

# The steps required to promote digital currencies

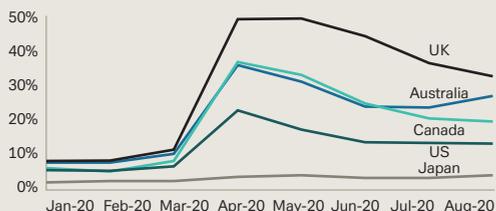
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As the pandemic has accelerated the digital cash revolution, there are several things companies and policymakers need to do to respond.

The handling of cash has come under much scrutiny during the pandemic as various studies have shown how viruses can stick to money for days or weeks. Worldwide lockdowns and social distancing measures have only motivated the increased use of cards over cash. In the UK, the number of sellers using only digital payments this year jumped from eight per cent in February to 50 per cent in April. By August, the number of businesses with digital-only payment systems had stabilised at about 33 per cent.

## Share of cashless businesses



Source: Square

While the pandemic has hastened the need for digital cash, more important is how it has highlighted how far behind many countries are in their progress for digital currencies. With countries, such as China and Sweden, leading the digital currency development, if other countries do not catch up, they may find that their companies are forced to adopt the digital currencies and policies of other countries as payment mediums.

This article outlines some of the developments that are necessary to help countries catch up. Among these are that Europe needs a joint and independent payment solution. In addition, central banks should collaborate with governments, large banks, and clearing systems on several initiatives. Furthermore, companies must design alternatives to credit cards and remove middle man fees. This piece holds up several models as examples.

## Cash evolved

Central banks are slowly beginning to rethink the seventeenth-century cash model and accelerate the development of central bank digital currencies (CBDCs). But this is taking time, especially in advanced economies where interest rates are low and privacy is a major concern.

The great winners in this trend are the US card companies, such as Visa and Mastercard. They wield significant power to set prices, which is not great news for retailers or consumers. Moreover, considering today's tense global trade context, it could foster retaliation against US card companies.

For this reason, public and private institutions should cooperate to design alternatives to credit card payments, thereby removing middlemen fees. Good models, which we describe later, include payment platforms such as Swish, Alipay, and WeChat Pay.

## In the long term, CBDCs will replace cash.

Central banks have been working for some time on ways to digitise cash, and the pandemic has accelerated the process. Over the past two

years, central banks and governments have multiplied and sped up digital cash initiatives. A January 2020 survey by the Bank of International Settlements revealed that 80 per cent of central banks are developing a CBDC, and 10 per cent, mostly in emerging markets, are already running pilot tests.

The race is led by Sweden and China and both have started piloting e-currencies earlier this year. They have three factors in common: (i) Both countries have for many years embraced digital payments; (ii) cash payments in both nations were declining well before covid; and (iii) their governments play a pivotal role in promoting and supporting a digital payments infrastructure.

Although both countries share these common factors, they each have a distinct motivation for developing a CBDC. China explicitly set up its digital currency to improve financial inclusion. Sweden, which has a very high financial inclusion rate, is pursuing its CBDC simply as a natural next step; after all, Sweden already has one of the lowest cash payment rates in the world at about one per cent of GDP.

It is imperative that the US and Europe catch up. However, development in both is too slow. In the

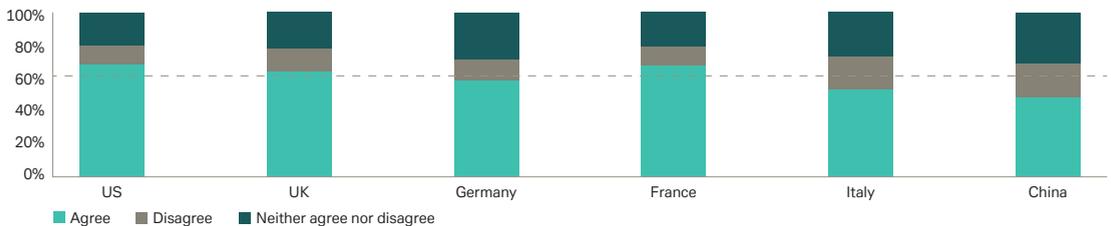
US, the Federal Reserve Bank of Boston and the Massachusetts Institute of Technology started a multiyear CBDC initiative in August this year. At first, this was helped by initial drafts of the covid stimulus bill which included plans to create digital dollar wallets to distribute social benefits. Sadly, those plans were later discarded.

In Europe, the ECB this year released a report on the possible issuance of a digital euro. But the ECB is still currently in an exploration phase and it does not plan to decide whether and how to launch a digital euro until at least mid-2021.

Leaders of advanced economies must overcome two key challenges if they want their populations to adopt a CBDC: low interest rates and cultural/privacy norms.

Most importantly, an environment of higher interest rates will help bring about the end of cash as a store of value. According to our survey, one-third of Americans and Europeans ranked cash as their favourite payment method, and more than half of people in developed countries believe that cash will always be around. This statement pertained to survey participants regardless of their country, gender, or age.

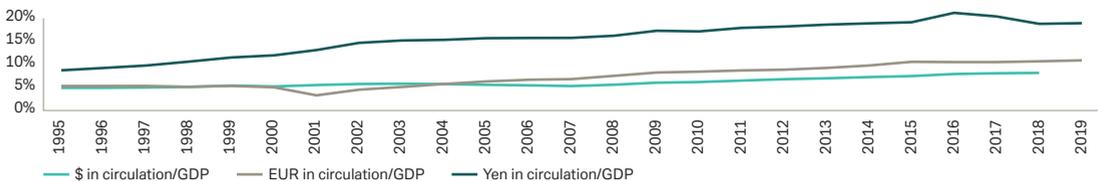
### Cash will always be around – preferred method of payment by country



Source: Deutsche Bank dbDIG. Note: percentage of respondents who think that cash will always be around.

One way to look at the popularity of cash is by the value in circulation. Indeed, during the three months prior to May 2020, the increase of banknotes in circulation in the euro zone was €75bn. This is a new all-time high and exceeded the increase during the three months following the collapse of Lehman Brothers in late 2008.

### Value of currencies in circulation (% GDP)



Reserve Economic Data.

Digital currencies would be a help in today's environment of negative real interest rates in many advanced countries. That is because consumers currently have little incentive to deposit or save money. So, moving cash from under the mattress into a bank account is unlikely to happen (at scale) in the near term.

Similarly, with bank accounts paying low interest rates, a CBDC could help disintermediate the banking system. People might choose to hold their money directly at the central bank. Obviously, this would disrupt legacy bank franchises and impact financial stability. Credit card volumes, interchange fees, payment transaction fees, and deposit interest margins could be seriously affected. This would shake up the current two-tier system and create additional responsibilities for central banks in areas such as 'know your customer' issues, disputes, monitoring transaction levels, preventing money laundering, terrorism financing, and tax compliance.

As governments go about accelerating digital currency initiatives, they must be cognisant of cultural factors related to convenience, usage, and privacy. These will influence adoption rates. For example, the digital renminbi in China will allow regulatory authorities to see and trace every transaction (unlike cash transactions).

Perspectives on these two poles – privacy versus convenience – vary from culture to culture. Our survey showed that citizens in advanced economies are more worried about privacy than

people in emerging economies. Only a tenth of Chinese survey participants reported concerns about anonymity and traceability, well below the Americans (22 per cent), British (21 per cent), French (29 per cent), Germans (42 per cent), and Italians (19 per cent).

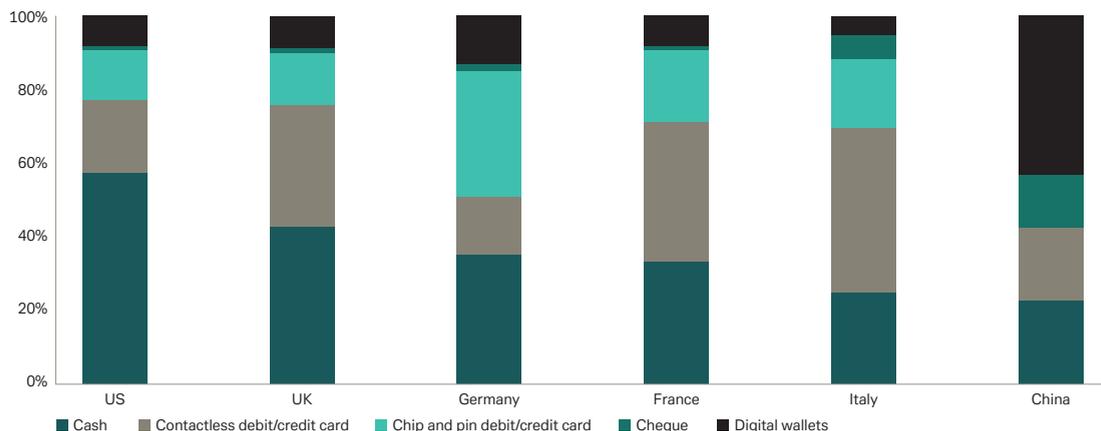
By contrast, most emerging economies do not face these challenges. The absence of these barriers explains why China is leading the world's transition toward CBDCs. Even if other countries do not want to go down some avenues of the Chinese route, they can learn from other factors, such as a higher penetration of mobile payments and younger demographics, as these will also act as catalysts for the advance of CBDCs.

For now, the priority of most governments must be on regional digital payment systems.

Considering the current geopolitical situation, it is important to strengthen the euro and maintain a position of sovereignty in data. To do this, we must have an independent European payment solution. At the moment, payments in eCommerce and point-of-sales are dominated by American providers although there is a strong emergence of Asian providers.

On a region-by-region basis, the penetration of the smartphone, the rollout of 5G technology, and the advance of digital ledger technology, or blockchain, could all disrupt traditional card payment systems. For example, in 2012, Sweden launched Swish, a mobile digital payment system. Europe must accelerate similar plans.

Payment methods for weekly in-store purchases per country in 2019



Source: dbDig Primary Research

The idea of an independent European card solution is not new; Monet as a project, however, ten years ago did not succeed. The idea was to bypass the dominance of card providers, such as Visa and Mastercard, and to compete with the Chinese (Alipay and WeChat Pay) and huge US firms such as Google and Apple. This project was renamed the European Payments Initiative last summer and was expected to be completed in four years.<sup>1</sup> The key challenge is to upgrade the acceptance and issuing layer to support a European solution. Once this is done, clearing and settling in euros or in a digital currency can be done.

In light of these regional technological disruptions, central banks, governments, large banks, and the clearing system must collaborate to set up digital payment initiatives that allow consumers to transfer funds from one bank account to another without relying on cards. Here, there are two scenarios each with a roughly equal chance of occurring. Either the market finds a solution itself or, if the market fails, it should be imposed by regulation.

Finally, an example, Swish enables private users to make digital payments instead of traditional

cash transactions. This mobile (smartphone) service connects users' phone numbers directly to their bank accounts thereby bypassing card providers. Swish users can transfer money in real time, within a few seconds after the confirmation of both parties.

Swish is free for private users, but companies and registered organisations must disburse between 1 and 3 kronor per received payment, plus a small yearly fee.

The Swish fee is equivalent to 0.096 - 0.29 euros per transaction, with fees being set by each bank to foster competition. By comparison, a card payment could cost 10 to 50 cents per transaction plus a commission of between 2% and 4% for independent retailers and e-commerce websites. In the end, this is the key benefit all of us will see from the digitisation of currencies. Disintermediation will lead to lower fees, quicker payments, and more information for those who need it. After centuries of the cash economy, we are finally ready to move into the next age of money.

## Case Study: China vs. US Payment Initiatives

So far, Apple has failed to replicate the successful adoption rates of the Alipay platform. Only nine per cent of US consumers have adopted Apple Pay compared to 81 per cent of Chinese consumers who have used Alipay (by the end of 2019).

This occurred because Apple missed two strategic drivers: (i) create value for all parties, and (ii) monetise the ecosystem.

Apple Pay has focused solely on consumers even though switching from cards to smartphone payments offers consumers only marginal benefits. Banks and merchants have had little incentive to adopt the technology. Apple Pay has charged banks and issuers approximately 0.15 per cent per transaction, in addition to the regular credit card processing fees, which are between 1.15 per cent + \$0.05 and 3.15 per cent + \$0.10 per transaction. Apple has also relied on NFC technology, which is not mainstream in the US; only about 10 per cent of all point-of-sale terminals were NFC-enabled during Apple Pay's launch year.<sup>2</sup>

By comparison, Alipay charges merchants a fee of about 0.6 per cent per transaction, which is roughly that of credit card fees. For merchants, the implementation cost to accept Alipay in stores is extremely low because Alipay relies on QR codes (not NFC), which only require a camera and an internet connection.

Cultural factors also played a role in Alipay's rapid adoption rates. China jumped straight from cash to mobile payments. Thus, the nation bypassed the entrenched credit card culture found in many Western nations.

Finally, Alipay was able to monetise data by sharing it with many with third-party businesses. This could more readily occur because Chinese citizens typically have fewer concerns about privacy than people in Western cultures.

<sup>1</sup> From kick-off towards funding the EPI interim company 12 months are needed. This included agreeing on a vision, technical feasibility study, and legal documents for the interim company as well as funding. Then 3 additional years to replace cards and upgrade the merchant infrastructure. However, digital EPI cards, digital EPI wallet, EPI P2P are expected to be available much earlier.

<sup>2</sup> The implementation costs for new NFC-equipped point of sale terminals was between \$1,000 and \$2,000 when accounting for necessary software and training for employees.