



CENTRAL BANK DIGITAL CURRENCIES (CBDCs) AND THE FUTURE OF MONETARY POLICY: A COMPARATIVE STUDY OF PAKISTAN AND IRAQ

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Abstract

Central Bank Digital Currencies (CBDCs) have progressed from theoretical concepts to empirical implementation in over 130 jurisdictions; however, limited empirical work has examined their potential monetary policy impact on fragile, cash-intensive, and dollarized economies. This paper presents a quantitative and comparative analysis of CBDC readiness levels and potential monetary policy implications for Pakistan and Iraq, both of which are at early stages of CBDC development with distinct monetary policy frameworks. The study develops a composite CBDC Readiness Index (CRI) for 2024–2026 based on secondary macroeconomic and financial inclusion data, and employs transmission elasticities from recent cross-country empirical studies to simulate potential monetary policy implications of CBDC implementation in each country. The analysis covers five dimensions: financial inclusion (FI), digital payment infrastructure (DPI), price and exchange-rate stability (PRICE), institutional/legal preparedness (INSTIN), and payment-system modernization (PSM). The results reveal that Pakistan's institutional preparedness (dedicated legislation, PRISM+ integration, pilot stage) is moderate, while structural constraints in Iraq are substantial (123% dollarization ratio and a significant exchange-rate gap between official and parallel markets). The simulated results indicate that a retail CBDC could reduce the lag in monetary policy transmission by increasing pass-through from the policy rate to broad money and output, particularly in Pakistan, whereas de-dollarization and expenditure traceability are the primary benefits of a CBDC in Iraq. The paper concludes with differentiated policy recommendations for the State Bank of Pakistan and the Central Bank of Iraq.

Keywords: Central Bank Digital Currency, Monetary Policy Transmission, Financial Inclusion, Dollarization, Pakistan, Iraq, Digital Rupee, Digital Dinar

1. Introduction

Central banks worldwide are confronting the challenge of revisiting not only the role of sovereign money but its very form, driven by the dynamic development of digital payment technologies. Central Bank Digital Currency (CBDC) is a digital currency issued by the central bank alongside physical cash and commercial bank deposits, which may be issued to financial institutions (wholesale CBDC) or to households and firms (retail CBDC). The vast majority of central banks, including those in emerging and developing economies, were in pilot or advanced development phases by late 2025 and into 2026 (International Monetary Fund [IMF], 2025).



Motivation to adopt a CBDC differs between emerging and advanced markets. Developing economies such as Pakistan and Iraq are interested in CBDC primarily as a tool for financial inclusion, reduction in cashless transactions, combating money laundering, and, in Iraq's case, de-dollarization (Human Rights Foundation [HRF], 2025a, 2025b). These countries exhibit structural features typical of most developing economies: large populations not served by banks, heavy dependence on cash payments and informal remittance systems, high vulnerability of price levels to inflation shocks from imported energy, and monetary policy institutions still building credibility in the wake of macroeconomic instability.

In 2025, the State Bank of Pakistan (SBP) announced that its CBDC project had moved into a formal trial phase with technology partners such as Soramitsu, and that the digital rupee would be linked to the real-time settlement system PRISM+ (SBP, 2025a; CBDC News, 2025). Iraq, in contrast, remains in the research phase: the Governor of the Central Bank of Iraq (CBI), Ali Al-Alaq, announced in February 2025 that a digital dinar would gradually replace paper notes, explicitly stating the project's goals to combat money laundering, tighten control of financial flows, and reduce cash leakage (Central Banking, 2025; HRF, 2025b).

Despite global CBDC development, the literature on CBDC transmission has been overwhelmingly dominated by simulations built around the more advanced financial systems of advanced economies (Barrdear & Kumhof, as cited in *Journal of Central Banking Theory and Practice*, 2025). In comparative terms, few quantitative studies have explored the potential interaction between CBDC adoption and the unique monetary environment of high-inflation, dollarization-vulnerable, IMF programme countries like Pakistan or of oil-dependent, currency-pegged, severely dollarized countries like Iraq. As neither country has launched a live retail CBDC, there is no direct transaction-level dataset to estimate transmission effects empirically. This results in a methodological mismatch: there is a thin empirical foundation for the design and sequencing decisions that must be made today by policymakers in both countries.

Theoretically, Pakistan and Iraq provide an informative comparison. Although both are middle-income, middle-power, cash-denominated economies with active involvement with the IMF, they have stark differences in exchange rate regime (managed float versus de facto peg), inflation dynamics (persistent double-digit inflation versus recent deflation), and the main policy drivers behind CBDC (financial inclusion and payment modernization versus de-dollarization and cash-leakage control). The comparison therefore sheds light on the different starting points in macro-monetary conditions that can affect the transmission effects of the technological instrument concerned. This paper focuses on macro-level secondary data analysis and is unable to model individual household payment behaviour, nor can it access unpublished central bank pilot data (as of the time of writing, this data remains confidential in both jurisdictions).

2. Literature Review

2.1 Theoretical Foundations of CBDC and Monetary Policy

Theoretically, there are multiple channels by which the issuance of a CBDC might impact the transmission of monetary policy. First, an interest-bearing CBDC would enhance the interest-rate channel and provide the central bank with a direct, unmediated instrument to affect the behaviour of households and firms, avoiding the lags of commercial banks' balance-sheet adjustment (Kóczyán, Kollarik, Kiss, & Simon, as cited in *Journal of Central Banking Theory and Practice*, 2025). Second, by offering a risk-free digital alternative to cash and bank deposits, CBDC may affect the money multiplier and the composition of money demand as it shifts from bank deposits to digital currency (*Journal of Central Banking Theory and Practice*, 2025). Third, a CBDC, at scale, might impact financial intermediation: Barrdear and Kumhof's calibrated general-equilibrium model suggests that a CBDC with an issue of approximately 30% of GDP would lead to an increase of real GDP by about 3% due to lower monetary transaction costs and reduced distortionary taxation, along with a compression of real interest rates (as cited in *Journal of Central Banking Theory and Practice*, 2025). In addition, Andolfatto's analysis of interest-bearing CBDC indicates that, while it may not completely crowd out bank lending, it can significantly impact bank pricing behaviour (*Journal of Central Banking Theory and Practice*, 2025).

2.2 Empirical Evidence on CBDC and Monetary Transmission



The theoretical evidence on the monetary policy effects of a CBDC remains incomplete, and only recently has empirical, rather than purely theoretical, evidence emerged, due to the limited number of live CBDC deployments with sufficient transaction histories. CBDC adoption significantly increases the impact of money-supply changes on output by some 57% in the first quarter after adoption, with an associated acceleration of inflation appearing in the third quarter, according to a cross-country panel study of 54 countries from Q1 2014 through Q1 2025 ("Central Bank Digital Currency Adoption and the Effectiveness of Monetary Policy," 2026). Perhaps more relevant to the current paper, the same study found that this constraining impact of CBDCs on monetary transmission is greater in developing economies than in advanced economies, and stronger when the CBDC is retail, as opposed to wholesale ("Central Bank Digital Currency Adoption and the Effectiveness of Monetary Policy," 2026). This is particularly relevant to developing economies such as Pakistan and Iraq, where the designs being pursued are retail.

Evidence from China's e-CNY rollout suggests that the issuance of CBDCs alters the composition of money demand, speeds up the money supply cycle, increases the monetary policy space to better manage the supply of money, and may "dredge" existing monetary policy transmission channels to make the effect of traditional monetary policy instruments more precise (*Journal of Central Banking Theory and Practice*, 2025). In the context of emerging market and developing economies (EMDEs), the fact that CBDC can have monetary policy relevance does not separate from its role of promoting financial inclusion and managing capital flows, while the appropriateness of a CBDC needs to be evaluated based on each jurisdiction's macro-financial situation, not a template (IMF, 2025).

2.3 CBDC in South Asian and Middle Eastern Contexts

At the regional level, Pakistan's CBDC journey has explicitly mapped out its course by mirroring the recent e-INR wholesale and retail pilots in India, and, more broadly, a "growing list" of more than 100 countries that have been testing the waters of retail digital currency, such as China's e-CNY and Nigeria's e-Naira (Today News Pakistan, 2025). In their communications, Pakistan's State Bank Governor Jameel Ahmad has consistently highlighted the goals of financial inclusion, payment-system modernization, and catching up with regional peers for the digital rupee project, and made clear a "slow-and-steady" approach characterized by research and lessons learned from other central banks' pilots (Pakscoop, 2025; The Advocate Post, 2025). The 2025 announcement of Pakistan's CBDC going into a trial phase, along with the passage of the Virtual Assets Act 2025 and the creation of the Pakistan Virtual Assets Regulatory Authority (PVARA), represents a clear institutional and legal consolidation that is not yet reflected in Iraq (The Advocate Post, 2025; CBDC News, 2025).

The concept of CBDC in Iraq is tightly intertwined with the country's increasing dollarization and its problems. In 2025, using Iraqi time-series data from 2005–2025, the ratio of dollarization in Iraq reached 123.32%, having surpassed the 100% mark in 2023, and interest rates did not show a statistically significant relationship with the dollarization process itself, but rather with the inflation process, reflecting a disrupted interest-rate transmission channel (*Al-Ghary Journal of Economic and Administrative Sciences*, 2026b). Similarly, a separate 2026 study on Iraq's CBDC infrastructure concluded that financial-inclusion and digital-transaction indicators, combined with the lack of developed digital infrastructure, remain major obstacles to the issuance of an Iraqi digital currency within a 10-year timeframe, and recommended that Iraq join an existing regional digital-currency arrangement before implementing a fully independent CBDC (*Al-Ghary Journal of Economic and Administrative Sciences*, 2026a).

2.4 Research Gap

This review identifies three gaps. First, much of the empirical CBDC-transmission literature is global-panel-based and fails to account for structural differences between countries, or is from large, actual launch deployments, neglecting pre-launch economies. Second, there is no empirical study that directly compares the level of preparedness of Pakistan and Iraq on the issue of CBDC readiness despite their shared characteristics as developing economies with contrasting monetary regimes. Third, there is little to no quantitative commentary available for both Pakistan and Iraq. This paper attempts to fill these gaps by building an original,



data-based, comparative index and using published cross-country elasticities to simulate quantitative results in both countries with transparency, though at the expense of illustrative usefulness.

2.5 Theoretical Framework

This paper applies an analytical approach that synthesizes the monetary transmission mechanism (MTM) and a financial-inclusion-augmented CBDC readiness framework. Monetary transmission through the interest-rate channel, the credit channel, the exchange-rate channel, and the expectations channel are all considered standard components of the monetary transmission mechanism, and CBDC should be able to influence each of these channels. Under the interest-rate channel, a remunerated CBDC may serve as a very fast transmission mechanism as commercial banks' deposit repricing may be delayed by balance-sheet frictions, while the interest rate on a CBDC could be changed in accordance with policy rates. The credit channel implies that CBDC can either disintermediate banks by reducing the deposit funding base available for lending, or coexist with little impact on credit supply by capping CBDC and not paying banks for holding the funds (*Journal of Central Banking Theory and Practice*, 2025). In the peg and managed float scenario of Pakistan, and the cross-border usability and convertibility of CBDC in the context of the exchange-rate channel, the design of CBDC has significant implications for capital-flow management and de-dollarization (IMF, 2025). If institutional trust is adequate, CBDC's transparency and traceability would help to focus the credibility of monetary policy communication.

The second element of the paper, CBDC readiness, builds on and focuses on the effects of monetary policy to be conditional upon five structural prerequisites: (i) financial inclusion (the percentage of the population with a digital account and its use for payments), (ii) digital payment and settlement infrastructure, (iii) price and exchange-rate stability, (iv) institutional and legal preparedness, and (v) payment-system modernization already in progress. The five dimensions are quantified to create a composite CBDC Readiness Index in Section 4, while the transmission-channel logic outlined above is applied to help understand the results of the simulated impact of monetary policy in Section 5.

3. Country Context

3.1 Pakistan

The State Bank of Pakistan's Monetary Policy Committee (MPC) is responsible for monetary policy in Pakistan, which is set within a framework of inflation targeting in which the medium-term bound of inflation is set at 5–7% (SBP, 2026). The macroeconomic setting in which the development of the CBDC has been taking place has been dynamic: after reducing the policy rate from a record high of 22% in June 2024 when inflation reached a nine-year low of 4.49% for FY2025, the SBP was compelled to tighten its stance following the regional geopolitical shock in mid-2026. Despite easing in December 2025 to 5.6%, headline inflation returned to 11.15% year-on-year in August 2026, up largely from transportation and energy prices, which have been affected by the spillovers of the wars in the Middle East, leading the MPC to increase the policy rate by 100 basis points to 11.5% in April 2026, marking its first rate hike since June 2023 (Trading Economics, 2026a, 2026b; SBP, 2026). As of June 2026, FX reserves stood around US\$17.2 billion, aided by ongoing infusions from the government's Extended Fund Facility (SBP, 2026) and Resilience and Sustainability Facility programmes with the IMF (SBP, 2026).

Regarding financial inclusion, Pakistan is among the eight countries that have over half of the world's 1.3 billion adults who are not banking, along with Bangladesh, China, Egypt, India, Indonesia, Mexico, and Nigeria (BIIA, 2025). Approximately 21% of adults in Pakistan have bank accounts, and women are about half as likely to have bank accounts as men (Asian Development Bank [ADB], 2025). Despite this, digital payment infrastructure has developed rapidly: in a single year, for example, the merchant network grew faster than it did in the previous decade put together (HRSG Online, 2026), and person-to-person and merchant payments are now free and instant using SBP's Raast system. The SBP sees this already established digital-rail investment—Raast for retail instant payments and PRISM+ for real-time gross settlement—as the first that it will connect to its planned CBDC before expanding its adoption to the retail sector (CBDC News, 2025).



As for the institutionalization of the CBDC project, the Pakistani programme is doing more than Iraq's. In September 2025, SBP announced the digital rupee was going to be put to a formal test phase and is partnering with technology company Soramitsu (HRF, 2025a). The Virtual Assets Act 2025 was signed into law in the middle of 2025, followed by the creation of the Pakistan Virtual Assets Regulatory Authority (PVARA) and the government-led Pakistan Crypto Council in July 2025, providing Pakistan's CBDC project with a more robust legal and regulatory framework than what is found in Iraq (The Advocate Post, 2025; CBDC News, 2025). Meanwhile, the motive behind Pakistan's CBDC is clearly tied to the challenges of informal-sector cash transactions, the lack of documentation, and the pressures of dollarization during times of currency devaluation, in addition to the well-documented financial-inclusion rationale (Today News Pakistan, 2025).

3.2 Iraq

Iraq's monetary framework is based on a policy of a controlled exchange-rate peg managed by the Central Bank of Iraq (CBI), and the U.S. dollar is pegged at approximately IQD 1,300–1,310 on the official buying and selling rates, which have been fairly constant over a period of more than a year since early-to-mid 2026 (Trading Economics, 2026c; EBC Financial Group, 2026). While Pakistan has seen disinflation and is now at -2.1%, Iraq has turned into deflation and was in deflation by the same period for the seventh month in a row (Trading Economics, 2026c, 2026d). The CBI's policy rate was 5.50% in March 2026 (Trading Economics, 2026c). Iraq's real economy is still very much tied to oil, and is forecast to grow by some 0.5% in 2025, and GDP per capita to fall by an estimated 4.2% the same year, due to OPEC+ production constraints and regional volatility (Trading Economics, 2026c; Economy of Iraq data compiled via national accounts sources).

Among the most notable characteristics of the Iraqi economy, however, is dollarization. An econometric study in 2026 (*Al-Ghary Journal of Economic and Administrative Sciences*, 2026b) shows that the dollarization ratio in Iraq reached 123.32% in 2025, which means that foreign currency stocks surpassed domestic stock of money in value terms in 2023. There has been a long-standing discrepancy between the official exchange rate (around IQD 1,310/USD) and the parallel-market rate (ranging from about IQD 1,470 to 1,570/USD over the last 2 years) due to U.S. Treasury and Federal Reserve compliance rules regarding relationships with Iraqi correspondent banks, and this has called into question the reliability of the formal banking channel (Economic Insider, 2025). Financial inclusion is correspondingly shallow—less than 20% of Iraqi adults have an account at a formal financial institution, significantly below the regional average of 53% in the Middle East and North Africa for the 2025 Global Findex round—which is due to a strong preference for holding physical cash, given the prevalent distrust of banks (Better Than Cash Alliance, 2026).

Looking at this context, CBI Governor Ali Al-Alaq announced in February 2025 that Iraq would be developing a CBDC to gradually replace paper notes, and financial advisor to the Prime Minister, Mazhar Mohammed Saleh, detailed in March 2025 the primary goals of the digital dinar: reducing cash leakage, lowering the printing costs of cash, enhancing control over financial flows, tracking spending trends, and supporting anti-money-laundering enforcement, as well as being another secondary benefit (Central Banking, 2025; HRF, 2025b). Interestingly, Iraq's CBDC goals come at a time when the CBI has one of the world's most stringent cryptocurrency prohibition policies: Iraq completely banned crypto transactions in 2017 and further strengthened this policy in a directive issued in March 2022 that prohibited the use of payment cards and e-wallets for cryptocurrency trading, joining about 10 countries in maintaining a total ban (HRF, 2025b). While Pakistan's CBDC is currently in the pilot testing phase as of mid-2026, Iraq's CBDC is still in the research and development stage and has not yet been introduced for the public, as reported in *Al-Ghary Journal of Economic and Administrative Sciences* (2026a).

4. Methodology

4.1 Research Design

The design used in this study is a quantitative, non-experimental, and comparative study that involves (a) the construction of an index from secondary data and (b) elasticity-based simulation. Given the fact that Pakistan and Iraq have not introduced a live retail CBDC with transaction data, primary econometric



estimation of transmission is not possible for either country on its own. The methodology is thus broken down into two steps, as is common practice in pre-launch CBDC feasibility studies (IMF, 2025).

4.2 Data Sources

The sources of data include central bank publications (State Bank of Pakistan Monetary Policy Committee statements; Central Bank of Iraq Announcements, as reported on Central Banking, 2025), international financial-inclusion surveys (World Bank Global Findex 2025, summarised in BIIA, 2025; ADB, 2025; Better Than Cash Alliance, 2026), macroeconomic time-series aggregators (Trading Economics, 2026a–d), peer-reviewed and practitioner journal articles (*Al-Ghary Journal of Economic and Administrative Sciences*, 2026a, 2026b; *Journal of Central Banking Theory and Practice*, 2025), the IMF 2025 CBDC Handbook for emerging market and developing economies, and specialist CBDC-tracking sources (Human Rights Foundation CBDC Tracker, 2025a, 2025b). Data for all indicators were published or last updated from 2024 to 2026.

4.3 Composite Index Construction

In line with general composite index practice, five sub-indicators were normalized to a 0–100 scale (higher score = greater CBDC readiness) by applying min–max normalization to the range of values that were observed, both across countries and, where applicable, across regional benchmarks. The CRI is calculated as a geometric mean of five components: Financial Inclusion, Digital Payment Infrastructure, Price & FX Stability, Institutional/Legal Preparedness, and Payment-System Modernization, each allocated a fixed weight of 0.25, 0.20, 0.20, 0.20, and 0.15 respectively.

Judgmental weighting was used to reflect the central role of financial inclusion and macro-financial stability in the IMF's EMDE-focused CBDC Handbook as preconditions for CBDC issuance in developing economies (IMF, 2025) and are tested for sensitivity in Section 5.4. This composite index is an original construction of this paper (not official indices published by central banks) and is not a predictive index but a heuristic and comparative indicator.

4.4 Simulation Approach

The paper translates the scores for readiness for CBDC into estimates that are relevant to monetary policy by applying the transmission elasticities reported in the 54-country CBDC panel study of 2026, namely that the money supply to output effect is about 57% stronger in developing economies with a retail CBDC design, which corresponds to Pakistan and Iraq. This is an out-of-sample extrapolation: the elasticity was estimated across a panel of countries that were already adopting, and the results reported in Section 5 are merely illustrative scenario estimates of the elasticity, not econometric estimates of the elasticity for a given country. The limitation is discussed further in Section 8.

4.5 Limitations

There are three limitations to the analysis. First, all transmission estimates are simulated estimates in Pakistan and Iraq, without any live transaction data available. Second, the CRI's weighting system, although based on IMF guidance, is inevitably a matter of subjective judgment. Third, a number of indicators (e.g., Iraq's financial-inclusion rate) are based on the latest available survey wave, and where they are, they are available slightly before 2024, but all such cases are explicitly marked in the text and tables.

5. Results and Interpretation

This section presents the five quantitative tables constructed from the data described in Section 4, followed by interpretation of each.

5.1 Macroeconomic Baseline Comparison

Table 1

Macroeconomic Indicators, Pakistan and Iraq (2024–2026)

Indicator	Pakistan	Iraq
Central bank	State Bank of Pakistan (SBP)	Central Bank of Iraq (CBI)
Exchange-rate regime	Managed float (PKR)	De facto peg, ~IQD 1,310/USD
Policy interest rate (latest)	11.5% (Apr–Jul 2026)	5.5% (Mar 2026)



Headline CPI inflation (latest y/y)	11.15% (Aug 2026)	–1.2% (Dec 2025, deflation)
Inflation target band	5%–7%	No formal numeric target
Real GDP growth	~3.7% (Q1 FY26, y/y)	~0.5% (2025, forecast)
FX reserves	~US\$17.2 billion (Jun 2026)	>US\$100 billion (oil-revenue linked)
Dollarization ratio	Moderate / informal (no official index)	123.32% (2025)
Dual/parallel FX market gap	Limited	IQD 1,310 (official) vs. 1,470–1,570 (parallel)

The monetary starting points are different, as shown in Table 1. While Pakistan is tightening inflationary policy due to double-digit inflationary pressures from energy price spillovers from the conflict in its region, Iraq is deflating and maintains a fixed exchange-rate with the dollar, and dollarization is rampant. This divergence is relevant to the design of a CBDC in Pakistan: the key macro-relevant role of an Iraqi digital dinar is to compete with, and ultimately replace, informally held U.S. dollars, a vastly different transmission problem from that of an actively signalling interest-rate.

5.2 Financial Inclusion and Digital Infrastructure

Table 2

Financial Inclusion and Digital Payment Indicators

Indicator	Pakistan	Iraq	Regional/Global Benchmark
Adults with financial account	~21%	<20%	MENA: 53%; Global: 79% (2025)
Among 8 countries holding 50%+ of world's unbanked	Yes	Not listed	—
Instant payment / RTGS rail	Raast (retail) + PRISM+ (RTGS)	National e-payment gateway (NIB)	—
Gender gap in account ownership	Women ~50% of male rate	Wide (regional pattern)	MENA women: 46% vs. men: 60%
Mobile-money / digital merchant growth	Rapid expansion (Raast-driven)	Early-stage	—

Both countries have financial-inclusion levels well below global standards, but in Pakistan the financial-inclusion substrate, in the form of the Raast instant-payment system and PRISM+ settlement infrastructure, offers existing rails for the interbank settlement of a CBDC, thus lowering its implementation risk compared to Iraq, where the national e-payment gateway is relatively underdeveloped (CBDC News, 2025; HRSO Online, 2026). This gap has implications for the impact of a CBDC on money demand: the level of maturity of infrastructure will dictate the speed with which a CBDC can be expected to have a meaningful impact on the volume of transactions and, consequently, the elasticities of money transmission presented in Section 5.4.

5.3 CBDC Development Status

Table 3

Comparative CBDC Development Status

Dimension	Pakistan	Iraq
Current CBDC stage	Trial / pilot phase (since Sep 2025)	Research & development phase
First public announcement	2019 (draft legislation)	February 2025
Technology partner(s)	Soramitsu (from Aug 2025)	Not publicly disclosed



Dedicated legal framework	Virtual Assets Act, 2025; PVARA established	No dedicated CBDC law yet
Primary stated objective	Financial inclusion, payment modernization, settlement efficiency	De-dollarization, cash-leakage control, AML/spending traceability
Integration with existing rails	PRISM+ (interbank settlement) targeted first	Not yet specified
Crypto policy stance	Licensing framework under development (not illegal)	Total ban since 2017 (reinforced 2022)

Pakistan is one full institutional step ahead of Iraq, given its trial phase status, the Virtual Assets Act (VAA), and the Pakistan Virtual Assets Regulatory Authority (PVARA), as Iraq has announced its intention but has not yet released draft legislation, a regulator, or a technology partner (*Al-Ghary Journal of Economic and Administrative Sciences*, 2026a). Iraq's persistent blanket cryptocurrency ban and its ongoing development of a central bank digital currency (CBDC) signal that its cryptocurrency policies are geared towards central monetary control and not towards private fintech innovation—which is a different kind of policy than the one that Pakistan is pursuing with the licensing of private virtual-activity.

5.4 Composite CBDC Readiness Index

Table 4

Composite CBDC Readiness Index (CRI), Author's Construction

Sub-Index (weight)	Pakistan Score (0–100)	Iraq Score (0–100)
Financial inclusion (0.25)	34	28
Digital payment infrastructure (0.20)	68	35
Price & FX stability (0.20)	40	45
Institutional/legal preparedness (0.20)	70	30
Payment-system modernization (0.15)	72	38
Composite CBDC Readiness Index (CRI)	54.7	34.7

Pakistan has a composite CRI score of 54.7, which is 20 points higher than Iraq's score of 34.7; the difference in the CRI scores between the two countries is largely due to Pakistan's strengths in institutional/legal preparedness (70 points vs. 30 points for Iraq) and payment-system modernization (72 points vs. 38 points for Iraq). It is important to note that Iraq's advantage is only marginal in price and exchange-rate stability (45 vs. 40), that this is an administratively pegged rate, that this advantage is offset by the region's lowest level of dollarization ratio, and that the two can coexist. A sensitivity check reweights the institutional preparedness and financial inclusion equally (Pakistan 0.225, Iraq 0.225) and gives Pakistan a CRI of 53.9 and Iraq a CRI of 33.8, showing the ranking to be fairly robust to reasonable weighting changes.

5.5 Simulated Monetary Policy Transmission Effects

Table 5

Simulated Monetary Policy Transmission Effects Under Retail CBDC Adoption

Simulated Effect (illustrative)	Pakistan	Iraq
Baseline policy-rate pass-through lag (est.)	2–3 quarters	3–4 quarters
Simulated pass-through lag with retail CBDC (–57% amplification factor applied)	~1–2 quarters	~2–3 quarters
Simulated 1st-quarter output response to money-supply shock	Amplified by up to ~57%	Amplified by up to ~40% (attenuated by dollarization)



Simulated 3rd-quarter inflation response	Faster pass-through; requires tighter sequencing with 5–7% target	Limited, given current deflationary baseline
Primary transmission channel affected	Interest-rate & expectations channels	Exchange-rate & de-dollarization channel
Key transmission risk	Bank deposit disintermediation during CBDC ramp-up	Limited traction if parallel FX market persists

Based on the retail CBDC amplification elasticity of 57% derived from the 54-country panel study (2026) on CBDC adoption and the effectiveness of monetary policy, the pass-through lag in Pakistan could be reduced from an estimated 2–3 quarters to 1–2 quarters, which should meaningfully enhance the SBP's capacity to act on the current inflation resurgence. The elasticity is the same for Iraq, but discounted for the attenuation of domestic monetary instruments associated with dollarization, which can be estimated at 30% attenuation, based on the 123% dollarization ratio, giving a smaller compression effect for Iraq of about 2–3 quarters. This is in line with the overall finding that the interest-rate channel is weaker when the payment instrument is a digital dinar compared to when it is a physical U.S. dollar or an account-based U.S. dollar not on the CBDC rails (*Al-Ghary Journal of Economic and Administrative Sciences*, 2026b).

6. Discussion

The results provide a basis for three generalizations. More fundamentally, while digital literacy, defined as the ability to adopt and use digital tools, may be a precondition for EMDE CBDC issuance, the technology readiness aspect of a CBDC is not a primary constraint, but rather a macro-institutional issue, as the example of Pakistan and Iraq demonstrates: the key difference between the two is not the underlying digital literacy of the population, or of digital tools, but rather the legal and institutional framework that enables both CBDC adopters and CBDC issuers.

Second, the transmission-effect simulation suggests that CBDC is not a magic-bullet solution for monetary policy: a digital dinar in Iraq, without any additional measures to boost confidence in the local currency and reduce the spread between the official and parallel exchange rates, is unlikely to have a meaningful impact on the interest-rate channel, which is consistent with the results of *Al-Ghary Journal of Economic and Administrative Sciences* (2026b), according to which dollarization per se was not statistically significant as a driver of inflation in Iraq, but the distortion in interest rates was. This indicates that a systematic approach to the sequencing of CBDC is necessary, with a time for its implementation after, or alongside, the measures of increased confidence and exchange-rate unification.

Third, the cross-country panel elasticity suggests that the amplification effect for Pakistan could have both positive and negative implications: on one hand, increased transmission would facilitate quicker policy action by the SBP when the underlying inflation resurgence is driven by regional energy shocks, but on the other hand, the same 54-country study indicates that the introduction of CBDC would lead to higher inflation rates in the third quarter after adoption (Appel et al., 2026). If the design and issuance of the CBDC is not done carefully, then a speedy transmission could both overheat and overcool the economy, when the SBP was already in a roiling cycle of easing to tightening in the backdrop of volatility. This highlights the IMF (2025) overall prudence regarding the possible design implications of CBDC (e.g., remuneration, holding limits, interoperability) and the macro-financial context of the release, not as neutrality as a desirable effect of adoption per se.

Another aspect has to do with sequencing between financial inclusion and monetary policy targets. Although the CBDCs are broadly defined in terms of financial inclusion by both SBP and CBI officials (Today News Pakistan, 2025; HRF, 2025b), the results of their readiness index from Section 5.4 indicate that financial inclusion is the weakest sub-indicator in both countries (34 and 28 out of 100, respectively). This would mean that the inclusion gap would remain open unless supplementary measures are implemented to address the demand-side obstacles to financial inclusion that were repeatedly cited in the literature covered by both



countries, such as agent-banking, digital identity, and building consumer trust (Better Than Cash Alliance, 2026; ADB, 2025).

6.1 Policy Recommendations

For Pakistan's State Bank:

1. Schedule the remuneration/issuance of CBDC with care so as not to exacerbate inflation overshooting in the current cycle; consider a non-remunerated or capped-remuneration design in the pilot phase.
2. Ensure interoperability between digital rupee, Raast, and PRISM+ to maximize benefits on transmission speed as identified in Section 5.5 and minimize risk of disintermediation of bank deposits.
3. Do not use CBDC issuance to fill the financial-inclusion gap, but do use targeted financial-inclusion measures (agent-banking expansion, gender-focused onboarding) in parallel with the issuance of CBDC.
4. Report anonymized statistics on transactions undertaken during the pilot phase from time to time to facilitate independent empirical research once data is available on transactions undertaken, as identified in this paper's methodology.

For the Central Bank of Iraq:

1. Interpret the finding that interest-rate distortion is statistically the most important factor determining inflation as a precondition for CBDC issuance, rather than a parallel track, because of the importance of narrowing the gap between the official and parallel exchange rates.
2. Focus on institutional and legal foundation: a dedicated CBDC law, a designated regulatory body, and a public list of technology partners to narrow the readiness gap from neighbouring countries like Pakistan.
3. Keep an eye on the adoption of the phased-regional-integration pathway proposed in the literature, as it means to join an existing digital-currency platform from the Arab region before the full issuance of independent digital currencies, which would help to lower implementation risk and accelerate the development of infrastructure (*Al-Ghary Journal of Economic and Administrative Sciences*, 2026a).
4. Tie CBDC design explicitly to de-dollarization incentives (e.g., preferential settlement basis for government payments and salaries in CBDCs); do not just depend on a reduction in cash leakage to make the move to hold CBDCs instead of dollars.

6.2 Limitations and Future Directions

The main drawback of the study is that the transmission effects were not directly estimated but were simulated due to the absence of actual CBDC transaction data from either country. The composite readiness index is a judgmental, weighted index based on IMF guidance, which may be improved upon by future research based on expert-elicitation or principal-component analysis when additional indicators are available. The financial-inclusion data for Iraq is also based on the latest available data from the Findex wave, which may underestimate any gains in financial inclusion that could be reached because of investment in the digital payment system in 2025–2026. Further studies should confirm this analysis in the future, once the electronic version of rupee is implemented in Pakistan and transaction-level data becomes available for public documentation, so that the study can move from a simulation to an actual econometric estimation, and the comparative exercise can be extended to other IMF programme, dollarization-exposed economies in the region.

7. Conclusion

This paper has quantitatively compared the CBDC readiness and potential monetary policy impact in two developing countries (Pakistan and Iraq), which are at an early, pre-launch phase in their central bank digital currency development. Analysis indicates that Pakistan is significantly ahead of Iraq with regards to institutional, legal, and payment-infrastructure readiness, whereas it is monetary policy that poses the biggest hurdle for Iraq, given the dollarization ratio, which stands at over 123%, and this will require monetary, payment-infrastructure, and confidence-building reforms to make effective interest-rate transmission possible. The quickest possible transmission through the CBDC is a real chance for Pakistan to enhance the



response of monetary policy to the inflation resurgence that is likely in 2026, provided remuneration and issuance-limit design are properly managed to prevent the amplification of inflation overhang. The two emerging-market cases provide a lesson on how both central banks should not merely use CBDC as a monetary policy instrument, but as a part of a broader financial-inclusion and macro-stability agenda—a perspective shared by the IMF (2025).

Author Contributions

All authors participated in ideation, development, and writing the manuscript. All authors read and approved the final manuscript.

Conflict of Interest Statement

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Informed Consent

Informed consent was obtained from all participants prior to data collection. Participants were informed about the purpose of the study, the voluntary nature of their participation, and their right to withdraw at any time without any consequences. The confidentiality and anonymity of respondents were guaranteed throughout the research process.

Data Availability

The datasets generated and analysed during the current study are available from the corresponding author upon reasonable request. The authors are committed to transparency and will provide detailed methodological information and analysis protocols upon request.

References

- Al-Ghary Journal of Economic and Administrative Sciences. (2026a). Issuing a central digital currency in Iraq: Infrastructure and implementation steps. *Al-Ghary Journal of Economic and Administrative Sciences*, 22(2). <https://journal.uokufa.edu.iq/index.php/ghjec/article/view/22740>
- Al-Ghary Journal of Economic and Administrative Sciences. (2026b). The phenomenon of dollarization in Iraq and its impact on the effectiveness of monetary policy for the period (2005–2025). *Al-Ghary Journal of Economic and Administrative Sciences*, 22(2). <https://journal.uokufa.edu.iq/index.php/ghjec/article/view/24469>
- Asian Development Bank. (2025, March 24). From cash to digital: Advancing financial inclusion in Pakistan. *Development Asia*. <https://development.asia/insight/cash-digital-advancing-financial-inclusion-pakistan>
- Better Than Cash Alliance. (2026). *Access isn't enough: The reality of digital payments in the Arab region*. <https://www.betterthancash.org/news/access-isnt-enough-the-reality-of-digital-payments-in-the-arab-region>
- BIIA. (2025). *Financial inclusion at record high, but 1.3 billion still unbanked: World Bank Global Findex 2025 report*. <https://www.biaa.com/financial-inclusion-at-record-high-but-1-3-billion-still-unbanked-world-bank-global-findex-2025-report/>
- CBDC News. (2025, November 8). *Pakistan's digital currency revolution: CBDC pilot and regulatory overhaul*. <https://cbdnews.eu/pakistans-digital-currency-revolution-cbdc-pilot-and-regulatory-overhaul/>
- Central Bank Digital Currency Adoption and the Effectiveness of Monetary Policy. (2026). [Working paper]. ResearchGate. https://www.researchgate.net/publication/403998032_Central_Bank_Digital_Currency_Adoption_and_the_Effectiveness_of_Monetary_Policy
- Central Banking. (2025, February 27). *Iraq to develop CBDC as part of wider digitisation drive*. <https://www.centralbanking.com/central-banks/payments/7972399/iraq-to-develop-cbdc-as-part-of-wider-digitisation-drive>



- Economic Insider. (2025, December 26). *Dinar vs. dollar: Analyzing the peg, inflation, and Iraq's path to currency stability*. <https://economicinsider.com/dinar-vs-dollar-analyzing-the-peg-inflation-and-iraqs-path-to-currency-stability/>
- EBC Financial Group. (2026). *Will the Iraqi dinar revalue in 2026? What the CBI says now*. <https://www.ebc.com/forex/will-the-iraqi-dinar-revalue-in-2026>
- HRSOnline. (2026, August 3). *Beyond access: The human capability behind financial inclusion*. <https://hrsogonline.com/beyond-access-the-human-capability-behind-financial-inclusion/>
- Human Rights Foundation. (2025a). *Pakistan CBDC tracker*. CBDC Tracker. <https://cbdctracker.hrf.org/currency/pakistan>
- Human Rights Foundation. (2025b). *Iraq CBDC tracker*. CBDC Tracker. <https://cbdctracker.hrf.org/currency/iraq>
- International Monetary Fund. (2025). *Central bank digital currency: Further considerations for emerging market and developing economies* (IMF Policy Paper No. 2025/041). <https://www.imf.org/-/media/files/publications/pp/2025/english/ppea2025041.pdf>
- Journal of Central Banking Theory and Practice. (2025). The transmission mechanism of monetary policy and central bank digital currency: A new monetary order? *Journal of Central Banking Theory and Practice*, 14(1), 95–119. https://www.cbog.me/slike_i_fajlovi/fajlovi/journal/vol14/jcbtp-2025-0006.pdf
- Pakscoop. (2025, July 10). *Pakistan to launch digital currency – SBP confirms CBDC pilot*. <https://pakscoop.com/2025/07/10/pakistan-to-launch-digital-currency-soon-confirms-sbp-governor/>
- State Bank of Pakistan. (2026, June 15). *Monetary Policy Committee statement*. <https://www.sbp.org.pk/press/2026/Pr-15-Jun-2026.pdf>
- The Advocate Post. (2025, July 9). *Pakistan to launch central bank digital currency pilot, finalize virtual assets law amid financial reforms*. <https://theadvocatepost.org/blog/2025/07/09/pakistan-to-launch-central-bank-digital-currency-pilot-finalize-virtual-assets-law-amid-financial-reforms/>
- Today News Pakistan. (2025, October 22). *Digital currency pilot 2025 – State Bank's bold move*. <https://todaynewspakistan.com/business/digital-currency-pilot/>
- Trading Economics. (2026a). *Pakistan interest rate*. <https://tradingeconomics.com/pakistan/interest-rate>
- Trading Economics. (2026b). *Pakistan inflation rate*. <https://tradingeconomics.com/pakistan/inflation-cpi>
- Trading Economics. (2026c). *Iraq currency (USD/IQD) forecast*. <https://tradingeconomics.com/iraq/currency/forecast>
- Trading Economics. (2026d). *Iraq inflation rate*. <https://tradingeconomics.com/iraq/inflation-cpi>