Arabia DLT-based system to facilitate cross-border settlements using digital currency backed by their fiat currencies.
The Jamaica Stock Exchange completed 60 days of an ongoing live digital currency trading pilot with selected regulated market participants, including the central securities depository.
The Japanese Financial Services Agency published a draft report outlining the new framework for addressing emerging issues on crypto-asset exchanges and initial coin offerings (ICOs).
The South Korean government announced its blueprint for a regulatory sandbox to encourage innovation by providing local innovators with more freedom and less control.
The Bermuda Monetary Authority is inviting comments on a draft Code of Practice for Digital Asset Custody.
The Reserve Bank of India will encourage more players to participate in, and promote pan-India payment platforms, to minimize concentration risk in the retail payments market.
The Gibraltar Blockchain Exchange, a subsidiary of the island’s stock exchange, is providing insurance coverage for crypto-assets listed on its platform.

Intensified Regulatory Crackdown on China's Peer-to-Peer (P2P) Lending Industry

China boasts the world's largest peer-to-peer (P2P) lending industry. P2P lending is the practice of lending money to unrelated individuals or “peers” without going through a traditional financial intermediary such as a bank; Instead, lending is facilitated by electronic or online platforms, which use digital technologies and innovations to interact with lenders and borrowers online and process large amount of customer information including credit risk analysis. China's P2P lending industry has seen rapid growth over the last few years, reaching an outstanding total loan balance of \$122 billion (RMB 816 billion) by end-2016, compared with a global market size of \$284 billion for the same year as estimated by Cambridge Centre for Alternative Finance (CCAF), or more than 40 percent, even though it remains less than 0.8 percent of outstanding bank credit in China.

However, since mid-2018, a new wave of defaults and fraudulent practices has once again shaken investors' confidence. During the few weeks in June and early July of 2018, over 100 P2P platforms in China went into default or bankruptcy, each involving potential investor losses ranging from hundreds of millions to billions of RMB. Nationwide, the total number of investors subject to potential losses could be as high as a few million, and overall potential losses could reach hundreds of billions of RMB.

This all reveals a continued lack of proper oversight of the P2P industry in China. In 2016, following a similar wave of defaults and fraudulent practices, Chinese government tightened regulations to require all P2P platforms to only conduct “information intermediation” and forbade them from conducting credit intermediation. The government has also started a “cleansing campaign” in the last two years, closing hundreds of problematic platforms.

However, it is apparent that most existing P2P platforms are still involved in credit intermediation. For example, many are pooling investor funds and conducting substantial maturity transformation, essentially running underground banks without effective oversight. Many failed platforms were also alleged to be running Ponzi schemes. In early 2016, a failed P2P platform Ezubao alone took in \$7.6 billion of investors' money, through fabricating non-existent projects.

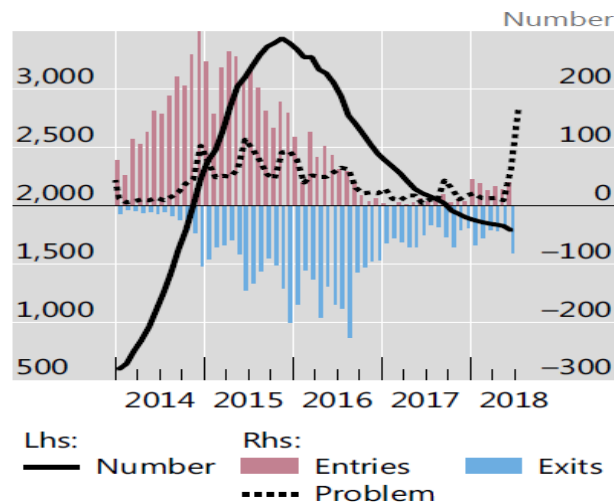
New regulatory measures were introduced in August 2018. These include a freeze on approvals for new online lenders, measures enabling investors to more easily register claims on defunct platforms, and requirements for platforms to specify and formalize an “exit mechanism” in the event of platform failures. The tightened regulation is expected to cause a further consolidation of the industry (Chart 1).

Regulatory and oversight responsibilities have been taken over by the China Banking and Insurance Regulatory Commission (CBIRC) in November 2018. This seems to reflect an effort toward a more centralized supervisory structure, while previously such responsibilities largely fell under the jurisdiction of the Finance Offices of regional governments. The old regulatory structure may have been less effective for several reasons:

- Regional governments may not have had the capacity to properly oversee the rapidly ballooning industry, with over 3,500 platforms at its peak;

- There could be a possible conflict of interest, as in many cases a substantial portion of P2P lending is directed toward projects associated with local governments;
- Close connections between P2P platforms and local governments may have contributed to a blind trust among many investors on implicit government guarantees or bail-outs.

Chart 1: Recent Consolidation of P2P Platforms in China



Source: “Fintech credit markets around the world: size, drivers and policy issues,” *BIS Quarterly Review*, September 2018.