

World Bank's Latest Digital Bond Lays the Foundation for Digitalization of Capital Markets

On October 23, 2023, the World Bank (IBRD) issued an inaugural 3-year fixed rate digital bond on Euroclear's new Digital Financial Market Infrastructure (D-FMI), raising EUR 100 million to support the financing of its sustainable development activities. The digital bond was issued on the same day the trade was priced (T+0).

The issuance of IBRD's "Digitally Native Notes" (DNNs), in partnership with Euroclear Bank, TD Securities and Citibank, is a milestone in the World Bank's efforts to create scalable, transparent, and efficient markets for its member countries. [Press Release](#)

Background

The processes and workflows related to bond issuance, settlement, and servicing have not kept up with the significant technological developments during the last decades in other areas of business, such as transport, communication, and commerce. The emergence of Distributed Ledger Technology (DLT) holds the potential to meaningfully transform these processes and workflows. Beyond the opportunity to create efficiencies in capital markets, the use of DLT has transformative potential for World Bank member countries and clients in areas like debt transparency, disbursement traceability, and beyond.

The World Bank's first blockchain bond '[bond-1](#)' issued in 2018, was the first significant proof of concept on the use of DLT in the capital markets. Since then, several other issuers have sought to advance the use of DLT for bond issuances. A common challenge identified across these transactions has been the requirement of significant investment of time, money, and effort to create "one-off" platforms.



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In order to find a replicable *and* scalable technological solution, the World Bank partnered with Euroclear Bank which operates one of the two leading international central securities depository systems.

Project Objectives

- Create more efficient processes by streamlining the way intermediaries interact with each other.
- Allow intermediaries to work off a single source of data.
- Reduce costs, enhance transparency in reporting, and enable direct access to data.
- Provide a connection to existing, traditional market infrastructure to ease market participants into the transformation.

Solution

IBRD issued EUR 100m 3-year DNNs on Euroclear's D-FMI, with TD serving as dealer/underwriter and Citi serving as global agent. The settlement between IBRD and TD was on Delivery versus Payment (DvP) basis with simultaneous transfer of cash and securities and within hours of trade execution.

Euroclear's D-FMI is based on a private and permissioned Blockchain (R3 Corda Distributed Ledger Technology), which was used for the issuance and primary distribution of the DNNs. After the primary settlement between issuer and dealer on the D-FMI, the DNNs were deposited with Euroclear Bank allowing secondary market transfers

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between holders of accounts on Euroclear's legacy system, just like any other internationally settled global bond. Investors were able to receive and hold their investments directly on the Euroclear legacy system or through their existing custodians as any other conventional Eurobond cleared and settled through Euroclear.

The DNNs are issued in fully dematerialized form and governed by English law. The World Bank's rating, secondary trading capabilities, and all other aspects of the DNNs are identical to all other bonds issued by the World Bank.

Benefits

Fully integrated into the current environment: Issuance, primary distribution, secondary market transfers, custody, and coupon payments all happen directly and uniquely through Euroclear, with full integration between the D-FMI and the legacy system. There is also no "shadowing of processes" nor the need for any parallel system running simultaneously.

Same Day Settlement potential (T+0): The bond was priced at 11:12 CET and the primary settlement on D-FMI was done within the hour. Settlement with investors was completed around 14:00 CET. This is a significant improvement over the current standard of three to five-day settlement. This confirmed that T+0 is feasible, but D-FMI also allows for longer settlement windows to accommodate the wishes or capabilities of issuers, investors, and dealers.

No Settlement changes for the Investor: Compared to other DLT solutions, the D-FMI offers the potential benefit of a T+0 settlement without the need for investors to change their normal *modus operandi*. The current version of the D-FMI is only the first step in a new digital infrastructure that will continue to be enhanced.

The Way Forward

This issuance marks an important milestone in the digital transformation of capital markets. It serves as a model that other issuers and investors can replicate and scale. Integration and interoperability between the digital and existing market infrastructures will bring efficiencies and liquidity to investors in a sustainable manner. The potential

T+0 settlement reduces credit risk and enables issuers and investors to deploy cash quickly. Over time, as the platform continues to develop, we expect to see significant efficiencies in post-trade processing, with reduced need for reconciliation across multiple stakeholders and platforms. Benefits will also come from interoperability between the different clearing systems.

For many decades, the World Bank has played an important role in capital market development benefitting our clients. The experience gained from the DNN issuance on the D-FMI equally benefits IBRD's middle- and low-income member countries. Very few developing countries have well-functioning debt capital markets because of the market infrastructure required: the establishment of central clearing systems, securities custodians, calculation agents, rating agencies, and the development of a securities-trading and risk-taking culture at local banks. The World Bank believes that lessons learned from this project can help developing countries leapfrog some of these challenges and make debt capital markets more inclusive and stronger.

Transaction Summary

Size	EUR 100 million
Issue & Settlement Date	October 23, 2023
Maturity Date	October 23, 2026
Price	100%
Coupon	3.399% per annum payable annually
Series	GDIF DNN 1001
ISIN	XS2615318289
Dealer	TD Securities
Listing	Luxembourg Stock Exchange
Governing Law	English

Innovation Summary

Platform Operator	Euroclear
Technology	DLT – R3 Corda
Primary Market Settlement	EUR (digital)
Coupon & Redemption	Traditional Fiat
Settlement	T+0 Delivery versus Payment

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