

U.S. Treasury Department's Office of Financial Research, European Central Bank and Bank of England Joint Workshop **"Setting Global Standards for Granular Data: Sharing the Challenge"**

Keynote: Distributed Ledger and Innovation by Larry Thompson, Vice Chairman, DTCC
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I would like to thank the European Central Bank, the Bank of England and the U.S. Treasury Department's Office of Financial Research for inviting me to be with you today.

I commend each of you for your leadership in helping push our financial markets to continue embracing global data standards.

This leadership is important to achieving a variety of important policy and industry goals we all have set for ourselves, including transparency, risk mitigation and efficiency.

The theme of this conference, "Sharing the Challenge," highlights both the need for additional work in pursuit of standardization, as well as the importance of collaboration.

We at DTCC understand these issues – we are an organization that is, by design, always pursuing standardization in collaboration with our customers and stakeholders.

I was delighted to be given the opportunity to share some remarks about how these two concepts – collaboration and standardization – relate to the industry's embrace of distributed ledger technology or DLT, and how this technology can incentivize even more standardization across the industry.

About DTCC

First, I would like share with you some information about DTCC, and why we think DLT could assist in delivering more efficient, cost-effective services.

I will also share how we believe DLT could become a vehicle for further data standardization and aggregation.

DTCC is an industry-owned and governed organization – think of us as a co-operative - that develops and uses technology to enable markets to operate safely and efficiently.

We do this through clearing and settlement services focused on the U.S. cash-securities market, in addition to various post-trade and data services – including swap-data reporting – around the globe.

We like to think of ourselves as one of the first fintech companies.

DTCC Use Cases

Our experience providing these services over the past 40-plus years gives us a unique vantage point from which to assess new technologies.

Our primary focus is risk management – all other considerations are secondary. Therefore, we are not designed to immediately seize the latest, flashiest new tech that comes to market.

Our approach is more deliberate and methodical because we are responsible for protecting the safety and stability of markets.

With this in mind, we see significant potential for distributed ledger technology.

We see DLT as transformative and are excited by its application to the post-trade environment. We believe the best short-term opportunities are in certain defined areas where automation and standardization are limited.

For example, DLT can help address an informational gap that has led to inefficiencies in the repo market.

It could also assist in addressing a cost structure challenge created by market changes in the credit derivatives market.

The former would layer DLT on top of DTCC's existing technology stack, and the latter would completely re-platform the service

TIW

In our credit derivatives initiative, DTCC is re-platforming its Trade Information Warehouse – or TIW– with blockchain and smart-contract technology.

This is the first large scale project of its kind, and DTCC is proud to be leading the industry on this important initiative.

TIW is a post-trade processing platform for approximately 98% of credit derivatives globally. It also provides reporting and execution of various CDS life-cycle events for those trades.

We are pursuing the re-platform with our customers because the CDS market has changed significantly since the financial crisis.

This is due to market-structure changes brought about by policy reforms, as well as new capital requirements.

As a result, we were forced to consider how to reduce costs for the TIW service.

For this project, we brought together multiple firms to collaborate, and are working in partnership with an IBM-led consortium.

Our vendor partners are providing the smart-contract software that would run as an application on a permission-based blockchain.

This software should facilitate greater automation of credit-event processing, and the blockchain would provide the shared, standardized ledger that eliminates many of the internal reconciliation costs our customers manage today.

TIW serves as the source of the “golden copy” of record for the Credit Default Swaps it processes.

This is a critical point.

It means that trade counterparties will look to TIW as the best record of a transaction and its terms if there is any discrepancy in how each counterparty books and records the trade.

TIW achieved this role of “keeper” of the golden record through the collaborative efforts between DTCC and its customers to agree to the standardized terms.

DLT presents an opportunity to leverage this even further by potentially eliminating any discrepancy in contract terms between counterparties.

That is what's most powerful here. In other words, through use of DLT, all TIW's customers could have an exact replica of the golden copy of record kept at TIW.

Again, the efficiencies and savings could be significant for the industry, not to mention the benefits this could bring to policymakers.

Repo

Regarding our repo-market use case, DTCC has partnered with Digital Asset, a developer of DLT solutions, to explore how the technology can be used to enable DTCC's Fixed Income Clearing Corporation to become the settlement counterparty for the start leg of new repo transactions, in real time.

By leveraging a distributed ledger, DTCC and its customers could share standardized information about those positions, and receive updates on changes to those positions as they happen.

Most importantly, if we become the settling counterparty to the start leg, it would create additional netting opportunities and offsets for our customers, which would reduce risks and capital requirements they face today.

Earlier this year, we were pleased to announce the successful completion of Phase One, which focused on a proof-of-concept.

We are excited that Phase Two is now underway and a working group of industry participants will dig deeper to ensure the solution is aligned with industry needs.

At the conclusion of Phase Two, DTCC will determine whether to move ahead with development of this effort.

For those involved in the repo market, the cost savings and risk minimization could be substantial if this project proves successful.

I invite all of you to stay tuned as we make more announcements about this project down the line.

Having explained DTCC's specific projects underway, I would like to use the remainder of my time to emphasize the importance of collaboration and standardization to the ultimate outcome of these projects, and how DLT can serve as a tool for enforcing standardization.

Through Collaboration Comes Necessary Standardization

Over the past few years, we have seen change not only in innovation efforts but also in the industry's approach to fintech.

The initial hype is beginning to subside and is being replaced with a more practical tone.

The industry is now showing signs of working together on real-world solutions.

Not just at DTCC, but across the industry conversations have moved from "what's possible" through use of DLT, to "what's practical" in solving long-festering or recently developed pain points in the market place.

There are many instances of collaboration, and venues to facilitate it.

The Linux Foundation's Hyperledger Project – which DTCC is a founding member of – is a cross-industry, open source project to advance DLT.

This global collaboration enables organizations to build their own industry-specific applications and platforms by creating an enterprise grade, open source distributed ledger framework.

Enterprise Ethereum is another alliance that focuses on producing an industry-standard, open-source blockchain solution.

There are also trade associations and think tanks focused on the technology – DTCC is a member of two of them based in Washington, DC. Policy makers can learn a great deal from these institutions as well.

Collaboration begets standardization – there is not the latter without the former.

While collaboration has been considerable to date, we are still in a period where technology firms and vendors are jockeying to position themselves as "the" technology provider that will serve as the ledger and platform for any number of new smart-contract or other applications.

Perhaps understandably, their focus is more on becoming the technology partner of first resort, rather than on establishing and agreeing to common principles that lay the foundation for maximum interoperability of networks, and broadest use of software applications.

In our space, DTCC believes we can play an important role to facilitate and even convene collaborative conversations about what the hallmarks of an enterprise-ready blockchain network or distributed ledger should be.

In this respect, we have representation on the governing board of the Hyperledger Foundation to help steer such conversations.

And our Office of Fintech Strategy has spearheaded hundreds of meetings with technology providers, vendors and thought leaders as we continue our methodical approach to analyzing DLT.

Collaboration between the public and private sectors also is key.

The industry has a responsibility to share its knowledge, and to engage with regulators as part of an ongoing dialogue.

Challenges won't be resolved overnight. But they can be addressed through ongoing dialogue and by sharing ideas, information and coordinating efforts.

The policymaking community can also play a role in driving collaboration.

A hesitancy by the official sector at this stage to weigh in on the direction these important discussions should go is understandable. But reminding the marketplace of the importance of collaboration and its effect on adhering to key principles for blockchain and DLT solutions is appropriate especially now.

ESMA, for example, issued a report earlier this year stating that while it is premature to fully assess changes that DLT could bring, active regulatory engagement and cooperation are paramount.

The U.S. Federal Reserve Board underscored a similar message in a recent report. The Fed examined how DLT can be used in payments, clearing and settlement, and identified the opportunities and challenges facing its long-term implementation.

Again, one of those important key principles is standardization.

To put it more bluntly, without coordination, the industry's embrace of an assortment of blockchains and software solutions, relying on a multitude of standards, would only further complicate existing market structure.

Without coordination to settle on a common set of standards applicable to DLT and used globally, we are at risk of repeating the past and creating new siloed systems that cannot interact with each other.

We need to increase awareness of the need for harmonized technology standards and best practices for the purposes of integration and interoperability. The official sector can help.

DLT Can Drive Standardization

Blockchain, at its core, is a shared, distributed technology.

Every user of a blockchain must agree to standardized protocols, programming language, data fields and dictionaries for it to be implemented successfully.

Consequently, the discussions and projects implementing DLT solutions create another opportunity to solve some of the shared challenges this conference is discussing.

To understand the risk profile of a systemically important institution, a regulator needs to see and understand the risk exposure of that institution based on swap positions it has entered into around the globe.

Imagine if every global derivatives user agreed to report their transactions to one distributed ledger network.

More exciting still, imagine if every market supervisor around the globe agreed that the data fields reflected on that ledger were the ones necessary to provide the transparency required to meet their own regulatory obligations.

For years since the G20 meeting in Pittsburgh, all of us here have discussed how standardization across repositories and jurisdictions is a precursor to effective global data sharing.

Agreeing to one common ledger could end the discussion.

All that would be needed to facilitate this is a network node established for the supervisor.

To be sure, I am not the first to imagine this exciting vision. And our supervisors in the U.S. enthusiastically have asked how our TIW project could lead to such an end-state for all derivatives transactions, and how it could address the reporting issues this conference is discussing.

We are a long ways away from this outcome, but it can be realized. It would take disciplined coordination and a disciplined insistence on common standards to achieve.

The nature of DLT has brought many who are in the business of data solutions and data reporting together, and the technology will only become a solution through standardization.

Rather than the novelty of DLT as a technology, perhaps this dynamic alone – DLT as a convening and consensus technology – offers the most promise for meeting the shared challenge of global data harmonization.

Conclusion

To conclude, I would like to share a final thought that is important to this discussion.

DTCC places the highest priority on meeting our regulatory responsibilities.

We view ourselves as partners with our market and prudential supervisors around the globe. We share in the policy objectives that our regulatory responsibilities are designed to meet.

We believe that DTCC, or any other market service provider, must keep those objectives in mind as we test DLT or other new technology.

The Bank of England's Governor Mark Carney recently noted that innovation needs to ensure resiliency and reliability, and U.S. Federal Reserve Governor Jay Powell also highlighted similar points.

We need to ensure that potential innovation opportunities are consistent with long-standing regulatory priorities.

These include promoting risk management, ensuring the resiliency of important systems such as clearing and settlement systems, and transparency.

Looking ahead, understanding how the technology fits into existing regulatory frameworks will be critical.

Let me be clear - we do not expect that the regulatory framework, which has been created over the past 70 years, will change significantly or need to be replaced to make way for an embrace of DLT.

Rather, the framework will likely evolve as innovation has the potential to provide supervisors with enhanced oversight of the markets and a deeper understanding of risk.

Again, thank you for your time today.