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# Crypto Currencies: Three Questions

The recent spread of the number of crypto currencies (CCs) raises a number of issues in the areas of both national and international monetary systems.

This Policy Brief discusses three specific issues raised by wider use of CCs:

- Private banks were the main issuers of money over much of history. Then in the 20th century central banks became monopoly issuers of money. Now with CCs private issuers of money again will become important. We discuss the implications of this for the stability of the monetary system and particularly for monetary policy. This includes the implications for exchange rates.
- A major issue in the international monetary system (IMS) has been flows of capital, particularly money laundering. Developing countries are particularly the victims of illegal capital flows. Large sums of money from developing countries are parked in the financial systems of developed countries.
- The Chinese have recently issued a crypto currency with, it is believed, the desire to make it an international currency. Why does China need a CC to have an international currency?

## Re-emergence of private money

In the 19th century, for instance, private banks were allowed to issue their own money, their banknotes. Obviously, issuing banknotes was profitable. It costs little to print them and they could be lent at interest. The limit to the issue of notes by a bank was that they could be converted into gold. If the bank issued too many banknotes the public would seek to convert them into gold. The bank would need to reduce its loans and so reduce the number of notes it had issued. If it had been imprudent then the pressure of redemption would mean that it would run out of gold and would have to declare itself bankrupt. The fear of such an outcome meant that the least sign or rumour that a bank would become bankrupt would lead to a run on it by depositors leading to its becoming bankrupt. Other banks that had lent it money could also become bankrupt. A general banking crisis could arise in which many depositors would lose their savings and the banking crisis would lead to a recession. The job of a central bank or the major bank of the time would be to prevent a banking collapse by lending generously to banks in difficulty.

The frequent bank failures and crises resulted in restrictions being first placed in England on bank issue by the Bank Act of 1844. Finally, in 1921 the Bank of England was given the monopoly of note issue. In the US, the Federal Reserve has had a monopoly of note issue since its establishment in 1913. In India, the Reserve Bank of India governed and regulated note issue.

But taking away the power of note issue does not prevent bank failures. Many banks failed in the US and in the UK during the 2008

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financial crisis. The failures in England were the first major ones since 1878. To prevent panic withdrawals by depositors, deposit insurance was introduced. Deposit insurance was provided by Italian merchants as early as the 14th century.

But in its modern form it grew after the banking failures during the 1933 crisis. In India deposit insurance was introduced on 1 January 1962. Deposit insurance is essentially for small depositors. For instance, deposit insurance when it was first introduced in India was only upto Rs. 1500. It has been periodically raised to Rs 5000 from Jan. 68 to Rs 10,000 from April 1970 to Rs. 20,000 from January 1976, Rs. 30,000 from May 1993, Rs. 100,000, from July 1980 and Rs. 50,000 from February 2020. It is believed that larger depositors would have both the incentive and capability to monitor the performance of their deposit bank and so withdraw their deposits if the creditworthiness of the bank became questionable.

CCs represent the re-emergence of private moneys.[1] They have the potential to create the same sort of problems as the banking systems in earlier times.[2] As yet such problems have not cropped up as they do not have many small depositors whose loss of deposits would create major economic and political problems. For instance, a bitcoin is currently worth about Rs. 7 lakhs, greater than the insurance cover provided to deposits in banks. But as CCs grow these issues may have to be tackled. But a problem still exists. Since people of different countries could hold deposits the questions that arise are who would have regulatory and supervisory role and in what currency would they be insured. The former questions also arose in the context of branches of multinational banks. Ambiguities regarding which country would supervise and regulate a bank branch;country where the bank was chartered or the country where the branch was located, created significant gaps in regulation which were exposed during the 2008 crisis. It would also be important to specify the currency or currencies that would be used to provide the insured amounts. The country whose currency would be used for such repayment would naturally like to have regulatory powers over the CC, as otherwise it would have an indeterminate liability.

Furthermore, since the value of CCs can vary considerably such deposits should be considered more as investments than as currencies to facilitate exchange. The usual mean variance approach to investments would apply to deposits in CCs.

## Capital flows

A major problem that developing economies face is substantial unrecorded capital flows from their own financial systems to those in developed countries.[3] This makes macro management difficult and it also means that there are inadequate resources for investment. Considerable efforts have been spent on making such transfers difficult and some restrictions have been placed on the operations of tax havens. But since very often the accounting of CCs is very opaque as it is often encrypted, the problem of unrecorded capital transfers will become more severe. Developing countries will be hurt by the development of CCs. Just as steps have been undertaken to prevent money laundering through banking systems, regulations would be needed to prevent money laundering through the system of CCs.

CCs may create additional stabilisation problems. Residents may convert their holdings of local currency into a foreign currency acceptable to purchase a CC and if done at a large enough scale could generate a foreign exchange crisis. Such a crisis has not yet occurred and we believe that it may be unlikely. But central banks may have to be wary about another source of instability.

The Financial Stability Board is currently examining the regulations that should apply to CCs. The Board is conducting this work on behalf of the G20. It recently published a paper for consultation embodying 10 recommendations for meeting the regulation, supervision and oversight challenges raised by CCs. G20 members concluded in their last report on digital currencies that cryptocurrency can increase the efficiency and transparency of the global financial system, and so their growth should not be limited. Speculation arose as to which G20 central bank would be the first to issue a CC.

[1] Martin Šuster New and Better Money, discussed the advantages of digital currecnies in his presentation at a webinar on digital currencies held at Research and Information Systems for Developing Countries, New Delhi on May 7, 2020.

[2] For a discussion of the regulatory issues see the presentation by Srinivas Yanamandra 'Digital Currencies & Regulatory Frameworks' at a webinar on digital currencies held at RIS, New Delhi on 7 May 2020.

[3] For a recent discussion of illegal capital flight from Africa see Payce Madden (2020) New Trends in Illegal Financial Flows from Africa, Brookings, accessed from https://www.brookings.edu/blog/africa-in-focus/2020/03/02/new-trends-in-illicit-financial-flows-from-africa/ accessed on May 11, 2020. For an earlier discussion see Raymond Baker (1999) The Greatest Loophole in the Free Market System, Brookings, Washington D.C.

## Chinese digital currency

The suspense over which central bank would introduce a CC is over with the Central Bank of China doing so. But questions arise about the motivation of the Chinese authorities.

It is no secret that the Chinese authorities seek a larger role for their currency. Their currency is now one of the currencies in the basket of currencies used to value the Special Drawing Right (SDR) issued by the IMF. The Chinese government is increasingly using its currency in its international trade transactions. Whether the Chinese currency can replace the US dollar has been debated for some time now. There are obvious advantages of having one's currency as an international currency, what de Gaulle called the 'exorbitant privilege'. This privilege could be seen once again in the current pandemic. The US has been able to outbid other countries in cornering scarce international supply of equipment needed to deal with the coronavirus. Other countries' ability to pay for the supplies was limited by their stocks of internationally acceptable currencies but the US could pay by just issuing dollar liabilities. However, the US has to pay interest on these liabilities. But studies have found these servicing costs are low. The US balance of payments (BOP) benefits from issuing short-term liabilities to finance purchase of long-term asset; this is what had aroused French disquiet in the 1960s. Such intermediation leads to a net earning on account of investments.

This ability of an international currency creates difficulties in interpreting the US BOP. Such a maturity swap, as mentioned above, would lead to a deficit in the US BOP as conventionally measured, though its international indebtedness has not changed. As was mentioned by Kindleberger,[4] the US was performing the same function as any commercial bank. The bank turns short term liabilities of deposits into long term assets by making loans and earns a profit from this. Given the surplus of Chinese savings the Chinese would be in a position to provide long term investment capital.

However, what is not so well recognised are the disadvantages of being an international currency. One loses control of one's BOP. If countries want to increase their holdings of US dollars, the US cannot prevent them from doing so. Providing such dollars means that the US has to run a deficit. If the US follows a restrictive monetary policy, that draws in dollars from the rest of the world (ROW), the ROW has to react to build up its dollar reserves. This was part of the controversy in the 1960s whether the US deficit is demand driven or supply driven. It was because they feared losing control of their BOP or currency that Germany and Japan resisted their currencies becoming international currencies. Running trade deficits would mean an end to their export driven growth process that had depended on running surpluses. The question is whether the Chinese authorities would want to lose control over the use of their currency.

Another important issue is whether introducing a CC would help in the internationalisation of the Chinese currency. Important criteria for an international currency are that the country run a BOP deficit as it is only this way that the supply of the currency increases to meet the increasing demand arising from growing world trade. It is also necessary that the country have thriving financial markets in which borrowers and lenders can freely transact. London was the leading financial market in the 19th and early 20th century when the pound sterling was the international currency. Later, New York became the leading financial centre even before the dollar became an international currency. While Chinese savings are considerable the size of the Chinese market is very small. It cannot support large transactions. The first step to enable this would be to free transactions in the market. Of course, once a currency becomes an international currency it is not usually possible to restrict its use. Attempts in the 1960s to restrict capital outflows from the US in order to reduce the deficit in the US BOP resulted in the development of the Eurodollar market. This was the market for buying and selling dollars outside the US. For instance, a UK exporter who had exported goods to the US would deposit the dollars into an account of a UK bank which could then lend the dollars to a German businessman who might buy French goods and transfer the dollars. This was in contrast to the normal course where the dollars would be sold for sterling by the UK exporter to the Bank of

[4] See Charles Kindleberger (1965) Balance-of-Payments deficits and the International market for Liquidity, Princeton Essay in International Finance, No. 46, Princeton.

England. Once the Chinese currency became an international currency any attempts to restrict its use would tend to be circumvented. We can see how difficult it is to implement restrictions by the difficulty of implementing unilateral US sanctions against Cuba or Iran or Russia.

Since the Chinese authorities must be aware that floating of a CC is neither necessary nor sufficient to assist in the internationalisation of the Chinese currency, its main aim seems to be the stated objective to encourage people to shift from using paper currency to using digital means of payment as this reduces costs. Reduced costs may make the economy more efficient. Also since the accounts will be kept at the central bank it is not clear whether the central bank can track all financial transactions. While this may help in preventing illegal transactions and prevent money laundering it is not clear what effect this may have on the internationalisation of the currency.

## India and digital payments

The number and value of digital transactions has been increasing rapidly in India from Rs. 181.6 crore in 2014-15 to Rs. 921.7 crore in 2017-18. However, it must be remembered that the amount of cash in circulation has also been increasing. Furthermore, the availability of broadband services is still quite limited in India. Even the use of banking services is limited. It is not clear how far the government's initiatives have resulted in the spread of banking habits.

The RBI has concurred with the judgement of most economists who consider cryptocurrencies as a poor unit of account. Their frequent and large fluctuations in value make them particularly unsuitable for risk averse savers. Indian savers exhibit a high degree of risk aversion.

The RBI is also well aware of several risks that a digital currency may pose, including anti-money laundering and terrorism financing concerns for the government. Also, as noted above, a digital currency could pose liquidity problems and value risks for users. The RBI had banned financial institutions from enabling transactions in digital currencies. But Supreme Court overturned the ban.

## Conclusions

The development of cryptocurrencies means a revival of private moneys. This implies also the possible occurrence of financial crises and losses to private depositors. A proper regulatory and supervisory system needs to be established. However, all aspects of the regulation of banking system need not be replicated. Deposit insurance may not be needed if only high wealth individuals operate in the market. Implications of CCs for the efficacy of monetary policy and the channels of transmission need to be analysed. Developing countries have to be alert about the implications of CCs for illegal wealth transfers. The recent issue of a CC by the Bank of China is the first instance of a central bank issuing a CC. It seems less aimed at enhancing the international role of Chinese currency than a broader attempt to move to digital systems that will enable the authorities to reduce the costs of transactions and, perhaps, to better track financial transactions. The RBI has been advisedly reluctant to authorise Indian financial institutions to undertake transactions in digital currencies as it believes this has the potential to make illegal transactions easier and to provide a risky asset that could be destabilising. It might be unwise to move to digital currencies when even the use of banking services in India is quite limited.

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