

Prospects of Weaponizing Digital Money

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For decades, the U.S. dollar has been the world's preferred currency both for trade and financial transactions. To date, it has been the predominant global reserve currency and its importance goes well beyond the size of the U.S. economy.¹ Oftentimes, the influence of the U.S. dollar in international markets has been regarded as an unfair benefit to the United States both from an economic and geopolitical point of view.²

Two developments have emerged over the past 20 years to challenge the greenback's dominance, namely the Euro's launch and China's expansion. The launch of a common European currency uniting Europe in 1999

brought together a large economic area of countries with well-developed financial markets. Meanwhile, as China overtook Japan as the world's second largest economy in 2010, imagining an increasing role for the Chinese renminbi was only to be expected.³ Nonetheless, the U.S. dollar continued to dominate international trade and finance even as the global role of the US dollar weakened slightly in recent years.⁴

Yet there is a new development underway that is increasing speculation about the possible decline in the dollar's hegemony: the increasing role of digital forms of money combined with the possibility that central banks launch their own version of digital currencies, what is known as central bank digital currencies (CBDCs). Increased digitalization of money will no doubt impact the dollar's dominance as the foremost global currency, while CBDC projects in both China and the Euro area can also challenge the greenback's current dominance.

The dollar's rise as currency to the world

What makes a currency a good candidate for a global one? In many ways, becoming a dominant global currency require the same attributes for a

1 The US economy is the largest in the world and accounts for about 25% of world output at market exchange rates but the US dollar represents close to 60% of the world foreign reserves.

2 From an economic point of view this is sometimes called the exorbitant privilege (see, for example, <https://www.brookings.edu/blog/ben-bernanke/2016/01/07/the-dollars-international-role-an-exorbitant-privilege-2/>)

3 The Chinese economy is second to the US when measured at market exchange rates but it is already larger than the US when adjusted for PPP.

4 For example, today the US dollar represents about 60% of the foreign reserves held by central banks, down ten percentage points in the last two decades. See <https://www.imf.org/en/Blogs/Articles/2022/06/01/blog-dollar-dominance-and-the-rise-of-nontraditional-reserve-currencies>.

currency to be a good form of domestic money. Money is a medium of exchange, and assets denominated in its unit of account need to be liquid and perceived to be safe.

Safety in the value of the currency comes from a monetary policy framework that delivers stable inflation and a stable exchange rate. There are many currencies backed by central banks which establish stable and predictable inflation rates. But when currencies compete, their size and network effects matters, with size meaning both the size of the economy as well as its role in global trade in addition to the depth of its financial markets. When companies invoice their international trade in a given currency, they are more likely to borrow in that particular currency. Central banks are more likely to hold foreign reserves denominated in the currency in which international trade is being conducted. Meanwhile the presence of these reserves creates the necessary liquidity that reinforces the decision by companies to use it as an invoicing currency. All of this tends to play in favor of a winner-take-all outcome.

Historically, the central role of the U.S. dollar is associated with the increasing dominance of the U.S. economy in the 20th century, together with the Bretton Woods agreement which placed the dollar at the center of the international monetary system. U.S. businesses too dominated the world economy over the past decades. For instance, the U.S. stock market represents about half of total capitalization of stock markets worldwide, or twice as much as its share in terms of GDP. Another factor is the U.S. government debt, considered a safe asset, which is larger in absolute value than that of any other government. This combined with the open capital account that has prevailed in the United States for decades made its assets very liquid.⁵

Despite this apparently dominance, however, there are several reasons why the role of the U.S. dollar might be under additional pressure today. In addition to the diminishing role of the US economy as emerging markets outgrow advanced economies, there is also the potential for increasing geopolitical risks and even the possibility of deglobalization that could lead to a global economy separated into blocs.⁶ Increasing geopolitical risk can have an important effect

5 Gourinchas (2021) provides a great historical summary of the economic forces that drove the role of the US dollar in the global economy.

6 See Arslanalp, Eichengreen, and Simpson-Bell (2022) for an analysis of the drivers behind the decline of the US dollar dominance.

on the attractiveness of a particular currency, as we are witnessing today with the sanctions associated to the Russia invasion of Ukraine. The control that the United States exercises over U.S. dollar-denominated transactions and the possibility of politically motivated sanctions can change the perception of liquidity of the U.S. dollar relative to other currencies. Russia has been increasing the share of the Chinese renminbi in its foreign reserves and recently it has started invoicing in rubles.⁷

Authoritarian regimes in particular are expected to continue looking for alternatives to diversify away from the U.S. dollar and the political constraints it poses. Assuming that is the case then the Euro is unlikely to be a good option, as Western Europe is likely to be in sync with the United States in future potential conflicts. The Chinese renminbi, on the other hand, is a more natural candidate because it is more likely to deviate from U.S. sanctions, not to mention the fact that the Chinese economy's importance is growing stronger. Yet there are several factors that hamper its growth. Chinese financial markets do not yet provide the necessary liquidity that the world needs. In addition, the restrictions on capital flows are inconsistent with the notion of a global liquid asset pool. While the Chinese government has expressed its objective to liberalize capital flows, the speed at which it has happened has been disappointing. And, of course, countries that are Washington's natural political allies are unlikely to replace it with the Chinese renminbi.⁸

Nonetheless, there is clearly a momentum for the renminbi to increase its influence in global trade, though less so in capital flows. Given the prominence of the Chinese economy, it will be easy to see an increasing role in invoicing in renminbi. Even if there is limited openness in the capital account, the Chinese central bank could continue developing a system of global payments that combined with the creation of swap lines with other central banks would provide the necessary infrastructure for its growth. In this scenario, the renminbi would not replace the U.S. dollar but it would move the global economy towards a multicurrency structure, at least when it comes to international trade.⁹

7 See <https://warontherocks.com/2022/09/what-does-the-weaponization-of-global-finance-mean-for-u-s-dollar-dominance/>

8 See <https://cepr.org/voxeu/columns/rise-renminbi-international-currency-historical-precedents>.

9 See Eichengreen, Macaire, Mehl, Monnet and Naef (2022) for a detailed analysis of this scenario.

Digital money reassess the global payment system

As challenges to the dollar's dominance rise, new forms of digital money are also being presented as a revolution in the way we money. Domestically, some of these assets are seen as a disruption to the traditional financial institutions. At the international level, the fact that some forms of digital money are easier to move across borders and can bypass capital controls in some cases, could open the door for larger capital flows which in turn can result in a wider set of choices for global currencies. In addition, as central banks start launching their own digital currencies (CBDCs), new currencies can be weaponized and increase geopolitical tensions.

Bear in mind, though, that digital money is not a new concept. The use of credit cards, online banking or, more recently, mobile payments has slowly moved economies away from a physical medium of exchange to a digital one. Still, the infrastructure of payments remains under the control of central banks, with the increasing digitalization being mostly driven by traditional financial institutions. Even in regions where new players have managed to become dominant, for example in China where BigTech companies now dominate digital payments, these players still rely on the central bank for the settlement process. The same is true in other parts of the world where so-called neobanks were seen as disruptors but are now slowly converging to the business model of traditional banks.

The impact new forms of money have on global payment systems is not apparent. Private forms of digital money such as digital wallets including WeChat and Venmo can create and control closed-loop networks of domestic payments, but they cannot have a significant impact on the use of a currency abroad. Private digital money face regulatory limitations for foreigners to access digital wallets, and they also have to rely on the traditional institutions, including the central bank, to settle payments outside of their networks.¹⁰

¹⁰ Cryptocurrencies, in theory, can bypass some of these restrictions. But their instability and difficulty to provide a stable and reliable means of payments have limited their development. In addition, if say Bitcoin were to become a global reserve currency, it would not strengthen the power of any particular country.

The rise of CBDC and new monetary power

Historically, central banks have been managing a digital version of their currencies in the form of reserves of commercial banks at the central banks which are used to settle payments. Nonetheless, many central banks believe that they need to go beyond what they do today for several reasons. First, physical cash is disappearing worldwide. Should there be a point when electronic payments become the default and cash is no longer accepted, it would mean that there would be no public form of money available and that the private sector would be in total control of the payment system. At the same time, central banks feel the need to have an alternative to existing private forms of digital payments to improve on the efficiency of the system, provide resilience and avoid the possibility of monopoly power by big players (for example BigTech firms in China).

When it comes to complementing or improving the current payment infrastructure, central banks can focus on wholesale or retail CBDC. In wholesale CBDC, central banks open up access to their balance sheet to an increasing number of institutions. This can help make the payment market more competitive and efficient, but it would not address the first concern, namely the need for a digital equivalent of cash. In order to do that they would need to create a *retail CBDC* system where there would be access for all including individuals.

Many central banks are either planning for or currently running projects for retail CBDC.¹¹ The Chinese central bank has already run a pilot for it, while the European Central Bank has produced a series of documents and is working on a variety of technical solutions.¹²

But if retail CBDC were to happen, just how much of a difference would it make in the domestic payment system remains debatable. As for the impact of using CBDC as a global currency, the result will ultimately depend on the details. Domestically, the fundamental challenge will be the acceptance of CBDC as a means of payments and will require consumers to see it as competitive relative to the current private infrastructure. Central banks are

11 See <https://www.bis.org/about/bisih/topics/cbdc.htm>

12 See Fullerton and Norman (2022) for a description of the Digital Yuan project and https://www.ecb.europa.eu/paym/digital_euro/html/index.en.html for details on the Digital Euro project.

not yet ready for this fight, and they do not plan to replicate the full payment infrastructure. So far, most are thinking of relying on what is called the hybrid model of CBDC where private payment providers will facilitate access to the new digital currency.¹³ In practice this means that while an individual will have access to the liability side of the central bank balance sheet, its use as a means of payment will still require the private payment infrastructure. In this environment, CBDC is unlikely to displace current forms of digital money. In addition, the central banks will have a hard time achieving other goals such as financial inclusion or resilience or improved competitiveness given the dependence on the private sector.¹⁴

Meanwhile, the future of CBDC taking off as a global currency will depend on a number of factors CBDC will need to be available to foreigners as a global currency, and most central banks have not made up their mind on this issue in part because . issues such as privacy or regulatory conditions for CBDC have not been resolved . Today foreigners can have access to physical cash, but it is very difficult for them to have access to private digital versions of the currency held at bank accounts because in most countries regulations imposes residency requirements to open a bank account.

The real question is one of regulation. So long as the current regulatory environment remains unchanged, CBDC will do very little to increase the global use of a currency. It is possible that small CBDC balances are provided to foreigners in a way that resembles cash (anonymous, without KYC requirements and possibly available for offline use). This could be useful to help tourists execute certain payments, but it will have limited impact on the global use of a currency.

The only area where CBDC could make a substantial difference is if it leads to a rethinking of the current infrastructure of cross-border payments. Currently, access to payments in a foreign currency requires the use of correspondent banks that have direct access to the respective central banks. The creation of CBDC could potentially become an opportunity to standardize national payment systems and create an infrastructure of cross-

13 See Auer, Raphael, and Rainer Böhme (2021) for details of the architecture that central banks are considering for CBDC.

14 For a longer presentation of these arguments, see <https://cepr.org/voxeu/columns/conflict-between-cbdc-goals-and-design-choices>

border payments that is much more efficient than the current outdated, slow and expensive system. That in turn would make it easier for companies to price and operate in foreign currencies, boosting the importance of currencies such as the renminbi that are likely to grow as trade increases. But this scenario is more about the regulatory and technology environment than about CBDC per se. In fact, some of these developments could involve private institutions and can take place without issuing a retail CBDC. For example, if central banks were to provide direct access to their balance sheet to institutions that specialize in cross-border payments and these institutions were allowed to manage large account balances, holdings of foreign currencies could be as frictionless as holdings of domestic currency. This is already happening in some jurisdictions but at a slow speed because of the conservative approach by central banks and regulators.¹⁵

Innovations in digital money, including the possibility of central banks issuing retail CBDCs, is seen by some as a potential inflection point in the competitive landscape among the largest currencies. That scenario, however, is unlikely. The historical dominance of the U.S. dollar is likely to remain in place and challenges to its position will come not from the rise of digital currencies, but elsewhere. The expansion of the Chinese economy in international trade will remain the biggest source of competition for the dollar's prominence. This combined with the additional cross-border payment systems that the Chinese central bank is facilitating and the reality of increasing geopolitical tensions that are likely to lead the world separated into blocs are the true forces that will slowly boost the role of the renminbi. Digital developments, such as CBDC can, at best, be part of the technology solutions that facilitate these changes. But they will certainly not be the catalyst for the changes.

15 For example, Wise has today direct access to the balance sheet of the Bank of England. Wise is allowed to operate in many jurisdictions and offer multi-currency accounts. But it faces regulation about the size of those accounts. Another example, although one that failed, was the project by Facebook to create a global currency (Libra) later replaced by the idea of creating private versions of local currencies (called Diem). This project was suggesting the use of CBDCs as the backbone of their own private digital currency. CBDC in this example could have facilitated the launch of private digital currencies available through one of the largest global social networks.

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