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CBDC: Further Navigating Challenges and Opportunities

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Current CBDC Landscape

- Global interest in CBDCs continues, with growing focus on **wholesale use cases**.
 - **91%** of 93 CBs are exploring rCBDCs, wCBDCs, or both (BIS 2024 survey).
 - Interest in rCBDCs remains high in **certain regions** e.g. Sub-Saharan Africa
 - Yet **rCBDC adoption remains low** (Nigeria, Jamaica, Bahamas).
 - Pilots have expanded via **FPS-CBDC linkages** (China-HK) and onboarding of **non-banks** (India).
 - Some are preparing for **near-term issuance** (Kazakhstan, Russia), while others **continue to carefully assess** use cases, market fit, and operational feasibility (UK, EU).
 - Some have **paused rCBDC efforts** (Canada, Australia, Thailand, and the US).
 - wCBDC work is advancing, driven by **tokenization and cross-border use cases**.
- IMF's capacity development work encourages a **careful and systematic approach**, rather than rushing to deployment.
 - More **data-driven** and tailored to **country-specific** conditions
 - Expanded into adjacent areas, such as **cross-border payments**

Background: CBDC Handbook Chapters

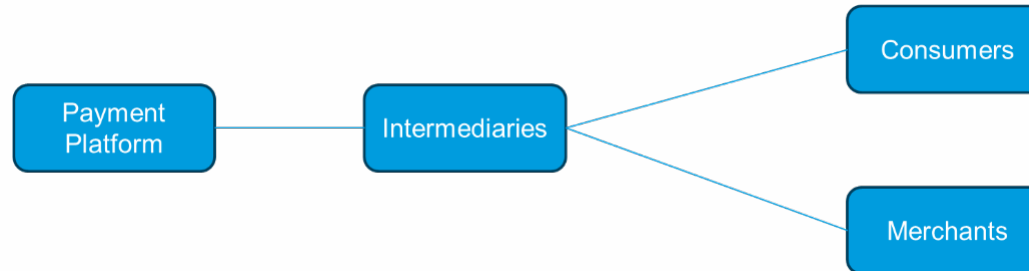
Objectives and Framework	Foundational Requirements and Readiness	Design Process, Considerations, and Choices	Technology and Project Approaches	Potential Macro-Financial Implications
<div> <div>Digital Money: Positioning CBDC</div> <div>Elements of Thinking Through CBDC</div> <div>A Central Bank Strategy for Tokenized Reserves Evaluation</div> </div> <div> <div> <div>Legend</div> <ul style="list-style-type: none"> Published in 2023 Published in 2024 To be published in 2025 </div> </div>	<div> <div>Selected Legal Considerations for CBDCs</div> <div>Cyber Resilience of the CBDC Ecosystem</div> </div>	<div> <div>CBDC Adoption Strategies for Intermediaries and Users</div> <div>Financial Integrity Considerations</div> <div>Data Use and Privacy Protection</div> <div>Capital Flow Management Measures</div> <div>Payment Resilience in Fragile and Conflict-Affected States: Lessons for CBDC</div> </div>	<div> <div>Project Management: 5P Framework</div> </div>	<div> <div>CBDC's Role in Promoting Financial Inclusion</div> <div>Evaluating the Impact on Monetary Policy Transmission</div> <div>Evaluating the Implications of CBDC for Financial Stability</div> <div>Retail CBDC for Cross-Border Payments</div> <div>The Impact of CBDC on Payments Competition</div> <div>Implications of CBDC for Monetary Operations</div> </div>

1. Evaluating the Implications of rCBDC for Financial Stability

- **6 interrelated channels:** asset, liability, fee income, run risk, information, payment system resilience.
- Impact **depends on** factors such as adoption, country characteristics, and design features.
- **Quantitative studies** found that rCBDC **would not pose significant financial stability issues** if mildly adopted.
- **Impact assessments** can begin with bank balance sheet analyses, and evolve with macro-financial modeling and ongoing data collection.
- Risk mitigation can be achieved through **careful rCBDC design** (e.g. limits on CBDC holdings or fees applied to holdings above a certain limit) and **traditional safeguards**

2. The Impact of rCBDC on Competition in Retail Payments

- Retail payment markets prone to **concentration** from strong **network effects** and **platform dynamics**.



- Impact of rCBDC depends on **market structure**, **regulatory environment**, and **design choices**.
- Other tools exist (e.g., fee caps, public FPS) but may fall short.
- In markets dominated by **unregulated private platforms**, rCBDC may have the **strongest effect** by reducing fees, improving access, and enhancing service standards.
- In **regulated markets** with fee caps or in **markets with strong public FPS**, rCBDC stands to have a more **moderate effect**.
- Competition benefits must be **balanced against risks**, such as crowding out private providers, reducing market resilience, or increasing operational costs for central banks.

3. Selected Legal Considerations for CBDC

Jurisdictions need to assess legal frameworks to minimize legal, financial, operational, and reputational risks.

- **rCBDC**

- Granting currency status may necessitate **amendments** to central bank and monetary laws.
- Adequate **legal frameworks** are imperative to issue rCBDC and to own and operate rCBDC platforms.
- Clear delineation of **legal responsibilities** is required among the central bank, intermediaries, and users.
- Limits, fees, interest, programmability, and offline use, must be **anchored in the law**.

- **wCBDC**

- **Statutory authority** should extend to issue wCBDC and operate wCBDC platforms, while maintaining central bank's ultimate control.
- **Legal clarity** is needed on settlement finality and treatment of wCBDC tokens in cases of loss, unauthorized transfer, or good-faith acquisition.

4. Financial Integrity Considerations for rCBDC

The financial integrity implications depends on rCBDC's specific features.

- **Impact on effective implementation of AML/CFT measures:**
 - rCBDCs may pose **challenges** or could present **opportunities**.
 - **ML/TF risks** should be understood and assessed throughout development, pilot, and launch.
 - Some aspects of AML/CFT implementation can mirror traditional approaches, but others may **require new systems** or further guidance.
- **Open questions:**
 - Little precedent on the application of the FATF Standards to rCBDCs, raising **interpretive and practical challenges**.
 - **Key questions** relate to evolving role of central banks, whether effective application of AML/CFT preventive measures can be achieved in models with "cash-like" features.

5. Payment Ecosystem Resilience in FCS

- **Payment ecosystem resilience** is essential for maintaining trust and economic continuity in FCS.
- **5 interconnected layers:** (i) users; (ii) payment solutions; (iii) intermediaries; (iv) payment infrastructure; (v) connectivity infrastructure.
- **Strategies and lessons** can be drawn from FCS experiences (*CEMAC, Haiti, Tuvalu, Sudan, Ukraine, West Bank & Gaza, Yemen*).
- **CBDC could strengthen payment ecosystem resilience by:**
 - **Reinforcing trust** as a complementary form of central bank money.
 - **Providing a backup** payment channel and bridging infrastructure gaps.
 - **Embedding resilience-by-design** features (e.g. offline, cloud for redundancy), under flexible regulation.

6. Central Bank Exploration of Tokenized Reserves

- Central banks are exploring tokenizing reserves to **enhance the wholesale payment system** and **preserve the role of central bank money** if asset tokenization becomes widespread.
- **Various implementation models**, with distinct trade-offs:
 - Single ledger vs. compatible ledgers
 - ...requiring different degrees of central bank's involvement (sole operator vs. shared responsibility)
- Tokenization offers **new capabilities to enhance monetary operations**, via smart contracts which could help automate and support 24/7 market operations or improve collateral management
- But central banks need to **adopt coherent policies and operational safeguards**.
- Countries could also consider **alternative solutions** e.g., RTGS links, tokenized deposits, omnibus accounts
- Strategic decisions and policy options will **vary across jurisdictions**.

Key Takeaways

- CBDC design and implementation require a **holistic, country-specific approach**.
- There is **no one-size-fits-all path**, underscoring the need for careful, evidence-based assessment rather than rushing to deployment.
- These 6 new Handbook chapters offers **guidance to policymakers** on further navigating challenges and opportunities, including evaluating the macro-financial implications.
- The Handbook serves as **a basis for the IMF's bilateral capacity development work**, which is complemented by analytical work thereby facilitating knowledge-sharing among countries.

We express sincere appreciation to the Government of Japan for supporting the Handbook and capacity development efforts.