



Task Force 9  
**International Finance**

**Policy brief**

# THE EMERGENCE OF NEW MONIES AND THE NEED TO PREPARE THE FINANCIAL SYSTEM FOR THE DIGITAL AGE

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# ABSTRACT

Digitalisation is a revolution in the world of money and payments. Technological and social transformations are disrupting the status quo. Central Banks have to ensure their money remains relevant, and the financial system has to keep pace with progress. We urge the G20 to lead the process of integrating innovations and ensure the approach accounts for economic and social dimensions while relying on technical expertise. We favour taking full advantage of change and innovation as long as financial stability risks are addressed. Strong international cooperation is advised given the threat of increased currency competition. Finally, there is the need for thorough analysis and shared empirical research.



# CHALLENGE

Digitalisation is a Copernican revolution looming in the world of money (and finance). The dominant two-tier system – a “hub and spoke” design with the Central Bank at the centre and private commercial banks (and other related intermediaries) as connected satellites – faces competition from technological and social change. Its long-established division of labour – with the Central Bank’s monopoly of base money issuance and private banks in charge of broad money and credit creation – is no longer an unassailable bastion. Other architectures are feasible now if not desirable. Decentralised “peer to peer” networks or centralised digital platforms have emerged as potential alternative paradigms. Competition is to sharpen as innovation is ripe, eager for experimentation and improvement.

New monies and payment systems are growing rapidly worldwide. A palette of designs, led by private sector issuers, already has significant commercial success. It ranges from pre-funded wallets to cryptocurrencies, with fixed or variable value redemptions, account-based or token-based, non-interest or interest yielding, ability to perform online and offline transactions, and distinct degrees of anonymity and traceability. These designs cater to diverse demands from both Advanced and Emerging Economies, including those of the financially underserved and unbanked. Yet, they come with perils such as market abuse, security breaches, illicit activity financing and mismanagement, and business failure. The Mt. Gox<sup>1</sup> bitcoin exchange liquidation (2014), the Silk Road<sup>2</sup> and the Dark Web scandal (2013), and the Wirecard<sup>3</sup> fallout (2020) reveal that those risks, if unchecked, could cause severe damage.

In June 2019, the Libra Project (now renamed Diem) propelled by Facebook showed that global digital platforms might develop currencies and built-in payment systems as a natural extension of their businesses. Such platforms are bigger, hold more accounts, and grow quicker than SIFIs (Systemically Important Financial Institutions). Their giant user base might favour large-scale adoption. Further expansion could derive from their overriding market power, privileged access to data, and cross-subsidisation of activities within the conglomerates. They could offer a full array of financial services (credit, saving, wealth administration, insurance, etc.), disrupting the conventional channels. They currently benefit from light taxation, regulation, and oversight.

Initially dismissive, central banks are no longer disdainful of potential competition. Almost all of them are improving their payment systems; many are assessing issuing digital currencies (CBDCs). They have to ensure that public money is preserved, at least, as a relevant unit of account. China, a pioneer, leads with the pilot of its DCEP project launched regionally in April 2020. In October 2020, the Central Bank of The Bahamas brought the first CBDC. By 2024, the Bank for International Settlements (BIS) estimates that CBDCs will be outstanding in countries with 20% of the global population. As society goes digital, central banks need to make sure their currencies are fit for the future. The same is true for almost every aspect of the financial system: legacy banks, infrastructure, regulation, and financial and monetary policies. Financial stability must be their principal concern.



# PROPOSAL

## KEY ASPECTS TO CONSIDER:

**“Everyone can create money; the problem is to get it accepted” (Minsky 1986).** Globally, conventional cash usage is declining.<sup>4</sup> In countries such as Sweden and Norway, it is a well-entrenched process. In others, it is a slow-motion trend. Though a “cashless” society is not a foregone conclusion, digital retail payments are on the rise everywhere, courtesy of the boom of the internet, e-commerce, mobile communications, and social networks.<sup>5</sup> Digital money is natural in a digital world.

**Cryptocurrencies are not true currencies. “(Bitcoin is) not really useful as a store of value (...) It’s more of a speculative asset that’s essentially a substitute for gold rather than for the dollar” (Powell 2021).** Bitcoin is “a purely peer-to-peer version of electronic cash”. Its market capitalisation has grown to surpass US\$1 billion.<sup>6</sup> But it fluctuates wildly.<sup>7</sup> Stablecoins, cryptocurrencies designed to preserve a stable value relative to another asset (typically a unit of currency), are better suited for exchange. One of them, Tether, is the most traded cryptocurrency.<sup>8</sup> Ironically, 99% of the transactions of decentralised cryptocurrencies are done in centralised exchanges.<sup>9</sup>

**Global stablecoins might become global currencies.** Giant platforms like Amazon, Google, Alibaba, or Facebook could develop their own digital currencies, tie them to the multiple data, trade, and social services they provide and achieve massive customer adoption. Networks might create non-compatible protocols or impose “exit costs” to make switching to other platforms difficult or expensive. Interoperability among platforms would be needed to avoid digital fragmentation.

**Facebook’s announcement of the Libra Project in June 2019 made the threat credible. On 1 July, Cartens said: Central Banks may issue digital currencies “sooner than we think”.** Libra never flew.

**Financial stability risks are a major concern. “We do not want to destabilize the two-tier (monetary) system” (Powell 2021).** Typically, domestic payments are settled through accounts provided to commercial banks and other payment system providers. In this sense, money is an instance of a public-private partnership (Carstens, 2021). Though this model will accommodate further innovations, it is no longer the exclusive layout. Eventually, it might not be the public’s undisputed choice. Global stablecoins, currency tokens, and new fintech advances might provide alternative payment solutions, disintermediate banks and unsettle the status quo.

**Data is the most valuable asset.** 7 of the 8 top global public listed corporations are data-based platforms.<sup>10</sup> One platform can seize control of a colossal range of data with staggering market



power. Big Tech might become the gatekeepers of the entire economy, with concerning implications for privacy, competition, and inclusion. In China, President Xi Jinping (2021) stated that regulators need to “fill in gaps and loopholes in rules” and should create a “data property rights system” to tackle concentrated power by firms such as Alibaba and Tencent.

**“We need to make sure that our currency is fit for the future. Inaction is not an option” (Panetta 2020). Central Banks face a systematic and multidimensional challenge. And fitness is a moving target due to the dynamics of change.** The challenge stands for almost every aspect of the financial system – legacy banks, infrastructure, regulation, and financial and monetary policies – as digitalisation modifies payments, the economy, and society. Authorities want to retain control over the payment system and the financial sector and assert the allure of national currencies (digital money might come with new features such as programmability). In the short run, they have a choice between building a more sophisticated technological infrastructure and crafting more complex regulations. But with a longer time horizon, a solely defensive approach will backfire as people’s needs and tastes change. The Central Bank’s duty is to give them access to the monetary services they prefer in a stable environment.

**CBDCs could become a valuable addition to the Central Bank toolbox (Siaba Serrate 2021).** They might lower transaction costs, expedite domestic and cross-border payments, increase financial inclusion, improve the effectiveness of the monetary policy, facilitate direct fiscal transfers, and advance innovation. However, no single design delivers all those benefits altogether. Many could be provided by alternative means of payments, such as real-time gross settlement systems (RGTS), especially if they are enhanced with application programming interfaces (API) functionality.

**CBDCs are a contingency plan. “We are not in the mood of trying to make a decision (on CBDC) yet” (Powell 2021). “Central banks share the view that it is not an appropriate policy response to start considering CBDC only when the need to issue CBDC arises in the future” (Kuroda 2021).** Central banks might want to get their own digital tools ready as a policy call option. To be premature is a mistake authorities can afford, but they do not want to be wrong and late.

## ***A SPECIFIC PROPOSAL:***

We urge the G20 leaders to:

1. Develop a comprehensive vision of the future of money and payments and continuous monitoring;
2. Integrate that vision into an agenda to guide a resilient financial system in a prudent transition towards the digital age;
3. Encourage the broadest possible international cooperation;
4. Give impulse to a Global Digital Governance Compact for a responsible and inclusive digital economy; within this Compact, develop a Financial Chapter and calibrate the financial Agenda accordingly;



5. Continue execution of the G20 Roadmap for Cross-Border Transactions;
6. Continue supporting the Global Partnership for Financial Inclusion and implementing its G20 Financial Inclusion Action Plan.<sup>11</sup>

We recommend the setup of a **Digital Money & Finance Working Group (DMF-WG)** to (a) perform the analysis of new digital instruments and procedures, (b) propose the framework(s) for their incorporation to improve the financial architecture and society's welfare, and (c) monitor of implementation.

The DMF-WG must evaluate:

- the safety, efficiency, and integrity of payment systems;
- legal entity and governance of new instruments and procedures;
- market integrity and competition;
- cybersecurity and operational resilience;
- consumer and investor protection;
- data privacy, protection, and portability;
- environmental and social impact and governance (ESG);
- tax compliance; and
- compliance with rules against illicit finance.

Based on the foundation of granular assessment, recommendations have to encompass a systemic vision for financial stability and be flexible to accommodate national values and priorities.

This vision should be set under the umbrella of the Financial Stability Board (FSB). The IMF, the World Bank, and the BIS (with the Committees of Payments and Market Infrastructure and on the Global Financial System and its Central Bank Governance Group) should be members. Active consultation with the International Standard-Setting Bodies is advised and engaging the private sector is essential due to its key role, especially in digital retail activities. It should extend work that these actors have already started as a continuous collective task.

## ***GUIDELINES FOR A TO DO LIST:***

### **VISION AND AGENDA (Siaba Serrate et al. 2020)**

It should assess vulnerabilities and potential benefits of different money and payment system designs; allow multiple payment alternatives to make the financial system more resilient and competitive with faster payments and broader access.

Systemic risk must remain a priority. Making functionality not exclusively dependent on the banking system and levelling the playing field could help mitigate it. Regulation and oversight should apply to all involved players and activities, addressing the huge Artificial Intelligence challenge and dominant positions that concentrate risk.<sup>12</sup>



CBDCs might be needed to ensure universal access to public money and the effectiveness of financial and monetary policies. Its implementation should not give the public sector additional leverage in the economy. It should consider the perils of privacy issues and data abuse risks and encourage public-private partnerships to provide competitive services like open payment bridges (such as India's Unified Payments Interface) and programming.<sup>13</sup>

Embrace the BIS's principles (2020) for CBDCs: 1) do no harm, 2) ensure coexistence, and 3) foster innovation.

Topics including architecture and access, data utilisation and sharing, trust-building, identification and privacy, operational and cyber-resilience, law and tax enforcement require an ongoing evaluation process.

## COOPERATION

The threat of international currency competition favours close international cooperation, but decisions will be rooted in national interests. Cooperation should dissuade a race to implement pre-emptive second-best solutions. The Agenda already reveals a strong defensive bias (preserving monetary sovereignty, avoiding digital "dollarisation", evading financial sanctions). Coordination should select the choices promising the best collective outcomes.<sup>14</sup>

While G7 central banks are cooperating on CBDCs, China has pioneered a carefully crafted independent path. It is feasible to harmonise experiences. China's CBDC is a digital version of conventional cash that strengthens the two-tier system. It will provide banks with a digital tool they lack to compete with digital platforms. China is also tightening its fintech and Big Tech regulation to bring them onto a level playing field with banks.<sup>15</sup> Its participation in the m-CBDC Bridge initiative and a joint venture with SWIFT explores the integration of its CBDC with the international infrastructure.<sup>16</sup>

Cooperation between Advanced and Emerging Economies must gain broader scope and participation. In fields such as e-money and digital payments innovations, non-G7 countries are leaders. There, competition between commercial banks and fintech is stiffer, a circumstance that will arise later in G7 countries. The first CBDC was launched in the Bahamas, not in the G7 (nor in the G20). We strongly support establishing BIS Innovation Hub nodes outside the leading financial centres in regions like Latin America and Africa that are busy with innovation.

## A GLOBAL DIGITAL GOVERNANCE COMPACT

Digitalisation is reshaping society without a consistent set of shared norms. We urge G20 leaders to create a Global Digital Governance Compact to establish principles, codes of conduct, standards, regulation, and policies across the many relevant domains to build trust and ensure it works for the greater good. Those areas would include – but not be limited to



– governance on data, platforms, infrastructure, competition, cyber-security, Artificial intelligence, Big Data, Internet of Things, Cloud computing, etc.

A Financial Chapter should tackle financial digitalisation (fintech, open banking, risk management, etc.). The current segmented regulatory and monitoring efforts are counterproductive in an environment where key players, such as large tech companies, operate across various financial and non-financial businesses requiring cooperation across different authorities and geographic jurisdictions.<sup>17</sup>

## **DIGITAL FINANCIAL INCLUSION**

Digitalisation has contributed significantly to enhance financial inclusion globally through digital financial services (payments, remittances, transfers, savings, credit, insurance, securities, and others).

Supporting the G20 Financial Inclusion Action Plan should remain a priority when designing the Agenda. Expanding financial integration via digital services is even more of a necessity in 2021: the COVID-19 pandemic and the resulting economic and social disruption have disproportionately impacted underserved and excluded households and enterprises.





# APPENDIX

## **KEY DECISIONS AND INITIATIVES RELATED TO THE TOPIC**

G20 Italy. The Prosperity priority.<sup>18</sup> The digital revolution represents a fundamental tool to achieve prosperity and better quality of life. The international community needs to make digitalisation an opportunity for all.

G20 Saudi Arabia. Finance Ministers and Central Bank Governors Meeting, February 2020.<sup>19</sup> Reiteration of the view that technological innovations can deliver significant benefits to the financial system while remaining vigilant to potential risks from financial innovations, including risks related to financial stability.

The FSB is developing the G20 cross-border payments roadmap.<sup>20</sup> For 2021, one of the first tasks will be to agree on overall quantitative targets for the improvements to payments in terms of speed and cost to ensure a clear overall direction.

The G7 maintains that no global stablecoin project should begin operation until it adequately addresses relevant legal, regulatory, and oversight requirements and adheres to applicable standards. It supports the work of the FSB, FATF, CPMI, and other standard-setting bodies to analyse the associated risks and determine appropriate policy responses.<sup>21</sup>

According to a 2021 BIS survey of 65 central banks, 86% were exploring the benefits and drawbacks of CBDC issuance for some forms of work, and about 60% were conducting experiments or a Proof-of-Concept.<sup>22</sup>

The BIS and the central banks of Canada, Europe, Great Britain, Japan, Sweden, Switzerland, and the US agreed on three common foundational principles to guide the examination of CBDCs.<sup>23</sup> They comprise not harming the central bank's mandate for monetary and financial stability, the coexistence with conventional cash (as long as there is sufficient public demand for it), and fostering innovation and efficiency. They also outlined certain core features covering the CBDC instrument, the underlying system, and the broader institutional framework in which they exist.

Programmable digital money. DeFi, or Decentralised Finance, runs on smart contracts and applications, mostly on the Ethereum blockchain, and replicates all the activities a financial system can do in a decentralised way: exchange, lending, derivatives, asset management, custody, insurance, identification, and so on.<sup>24</sup> Tokens (fungible, like ethers and bitcoins, and non-fungible) are used as an asset layer.

The BIS Innovation Hub, which aims to foster innovation and greater collaboration amongst the central bank community globally, does extensive work in CBDCs, Financial Market Infra-



structure, Cybersecurity, and open finance.<sup>25</sup> 63 central banks own the BIS. Central banks actively involved in current projects include Switzerland, Singapore, Hong Kong SAR, Thailand, United Arab Emirates, ECB, the New York FED, and the Digital Currency Institute of the Bank of the People of China.



# NOTES

<sup>1</sup> <https://www.bbc.com/news/technology-25233230>

<sup>2</sup> <https://www.newscientist.com/article/mg24933260-400-silk-road-review-the-true-story-of-the-dark-webs-illegal-drug-market/>

<sup>3</sup> <https://www.cnbc.com/2020/06/29/enron-of-germany-wirecard-scandal-casts-a-shadow-on-governance.html>

<sup>4</sup> <https://worldpaymentsreport.com/cash-usage-analysis/>

<sup>5</sup> In most countries, cash payments' share of total payments volume is declining. However, cash in circulation (CIC) remains stable or up slightly over the past five years. Globally, CIC has increased from 4% to 7% annually over the last five years, despite lawmakers' support of non-cash transactions. Notice this was before the Covid-19 Pandemic. World Payment Report, Capgemini Financial Services Analysis, 2019. <https://worldpaymentsreport.com/cash-usage-analysis/>

<sup>6</sup> As of 9 April 2021: Bitcoin market cap was USD 1.16 trillion (Total crypto market cap was US\$2.06 trillion) <https://coinmarketcap.com/>

<sup>7</sup> Other limitations are reduced throughput (7 transactions per second), astronomical energy consumption and lack of scalability.

<sup>8</sup> <https://www.bloomberg.com/news/articles/2019-10-01/tether-not-bitcoin-likely-the-worlds-most-used-cryptocurrency> <https://decrypt.co/50756/bitcoin-no-longer-worlds-most-used-cryptocurrency-tether> .

<sup>9</sup> Centralised cryptocurrency exchanges act as a third-party between a buyer and a seller. Since they are operated and controlled by a company, centralised exchanges offer more reliability. <https://corporatefinanceinstitute.com/resources/knowledge/other/cryptocurrency-exchanges/>

<sup>10</sup> In descending order of market capitalisation: Apple, Microsoft, Amazon, Alphabet, Facebook, Tencent and Alibaba. Oil company Saudi Aramco, which ranks second, is the exception in the top 8 ranking. Source: [companiesmarketcap.com](https://companiesmarketcap.com).

<sup>11</sup> The Global Partnership for Financial Inclusion (GPFI) is an inclusive platform for all G20 countries, interested non-G20 countries and relevant stakeholders to carry forward work on financial inclusion, including the implementation of the Financial Inclusion Action Plan, endorsed at the G20 Summit in Seoul. <https://www.gpfi.org/>



<sup>12</sup> Artificial intelligence comprises the theory and development of computer systems able to perform tasks that traditionally have required human intelligence.

<sup>13</sup> <https://www.npci.org.in/what-we-do/upi/product-overview>

<sup>14</sup> Lopez (2021) discusses why cooperation should support a framework requiring the transparency and the interoperability of CBDCs.

<sup>15</sup> Fintech is technology-enabled innovation in financial services. Big Tech is used to refer to the biggest technology companies.

<sup>16</sup> It will further explore the capabilities of distributed ledger technologies (DLT) by developing a proof-of-concept (PoC) prototype to support real-time cross-border foreign exchange payment-versus-payment transactions in multiple jurisdictions, operating 24/7.

<sup>17</sup> Lopez and Smith (2021) suggest three technical standards on data governance that should be considered when designing a monitoring framework that would accommodate financial stability and financial inclusion, among other issues.

<sup>18</sup> <https://www.g20.org/prosperity.html>

<sup>19</sup> <http://www.g20.utoronto.ca/2020/2020-g20-finance-0223.html>

<sup>20</sup> <https://www.fsb.org/work-of-the-fsb/financial-innovation-and-structural-change/cross-border-payments/>

<sup>21</sup> G7 Working Group on Stablecoins, Investigating the impact of global stablecoins, October 2019, Executive Summary, p. ii / iv, <https://www.bis.org/cpmi/publ/d187.htm>

<sup>22</sup> BIS, Ready, steady, go? – Results of the third BIS survey on central bank digital currency, BIS Papers No. 114, January 2021, <https://www.bis.org/publ/bppdf/bispap114.htm>

<sup>23</sup> The Bank of Canada et al, Central bank digital currencies: foundational principles and core features, Report No. 1, 2020 , <https://www.bis.org/publ/othp33.htm>

<sup>24</sup> <https://ethereum.org/en/defi/> <https://ethereum.org/en/defi/>

<sup>25</sup> <https://www.bis.org/about/bisih/about.htm>



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