

China Charges Ahead With a National Digital Currency

The electronic Chinese yuan is now being tested in cities such as Shenzhen, Shanghai and Beijing. No other major power is as far along with a homegrown digital currency.



By Nathaniel Popper and Cao Li

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Annabelle Huang recently won a government lottery to try China's latest economics experiment: a national digital currency.

After joining the lottery through the social media app WeChat, Ms. Huang, 28, a business strategist in Shenzhen, received a digital envelope with 200 electronic Chinese yuan, or eCNY, worth around \$30. To spend it, she went to a convenience store near her office and picked out some nuts and yogurt. Then she pulled up a QR code for the digital currency from inside her bank app, which the store scanned for payment.

"The journey of how you pay, it's very similar" to that of other Chinese payments apps, Ms. Huang said of the eCNY experience, though she added that it wasn't quite as smooth.

China has charged ahead with a bold effort to remake the way that government-backed money works, rolling out its own digital currency with different qualities than cash or digital deposits. The country's central bank, which began testing eCNY last year in four cities, recently expanded those trials to bigger cities such as Beijing and Shanghai, according to government presentations.

The effort is one of several by central banks around the world to try new forms of digital money that can move faster and give even the most disadvantaged people access to online financial tools. Many countries have taken action as cryptocurrencies such as Bitcoin, which has recently soared in value, have become more popular.



Annabelle Huang's screenshot of the eCNY app.

But while Bitcoin was designed to be decentralized so that no company or government could control it, digital currencies created by central banks give governments more of a financial grip. These currencies can enable direct handouts of money that expire if not used by a particular date and can make it easier for governments to track financial transactions to stamp out tax evasion and crack down on dissidents.

Over the last 12 months, more than 60 countries have experimented with national digital currencies, up from just over 40 a year earlier, according to the Bank for International Settlements. The countries include Sweden, which is conducting real-world trials of a digital krona, and the Bahamas, which has made a digital currency, the Sand Dollar, available to all citizens.

In contrast, the United States has moved slowly and done just basic research. At a New York Times event last week, Treasury Secretary Janet L. Yellen indicated that might change when she said an American digital currency was "absolutely worth looking at" because it "could result in faster, safer and cheaper payments."

Yet no major power is as far along as China. Its early moves could signal where the rest of the world goes with digital currencies.

“This is about more than just money,” said Yaya Fanusie, a fellow at the Center on Economic and Financial Power, a think tank, and an author of a recent paper on the Chinese currency. “It’s about developing new tools to collect data and leverage that data so that the Chinese economy is more intelligent and based on real-time information.”

While the Chinese government has not said if and when it will officially introduce the eCNY nationwide, several officials have mentioned having it ready for tourists visiting for the 2022 Olympics in Beijing. Recent articles and speeches from officials at the People’s Bank of China, which is the country’s central bank, underscored the project’s ambitions and the desire to be first.

“The right to issue and control digital currencies will become a ‘new battlefield’ of competition between sovereign states,” read an article in China Finance, the magazine of the central bank, in September. “China has many advantages and opportunities in issuing fiat digital currencies, so it should accelerate to seize the first track.”

The People’s Bank of China did not respond to a request for comment.

The development of a national digital currency began in 2014, when the People’s Bank of China set up an internal group to work on one, shortly after Bitcoin gained attention in the country. In 2016, the central bank created a division called the Digital Currency Institute. Last year, it began trials of eCNY in the cities of Shenzhen, Suzhou, Xiongan and Chengdu, according to research from Sino Global Capital, a financial investment firm.

People invited to the trial through a lottery on WeChat or other apps were able to click on a link and get a balance of 200 electronic yuan, which was sometimes displayed in their bank app over a picture of an old-fashioned Chinese bank note with Mao Zedong’s face. To spend the money, users can use an eCNY app to scan a retailer’s QR code or produce a QR code that the retailer can scan.

The design of eCNY borrows only a few minor technical elements from Bitcoin and does not use the so-called blockchain technology, a ledger-like system, which most cryptocurrencies rely on, officials from the People’s Bank of China have said.

In a hint of the currency’s unusual nature, recipients have only a few weeks to spend the digital money before it disappears. So far, only a limited number of retailers have taken the currency. But early users said the experience was so similar to Chinese digital payment options like Alipay and WeChat Pay that it would not be hard to switch to it if it rolled out nationwide.

“I’m totally fine to pay with the eCNY, since it’s smooth and fast enough,” said Yifan Gao, 30, a financial analyst in Shenzhen, who recently used her 200 eCNY to buy snacks at a 7-Eleven.

Ms. Gao added that the eCNY would become mainstream only if people could send it to friends, which was not possible with the trial version.

Eswar Prasad, the former head of the International Monetary Fund’s China division, said one of the most important factors driving the eCNY was the success of WeChat Pay and Alipay. Both have given rise to a new alternate financial system that has worried Chinese officials and led to a recent crackdown on Jack Ma, the founder of Alibaba and Ant Financial, which owns Alipay.

“The eCNY is really a defensive mechanism to keep central bank money relevant,” Mr. Prasad said.

If the eCNY is successful, it will give the central bank new powers, including novel types of monetary policy to help grow the economy. In one scenario that economists have discussed, a central bank could program its digital currency to slowly lose value so that consumers are encouraged to spend it immediately.

Some economists said China’s digital currency would also make it easier for the renminbi to compete with the U.S. dollar as a global currency because it can move internationally with fewer barriers. But Chinese officials and analysts have said that many other changes would be necessary for that to happen.

Beyond those ambitions, the eCNY could immediately give the Chinese government more power to monitor finance flows because a digital currency system can record every transaction. That poses privacy concerns, with China having used many tools in the past to crack down on dissidents.

“If I cannot buy you a coffee without the government knowing about it, I do worry about what this could mean,” Mr. Prasad said.

Ms. Huang, the business strategist in Shenzhen, said she already assumes that most of her data can be tracked and has gotten used to it.

“I choose to sacrifice a little bit of privacy for convenience,” she said.