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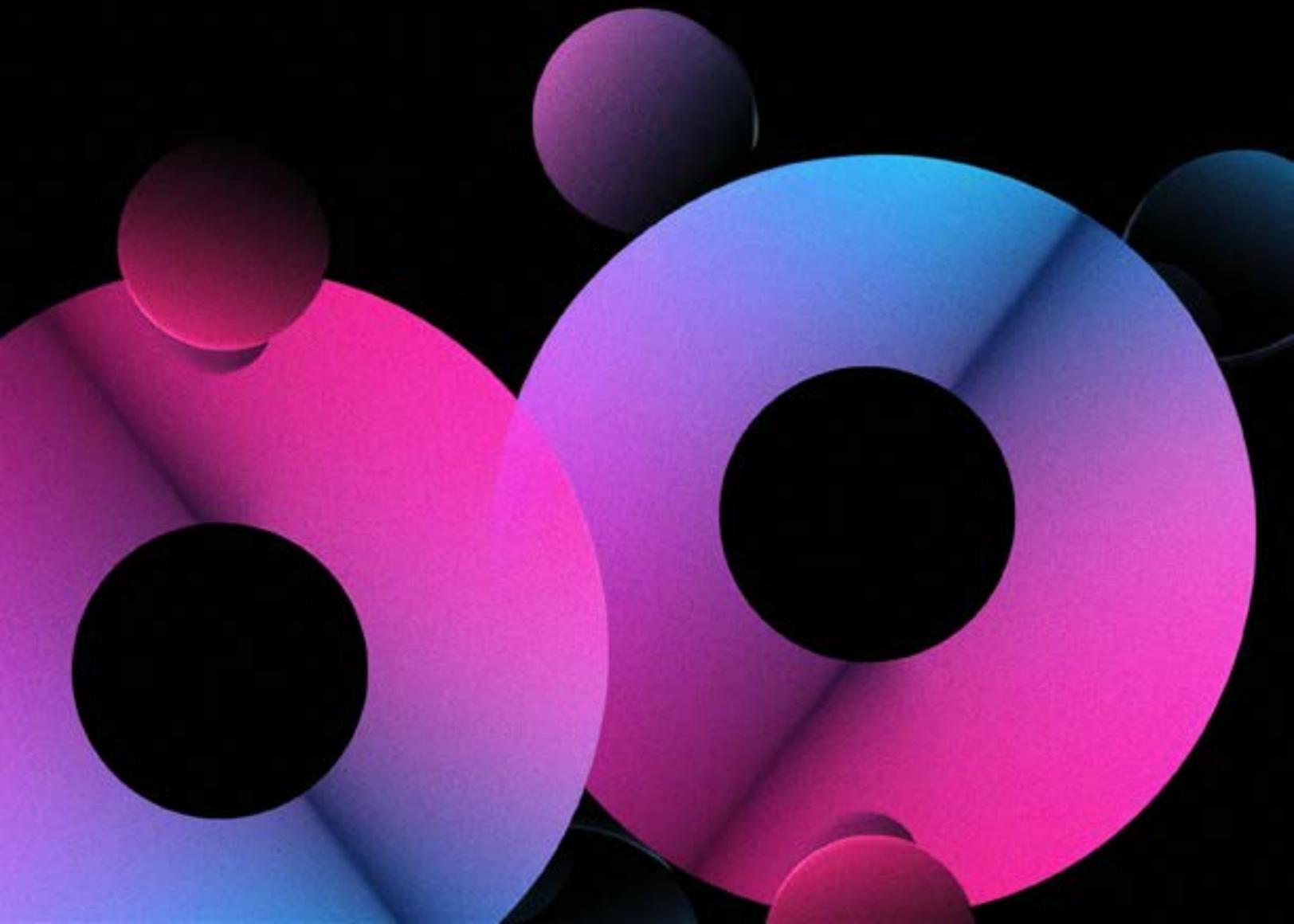
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Centre for International  
Governance Innovation

CIGI Papers No. 346 – December 2025

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S. Yash Kalash





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## About the Author

**S. Yash Kalash** is a CIGI senior fellow and an expert in strategy, public policy, digital technology and financial services. He has experience in emerging markets across India, the Middle East and North Africa (MENA) and the Asia-Pacific and a distinguished track record advising governments and the private sector on emerging technologies. His expertise spans various industries, including fintech, AI and digital assets, and their impact on geopolitics. His career includes key roles at Roland Berger, the Government of India, Adani Group and KPMG, where he spearheaded strategic digital projects, advised clients on their digital assets and AI strategy, and informed policy and regulatory developments. With an M.Sc. in management from Imperial College London and a B.Sc. in international relations and politics from the University of Bath, Yash combines deep strategic insight with strong training, making him a versatile and impactful leader in the field of digital economy.

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## Executive Summary

In an era marked by globalization, dollarization and digital financial transformation, fiscal sovereignty (or the ability of states to mobilize and manage public resources independently) is under acute strain. This paper examines whether central bank digital currencies (CBDCs) can serve as instruments to reclaim national control over public finance without introducing systemic or political risks.

The analysis begins by unpacking the erosion of fiscal autonomy due to dollarization, capital mobility and institutional constraints, particularly in emerging and developing economies. It then explores how CBDCs, as sovereign-issued digital money, offer new capabilities for governments to enhance fiscal transparency, precision and responsiveness. These include real-time expenditure monitoring, programmable transfers, expanded tax compliance and agile crisis response mechanisms.

However, the paper cautions that CBDCs are not inherently sovereign tools. Their deployment introduces risks such as fiscal dominance, surveillance overreach, digital dollarization and technological dependency. Without robust governance frameworks, privacy protections and institutional readiness, CBDCs may exacerbate the very vulnerabilities they aim to resolve.

To navigate this paradox, the paper proposes four core policy principles: preserving the fiscal-monetary boundary; embedding privacy by design; fostering multilateral cooperation for digital sovereignty; and cultivating public trust through inclusive governance. Ultimately, it argues that CBDCs, if responsibly designed and strategically governed, can become pivotal instruments for restoring fiscal sovereignty and enhancing democratic resilience in the digital age.

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## Introduction

The concept of fiscal sovereignty is defined as the inherent authority of a state to independently mobilize, allocate and manage its financial and economic resources and policies, especially the power to levy and collect taxes within its

jurisdiction (Hearson and Tucker 2021). This power has come under increasing strain in the twenty-first century. In an era of globalization, capital mobility and cross-border monetary dependence, traditional fiscal tools are often constrained by external pressures and institutional rigidity. This challenge is particularly acute in emerging and developing economies, where reliance on foreign-denominated debt, exposure to currency volatility and institutional weaknesses have undermined the state's capacity to conduct independent fiscal policy.

Nowhere is this more evident than in economies experiencing dollarization, which erodes both monetary and fiscal autonomy. Dollarization, defined as the widespread use of a foreign currency for domestic transactions, illustrates this loss of control. By reducing the state's ability to denominate and settle obligations in its own currency, dollarization erodes both monetary and fiscal autonomy. Its fiscal effects include weaker counter-cyclical capacity, exposure to exogenous shocks and reduced budgetary discretion, especially when external debt must be serviced in dollars (Alvarez-Plata and García-Herrero 2008).

However, these constraints are no longer limited to developing and emerging economies. Advanced economies are increasingly experiencing chronic fiscal pressure and ballooning sovereign debt, with debt-to-GDP ratios exceeding historical thresholds, driven by COVID-19 pandemic-era spending, demographic shifts and rising interest rates. The result is a convergence of fiscal vulnerability across the development spectrum, as both industrialized and developing states contend with growing structural limitations on their autonomy in governing public finance.

Simultaneously, the accelerating digitalization of finance has introduced a new set of instruments with potentially transformative implications for public finance. Among these, CBDCs represent a frontier innovation. Positioned as sovereign-issued digital money (Bank for International Settlements [BIS] 2022), CBDCs offer governments the possibility of directly interfacing with citizens and firms in the delivery of fiscal instruments, ranging from stimulus transfers and tax rebates to conditional subsidies and real-time audits. Proponents argue that CBDCs could revolutionize public finance by enhancing transparency, improving efficiency, and restoring sovereign control over monetary-fiscal interactions in a

fragmented and dollarized global economy (Auer et al. 2021; Kunaratskul, Reslow and Singh 2024).

Yet this promise comes with significant risk. If poorly designed, CBDCs may blur the boundaries between central bank independence and monetary policy execution, potentially resulting in fiscal dominance or a condition where fiscal pressures determine monetary decisions (Sargent and Wallace 1981). They may also expose citizens to state surveillance, intensify technological vulnerabilities and generate new dependencies through digital dollarization or cross-border CBDC spillovers. Moreover, institutional readiness, public trust and regulatory alignment remain underdeveloped in many jurisdictions contemplating CBDC deployment.

This paper explores the central question: Can CBDCs reinforce national control over public finance without introducing systemic or political risk? It argues that CBDCs, if appropriately designed and governed, could potentially enhance fiscal sovereignty, particularly by enabling targeted, transparent and accountable public expenditure. However, this outcome is highly contingent upon the presence of institutional safeguards, privacy-preserving technologies, and well-calibrated governance frameworks that preserve the operational independence of monetary authorities while enhancing the responsiveness of fiscal instruments.

This paper also does not assume that the traditional separation of fiscal and monetary authority is inherently optimal. Rather, it explores how programmable public money could permit new, transparent forms of coordination between central banks and treasuries, restoring policy synergy without compromising accountability (Disyatat and Borio 2021).

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## Conceptual Foundations

To meaningfully assess the potential of CBDCs to reinforce fiscal sovereignty, it is essential to first clarify the underlying concepts: what constitutes fiscal sovereignty, how dollarization weakens it, and how CBDCs have emerged as both monetary instruments and vehicles of statecraft.

## Defining Fiscal Sovereignty

Fiscal sovereignty, as discussed in the previous section, traditionally refers to a state's capacity to design and implement taxation, expenditure and debt policies independently of external influence. It implies full control over domestic resource mobilization, budgetary allocation and public borrowing, underpinned by the legal authority of the state and its democratic institutions.

However, in practice, fiscal sovereignty is constrained by multiple external and internal factors:

- **Capital market pressures** can restrict fiscal space by raising the cost of borrowing (Adrian, Gaspar and Gourinchas 2024).
- **Conditionalities from multilateral lenders, such as the International Monetary Fund (IMF) or World Bank**, often impose policy frameworks that limit national discretion (Koeberle 2003).
- **Inadequate administrative capacity** impairs a state's ability to collect taxes or efficiently disburse public funds (Dar 2020).

Thus, the modern fiscal state often functions under a form of conditional sovereignty — autonomous, in theory, but structurally entangled in global financial systems and technical dependencies that restrict its manoeuvrability.

## Dollarization and the Erosion of Autonomy

Dollarization, whether official, semi-official or de facto, represents one of the most acute constraints on fiscal sovereignty. According to a 2006 IMF study on financial dollarization, dollarized economies face higher risks of balance sheet mismatches and fear of floating, limiting exchange rate flexibility, which, in turn, restricts monetary policy autonomy and fiscal space (Armas, Levy Yeyati and Ize 2006, chapter 1). Moreover, BIS research highlights that exchange rate volatility raises borrowing costs and disrupts tax revenue performance, further weakening fiscal capacity (Mohanty 2013). When foreign currencies such as the US dollar or euro circulate widely within domestic economies, states lose control over money creation, interest rate policy and, often, a large portion of fiscal levers (Jabbour and Mansour-Ichraikieh 2025). The inability to denominate, tax or spend in a sovereign currency:

- weakens countercyclical fiscal capacity;
- increases exposure to external shocks; and
- fosters long-term dependence on external capital and trade settlements.

In regions such as Latin America, Sub-Saharan Africa and parts of Southeast Asia, this phenomenon is compounded by external debt obligations, which must often be serviced in foreign currency (United Nations Conference on Trade and Development 2023), limiting the state's budgetary discretion. The fiscal consequences of dollarized debt were visible during the 1997–1998 Asian financial crisis, when governments in Indonesia and Thailand were forced into austerity after currency depreciation inflated their foreign-currency liabilities (Berg 1999). Moreover, reliance on foreign financial infrastructures, such as the Society for Worldwide Interbank Financial Telecommunication (SWIFT) for messaging or the Clearing House Interbank Payments System (CHIPS) for dollar clearing, subjects national fiscal planning to geopolitical risk, including sanctions and access restrictions (Ramachandran 2022).

Governments facing volatile exchange rates must allocate larger budget shares to interest and debt-service payments, crowding out productive and social expenditure. Thus, dollarization transmits global monetary shocks directly into the fiscal accounts, constraining domestic policy autonomy far beyond the monetary sphere.

## CBDCs in the Context of Digital Statecraft

While their primary motivation is often monetary, ensuring payment system resilience or addressing the decline in physical cash, CBDCs also offer significant fiscal utility (Das et al. 2023). Their programmability, auditability and ability to bypass intermediaries make them uniquely suited for:

- direct-to-citizen transfers;
- conditional cash programs;
- real-time monitoring of public spending; and
- enhanced tax collection through digital trail capture.

CBDCs thus occupy a liminal space between monetary and fiscal authority. While technically

under the purview of central banks, their application in public finance pushes them toward fiscal coordination. This raises critical questions about institutional boundaries, governance and the potential for fiscal dominance, where central banks may come under pressure to facilitate government financing or welfare disbursement through digital means (Blommestein and Turner 2012).

CBDCs are not neutral tools; they are embedded in broader power dynamics. Their programmable and data-intensive nature makes them tools of digital statecraft. They enable the state to reassert informational and transactional sovereignty, particularly in environments where foreign digital platforms and private financial intermediaries hold significant influence. This can be beneficial for policy precision but also raises ethical and strategic concerns about surveillance, control and coercion.

## Stablecoins and Private Digital Dollarization

The rise of private stablecoins or digital tokens whose value is pegged to official currencies such as the US dollar or euro has introduced a new market-driven layer of digital dollarization. Tokens such as USDT (Tether) and USDC (Circle) now settle billions of dollars in daily transactions across crypto-asset exchanges and remittance corridors. Though originally designed to facilitate digital-asset trading, these instruments increasingly serve as functional substitutes for sovereign currencies, particularly in jurisdictions with high inflation or weak banking systems (Financial Stability Board 2024).

Stablecoins differ from traditional forms of dollarization in both velocity and visibility. They circulate instantaneously across borders, often through decentralized exchanges that operate beyond the reach of central banks. Their issuance is anchored not in domestic reserves or public guarantees but in privately managed collateral pools, typically short-term US Treasury securities or commercial paper. As a result, the monetary base of many developing economies could potentially and quietly be digitally dollarized through offshore liquidity that eludes national balance sheets.

From a *fiscal-policy perspective*, this dynamic creates three interrelated challenges:

- **Erosion of the tax base and reporting capacity:** When economic agents transact in stablecoins, governments may lose visibility over taxable

events, customs duties and capital-gains flows. Even where on-ramp exchanges are regulated, peer-to-peer transfers often occur off-ledger for domestic authorities (Shields 2025).

- **Liquidity and seigniorage leakage:** Each dollar held in a stablecoin wallet represents purchasing power and potential interest income shifted outside the domestic financial system. For smaller economies, this can reduce bank-deposit bases and narrow fiscal space for public borrowing.
- **Regulatory asymmetry and macro-financial contagion:** Stablecoin issuers are typically incorporated in offshore jurisdictions with minimal disclosure requirements. A loss of confidence or asset-reserve mismatch could trigger capital flight similar to a conventional currency crisis but at digital speed (Financial Stability Board 2025).

Recognizing these vulnerabilities, several governments have begun legislating to reassert control over the digital-currency layer. In the United States, the Guiding and Establishing National Innovation for US Stablecoins Act of 2024, popularly known as the GENIUS Act, seeks to subject stablecoin issuers to prudential oversight akin to that of insured depository institutions. The act mandates one-to-one reserve backing, limits rehypothecation of assets and requires segregation of customer funds (Latham & Watkins LLP 2025). Its passage signals bipartisan acknowledgement that unregulated stablecoins could undermine domestic monetary transmission and fiscal transparency by effectively outsourcing money creation to private entities (Liang 2025).

Other jurisdictions have adopted varied approaches:

- **The European Union's Markets in Crypto-Assets Regulation** introduces a licensing framework for "asset-referenced tokens," obligating issuers to maintain redemption rights and publish audit reports.<sup>1</sup>
- **Japan and Singapore** have created tiered regimes that differentiate between single-

currency stablecoins, which may support payment innovation, and multi-currency global stablecoins, which pose systemic risk (EY 2025).

These measures illustrate a broader policy convergence: States are reclaiming monetary sovereignty by bringing privately issued digital money under public regulation. Yet the regulatory perimeter remains porous. Because stablecoins operate on open blockchain networks, users can still access offshore tokens through non-custodial wallets, making unilateral bans largely ineffective.

In this environment, CBDCs emerge as both a countermeasure and a complement. They provide a publicly governed alternative that can harness the efficiency of digital payment rails while embedding transparency, consumer protection and macro-prudential oversight.

At the same time, the coexistence of CBDCs and stablecoins can foster *innovation through competition*. Stablecoins have pioneered composable financial architectures such as decentralized finance protocols and tokenized assets that public systems can emulate within a regulated sandbox. Central banks around the world (for example, in Switzerland [Ledger Insights 2025]) are now experimenting with synthetic CBDCs or public-private hybrid models, in which licensed stablecoin issuers hold reserves directly at the central bank, ensuring convertibility and oversight (DiPippo 2022).

Ultimately, the rise of stablecoins underscores a structural paradox of the digital era: The same technologies that empower financial inclusion also challenge state authority over money and fiscal policy. For governments, the policy imperative is not to suppress private innovation but to re-embed it within a sovereign regulatory framework. CBDCs, if interoperable with well-supervised stablecoins, can serve as the anchor of this framework, restoring transparency, reinforcing fiscal control and preventing the fragmentation of national monetary ecosystems.

<sup>1</sup> EC, Regulation (EU) 2023/1114 of the European Parliament and of the Council of 31 May 2023 on markets in crypto-assets, and amending Regulations (EU) No 1093/2010 and (EU) No 1095/2010 and Directives 2013/36/EU and (EU) 2019/1937, [2023] OJ, L 150/40, online: <<https://eur-lex.europa.eu/EN/legal-content/summary/european-crypto-assets-regulation-mica.html>>.

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# Mechanisms Through Which CBDCs Can Enhance Fiscal Sovereignty

CBDCs represent a foundational shift in the architecture of public money. Beyond their role in preserving monetary authority in an increasingly digitized economy, CBDCs offer new capabilities to governments for the exercise of fiscal power. When thoughtfully integrated into public finance systems, they can strengthen fiscal sovereignty across four key vectors:

- expenditure transparency;
- programmable fiscal targeting;
- tax-base expansion; and
- fiscal responsiveness during crises.

This section evaluates how these mechanisms function and under what conditions they might fortify the state's capacity to govern its public finances with greater precision, efficiency and autonomy.

## Real-Time Public Expenditure Monitoring

One of the most immediate contributions of CBDCs to fiscal governance is the ability to achieve granular, real-time oversight of public expenditure. In traditional systems, public spending is often opaque, delayed and fragmented across bureaucratic layers, especially in federal or decentralized administrative contexts (Ababio, Vyas-Doorgapersad and Mzini 2008). The use of a CBDC, by design, is digitally traceable and natively programmable, which can allow treasuries and finance ministries to track the entire life cycle of a fiscal transfer, from disbursement to end use. It is important to note that CBDCs amplify, rather than substitute for, existing digital governance reforms. Their fiscal value arises not from the payment rail itself but from the informational layer it enables when linked to reliable digital identity and tax databases. Without those complementary systems, a CBDC offers little advantage over traditional bank transfers.

By embedding smart contract capabilities into disbursement channels, governments can:

- audit public procurement in real time;
- reduce ghost beneficiaries in welfare programs;
- ensure that transfers to subnational governments are used within defined functional mandates; and
- monitor sector-specific spending (for example, health, education) against budget allocations without manual reconciliation.

For example, a national health subsidy issued in CBDC units could be programmed to be spent only at verified health providers within a specified time frame, with automatic compliance reporting. Such digital auditability reduces leakage, enhances transparency and strengthens the credibility of public finance management systems, which, in turn, can improve access to concessional financing and reduce investor risk premiums.

## Programmable Transfers and Conditional Disbursement

CBDCs enable a new form of policy precision: the deployment of programmable transfers that activate automatically upon the fulfillment of predefined criteria. This capability has profound implications for targeted fiscal policy.

In welfare regimes, CBDCs can allow:

- subsidies to be triggered upon income verification or demographic status (for example, age, disability);
- support to be automatically adjusted based on inflation, regional pricing disparities or household size; and
- conditional transfers tied to behavioural outcomes (for example, school attendance, vaccine uptake).

This policy granularity is not only administratively efficient but also politically stabilizing, as it depersonalizes discretionary allocation and enhances the predictability of state support. It reduces fiscal arbitrariness and political clientelism by embedding rules in code, thus shifting compliance and enforcement from bureaucratic to algorithmic mechanisms.

Furthermore, CBDCs can be geo-fenced or time-bound (Arizu 2025), ensuring that fiscal interventions (such as local economic stimulus) are geographically targeted and temporally contained. This ability enhances the agility and specificity of fiscal tools, which is particularly important during regional shocks or sector-specific downturns.

## Enhancing Tax Compliance and Broadening the Fiscal Base

The informal economy remains a major obstacle to fiscal sovereignty in many emerging markets (Deléchat and Medina 2020). Cash-based transactions, fragmented financial records and non-integrated tax identification systems limit the government's ability to accurately assess income, monitor economic activity and enforce tax compliance.

CBDCs, when integrated with national tax systems and digital identity frameworks, offer a pathway to:

- expand the taxable universe by illuminating shadow economic activity;
- enhance risk-based audit targeting using transaction analytics; and
- automate withholding and remittance of taxes at the point of transaction (for example, value-added tax or goods and services tax).

Importantly, this does not require total surveillance. Instead, a tiered privacy model can be employed where small transactions remain anonymous, while higher-volume or business transactions are flagged for reporting (European Central Bank [ECB] 2019). This approach balances fiscal control with individual rights and minimizes political backlash against digitization efforts.

Successful examples of these dynamics are emerging in Brazil, where the central bank's Pix system, when combined with the digital taxpayer registry, is being explored to streamline indirect tax collection and enhance compliance among microenterprises (*The Economist* 2025). In the future, CBDC-linked tax accounts could automate filings for low-income or gig workers, reducing compliance burdens and improving equity. Systems such as Pix also highlight the interplay between digital identity and inclusive access. Linking payment credentials to verified forms of identification (ID) enables precision targeting of welfare and taxation measures,

broadening the fiscal base while preserving privacy through consent-based frameworks.

## Crisis Responsiveness and Fiscal Multiplier Optimization

One of the most compelling use cases for CBDCs is in the context of crisis response, where the timely deployment of fiscal support is essential for economic stabilization. Traditional methods, such as cheque mailouts or direct cash transfers, suffer from long lags, low precision and high administrative costs (Bank of Canada et al. 2020).

CBDCs can overcome these limitations by enabling:

- instantaneous direct-to-citizen payments, even in lockdown or disaster zones;
- targeted sectoral support (for example, to seasonal workers such as tourism sector labour or agricultural producers during adverse shocks); and
- conditional infrastructure stimulus, where funds are released only as verified project milestones are met.

The velocity and visibility of CBDC-based fiscal interventions can not only enhance macroeconomic control but also allow governments to better measure and optimize the fiscal multiplier. Because CBDC usage generates structured, real-time data, ministries of finance can track how quickly and effectively money circulates through the economy and recalibrate interventions accordingly. This can elevate fiscal policy from an imprecise tool of aggregate demand management to a data-informed, dynamic instrument of macro-stabilization, which is particularly valuable in fragile, post-pandemic or externally vulnerable economies (Borio 2023).

Taken together, CBDCs offer a tool kit of innovations that could reinvigorate fiscal sovereignty by transforming how public money is disbursed, targeted, monitored and accounted for. Yet these capabilities are only as effective as the institutional frameworks in which they operate. Without safeguards, they risk producing new forms of fiscal opacity, political interference and technocratic overreach.

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# Risks and Constraints of CBDC-Facilitated Fiscal Expansion

While CBDCs offer promising avenues for reinforcing fiscal sovereignty, they also introduce a complex set of risks that, if unaddressed, could undermine macroeconomic stability, democratic accountability and institutional integrity. These risks are not merely technical; rather, they are fundamentally political and institutional. Without careful design and robust governance frameworks, CBDC-driven fiscal tools could blur constitutional boundaries, erode citizens' trust or entrench new forms of digital dependency. This section explores the most salient risks associated with the fiscal use of CBDCs.

## Blurring the Fiscal-Monetary Boundary and the Risk of Fiscal Dominance

One of the most profound risks is the erosion of central bank independence, a foundational principle of modern macroeconomic governance (Carstens 2025). CBDCs, while operationally issued and managed by central banks, possess clear fiscal utility, particularly when deployed for targeted public transfers, subsidies and social safety nets. This dual-use nature creates incentives for fiscal authorities to leverage CBDC infrastructure to execute politically expedient spending, potentially pressuring monetary authorities to accommodate expansionary fiscal agendas. It is important to recognize that CBDCs do not inherently cause fiscal dominance; the danger emerges if programmable fiscal tools operate outside approved budget cycles or bypass standard appropriation processes. In such cases, political actors might pressure central banks to expand CBDC-based transfers without offsetting revenues, effectively monetizing deficits. This risk underscores the importance of integrating CBDC operations into transparent public accounting frameworks (Illes, Kosse and Wierds 2025).

The result could be a revival of fiscal dominance, where monetary policy becomes subordinate to the financing needs of the state. This scenario risks:

- undermining inflation control;
- distorting interest rate signals; and
- eroding investor confidence in the central bank's credibility.

Avoiding these risks requires not only technical separation of wallets and functions but also institutional guardrails, such as legal limits on the fiscal usage of CBDCs, legislative and judicial oversight of programmable spending tools, and public reporting on monetary-fiscal coordination.

## Surveillance Risks and the Erosion of Civil Liberties

A second, equally consequential risk is that CBDC infrastructure, implemented without strong privacy protection, could enable unprecedented levels of state surveillance over individual financial behaviour (Wang et al. 2022). This fear is not just theoretical; in the United States, on May 23, 2024, the US House of Representatives passed the Anti-CBDC Surveillance State Act. This legislation, introduced by Congressman Tom Emmer, aims to prevent the Federal Reserve from issuing CBDCs directly to individuals. The primary motivation for the CBDC act is to protect Americans' financial privacy. Congressman Emmer and supporters argue that a government-controlled CBDC could lead to unprecedented financial surveillance and control over personal spending habits (ZeroCap 2024).

Unlike cash, which is anonymous and untraceable, CBDC transactions are inherently data-generating. When coupled with programmable functions and real-time analytics, they can create a digital footprint of every fiscal interaction between the citizen and the state.

While such transparency may improve policy targeting and reduce fraud, it also raises the spectre of:

- government overreach in monitoring spending patterns;
- chilling effects on consumption, particularly in politically sensitive or stigmatized sectors; and
- discriminatory or politically motivated targeting of fiscal tools.

These concerns are particularly acute in authoritarian or semi-authoritarian systems, where fiscal infrastructure may be weaponized to reward political loyalty or punish dissent (Subrahmanyam 2023). Even in liberal democracies, the potential for mission creep when data collected for public finance is used for surveillance, law enforcement or taxation beyond the original scope, remains a critical threat (Hall 2017).

Addressing these risks requires privacy-by-design protocols, such as tiered anonymity, decentralized identity layers and independent data governance authorities that insulate fiscal functions from political misuse (World Economic Forum 2021). For example, advanced-economy pilots demonstrate that strong privacy protections can coexist with fiscal functionality. The Bank of England's and the ECB's proposals employ offline payment modules and cryptographic pseudonymization to prevent the viewing by government of low-value transactions (Bank of England 2025; Daman 2024). While CBDCs introduce institutional and technological risks, these are neither inevitable nor unmanageable. Properly designed governance, privacy-preserving architectures and international coordination can transform most of these challenges into areas of comparative advantage rather than vulnerability.

## Digital Dollarization and the Impact of External Vulnerabilities

CBDCs also introduce new forms of external vulnerability, especially in contexts where foreign CBDCs gain traction domestically. If populations prefer the digital dollar or digital yuan due to trust, liquidity or stability concerns, local CBDCs may struggle to gain adoption. This could recreate the very phenomenon CBDCs are meant to address — currency substitution, loss of monetary policy traction and external fiscal fragility (BIS et al. 2021).

Moreover, efforts to build cross-border CBDC interoperability frameworks, such as Project mBridge, may inadvertently lead to new strategic dependencies, where domestic fiscal infrastructure becomes reliant on foreign digital rails and settlement systems.

In highly dollarized or geopolitically exposed countries, this could enable external actors to exert indirect influence over domestic fiscal behaviour through sanctions enforcement, data capture or denial of service. These risks echo the vulnerabilities experienced through SWIFT and CHIPS in the

conventional system but are magnified in a fully digital and programmable financial environment.

Guarding against digital dollarization requires a careful balance between interoperability and digital sovereignty. Regional payment systems, local settlement protocols and user-friendly national platforms are essential to maintaining domestic preference for sovereign digital money.

## Institutional and Technological Readiness Gaps

Finally, the fiscal benefits of CBDCs are highly contingent on the institutional and technological maturity of the implementing state. Many of the advantages envisioned, such as real-time tracking, automated tax compliance and conditional transfers, depend on the existence of:

- unified digital identity systems;
- interoperable fiscal databases;
- skilled bureaucracies and regulators; and
- stable network infrastructure and cybersecurity protocols.

In low-capacity states, introducing CBDC-linked fiscal instruments without these prerequisites risks misimplementation or system breakdown (IMF 2024). Moreover, reliance on proprietary or external CBDC technologies can result in technological lock-in, where states lose the flexibility to adapt their fiscal architecture as needs evolve.

Cybersecurity is an additional concern. If fiscal transfers or tax systems are fully digitized and reliant on a central ledger, any system failure, hacking incident or denial-of-service attack could paralyze critical public finance functions, undermining both public trust and macroeconomic stability (Bharath, Paduraru and Gaidosch 2024). Mitigating these risks demands a phased, modular approach to CBDC rollout, rigorous stress-testing of fiscal systems and investment in institutional capacity alongside technological infrastructure (BIS 2023).

CBDCs, while offering tools for reclaiming fiscal sovereignty, are not inherently sovereign instruments. Their ability to support national control over public finance depends entirely on the governance frameworks, institutional safeguards and public trust within which they operate. Left

unregulated, they may merely reproduce or even deepen the very vulnerabilities they were designed to address.

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## Governance and Policy Design Principles

The preceding analysis illustrates a paradox: While CBDCs offer significant potential to reclaim fiscal sovereignty and modernize public finance, they also introduce novel risks that, if unmanaged, could undermine democratic accountability, monetary stability and individual rights. As such, the utility of CBDCs in the fiscal domain is not a function of their technology alone, but of the governance architecture and policy choices that shape their deployment.

This section identifies four core design and governance principles that should guide states in developing CBDCs that advance fiscal sovereignty without incurring systemic or political risk.

### Institutional Safeguards: Preserving the Fiscal-Monetary Boundary

A foundational precondition for leveraging CBDCs to support fiscal policy is the clear institutional demarcation between monetary and fiscal authorities.

To ensure this, governments must enshrine statutory limits on the types of fiscal transfers permissible through CBDCs, such as social benefits or emergency relief, while placing politically sensitive transfers or disbursements that coincide with election cycles, targeted regional subsidies or industry-specific bailouts that could influence electoral outcomes under explicit legislative and judicial oversight. A dual-key governance model should be adopted, whereby fiscal CBDC transfers are initiated by the Treasury or Ministry of Finance, but their execution and audit are carried out by the central bank or an independent fiscal authority.

Furthermore, CBDC-related fiscal operations must be integrated into medium-term fiscal frameworks and budget-planning cycles to avoid ad hoc disbursements and ensure alignment with broader macroeconomic objectives.

These institutional safeguards are essential to preserving the integrity of monetary institutions while enabling CBDCs to serve as a credible tool in public financial management.

### Privacy-Preserving Architecture and Data Governance

To be both effective and legitimate, CBDC design must embed privacy as a foundational principle, particularly in jurisdictions with weak data protection frameworks or historical mistrust of state surveillance.

Achieving this requires a combination of technical and institutional innovations. Tiered anonymity structures can allow small-value transactions to remain anonymous or pseudonymous, while imposing reporting requirements on higher-value transactions to satisfy regulatory needs. Advanced cryptographic techniques such as zero-knowledge proofs and secure multi-party computation can verify user eligibility or enforce policy conditions without exposing sensitive transaction data to unauthorized actors (Arora et al. 2025). For example, in China, the digital yuan’s “controllable anonymity” framework allows small-value offline payments to remain pseudonymous while subjecting large-value transactions to central bank verification (MacKinnon 2022). And, in the European Union, the ECB’s digital euro privacy layer proposal employs offline wallets with local encryption keys, ensuring that neither the central bank nor intermediaries can trace low-value usage (CNIL 2023).

Institutional safeguards are equally essential; the establishment of independent data fiduciaries or public ombudsman bodies with the authority to audit CBDC-monitoring systems and adjudicate privacy complaints can ensure accountability. Ultimately, privacy-preserving design is not just a matter of civil liberties — it is also a political imperative. By protecting user confidentiality and upholding trust, such design choices are essential to the long-term legitimacy and democratic sustainability of digital public finance.

### Multilateral Cooperation and Digital Sovereignty

Given the transnational nature of digital financial infrastructure, the development of CBDCs must be pursued through coordinated, multilateral engagement rather than in isolation. Absent such collaboration, the uncoordinated proliferation of

national digital currencies risks amplifying global financial fragmentation, interoperability failures and unintended cross-border currency substitution, particularly in regions already marked by high dollarization or asymmetric trade dependencies.

To mitigate these risks while preserving national autonomy, states should engage proactively in global standard-setting initiatives led by institutions such as the BIS, the IMF and the Group of Twenty. Equally important is the support for regional clearing systems and interoperability frameworks tailored to groupings such as the European Union, the Association of Southeast Asian Nations or the African Union, which enable seamless cross-border payments in local CBDCs without relying on dollar-denominated networks.

It is also important to note that emerging alternatives such as Project mBridge (BIS Innovation Hub 2022), BRICS Pay (Savic 2025) and the Arab Monetary Fund's Buna network (Ping 2024) signal a shift toward multipolar payment connectivity. Participation in these systems allows countries to settle trade in local CBDCs or regional units of account, reducing dependence on SWIFT and CHIPS while promoting digital sovereignty.

Finally, countries should pursue a strategy of digital non-alignment, designing CBDC systems that are technologically agnostic and free from dependence on any single external provider or protocol that could expose them to extraterritorial influence or coercion. A truly sovereign digital fiscal architecture must be interoperable by deliberate design — not geopolitical necessity — ensuring resilience, autonomy and equitable participation in the emerging global monetary order.

## Public Trust and Political Legitimacy

Ultimately, the success of any CBDC as a tool for fiscal governance hinges not solely on technical design but also on public trust and institutional legitimacy. For CBDCs to be widely adopted and socially sustainable, citizens must view digital public finance not as an extension of state surveillance or coercive control but as a secure, inclusive and transparent mechanism for economic empowerment.

Achieving this requires deliberate government investment to both fund digital-ID infrastructure and to establish independent data-protection

authorities, civic education initiatives and open-source CBDC research and development programs. These initiatives foster trust and interoperability in civic education campaigns that clearly articulate how CBDCs work, the safeguards in place to protect user data and the rights afforded to users within the system. Furthermore, the design and governance of CBDCs must be rooted in inclusive, consultative processes that engage civil society organizations, privacy advocates, business communities and marginalized groups, ensuring that policy choices reflect a democratic consensus rather than a technocratic approach to currency.

Transparent and independently audited public reporting on CBDC utilization, fiscal outcomes and social impacts should become standard practice to reinforce accountability and institutional credibility. This often-overlooked social contract dimension is essential: CBDCs are not merely technical innovations but also governance instruments whose fiscal utility must be anchored in principles that balance efficiency with equity, control with accountability, and innovation with democratic oversight. Only by embedding these values can CBDCs enhance fiscal sovereignty without eroding the pluralism and public trust on which sovereign democratic finance ultimately rests.

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## Future Outlook

The erosion of fiscal sovereignty in the post-Bretton Woods era has become one of the defining structural constraints on state capacity in both emerging and advanced economies. Dollarization, capital mobility, fiscal orthodoxy and institutional fragmentation have severely narrowed the policy space available to national governments, particularly in times of crisis. The emergence of CBDCs, however, presents a rare opportunity to recalibrate fiscal-monetary orthodoxy, not merely by modernizing money but also by re-engineering the infrastructure through which states mobilize, allocate and account for public resources. As Claudio Borio (2023) notes, “new monetary instruments can restore the synergy between fiscal purpose and monetary discipline.” By embedding accountability and programmability, CBDCs can reconcile the stability benefits of independent central banks with the developmental imperatives of proactive fiscal policy.

If carefully designed and strategically governed, CBDCs can enhance fiscal sovereignty by increasing public expenditure visibility, enabling programmable and conditional transfers, expanding the taxable universe and improving the timeliness and precision of fiscal responses. Far from being limited to monetary stability or payment innovation, CBDCs hold the potential to function as sovereign public finance platforms, especially when integrated with digital identity, administrative databases and national budgeting systems.

Yet this potential is not guaranteed. The deployment of CBDCs in the fiscal domain brings with it an array of systemic risks: from the erosion of central bank independence and the politicization of monetary tools to the rise of state surveillance, cyber vulnerabilities and new dependencies created through foreign digital currency penetration. If improperly managed, these risks could not only undermine fiscal goals but also degrade democratic norms, personal privacy and geopolitical autonomy.

CBDCs are thus not a panacea, but they may represent a pivotal instrument for redefining statehood in the digital era. Their fiscal applications, if responsibly pursued, could help restore the state's ability to govern in the public interest — not by expanding surveillance or control but by enhancing precision, equity and legitimacy in the delivery of public goods. In an age of geopolitical volatility and economic realignment, the capacity to digitally reassert fiscal sovereignty may determine not just the effectiveness of government but also the resilience of democratic governance itself.

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