

THE SOVEREIGNTY OF MONEY  
AND ITS HISTORICAL  
TRANSFORMATIONS: THE INVENTION  
OF CENTRAL BANK DIGITAL MONEY  
IN THE 21<sup>ST</sup> CENTURY  
AND ITS GEOPOLITICAL  
CONSEQUENCES

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*“It is in money that the modern  
spirit finds its most perfect expression.”*

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*Georg Simmel*

**M**oney: a public and political asset by definition? Is this the right way to address the question of the future of money? If money has a future, it is because it has a history that allows us to perceive what the sovereignty of money is. It is also a daily experience. We feel that to be deprived of it, is to be denied our dignity, that money is a fundamental social link.

Determining the nature of money requires a multidisciplinary approach, in which history must play a leading role, but also politics, law, sociology, and economics. Thinking about money means trying to understand the complexity of the payment system. This multidisciplinary approach is all the more necessary as we are living in the first decades of the 21<sup>st</sup> century, under the advent of the digital era which has already caused an upheaval in payment systems and which promises even more considerable innovations, with a major geopolitical impact. It is nothing less than the transition from a hierarchical international

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monetary system under the hegemonic preponderance of a key currency, in this case the U.S. dollar, to a multilateral system with institutionalised cooperation. Such a transformation is crucial to address the existential threat of the global climate and ecological challenge. The challenge is therefore money for political ecology.

We will therefore proceed with a three-part presentation. In the first section, we need to convey what monetary sovereignty is. We will then examine the arcane invention of the 21<sup>st</sup> century's radical monetary innovation: central bank digital money (CBDM). In the last section, we will address the major geopolitical question of this decade in the field of money: restructuring the international monetary system into a multilateral system of institutionalised cooperation.

### *MONEY IS SOVEREIGN*

Money, as an attribute of sovereignty, has its roots in history with the creation of the State. This occurred in Mesopotamia over five thousand years ago with the creation of the Sumerian Empire. Of course, money existed in the Neolithic age, but it represented the greatness of people in rituals that regulated gift-giving relationships and celebrated the founding myths of communities.

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It was population movements that established the city between the Tigris and Euphrates Rivers. The result was a shift away from the sacred aspect and the emergence of the Empire, i.e. a public power central to the community. It is the institution of politics that makes sovereignty a separate authority, dominating society, but recapturing it in its logic of abstraction: delimiting space (us and others), defending borders, putting standards of measurement into place, identifying subjects, counting objects on the basis of an instituted unit of account. The logic of equivalence and counting is inherent in politics. Two ways of expressing this formal logic appeared together, writing and money. These two logical instruments are within the realm of language, i.e. that gives meaning to others. Money is the language of numbers called value. Every language has a grammar, i.e. a system of rules. The grammar of value, shaped by money, is the payment system.

In contemporary societies, political and monetary considerations share the same objective of social cohesion: the adherence of citizens to the law for the former, the acceptance of monetary rules in exchanges for the latter. Therefore, the two institutions carrying the authority of public power, the State and the central bank, are placed under a single principle of sovereignty: the constitutional order. It follows that the links between the State and the central bank are organic, while guaranteeing the legal independence of the central bank within the govern-

ment. The Euro is no exception. It was created by international treaty, approved, and constitutionalised by the Parliaments of Member countries. It nevertheless adds an international dimension, enshrined in European law recognised by the Member states, which gives the European Central Bank (ECB) its legitimacy.

We can then state more fundamentally the nature of the social link called “payment”, which is the implementation of the language of number called “value”. It is the designation of the official, i.e. legally recognised, unit of account on which the social link called “payment” depends. This is what society, in the dimension of economic relations (all the owners of money), gives back to each of us in consideration of what it deems we have brought to it through our activity. When the payment is final, society has done justice to the joint performance of the activities and a value has been socially recognised.

But the money transferred between two exchangers is only directly a final payment if it transfers the means of payment issued by the central bank. In the case of a cheque or bank credit card, the transfer is not validated by society. For it to become a recognised value by society, it must be part of the settlement clearing procedure for all daily payments, made on the books of the central bank. Through the payment system, money is the foundation of value, which is relational, not substantial. Through the process leading to the finality of payments, money makes society. It follows that the evolution of payment systems is part of the transformation of societies in two interacting forms of change, political change and the evolution of payment technology.

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### *THE RADICAL MONETARY INNOVATION OF THE 21<sup>ST</sup> CENTURY: CBDM*

At the beginning of the 21<sup>st</sup> century, the first generation of digital age innovations was characterised by the opening up of payment systems, previously closed and tiered within the banking system, to non-bank providers of unregulated payment services. These open payment networks are attractive because they promise access to payment systems for millions of unbanked people around the world. But the development of e-commerce, calling for the emergence of currencies dedicated to the online world, has given rise to the oligopolistic concentration of a capitalism of platforms, threatening to lead to the capture of payment systems by unregulated private monopolies, the Bigtechs.

Because payment systems are networks with dynamics driven by scale and scope effects, competition from private payments systems can only lead to massive liquidity shifts, leading to the collapse of systems unable to reach the minimum critical size to the point of concerted

oligopoly or monopoly. In any case, this would lead to the destruction of monetary sovereignty. A crucial dimension of the social link would shift to the domination of private interests. Facebook for example has 2.5 billion users.

The exploitation of private personal data has become a source of revenue through consumer behaviour monitoring. Control over money is the ultimate lever for extracting information, thanks to access to transactional data. It signals a worrying drift where payment systems would come under the control of private players outside any legally recognised regulation. Such a development is the source of gigantic revenue accumulated by Bigtechs, the economic, political, and societal stakes of which, are extremely high.

*The challenge of Bigtechs' takeover of payment systems:  
capturing data and shaping consumer behaviour*

In the initial LIBRA project and its subsequent variations, technological innovations are combined with a certain ideology. This project is part of the invention of *stablecoins*, which are payment systems pegged to one or more legal tender currencies. LIBRA was to be defined by its own unit of account, i.e. a basket of official currencies of its own choice, to establish a universal currency. According to Facebook's manifesto, this unit of account was to be backed by a pool of "real assets", consisting in a basket of bank deposits and short-term government securities, held on a one-for-one basis for each LIBRA unit issued.

According to the launch manifesto, LIBRA was to be a non-profit organisation based in Geneva. Its role was to ensure the governance of the system. Its members were to be the chosen nodes of the network allowing the validation of payments, so the LIBRA blockchain was a permissioned blockchain.

The idea was to create a global currency that was entirely private and convertible into any national currency. In short, Facebook wanted to solve, with LIBRA, the problem of the incompleteness of international currency under the leadership of a private monopoly. The non-profit organisation managing the reserve had to be prepared to buy any LIBRA unit presented for conversion at a price equal to the value of the basket.

Not surprisingly, such a claim was met with an outcry from political and monetary authorities, as well as financial regulators in the United States and Europe, who were convinced of the unsustainability of the project and the threat it posed to monetary sovereignty. Facebook thus had to drastically reduce its ambitions. The group had to come to terms with the creation of a digital currency pegged to the dollar, called Diem.

Following the Facebook avatars, the way was open for the fundamental innovation of the digital economy, directly expressing the permanent nature of monetary sovereignty: CBDM.

*The challenge of central bank digital money  
in digital payment systems*

With the possibility of issuing CBDCs (central bank digital currencies), central banks are about to create a “monetary anchor” for the digitalisation of the economy (Panetta, 2021). Eventually, they will thus respond to the digitalisation of the economy and the central role of data and its valuation in the economy, which is fully expressed in the monetary system. In doing so, as the BIS (Bank of International Settlements) points out, they are providing themselves with the means to improve the current payment system (BIS, 2021b), starting with ensuring its integrity, but also the inclusiveness and efficiency of payments, and the protection of competition.

The IMF has highlighted the main characteristics of CBDM in the digital currency universe. A distinction must be made between wholesale CBDM, which is reserved for transactions between financial institutions, and retail CBDM, which can be used by all agents.

Wholesale CBDM would drastically reduce the costs of securities transactions, which involve many players for the validity and security of the exchanges which requires lengthy timeframes. Furthermore, the money that is exchanged is not guaranteed by the central bank. Wholesale CBDM would remove this issue, provided that digital money is issued on a permissioned blockchain that would record the flows of securities and money by cutting out many intermediaries, since verification and security protocols are contained within the computer codes.

Retail CBDM is a legal tender for domestic use. It ensures equal access to means of payment for citizens. It includes two features:

- transferable tokens in payments (digital cash) that consumers can store in digital wallets. This payment method benefits from instant settlement of payments and if required, full anonymity;
  - accounts with payments by transfers to and from the central bank.
- This method can lead to disintermediation risks for commercial banks that rise in times of financial stress. But, at the same time, if CBDM improves financial inclusion and, if it eliminates traditional cash altogether, it can strengthen the transmission of monetary policy by eliminating the zero-interest rate barrier in downward business cycles, thus providing a new instrument for monetary policy.

CBDM could counter the domination of private monopolies over payment systems, if cash were to disappear. But then two conditions

would have to be met. Firstly, consumer data should be protected; secondly, Bigtechs should also be subject to regulation, to avoid unfair competition with banks, but also to preserve monetary sovereignty.

What are the consequences for banks, financial stability and monetary policy?

Overall, the economic consequences of CBDCs can be grouped into three main themes: the effects of their issuance on banks (especially lending), their implications for financial stability, and their use as a new tool for monetary policy. BIS (2021b) provides a comprehensive review of the relevant literature on this topic.

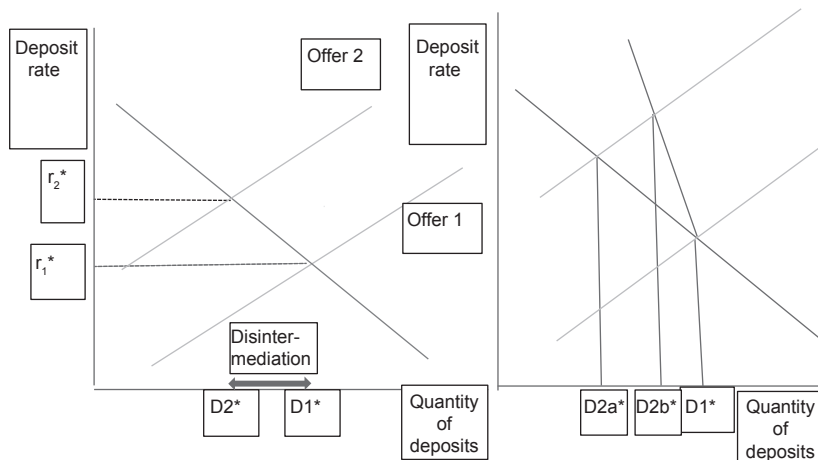
The issuance of interest-bearing CBDMs is an alternative to deposits in commercial banks. As deposit rates compete directly with the CBDM rate, a large replacement of bank deposits would make the transmission of monetary policy through interest rates more direct.

However, this change in the structure of the payment system may force commercial banks to increase their credit spreads to preserve their profitability, as they would have to seek funds on the wholesale markets and offer term deposits to limit the reduction in the size of their balance sheets resulting from the loss of their demand deposits (see Figure below). But this constraint on banks can cause a risk of financial instability through the rush to the central bank in case of mimetic behaviour of depositors. This risk would be increased in a situation of financial vulnerability that could lead to a systemic crisis.

Figure (below) describes the scenario of disintermediation in normal times, up to a limit that depends on the banks' strategy to restructure their balance sheets. The second is the risk of massive outflows in times of financial stress which would in the realm of a liquidity crisis hitting banks. Deposit insurance remains the best method to contain it. It can be complemented by regulation to ensure the continued robustness of bank balance sheets. Indeed, banks may feel their model is under threat and oppose the attractiveness of CBDMs to maintain the stability of their resources. They may have an interest in CBDMs not being interest-bearing. They may also seek to have CBDM deposits registered in bank accounts, legitimised by their expertise in providing credit.

In contrast, there is a radical solution which is to get out of fractional-reserve banking, this would represent a complete mutation of the payment system for the 21<sup>st</sup> century. Commercial banks would turn into mutual funds with liabilities consisting of more equity and bond debt instead of deposits (right hand side of Figure below). Only narrow banks, i.e. with assets consisting entirely of safe government securities would continue to issue money.

**Figure**  
**Impact of Disintermediation Due to CBDM**  
**on Interest Rates of Banks' Liabilities**



(1) Without CBDM. (2) With CBDM.

Source: authors.

*RESTRUCTURING THE INTERNATIONAL MONETARY  
 SYSTEM TOWARDS A MULTILATERAL SYSTEM  
 OF INSTITUTIONALISED COOPERATION*

The digitalisation of money represents a huge opportunity to reform the international monetary system. The international benefits of CBDC adoption by sovereign money issuers have been highlighted by, among others, the IMF (Adrian, 2021). But more generally, there is a concern that if the CBDM intensifies cross-border retail payment services, there will be increased currency substitution for tax evasion, leading to exchange rate volatility at the expense of financial stability. But these risks are part of the key currency system. The reason for this is the Triffin dilemma inherent in the key currency: the supply of dollars depends only on domestic US economic policy objectives; they have no reason to match the global need for dollar liquidity. Currency and related financial crises are recurrent and mostly concentrated in emerging and developing countries that do not benefit from expedients (convertible currency swaps) to mitigate these crises.

Can CBDMs, based on digital identities and operationalised as interest-bearing accounts, eliminate these risks? In its *Annual Report 2021* (Chapter 3), the BIS notes that CBDM has very different attributes from traditional central bank liquidity. Indeed, central banks retain cross-border control over the money they issue. They may

restrict non-residents' access to their money for authorised transactions. This reduces the risk of volatile capital flows and thus erratic currency substitutions.

However, international monetary cooperation is essential for the organisation of multi-currency trade. This is because digital identities must be transferred outside the countries issuing the CBDMs. How would this be possible if the regulations protecting data are different? An international agreement to share digital identities is essential to add an international dimension into the organisation of a CBDM system. This is because participating monetary sovereigns must be able to recognise each other's digital identities.

Mark Carney followed this thought process. In a notable speech at the Fed's Jackson Hole symposium in August 2019, he alluded to a new form synthetic global currency that he calls "hegemonic", based on a basket of central bank digital currencies, implemented through a network of these central banks.

Such a global synthetic currency would significantly reduce the influence of the US dollar on international payments. Through the diversity of participating CBDMs it would reduce exchange rate fluctuations for the large number of countries without currencies participating in the basket. By reducing the influence of the US over the global financial cycle, this system would reduce the volatility of capital flows experienced by emerging and developing countries. The currencies in the basket would become components of a global safe asset, encouraging emerging countries to diversify into safe assets beyond the dollar.

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### *The promotion of SDRs in a symmetrical IMS*

The alternative and more compatible solution to the need for a universal monetary level to address environmental issues is the promotion of special drawing rights (SDRs). This is because SDRs form ultimate liquidity that is not the *quid pro quo* of a country's debt. The promotion of SDRs is 'natural' and with it the restoration of the monetary role of the IMF, which was captured by the US Treasury at the beginning of Bretton Woods and continued after its demise as a key currency with degenerate hegemony, the consequence of which has been financial instability.

The symmetry of balance of payments adjustments, which Marc Carney seeks in his synthetic basket of CBDMs, would be more simply achieved by the issuance of digital SDRs, into which all major currencies would be convertible, and which would be a fiat currency with flexible supply.



There is no technical obstacle to making SDRs the reserve assets of a symmetrical multi-currency IMS because SDRs are an international standard by construction. To make SDRs the ultimate global reserve assets, countercyclical allocations would be needed. The transfer of SDRs should become the sole financing mechanism of the Fund.

Apart from flexible counter-cyclical adjustments to regulate the global economy, which the IMF would steer under the guidance of its Executive Board, there would be another role to perform. That of international lender of last resort. Only a multilateral and self-financed lender-of-last-resort mechanism by the IMF through an *ex-nihilo* creation of SDRs can be effective. It would put the IMF as international lender of last resort in the same position as central banks as national lenders of last resort.

This seemingly radical reform can be established gradually by building on what already exists. By its very definition, SDRs distribute the international constraint more equitably by spreading the “exorbitant privilege” of the issuer over all the currencies in the basket. This argues for a gradual reform of quotas, to correct the undue advantage of Western countries. The more the basket reflects the composition of world GDP, the less the Triffin dilemma will destabilise international liquidity.

The IMF can do much to promote SDRs by placing its entire accounting on a SDR basis; this amounts to blending the Fund’s general resources account and the SDR department account; this would make the SDR the official international unit of account for all international public contracts.

Finally, poor countries urgently need currency to cover vital imports and necessary expenditures on key political and economic priorities. However, a general allocation, even a large one, is not adequate if it is distributed according to quotas. To address the emergency, unused SDRs of advanced countries could be deposited in a dedicated Fund by collective decision of the G20 to buy bonds issued by multilateral development banks. The latter would finance priority investments in developing countries in accordance with a global human ethics purpose.

The IMF still must become this international lender of last resort. By establishing monetary multilateralism, the IMF would become the source of collective insurance that its Articles of Agreement had given it and which it had never been able to exercise.

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