

THE BOND BUYER

Blockchain: Are munis next?

By

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If municipal bonds could talk, they might tell you which town they came from, what specifically they are funding, and who or what backs them. Have a longer conversation and they might share where they have recently traded, how valued they are by others and perhaps more intimate disclosures.

That conversation could provide in an instant the reference data such as issuer, type of bond, guarantor, trading counterparties, transaction prices, and disclosures that you would normally have to pay for today.



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Chit chatting with municipal securities may not be practical, however, there are a handful of bonds designed by prominent market participants capable of placing themselves at issuance, paying their own coupon and principal to bondholders, and enabling trading on or off exchanges.

And in the municipal market where the volumes are huge, sizes often small, and details opaque, the cheapest way to get all of this done may just be to turn bonds into computer programs that can facilitate issuance, exercise options, and feed data to market participants.

No servicers, registrars, custodians, or evaluators — just bonds and you.

Sound far-fetched? Not for the likes of The World Bank, Daimler Chrysler and a handful of others who have issued bonds with some of these traits using the latest “smart contracts” and blockchain technology has to offer. And a number of

FinTech firms are creating blockchain-based solutions that are already able to deliver capabilities like this to savvy issuers, investors, and investment banks.

It is easy to see why issuers like The World Bank would want to experiment. With their own annual debt issuance of \$54 billion in 2019, the ability to reduce issuance and maintenance costs would be significant and could be applied to further their mission. Some estimate the total savings could top 75% of associated issuance fees with the time to market reduced by as much. But the savings exist for smaller issuers like school districts, municipalities, and local projects as well since these issuances incur many of the same costs as larger deals but don't scale as well.

The World Bank issued two "bond-i" deals leveraging blockchain and smart contract technology. The first of the two bonds was the AUD 100 million 2.2s of 8/2020 issued in August 2018 that was led by Commonwealth Bank of Australia. The purpose of this issue was to test how a bond could be created, sold, and settled using blockchain technology. Then in May of 2019, The World Bank issued an additional AUD 50 million deal led by Commonwealth Bank of Australia, RBC Capital Markets and TD Securities to demonstrate secondary trading using blockchain (aka distributed ledger technology).

But what does it mean to issue a bond "on the blockchain" or have a bond issued as a "smart contract"? A blockchain is a digital ledger shared by a group of participants such as issuers, investors, regulators, etc. When a bond is sold, the owner of the security is automatically recorded on the ledger and future changes in ownership are recorded as additional entries on the ledger. Any traditional participants that are involved in recording ownership or processing a transfer of ownership such as custodians, registrars, and transfer agents, would technically no longer be required.

Separately, "smart contracts" are computer programs that automate legal contracts. When a bond is issued as a smart contract, we are saying that the bond indenture is constructed as a computer program instead of or in addition to the document. Since the program can identify the party that owns the bond as recorded on the blockchain the program can also automatically process the payment of coupons and principal payments or send out information on corporate actions such as call notices. This reduces the need for traditional parties to a transaction such as servicers.

In a market where all records of an outstanding bond are shared in the same place it is easier to link supporting information and disclosures such as the information that we search for on the MSRB's Electronic Municipal Market

Access (EMMA) today. Parties such as rating agencies will obtain the required information for the assignment and surveillance of ratings more efficiently as well as speed the distribution of those ratings. And since these ledgers record all entries forever all market participants can look back to see what was done and what data was available at any point in time.

The precise impact on the municipal market is difficult to predict but there are definitely going to be more efficient days ahead. And we don't need the entire vision to come true to reap the rewards. Some FinTech firms are focusing on certain aspects of the lifecycle of a security such as the negotiation of contracts; Know-Your-Customer procedures; issuance and secondary trading; linking reference data to securities, and still others on custody and servicing. As well, the experiments are covering all the asset classes we know today in traditional markets such as equity, bonds, loans, funds, derivatives, structured finance, and the like.

Technologists are ready to deliver more efficient financial instruments, but market participants need to acquire more of an appetite for innovation. Significant savings on issuance fees, debt maintenance, and retirement will go to those that get involved the earliest. Once issuers understand that this technology changes the balance of power in the capital markets in their favor things will move quicker.

Treasurers can get up to speed easily enough by contacting advisors that specialize in this space or directly reaching out to FinTech firms that are building solutions before they reach out to their financial advisors when planning their next issuance. Procrastinating will inevitably lead to taxpayers hearing about the savings achieved from the "talking muni bond" in a rival state.

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