

World Bank partners with Swiss National Bank and SIX Digital Exchange to advance digitalization in capital markets

On May 15, 2024, the World Bank (IBRD) priced the first CHF digital bond by an international issuer, which settled using Swiss Franc wholesale Central Bank Digital Currency (wCBDC) provided by the Swiss National Bank (SNB). This 7-year CHF 200 million digital bond, the largest World Bank CHF bond issuance since 2009, uses Distributed Ledger Technology (DLT) and advances the digitalization of capital markets while also supporting the financing of World Bank's sustainable development activities. [Press Release](#)

Background

The World Bank is an innovator in the financial markets and has pioneered many 'Firsts'. From the first cross-currency swap in 1981, which involved swapping Swiss Francs and Deutsche Marks for US dollars, to the first Green Bond in 2008, and the issuance of the first-ever blockchain in 2018 known as '[bond-i](#)'.

As a significant player in the capital markets, the World Bank continues to scale the transformative power of blockchain technology for various use cases in both finance and development. The use of distributed ledger technology (DLT) in bond settlement and servicing processes holds the potential for several fundamental benefits such as increased efficiency and transparency, enhanced security and reliability, and automation through the application of smart contracts.

Building on the success of the '[bond-i](#)' issuance, the World Bank partnered with Euroclear to issue a EUR 100 million [Digitally Native Notes](#) (DNN) on their blockchain-based Digital Financial Market Infrastructure (D-FMI) in October 2023. The collaboration with Euroclear, as an international central securities depository (ICSD), marked a significant

Photo Credit: Stock Photo



milestone, demonstrating the technology's replicability and scalability. Additionally, the digital bond was fully integrated with existing legacy systems expanding its reach to a wider investor pool. To further scale these efforts, the World Bank partnered with the SNB, SIX Digital Exchange (SDX), and Commerzbank to [issue](#) a CHF 200m 7-year digital bond, which was settled using wCBDC under SNB's [Project Helvetia III](#).

Project Objectives

- Pilot the issuance and settlement of a digital bond that settles Delivery versus Payment (DvP) using real wCBDC on a DLT.
- Explore the functional and legal aspects of tokenized central bank money as a means of settlement for tokenized assets.
- Enable intermediaries to validate and access a single source of information, enhancing data integrity.
- Showcase the interoperability between the traditional financial market infrastructures and innovative blockchain-based systems.
- Use a scalable and inclusive approach such that investors and their custodians can access digital platforms without special onboarding or safekeeping.

Solution

IBRD issued CHF 200m 7-year bond on SDX's private-permissioned DLT platform where Commerzbank served as the sole underwriter, and as the Issuer and Paying Agent. This issuance was undertaken as part of the Project Helvetia Phase III, in which the participating banks use wCBDC issued by the Swiss National Bank to settle real bond transactions.



The primary settlement is on a DvP basis enabling simultaneous and instantaneous exchange of the digital bond for wCBDC on issuance date. Coupon and redemption payments are processed on SDX DLT platform using tokenized Swiss Francs (tCHF), which are then detokenized and paid to investors. SDX has developed an 'operational link' that ensures interoperability between its DLT platform and the SIX traditional financial market infrastructure, providing global investors with access through international Central Securities Depositories (CSDs) such as Euroclear or Clearstream.

The SDX DLT platform, utilizing Corda technology from R3, supports the issuance, settlement, asset servicing, and custody of tokenized assets, operating under the regulatory oversight and audit requirements of FINMA, the Swiss Financial Market Supervisory Authority.

Benefits

Broader investor access. SDX's integration with the Swiss Interbank Clearing (SIC) system allows for the settlement of digital securities against payments in wCBDC held in SIC balances. SDX is also linked to the conventional SIX CSD, attracting a wider investor pool. Additionally, dual listing of the digital bond on both SDX Trading and SIX Swiss Exchange increases secondary market liquidity.

Increased security, efficiency, and transparency with the use of DLT. SDX's DLT platform provides a single, secure, and immutable record of a security's ownership and transactions, thus enhancing transparency and data integrity. The use of smart contracts facilitates the automation of key operations, including coupon payments and settlements, which streamlines workflows and reduces the need for reconciliation.

Showcasing real-world use case of wCBDC and boosting market confidence through financial innovation. Settlements conducted in wCBDC eliminate credit risk and reduce liquidity risk. The coexistence of both tokenized assets and cash on the same SDX platform allows for atomic DvP settlement, reducing settlement risk.

The use of real wCBDC to settle bond transactions boosts market confidence and drives further adoption of digital technology in financial markets.

The Way Forward

The World Bank Treasury has been at the forefront of leveraging technology to advance innovation in capital markets, pioneering successful digital bond issuances, from the inaugural *bond-i* in 2018, to Digitally Native Notes issued under Euroclear in 2023 and the latest Swiss issuance this year. The success of these initiative is likely to promote further adoption of blockchain and digital currencies in finance. The World Bank, in collaboration with its partners, will continue to lead by example, demonstrating the benefits of digital bonds and the potential for technology to transform the landscape of global finance.

Transaction Summary

Size	CHF 200 million
Issue Date	May 15, 2024
Settlement Date	June 11, 2024
Maturity Date	June 11, 2031
Price	100%
Coupon	1.1575% per annum
Series	GDIF 102001
ISIN	CH1353258168
Dealer	Commerzbank
Listing	SIX Digital Exchange SIX Swiss Exchange
Governing Law	Swiss Law

Innovation Summary

Platform Operator	SIX Digital Exchange (SDX)
Technology	DLT (R3 Corda)
Primary Market Settlement	Swiss Franc wholesale Central Bank Digital Currency (wCBDC)
Coupon & Redemption	Tokenized CHF + Traditional Fiat
Settlement	Delivery versus Payment

DISCLAIMER: This investor update has been prepared by the World Bank (International Bank for Reconstruction and Development, IBRD) for information purposes only, and the IBRD makes no representation, warranty, or assurance of any kind, express or implied, as to the accuracy or completeness of any of the information contained herein. This investor brief includes information relating to certain IBRD securities. Any such information is provided only for general information purposes and does not constitute an offer to sell or a solicitation of an offer to buy any IBRD securities. Any offering of World Bank securities takes place solely on the basis of the relevant offering documentation prepared by the World Bank and is subject to restrictions under the laws of several countries. The securities mentioned herein may not be eligible for sale in certain jurisdictions or to certain persons.