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Who Will Emerge the Digital Money Winner: Stablecoins or Tokenised Deposits?

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The debate “Who Will Emerge the Digital Money Winner: Stablecoins or Tokenised Deposits?” was held at Point Zero Forum 2023 featuring ‘Team Banking:

- Umar Farooq, CEO, Onyx by JP Morgan;
- Nicolas de Skowronski, Head of Wealth Management Solutions, and Member of the Executive Boards, Bank Julius Baer & Co. Ltd; and
- Rene Michau, Global Head, Digital Assets, SCB

and ‘Team Crypto’:

- Dante Disparte, Chief Strategy Officer, Head of Global Policy, Circle;
- Richmond Teo, CEO Asia, Paxos; and
- Hon. Kathy Kraninger, Vice President of Regulatory Affairs, Solidus Labs, Inc

moderated by Jo Yeo, Head, Payments Development & Data Connectivity, Monetary Authority of Singapore.

The debate also included regulatory observers including:

- Adeline Bachellerie, Deputy Director of Innovation and Financial Market Infrastructures, Banque de France;
- Emma Butterworth, Head of FMI Innovation and Payments Policy, Bank of England;
- Ken Nagatsuka, Executive Director (Payments), Monetary Authority of Singapore;
- Nicolas Brügger, Deputy Head of Capital Markets & Infrastructure, State Secretariat for International Finance;
- Ryosuke Ushida, Chief Fintech Officer, Financial Services Agency, Japan; and
- Thammarak Moenjak, Senior Advisor, Digital Currency Team, Bank of Thailand.

The Debate

Stablecoins have long been recognised as a key enabler of the digital asset ecosystem, serving as a bridge between the fiat and tokenised realms. As a form of digital money, stablecoins boast functionalities that are driving wider utility as a mode of payment for real-world applications and usage. But recent developments have called into question the supposed stability of stablecoins and their reliability as a trusted medium of exchange, underscoring the point that not all stablecoins are created equal. In tandem, there has been growing clamour advocating for tokenised deposits, which unlike stablecoins remain in the prototyping phase as the future of payments, bringing similar functionalities with purportedly less risk – but how much truth does this hold? Can they coexist, or is one destined to displace the other? Will they all be displaced by central bank digital currencies, which is a debate for another day?

Motion 1: Traditional banking systems can no longer fully protect investors, and stablecoins are becoming much more suited to fulfil this role.

Motion 2: Tokenised deposits offer greater innovation and more practical use cases than stablecoins.

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'Team Crypto': The Case For Stablecoins

Solving Real-World Problems at Scale

With $12 trillion of on-chain transactions to date across USDC alone, stablecoins are already upgrading how people across the world send, spend, save and secure their money. Unlike tokenized deposits, which have yet to be successfully launched, stablecoins are driving substantial impacts in global payments, finance, remittances, and aid – expanding financial inclusion and heralding an era of internet-scale composable and programmable money.

Take Latin America, Mastercard's New Payments Index 2022 showed that a third of consumers in the region paid for an everyday purchase with stablecoins. With an average inflation rate of 11% year on year, dollar-denominated stablecoins are also proving to be a vital tool in protecting citizens' savings, while serving as a hedge against currency fluctuations. Further, with up to 50% of the workforce in Latin America working in informal employment, and therefore operating outside the banking system, fiat-backed stablecoins like USDC are providing mobile-first access to secure financial infrastructure. They are also reducing the costs of sending money across borders by 80% or more, representing a significant pathway towards realising the UN Sustainable Development Goal of cross-border transfer fees totalling 3% or less (the current global average is 6.3%).

The United Nations High Commissioner for Refugees (UNHCR), joined forces with Stellar and Circle in December 2022 to commence aid disbursement to war-displaced Ukrainians in USDC. The alliance is a powerful illustration of how stablecoins are driving real utility with digital dollars being delivered in a near-instant, transparent, corruption-resistant, and auditable manner. While deposit tokens show some conceptual promise, they struggle to show value beyond the proverbial laboratory or the walled garden of a given bank's customer base. With 1.7 billion people underbanked globally, and 2/3 of the global population having smart phone access, regulated payment stablecoins are a superior solution for global citizens to exchange value with greater speed, security and efficiency, and crucially lower costs.

Deposit tokens are a potentially important upgrade for traditional banks and we welcome their adoption, but they are not well suited to solve these last-mile problems or expand financial security on a global scale - this, in no small measure, is because deposit tokens (if and when they circulate) will merely be a digital twin of the existing wall-garden payment system much of the world enjoys today.

Regulatory Clarity Heralding In A New Era Of Compliant Payment Stablecoins

Critics sometimes claim that stablecoins take advantage of regulatory arbitrage. In truth, what we are seeing globally is much closer to a standard 'race to the top', not the bottom. Circle is regulated in the U.S. on the same level as many major national payment companies under state money transmission and electronic store of value laws. We work closely with U.S. and global banking supervisors and regulators, as well as financial integrity bodies.

Additionally, Circle's collaborations with some of the world's leading financial institutions serve as clear evidence that the industry is reaching a point of maturity, and that payment stablecoins like USDC are serving as a critical bridge between digital finance and traditional finance. And the entrance of new regulated players such as PayPal, in partnership with Paxos, and growing participation across regions with robust regulatory frameworks - including Europe, Japan, the UAE, Hong Kong and Singapore, is heralding a shift towards a fully compliant ecosystem. Indeed, while somewhat late to the party, the recent passage of bipartisan payment stablecoin legislation by the U.S. House Financial Services Committee, augurs a world where every major economy aims to normalise and regulate stablecoins. An increasing number of central banks are also now setting monetary policy boundaries, signalling that the days are numbered for obscure currency counterfeiters making promissory statements on crypto twitter while operating outside of the regulatory perimeter.

The Inherent Fractional Reserve Risks of Tokenized Deposits

While tokenised bank deposits rely on the same cryptographic technology as tokenised cash stablecoins, they differ in that they are inherently subject to fractional reserve risk. The tokenisation of deposits may appear to be a natural progression in the evolution of commercial bank deposits. However, the combination of interoperability, programmability, and fractionalised reserves has the potential to generate profound systemic fragility. Indeed, as a recent wave of bank failures in the U.S. has taught us, perhaps banks are importing risk to crypto, more than crypto was importing risk to banks - noting that neither sector is monolithic and both are deeply codependent.

As payment stablecoin legislation makes its way through the machinery of government, it is becoming increasingly likely that stablecoins will be brought under U.S. federal supervision. Some legislators and responsible issuers, including Circle, are advocating that the most robust form of federal supervision would require assets underpinning stablecoins to be held on a 1:1 basis without the perilous asset-liability mismatch that makes many banks the tinder box for systemic risk in the global economy. In this context of zero rehypothecation, regulated payment stablecoins could be considered significantly more secure than deposit tokens when it comes to prudential and economic risks.

Deposit Token Risks - Concentration, Bank Runs and Short Selling

As the highly automated nature of tokenised deposits makes them substantially more “runnable” than regular deposits, users are likely to favour the most highly trusted banks, i.e. Globally Systemically Important Banks (GSIBs). However, parking a concentration of deposits at GSIBs, paired with closed permissioned shared ledgers, may amplify too-big-to-fail risks. In the case of more interoperable tokens running on permissionless ledgers, the convertibility between deposit tokens could potentially spark a rapid conversion of deposit tokens of lesser perceived quality, for ones of higher quality in times of financial stress. Because of these real or perceived run risks, most of the world’s central banks that are looking at CBDCs, impose balance limits on CBDCs for fear that a low risk, higher velocity digital currency in open circulation would erode confidence in the deposit base of banks. Deposit tokens would merely amplify this risk in and between banks and in the financial system writ large.

Moreover, an expansion of the largest bank balance sheets is likely to result in more stringent regulatory assessments and levies – including a possible increase in bank guarantee insurance costs and more stress testing – that will inevitably distort markets and expand the delta between large and local lenders, as evidenced by the fragmentation of short-term funding rates following the implementation of Basel III reforms.

This concentration of capital into national and global banks would be detrimental to already struggling regional banks and smaller financial institutions that tend to serve populations at greater risk of being underbanked. Therefore, the concentration of capital that tokenised deposits could conceivably precipitate, would likely have profound knock-on effects for both financial inclusion, and the structural risk profile of the financial system.

Financial Inclusion

Speculative trading using stablecoins has declined substantially over time, to the point that they can now plausibly be considered less speculative than USD fiat equivalents. Presently, over 75% of all USDC in circulation is held in digital wallets and smart contracts rather than on digital asset exchanges, suggesting a strong correlation as a dollar-denominated store of value. Other use cases including cross-border remittances, FX settlement, humanitarian aid transmission, and corporate treasury management, are growing rapidly. USDC-enabled wallets support a global payment network in more than 190 countries, comparable to a mobile money network like M-Pesa, but on a global scale.

With migrant workers sending home almost $800 billion last year, aggregate fees could top $50bn dollars per year, when using the World Bank average of 6.3% as a guide. That cost is often borne by those who can least afford it. Further, the IMF has said that the true value of remittances could be up to 50% higher than reported figures as many unbanked individuals use informal (and often less secure) conduits for sending money home to family. Digital wallets on internet-connected devices represent a viable, low-cost alternative that enable people to safely send, spend, receive, and access cash from participating services like MoneyGram, which offers USDC cashouts in more than 200 countries via the Stellar network.

Delivering Value Beyond the Walled Garden

According to the UN, an estimated 360 million people worldwide need humanitarian aid - up 30 per cent since the start of last year. Such aid amounted to $46.9 billion in 2022, including $7.9 billion in direct cash or voucher aid. With Circle's USDC, these aid dollars become near-instant, mobile, traceable, and resistant to corruption and hyperinflation, ensuring every dollar reaches those in need.

In times of war, natural disaster, or other humanitarian crises, access to banks and other on-the-ground financial institutions can be unreliable or even critically impacted. As aid organisations and NGOs anticipate increasing instability across the globe, it is imperative that they have resilient and reliable mechanisms for aid disbursement that can continue even if their personnel on the ground are forced to leave.

As USDC's use by the UNHCR demonstrates, stablecoins can help extend the perimeter of the formal economy and the utility value of internet-native dollars even in extreme conflict zones. Circle's partnership with the UNHCR is not the first instance in which the company has been called to assist in delivering humanitarian aid when the traditional financial system was ill-equipped. In 2020, Circle helped deliver aid to front-line medical workers battling Covid-19 in Venezuela, in a groundbreaking application powered by stablecoins, open blockchains and digital wallets.

[1] Payment Stablecoins for Real-time Gross Settlements

Citation: Liao, Gordon and Hadeed, Thomas and Zeng, Ziming, Beyond Speculation: Payment Stablecoins for Real-time Gross Settlements (June 12, 2023). Available at SSRN: https://ssrn.com/abstract=4476859 or http://dx.doi.org/10.2139/ssrn.4476859

Beyond Ukraine and Venezuela, USDC has become the digital currency of choice in charitable blockchain-powered giving, with more than 70 million USDC used to facilitate donations in 2022. For beneficiary institutions and charities, such as the Singapore Red Cross, estimates suggest that USDC facilitates an average savings of 1.92% and 2.70% on every donation. It should be noted, that using stablecoins in these acute humanitarian cases, makes material improvements over shipping pallets of physical cash, which can be honeypots for corruption, bribery and fraud in the aid and relief context.

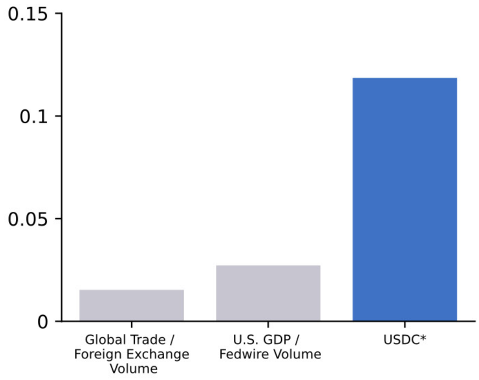
In Conclusion

> Stablecoins have proven their efficacy across a multitude of use cases, and are driving material efficiencies in how global citizens send, spend, save and secure their money. While deposit tokens are yet to demonstrate any material real-world impact due to their largely theoretical nature, for five years USDC has been advancing financial inclusion and the United Nations Sustainable Development Goals, and is now proving to be an increasingly powerful force in humanitarian aid disbursement.
>
> **– Dante Disparte**

In driving an "internet of value" of always-on programmable and composable money, stablecoins paired with internet-native KYC protocols such as emerging digital identity standards – can represent a breakthrough in financial access and inclusion, plugging some of the most marginalised global citizens into the digital economy. Additionally, being powered by public public infrastructure and open source technologies such as mobile wallets, well-regulated payment stablecoins are part of a more inclusive Web3. This wave of open innovation gives people the opportunity to not merely be a beneficiary of a low-cost payment, which is the base level value proposition of deposit tokens, but to also be the proverbial builders of the financial future. In contrast, deposit tokens that typically exist on closed permissioned protocols are unlikely to offer extensibility of value beyond the walled garden of a given issuing bank's pre-existing customer base – essentially constituting a siloed "intranet of value." There is unfinished work in the global economy and if to be banked hinges on traditional, brick and mortar banking, which has hit a point of diminishing returns, billions will remain unbanked or under-banked. Rather than viewing stablecoins and digital assets as a threat, banks and fintechs would be well-served in extending an olive branch and building a more inclusive future together.

Figure 6: **Most settlement systems are largely financialized, with minor real-world value transfers; stablecoins are plausibly less financialized**

Ratio of non-financial transactions relative to total transaction values



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Publisher:

ELEVANDI ONYX by J.P.Morgan

'Team Banking': the case for Tokenised Deposits

Tokenised deposits (or deposit tokens[1]) can enable efficient transactions and support a broader range of innovative and practical financial industry use-cases than stablecoins while ensuring the safety, integrity and soundness of the financial systems. Deposit tokens deliver the benefits of the technology improvements, such as enabling 24x7 payments in real-time, direct payments between transacting parties, and new capabilities such as programmability and conditional payments. This has the potential to enable more efficient transactions across a wide variety of use-cases and for a broad spectrum of users. Deposit tokens can enable composability with other financial applications on a common blockchain network, and leverage connectivity with the broader banking infrastructure, to offer a comprehensive suite of financial services. Importantly, regulated banks have the potential to provide deposit tokens under time-tested legal and regulatory frameworks, which promotes safety and stability.

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[1] Deposit tokens refer to transferable tokens issued on a blockchain network by a licensed depository institution which evidence a deposit liability against the issuer. JPMorgan does not currently offer deposit tokens. Offering as a live product is subject to development, testing, review and regulatory approval.

Managing risks and protecting depositors

Deposit-taking is a highly regulated activity, and banks are required to comply with stringent capital and liquidity requirements, and are subjected to stress-testing to ensure stability even under extreme stress scenarios. The strength of banking regulations today has ensured that there have been limited systemic risk events materialising in the banking sector even with the economic downturn. Even where there have been failures, such as that of 1 Swiss and 3 US banks earlier this year, depositors were made whole and suffered minimal losses, and without significant use of public funds. On the other hand, the collapse of stablecoin TerraUSD (UST) resulted in USD $40 billion of losses to consumers. Various stablecoins have also broken peg with their reference currency, highlighting that the "stable" value of stablecoins does not hold true under stress conditions.

In addition to regulations, other mechanisms have been designed and implemented over time across different jurisdictions to ensure the banking sector's stability and to protect depositors. This includes, where available, systems and rules that protect depositors against losses, and access to central bank lending facilities that manages liquidity risks. This is not true of stablecoin issuers, which are currently not subject to oversight or capital requirements in most jurisdictions, and consumers are using them at their own risk.

Stablecoin issuers highlight that their risk profiles are materially different from banks, as they do not engage in any lending activities, and stablecoins issued are collateralised 1:1 against reserve assets. The value of this 1:1 collateralisation or what problem statement this is trying to solve remains unclear. If the concern is on safety and stability, banks have demonstrated that the fractional reserve system works, and mechanisms exist today to manage liquidity or run risks, and ensure financial stability and protection of depositors. On the other hand, liquidation of reserve assets is the only means for stablecoins to meet the redemption requirements at times of stress, which would transmit stress to the broader markets, potentially triggering contagion effects. Furthermore, stablecoins would be constrained by the limited assets they can rely on. The European Central Bank had estimated that Libra, the now discontinued stablecoin initiative of Meta, could have grown to require more short-term government debt from A+ Euro area countries than was available on the market.

Leverage is also critical to how the economy functions today. If all bank deposits were to move to stablecoins, the deleveraging would result in a loss or reduced supply of credit, significantly impacting economic activities including but not limited to lending to small businesses. Deposit-taking and lending is not just a core activity of the banks but a role critical to the smooth running of the real economy.

Differentiating regulatory arbitrage from innovation

Banks today take care to identify transactions that are of higher risk of violating the law, and take measures to not support such illicit activity. Innovation needs to be responsible and not only comply with existing regulations but also adhere to the spirit of the regulations intended to protect the stability and integrity of the financial industry. Taking advantage of loopholes and ambiguity, or regulatory arbitrage, should be distinct from innovation.

Stablecoins today are able to support specific use cases better, and there needs to be an understanding of what gives rise to this. Where it is due to technological or business process advantages, banks can and will learn, catch up, and scale. Where it is due to lack of regulations, banks will not compromise and will not operate under doubtful circumstances. An example is how stablecoin transactions are typically only subject to KYC and AML requirements at the on and off-ramps, and transfers to un-hosted wallets can take place without any form of payment controls. Banks cannot and will not allow transactions without appropriate controls. Other players may be willing to take advantage of loopholes, partake in questionable activities or transact with dubious parties that banks are unwilling to, creating an illusion of innovation. However, it is only a matter of time before the regulatory arbitrage opportunities are closed and the questionable or unsafe activities are disallowed.

Regulations will continue to evolve and change, and the financial industry actively works with central banks and regulators to ensure that regulations are compatible with innovation while managing risks appropriately and ensuring that depositors and consumers are well-protected.

Delivering innovation under time-tested regulatory frameworks

Innovation delivers material change to improve people's lives. In payments, innovation is about benefiting real people who use real money for real use cases in the real economy. Deposit tokens have the potential to do so by enabling more efficient transactions across a wide variety of use cases, including capital markets transactions, cross-border payments, and trade, and for a broad spectrum of users.

Enabling 24x7 payments in real-time, direct payments between transacting parties, and new capabilities such as programmability and conditional payments can achieve this efficiency. Importantly, deposit tokens have the potential to provide payment innovation under time-tested legal and regulatory frameworks, which is especially important for wholesale high-value transactions between regulated financial institutions where price stability and assurance of on-chain cash is critical.

Composability and seamless integration with existing banking infrastructure

Composability is a technical term commonly used in the DeFi space to describe the ability for applications on a blockchain network to interact seamlessly with other applications, enabling a broader suite of services for users. There are concerns that deposit tokens are likely to operate within a "walled garden", limiting the potential benefits of composability.

As is the case for existing financial services provided by regulated institutions, the distribution and use of

deposit tokens must be accompanied by reasonable and appropriate controls to ensure the safety, integrity and soundness of financial transactions. Across this controlled environment, composability will enable deposit tokens to scale in use. Such a network will not be a “walled garden” limited to a single bank but a trusted ecosystem of banks and the broader financial industry, which supports the end-to-end use cases of users today. For example, the largest financial institutions network today, SWIFT, connects over 11,000 banking institutions in over 200 countries.

In addition to composability on a common blockchain network, deposit tokens have the added benefit of integrating with the rest of the banking infrastructure for services already available and offered by the financial industry. This supports immediate use cases currently carried out by commercial bank money that could benefit from more efficient payment settlement rails achieved by deposit tokens. This also lays a path for future growth and opportunities to harness the technology benefits of programmability and composability.

In summary, deposit tokens deliver the benefits of the technology improvements such as enabling 24x7 payments in real-time, direct payments between transacting parties, and new capabilities, such as programmability and conditional payments, with seamless integration to existing banking services while managing risks through retaining the legal and regulatory framework of bank deposits.

Results of the mentimeter poll by audience of the Debate:

Join the next digital currency showdown at Singapore FinTech Festival 2023!

The deciding round of the debate will be presented on stage at the Singapore FinTech Festival 2023, taking place from 15 to 17 November. We will delve into their diverse monetary roles and utility to declare an ultimate champion – one that has the highest innovation capacity, fosters greatest financial inclusion and propels global economic growth. See you there!

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