

## Bodson Opening Remarks

### DTCC Fintech Symposium

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### *As Prepared for Delivery*

### Capturing the Innovation Tailwind

#### Welcome

Good morning, thank you all for joining us. Welcome to DTCC's third Fintech Symposium. We really appreciate you taking the time to be with us. We've put a lot of effort into creating a program that speaks to the latest developments and top issues in fintech, and we hope you're ready to make today interactive, exciting and insightful.

If I think back to our first Symposium in 2016, it's hard to believe just how much the world has changed. For one thing, we focused that event entirely on the issue of blockchain because technologies like artificial intelligence and machine learning were still in their nascent stages, and it was unclear to what extent they could benefit financial services.

Here we are three years later and the landscape is radically different. There's been a lot of experimentation and a significant amount of progress during that time, and while it's still early days, fintech has reached a level of maturity where we can talk about real possibilities in applying these technologies.

#### Three Topics

Today's event is titled "Turning Headwinds into Tailwinds. Embracing Innovation to Maximize Value." And that's what I want to speak about – how we can unlock the promise of innovation for our industry and our clients. In talking about that, I want to focus on three topics:

**One**, what the future of financial services may look like and how new technologies will reshape the industry and post-trade processing...

**Two**, our guiding principles for balancing innovation and risk, and...

**Three**, the importance of diversity to realize the potential of fintech.

#### Topic #1: Financial Industry Future State

So let's begin by looking at how new innovations may transform the industry in the future. PayPal CEO Dan Schulman spoke a couple of weeks ago at the New York Economic Club and said that "we're going to see more changes in the financial services ecosystem in the next 5-10 years than we've seen in the last 30."

That's a bold prediction, but not entirely surprisingly because, if you look at the trajectory of technology, it's clear that it will have a significant impact in how financial services functions in the future.

Think back 20 years ago. Google had just launched; GPS was still only a military tool and we were two years away from text messaging. Fifteen years ago there was no Facebook, no iPhone, and WiFi had just achieved a functional capability level.

Considering the velocity of change since then, there's little doubt that automation, cognitive technologies, distributed ledgers and cloud computing will fundamentally impact how we create, deliver and manage financial services in the years ahead.

### Capturing the Tailwind

With so much change expected, we need to ask ourselves the right questions now to capture the fintech tailwinds – questions such as:

What frustrates our clients most and does emerging new technology offer possible solutions?

What critical processes are most significant to clients and how can we make them more efficient using these new capabilities?

Are we using data in a fulsome way to improve the client experience and make more strategic decisions to deliver services?

And which existing players will become redundant or irrelevant ...and which new entrants will disrupt or displace incumbents, whether it be broker-dealers, exchanges, custodians or clearinghouses? I'm somewhat biased about the continuing relevance of that last one.

These are all topics that we've been debating at DTCC recently because, while we can't predict the future, we know one thing for certain – the status quo is not an option.

There's an acronym that perfectly describes the current state – VUCA. It short-hand for *volatility, uncertainty, complexity* and *ambiguity*. It was first coined in the late 1990s by the United States War College, but it perfectly describes today's environment in financial services.

In a VUCA world, we need to be mindful that even though the future will demand that we do things better and differently than today, the most elemental reasons for why financial services exists – things like financing, capital raising and investment management – will not change. So the real question is – how do we harness the enormous potential of these new technologies to maximize value for our clients and the investing public?

### Distributed Ledgers

I want to start with distributed ledgers because I believe they will allow us to re-imagine the post-trade infrastructure in a way that previous technological advancements couldn't. However, as the hype of blockchain has collided with its realities, expectations have become more rational over its ability to achieve the scale and processing power needed for large-scale solutions.

For example, I'm sure you all remember the talk not long ago about using blockchain to perform real-time gross settlement. In a small, immature market – maybe. But in the United States – not a chance, at least right now. At DTCC, we seamlessly process 60 million trades each day, and during peak times like we saw last month, we handled as many as 90 million transactions. It would be impossible to do this today using a distributed ledger.

Across the industry, we're seeing increased rigor around DLT experiments and the need to demonstrate ROI. A recent study by Deloitte reported that in 2016 there were nearly 27,000 blockchain projects started on the GitHub platform alone. However, today only 8% of those projects are actively maintained.

One way to read those numbers is that as the industry has come to the realization that blockchain's potential isn't limitless, companies are focusing their resources on initiatives that can deliver real client value. In addition, firms now have a better understanding that they need to scale their technology to support all their clients – from the smallest firms that still use faxes and spreadsheets to the biggest banks that are DLT-capable.

Despite these realities, we remain enthusiastic about DLT's transformative potential, but we also know that our business and operating model will change dramatically as new technologies reshape how clearing, settlement and financial services more broadly is conducted. And we're being proactive in defining our future.

If anyone is going to disrupt DTCC in the future, it's going to be us. That's why we've taken the lead in advancing the use of DLT. The work we've done is helping the industry prove out that the technology can be applied in the post-trade process. For example, our initiative to re-platform our Trade Information Warehouse for credit derivatives is one of the industry's largest and most complex DLT projects to date. We're planning to launch this early next year.

From this effort, we've learned a lot about what works and what doesn't. We've wrestled with the technology's limitations. But we're also uncovering new possibilities to help lead the digital transformation of the post-trade environment. That's what makes this such an exciting time to work in financial services.

### **Cloud Computing, AI & Robotics**

When it comes to cloud computing, we're equally enthusiastic. Today, the cloud boasts more capabilities, better security and resiliency and increased cost efficiencies over proprietary data centers. The move to the cloud is already underway across the industry because the value proposition of unlimited scale for computing and storage, along with the ability to experiment, innovate and fail fast, has made it very attractive to financial firms. In the years ahead, cloud computing will likely become the enterprise environment across industries, including the global capital markets.

Similarly, there's no doubt that robotics, machine learning and artificial intelligence will become deeply embedded into the fabric of financial services in the future and change many parts of the industry. We're seeing that happen already, including at DTCC, where we are experimenting with a virtual workforce to perform highly-manual and repetitive tasks in areas as diverse as billing, underwriting and onboarding. Many of your own firms are doing the same, and the early results are impressive.

### **Topic #2: Balancing Innovation & Risk**

All of this makes the future very exciting, a little bit scary and filled with countless unknowns. As I said earlier, we live in a VUCA world, and that's not going to change any time soon. However, as we navigate through these issues, we need to be grounded by certain fundamentals – and one of the most important is balancing risk with innovation. How we do that will shape what the capital markets and market infrastructures of tomorrow will look like.

So let me turn to my next topic and share with you three guiding principles for achieving this balance.

#### **Principle #1: Grounding Innovation in Client Value**

The first principle is ensuring that innovation is grounded in client value and supports business objectives and goals. In today's environment of rapid change, stability and innovation must be strongly connected – and we can't ever sacrifice one for the other. We need to nurture and support innovation, while at the same time, ensuring that any potential new risks that are introduced by technology can be mitigated.

#### **Principle #2: Promoting Industry Collaboration**

The second principle is promoting industry-wide collaboration. When it comes to balancing risk with innovation, we can't "go it alone." We need to work together to create the building blocks of future solutions based on comprehensive standards. Fortunately, organizations like the HyperLedger Foundation and the Enterprise Ethereum Alliance are fostering collaborating among a cross-section of players.

Creating an environment of partnership can also be effective in other ways, such as protecting against cyber attacks. As cyber criminals become more sophisticated and as the threats become increasingly complex, especially in a post-quantum computing world where we'll be in an arms race with the bad guys, our ability to work together will be even more critical. We'll be discussing this topic during a panel later today.

### Principle #3: Engaging with Regulators

The third principle is engaging with regulators to create an environment that supports innovation and that also protects the safety of the global marketplace. We need to work in partnership with the supervisory community to define how new technologies will fit into existing regulatory regimes and where those frameworks will need to evolve as new solutions are implemented. Fortunately, many regulatory bodies globally have taken an early and active interest in this. We're encouraged by the words and actions of CFTC Chairman Christopher Giancarlo as well as by the work of the Financial Conduct Authority's Project Innovate and Innovation Hub in the UK. Around the world, supervisors are creating an environment for the experimentation and growth of fintech.

### Topic #3: Unlocking the Promise of Innovation

With all this talk about technology, it's easy to lose sight of people, but that would be a mistake because it's all of us and our colleagues who truly hold the key to unlocking the promise of innovation. However, I want to narrow that scope to a subject that is critically important and also one in which I'm passionate about – and that's diversity.

In this day and age, we're well beyond needing to make the business case for diversity. Study after study have demonstrated that diverse organizations outperform non-diverse companies in virtually every metric. Despite the fact that we all know this, our industry still struggles to achieve an adequate level of diversity – and the issue is even more pronounced in the STEM areas of science, technology, engineering and math.

According to a 2017 report by the US General Accountability Office, between 2007 and 2015, the industry experienced only modest improvement in diversity, but the representation of African-Americans in management positions decreased and the number of women was unchanged. In fact, women accounted for only 29% of senior-level managers.

Specific to STEM, a different study found that in 2015, less than 37,000 women earned computing degrees vs. more than 125,000 men. This gap has been widening since 2001.

Now contrast this with the expected growth in STEM-related positions, which are expected to surge 13% in the coming years. And keep in mind that these trends come at a time when financial services is competing for talent against a wider range of companies, including tech firms like Google, Facebook and Netflix.

So we must do better, and not simply when it comes to STEM education, but in diversifying the management of our industry. And there are several ways to go about it.

For example, we have to start by looking inward and holding our managers accountable for identifying a diverse slate of candidates when filling open positions.

We also have to expand mentoring and sponsorship programs to identify and prepare diverse candidates for more senior-level positions and promote mobility opportunities to support growth.

And finally, we need to consider whether certain policies, such as work from home, flex hours and the like, need to be updated to create better work-life balance.

There's no one-size-fits-all approach to solving the diversity dilemma, but rather it will take a combination of strategies to move the needle on an issue that is critical to unlocking the promise of innovation.

### Conclusion

As I wrap up my remarks, I want to share with you a brief story from last week. I was at FIA Boca and had the opportunity to introduce best-selling author Walter Isaacson for his keynote. Walter has written several biographies on creative minds – people like Einstein, Ben Franklin, Steve Jobs and, of course, DaVinci.

His talk focused on creativity as a team sport – that the spirit of collaboration and cooperation exists at times of great innovation. For instance, during the Renaissance in Florence, painters, sculptors, mathematicians, engineers and

architects worked together during a period of great cultural change and achievement. The same thing occurred in 1776, when the representatives of the 13 colonies came together to build a free and independent nation. And 200 years later, we saw this again when geeks, hackers, hippies and engineers launched the PC industry.

Today, we're on the cusp of dramatic change that will fundamentally alter virtually every part of financial services. At this unique moment in time, we must embrace the trends, work together in common purpose and capture the tailwinds to lead innovation and define the future of our industry.

At DTCC, we look forward to continuing to partnering with all our colleagues to drive positive change. I'm very excited to have this conversation with all of you throughout today and in the months ahead. I hope you enjoy today's program.

I'd like to introduce today's emcee, Rob Palatnick, who is our Chief Technology Architect at DTCC.

Thank you again.