PEMPAL

TCOP Treasury Community of Practice

PEMPAL TREASURY COMMUNITY OF PRACTICE (TCOP)

Cash Management & Forecasting Thematic Group

Videoconference on Using Digital Currency in PFM

Videoconference, November 20, 2025

Introduction

1. On November 20, 2025, the PEMPAL Treasury community of practice (TCOP) held a videoconference on *Using Digital Currency in PFM*. The objective was to discuss the advantages, challenges, and latest examples of using digital currencies in public financial management. Given the novelty of the subject, interested members of the Budget and Internal Audit COPs were invited to join the event. The event was attended by over 60 participants, including over 50 officials representing all COPs from 16 PEMPAL countries (Albania, Azerbaijan, Bulgaria, Croatia, Georgia, Hungary, Kazakhstan, Kosovo, Moldova, Montenegro, Romania, Serbia, Tajikistan, Türkiye, Ukraine, and Uzbekistan), and interested World Bank staff. The meeting was facilitated by the World Bank Resource team comprising Fabienne Mroczka (TCOP Resource Team Leader), Mike Williams (TCOP Thematic Advisor), Galina Kuznetsova and Elena Dobrolyubova (TCOP Resource Team Members), and Mingul Seitkazieva (PEMPAL Secretariat).

2. **Fabienne Mroczka** welcomed the participants and introduced the meeting objectives and the agenda. She noted that the agenda included both an overview of international experience and a practical example on using digital currency in treasury operations in Kazakhstan**.**

Using Digital Money in PFM

3. **Mike Williams** presented an overview of the use of digital money in the PFM context and highlighted some important implications for cash and debt management. Digital forms of money are not new, but the variety of forms is increasing. Currently, digital money includes both public money (e.g. Central Bank digital currency, CBDC) and private money (such as stablecoins and e-money). Different forms of digital money are used in a variety of payments systems across many regions of the world (see examples in Fig. 1).

4. Using digital money in the context of PFM may yield significant benefits, whether in the areas of expenditure, revenue, or cash and debt management. For **expenditure**, there are benefits in terms of speed, traceability, and financial inclusion. Using digital money for **revenue collection** may help to broaden the tax base and enhance public trust, improve the transparency, traceability and auditability of tax payments, increase the operational efficiency (time and cost) of tax transactions, and provide for real-time data access. The potential benefits of digital money for **cash management** include lower transaction costs (reflecting reduced time lags & leakages, instant crediting of revenue, and rapid transfers to distant beneficiaries); potential expansion of TSA coverage (a result of increased EBF and donor confidence, the integration of FinTech transactions with the IFMIS (Nigeria) and swifter consolidation (India)); and improved control in terms of identifying corruption and waste. Digital money potentially supports improvements in **cash forecasting,** including increased granularity, greater reliability, and improved tracking. There are also some benefits for **active cash management** and **debt**

management, including instant settlement and reduced transaction costs, improved transparency, reduced counterparty risks (for example, by the use of tokenized securities for repo), and opportunities to attract new investors in government securities.

Fig. 1: Digital Money and Payment Solutions

Source: Presentation by Mike Williams

5. The use of digital money for government cash and debt management does however entail important risks, including liquidity fragmentation, and issuer and exchange risks; and it calls for significant investment in systems and competencies to secure the benefits from greater transparency and operational efficiency. The table below identifies some of these risks; although it distinguishes between those that apply to cash management and those to debt management, in practice some of the risks potentially apply to both.

Table: Risks and Challenges of Using Digital Money for Cash and Debt Management

Cash Management	Debt Management
- **Issuer risk** (e.g., from privately issued stablecoins - worse for crypto assets) - **Exchange risk** (stablecoins losing their fixed peg at times of stress) - Volume of conversion operations at end of day bringing **financial stability** risks in less liquid markets - Risks linked to **custody risks** & owner identification for tokenized money or money held on new platforms - Extensive risks of cybercrime, data privacy breaches, tax evasion & fraud - New moneys **fragment liquidity** and increase operational risk - Smart contracts can undermine **fungibility** (Brazil)	- **Scalability** (DLT platforms may struggle to handle efficiently large-scale operations or high transaction volumes) - Lack of **interoperability** among DLT platforms hinders seamless data sharing and collaboration. Diverse or incompatible standards - **Liquidity Risk.** Risk of market fragmentation. Limited transaction throughput and price volatility during market stress can impact liquidity - **Settlement Risk**: probabilistic settlement on permissionless platforms introduces the possibility of competing blocks and transaction reversals - **Compliance & Legal Risks**: the absence of comprehensive regulations poses challenges,

Cash Management	Debt Management
- **Technology and skill investment** are required to manage the information flows across new forms of money and distributed ledgers if the potential benefits are to be realized	including fraud, market manipulation, and data protection concerns - **Regulatory Challenges**: Adapting existing regulations to DLT and ensuring compliance across jurisdictions are ongoing challenges

Source: presentation by Mike Williams

6. Overall, the benefits of using digital money in PFM are much more limited for highly digitized countries with a good quality IFMIS, efficient and responsive banks, liquid markets, and a financially sophisticated population. Securing the benefits elsewhere requires investment in systems and skills, developing competence in risk analysis, and regulation. Compared to other forms of digital money, CBDC is significantly less problematic.

7. **Elena Dobrolyubova** thanked Mike for the comprehensive overview and noted that the meeting was attended by interested representatives of the other two COPs, including IACOP. She inquired if utilizing digital currency would make the internal audit easier. **Mike** explained that the traceability of transactions meant that the use of digital money, particularly CBDC, could be helpful for audit, especially if CBDC were used not only for wholesale, but also for retail payments. **Nazim Gasimzade** (Azerbaijan) raised the issue of privacy concerns related to the use of digital money. **Mike** noted the possible approach known as "zero-knowledge proof," which aimed to keep separate the information underlying transactions. Implementing this approach would help to resolve privacy concerns, but much would also depend on citizens' trust in the Central Bank; the lack of this was thought to be one of the factors behind the disappointing take up of the CBDC (e-Naira) in Nigeria. **Nazim** noted that the key arguments for using digital currencies included improved cross-border payments, instant settlement, and high cost-effectiveness. However, the practical cases of using CBDC were still quite limited. **Ednora Kastrati** (Kosovo) raised a concern related to the interoperability of funds in digital currency and other funds. She wondered how payments in digital money could be integrated into IFMIS without interrupting daily operations. **Mike** noted that transactions would be recorded in the usual way; the Central Bank should, however, convert digital currency into conventional deposits, although as previously noted, accepting stablecoins (for instance, for tax payments) might increase exposure to exchange risks.

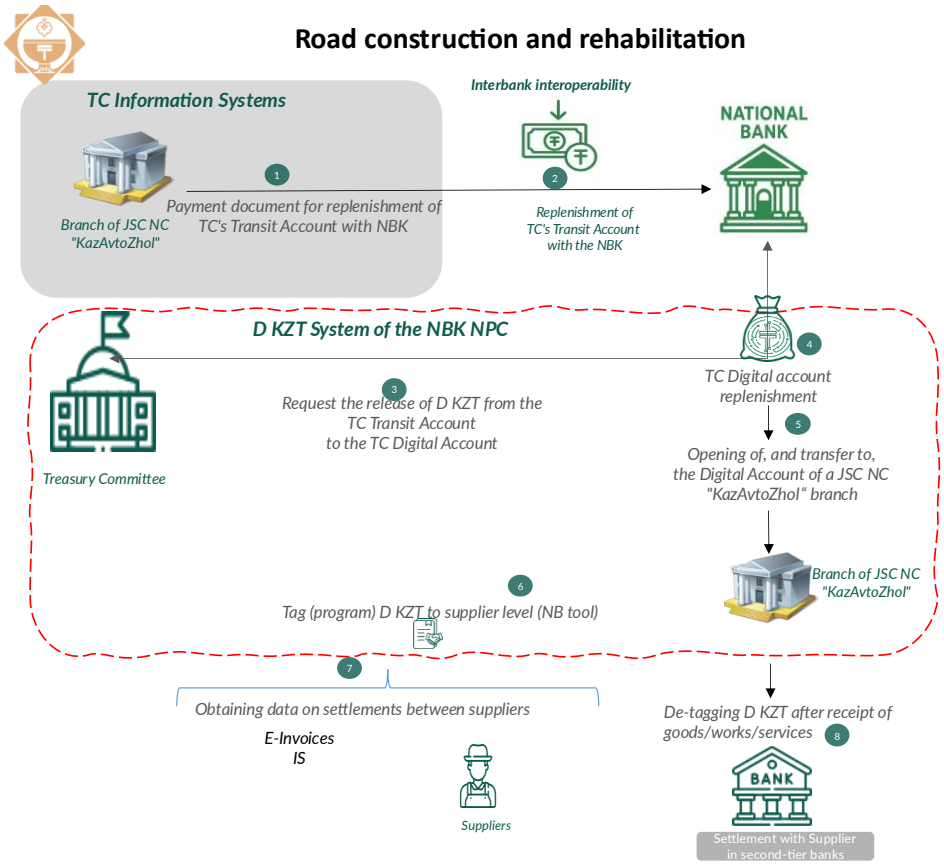
Using Digital Tenge in Public Finance

8. **Aliya Baygenzhina,** Deputy Chair of the Treasury Committee of Kazakhstan, shared the recent experience of Kazakhstan in using digital currencies in treasury operations. She noted that the key advantage of the digital tenge was the ability to tag funds to a specific purpose and ensure traceability of allocated budget funds (beyond the treasury). In Kazakhstan, three pilot projects using digital tenge were developed to ensure the traceability of budget funds in the agro-industrial and road construction areas. These included the purchase of cattle, procurement of agricultural machinery and equipment, and road construction and rehabilitation. In addition, the *Digital VAT* project was currently being implemented in cooperation with the State Revenue Committee. The projects were designed to address pressing PFM issues in Kazakhstan, including the misuse of budget funds allocated to agricultural sector support and construction. The introduction of digital tenge supported tracing the chain of contractors

and identifying areas for public savings (Fig. 2). On the revenue side, the introduction of digital currency for VAT payments allowed reducing the time needed to process VAT refund claims.

9. The pilot projects have demonstrated both the benefits of using digital currency and the need to further strengthen IT systems to ensure monitoring of smart contracts. Further steps to scale up the use of digital currency in Kazakhstan entailed developing a methodology and a uniform approach across all digital tenge projects, integrating the Digital KZT system with the treasury system, amending the legislation and regulatory framework, and integrating sectoral information systems with the Digital KZT system.

Fig. 2: Using Digital Currency to Finance Road Rehabilitation in Kazakhstan



The pilot is implemented through branches of JSC "National Company "KazAvtoZhol" (after disbursement via MT-CH-JSC NC "KazAvtoZhol")

D KZT 1.5 billion were credited to digital accounts.

The implementation of pilot projects in road construction and rehabilitation allowed to track the movement of funds along the supply chain *(up to the third level),* including the procurement of materials *(crushed stone, bitumen),* technical supervision services, etc.

MT – Ministry of Transport
CH – Committee of Highwayss

Source: presentation by Aliya Baygenzhina

10. **Elena** thanked Aliya for sharing Kazakhstan's experience and noted that Kazakhstan was among the pioneers in the region to use CBDC in PFM. She asked if participation in pilot projects, including the one on VAT payments, was voluntary. **Aliya** explained that, since participation in Digital VAT entailed faster processing of VAT refunds, the project was of high interest to both the government and business. At the pilot phase, participation in this project was voluntary. **Mike** inquired about the mechanism used for tagging funds. **Aliya** pointed out that for public procurement, funds were traceable until the final payment to the contractor. Once the contract obligations were met, the contractor could exchange digital tenge into fiat currency or choose to use it for other purposes. This further use of funds was not

tracked. **Baxtiyor Ganiev** (Uzbekistan) thanked colleagues from Kazakhstan for sharing their experience and asked about the key risks identified by the pilot projects, measures taken to minimize the risks, and whether the digital currency funds were covered by the TSA. **Aliya** noted that the key risks were related to the information system used for the control of smart contracts. The key benefit of using digital currency in Kazakhstan's context refers to ensuring the targeted use of budget funds. Currently, digital currency is kept by the treasury on a separate account in the Central Bank. Thus, digital currency funds are outside the TSA scope. **Elena** inquired if there were plans to use digital currency for cross-border payments. **Aliya** clarified that this issue was in the competence of the Central Bank, and so far, the pilot projects had focused on payments within the country. However, given the rise of fintech, it is likely that the application of digital currency will broaden soon. **Nazim** pointed out that Kazakhstan chose to pilot digital currency for the agricultural sector and inquired if any issues related to poor connectivity of rural areas and insufficient capacity had been encountered. **Aliya** noted that technological readiness was among the criteria for selecting regions for piloting the technology. However, a full-scale implementation of digital currency would call for significant investment in IT infrastructure.

11. During the general discussion, **Jadranka Groksa Kardum** (Croatia) noted that Croatia, as a member of the EU, had to follow the general EU policy, and the digital currency in the EU was expected to be introduced in 2027-2028. She wondered about the approach of the UK to using digital currency in PFM. **Mike** noted that, initially, the UK had been interested in developing a CBDC, and the Bank of England had done considerable work; but it was concerned by the potential impacts on monetary policy and disintermediation, particularly if there was retail CBDC, and the Bank was now proceeding more cautiously. The growth of stablecoins, which were overwhelmingly denominated in USD, had given a stimulus to work in the Eurozone, where the ECB was conscious of the risks of dollarization.

12. **Elena Nikulina** (World Bank) commended Mike and Aliya on excellent presentations and inquired about the trade-off between adopting digital currencies (and relying on fintech solutions) or developing IFMIS, as both solutions require investment in systems and competencies. **Mike** admitted the tradeoff and noted that while fintech solutions may benefit from private investment (as was the case in Kenya), he would still recommend countries to invest in the IFMIS, rather than rely on outside solutions. He acknowledged that this was a political decision and highlighted the importance of fraud concerns. **Elena** pointed out that digital currency was a novel subject for PEMPAL, and it was important for community members to learn about various dimensions of this subject. She recalled that several years ago, using AI in PFM also had been perceived as a theoretical idea. However, since then, treasuries in several PEMPAL countries have launched pilot projects in this area, and these projects are already considered among the world's advanced practices.

13. **Elena Dobrolyubova** extended her gratitude to the presenters for their excellent presentations and thanked everyone for their active participation in the meeting.

Conclusions

14. **Using digital money in PFM (especially CBDC) yields significant benefits by increasing transparency, reducing transaction costs, and facilitating cross-border payments.** On the revenue side, integrating digital money may support broadening the tax base and strengthening tax administration. On the cash and debt management side, digital money supports instant reconciliation,

offers additional data for more accurate cash forecasting, and helps to widen and develop financial markets. However, the benefits of digital money would seem to be significantly greater for those countries that in practice will be less able to secure them.

15. **Introducing digital money into PFM requires addressing multiple risks and challenges,** including the risks of liquidity fragmentation and insufficient fungibility, and increased exchange risks. Though CBDC is less problematic compared to other types of digital money, its implementation calls for significant investment in IT and staff competencies, including risk management skills. Scaling up pilot projects using digital money may also be problematic due to IT infrastructure limitations. Finally, using digital money raises important cybersecurity, fraud and privacy concerns that need to be addressed.

16. **Kazakhstan is among the first countries in the PEMPAL region that has piloted CBDC (digital tenge) in the PFM context.** The initial results of the pilot projects are promising; using digital tenge has supported the tracing of transactions and ensuring targeted use of public funds. Moreover, tagging budget funds to a specific purpose has helped to identify areas for potential public expenditure savings, while using digital currency for VAT payments has expedited the VAT refund process. However, scaling up the results achieved to date calls for further efforts, such as strengthening the methodological basis for digital currency projects, amending the legal and regulatory framework, developing IT infrastructure, and upgrading and integrating the Digital KZT system with the core treasury system. Overall, introducing CBDC complements rather than replaces the traditional approaches to budget execution and IFMIS development.