China’s digital currency project is possibly the world’s most advanced. The Digital Currency Electronic Payment (DC/EP) can bring consumers many benefits but may impact banks and existing third-party payment platforms. Yet, if successfully deployed, the DC/EP may bring China one step closer to its goal for Yuan internationalisation.

There is a saying that cash is king, but an increasing number of governments and central banks are beginning to think about entirely cash-free societies. In fact, a recent Bank of International Settlements (BIS) survey of 66 central banks found that 80% were working on a digital currency¹.

The COVID-19 outbreak may have also prompted central banks to have a rethink on digital currencies as cash was viewed as a possible transmission channel of the virus. There were also concerns of a scenario where a pandemic may disrupt the existing payment system, requiring a digital backup.

In October 2020, a group of seven central banks, including the Federal Reserve and the BIS, published a report laying out guiding principles for central bank-issued digital currencies². Tech companies like Facebook are also flirting with digital currencies.

But perhaps no digital currency project has received more attention than China’s. The Digital Currency Electronic Payment (DC/EP) has just been tested out in the tech hub of Shenzhen, with 50,000 residents receiving digital “red packets” worth about CNY200 (USD30), which they could download to an app and spend at more than 3,000 stores³.

China’s digital currency project is possibly the world’s most advanced, although the People’s Bank of China (PBoC) has yet to indicate when it will be available to everyone.

**WHAT IS A DIGITAL CURRENCY?**

The DC/EP differs significantly from a cryptocurrency, which is by definition not controlled by any central authority. And unlike a cryptocurrency, it is merely a convenient way to store value rather than something investors can try to make money from.

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In fact, DC/EP is simply a digital version of China’s existing currency, the Yuan. It is issued and backed by the central bank. When it becomes available, users will be able to download digital wallets where they can store their money, and which generate a QR code that can be scanned by vendors.

It will function in a similar manner to Alipay and WeChatPay, the leading digital payments solutions in China. The main advantages for consumers is convenience, lower transaction costs and the ability to transact even without a mobile network.

DC/EP will also allow for better statistical modelling and economic data. Commercial banks are expected to play a role in distributing the digital currency to users. Along with the central bank, they will keep databases to monitor how the digital yuan moves between users, something that is far more difficult to do with cash. While this is expected to help combat money laundering and terror financing, it has also raised concerns that the DC/EP would compromise the data anonymity feature that comes with cash. On this front, the PBoC has indicated that it would strike a balance between protecting anonymity and detecting illegal activities.

THE YUAN’S INTERNATIONAL AMBITIONS

China’s desire to internationalise the Yuan is no secret, but the DC/EP project has accelerated against the backdrop of rising US-China tensions.

The DC/EP will initially only be used for payments within China. This is however likely to change over time, especially with the development of China’s Cross-Border Interbank Payment System (CIPS), which allows Yuan-denominated transactions to bypass the western-dominated SWIFT system for international payments.

In 2019, CIPS processed CNY135.7 billion (USD20.4 billion) a day from about 980 financial institutions in 96 countries. That makes it small compared to SWIFT, which is dominated by the USD and processed around USD5-6 trillion per day.

With the US having used SWIFT to enforce sanctions, the CIPS may give the Chinese government an alternative in the long term.

Also, smaller developing countries that have strong trade and financial links with China may start to invoice and settle transactions directly in Yuan. This is particularly relevant for the partners in China’s Belt and Road Initiative. At present, free trade zones throughout China are exploring cross-border financing, and in the future these free trade zones could serve as drivers for the international use of the digital yuan.

Overseas consumption by Chinese tourists and travelers could further expedite the use and

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circulation of the digital yuan abroad, in turn driving the establishment of corresponding systems and coordinating mechanisms abroad.

INVESTOR CONCERNS

There are some concerns about the way a digital currency may work in practice. In Sweden, for example, there was a backlash to the rapid move to cashless transactions from the elderly and disabled, who have struggled with the transition. In fact, the Swedish government even backtracked and forced banks to provide a minimal level of cash services.

Financial disintermediation

But the main concerns go beyond the logistics of changing from one form of payment to another. A far bigger worry may be what critics call ‘disintermediation’ - the possibility that commercial banks could be cut out of their traditional role.

Currently, central banks already deal in digital currencies, but only at a wholesale level. Their customers are other banks instead of millions of individuals and businesses.

To some customers, a PBoC-based DC/EP may be seen as a lower risk alternative versus bank deposits. If these bank customers can get their digital currency directly from the central bank, they may be less inclined to deposit it in a commercial bank. Without those deposits, a commercial bank may have less money on hand to lend to other customers. It’s cost of funding may also increase if it has to compete for deposits with other banks or seek other funding sources. There are also concerns that during a banking crisis, the flexible nature of digital currency could result in sudden and massive digital bank runs.

To address this concern, the European Central Bank has previously suggested limiting the cash-like portion of a possible digital currency to EUR3,000 per person. This is around the median European deposit balance.

China’s approach to managing this problem is to specifically include commercial banks in the distribution of digital currency. It is also likely to impose a size limit for conversion as well as keep the DC/EP non-interest bearing to reduce its attractiveness versus bank deposits. While people will be encouraged to hold DC/EP accounts, the amount in circulation is likely to be managed cautiously, and the impact to the traditional banking system is expected to be marginal, at least in the short term.

Competing payment systems

China already has one of the world’s most mature systems for digital payments. With DC/EP entering a fiercely competitive market, there are concerns how DC/EP would co-exist with the current strong established players.

The most recent figures from the PBoC showed that in 2019, banks handled a staggering USD49.27 trillion worth of mobile digital payments. Roughly four out of every five payments in China are made through Tencent’s WeChat Pay or Alibaba’s Alipay. In Europe, by comparison, around 76% of transactions are still carried out in cash, amounting to more than half the value of all payments. Fig. 2 shows that most digital platforms currently use Alipay or WeChat Pay as their payment partner while some have developed their own proprietary system.

The attractiveness of these payment systems lies beyond just payments but also in their ecosystems, where they offer a range of services from food ordering to grocery shopping and credit lines.

If the DC/EP offers inter-operability across different payment platforms, this could potentially provide Chinese consumers with greater convenience and drive adoption as the currency in the digital wallet on one payment platform (e.g. Alipay) is currently not accepted on a competing platform.

A YUAN FIT FOR A DIGITAL AGE

Although the technology for a digital currency has existed for some time, the PBoC is likely to take a prudent approach so as not to undermine the broader financial system.

The impact on banks and third-party payments system will depend on the adoption rate of DC/EP and the operating model between DC/EP and these players. While Chinese banks may face some competition for deposits, new opportunities may also arise. Banks can, for example, earn custody fees from customers for their digital wallets. Meanwhile, third-party payment systems must improve the customer experience on their digital wallets to raise the stickiness of their platforms. There probably is room for another payment method in the world’s second largest economy. There are currently about 400 to 500 million individuals without Alipay accounts and another 200 million without bank accounts in China10.

Although China’s DC/EP is still at a pilot stage for domestic usage, the DC/EP can eventually lower the hurdles for Yuan usage in cross border payments. If successfully deployed, the DCEP can enhance the Yuan’s international clout over the long term, moving one step closer to China’s Yuan internationalisation goal. For now, the world will be looking to the 2022 Winter Olympics in Beijing, where China is expected to showcase its digital currency to a global audience.

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Fig 2: Select large digital platforms and their payment systems

<table>
<thead>
<tr>
<th>Platforms</th>
<th>Digital platform details</th>
<th>Third-party payment partners³</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Transaction value (billion yuan)¹</td>
<td>Proprietary payment System²</td>
</tr>
<tr>
<td>T-mall, Taobao, 1688.com, Xianyu (Idle Fish), Kaola</td>
<td>7,053</td>
<td></td>
</tr>
<tr>
<td>Jingdong Mall</td>
<td>2,085</td>
<td>•</td>
</tr>
<tr>
<td>Pinduoduo</td>
<td>1,007</td>
<td>Plans to launch⁴</td>
</tr>
<tr>
<td>Meituan Dianping</td>
<td>682</td>
<td>•</td>
</tr>
<tr>
<td>Suning</td>
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<td>•</td>
</tr>
<tr>
<td>VIP</td>
<td>148</td>
<td>•</td>
</tr>
<tr>
<td>Didi</td>
<td>NA</td>
<td>•</td>
</tr>
</tbody>
</table>

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1 Transaction value refers to the value of confirmed orders of products and services on marketplaces in 2019. For Alibaba, the figure refers to the March 31, 2020, ended financial year.
2 Some e-commerce, on-demand services hold payments licenses and offer their own stored-value wallets.
3 Popularity of Alipay and WeChat compels digital platforms to provide them as payment methods at the time of purchase. Other payment methods include debit and credit cards.
4 Pinduoduo’s co-founder, Chen Lei, acquired a 50.01% stake in digital payment firm Futeitong, which may support a new payment method on the e-commerce platform.


NA = not available