2015 FRBNY Payments Course DTCC and Central Counterparty Governance and Liquidity Risk Management

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DTCC - What We Do

WE SIMPLIFY THE COMPLEXITIES

OF ...

Clearing
Settlement
Asset Servicing
Institutional Trade
Matching
Global Data Management
Information Services

FOR ...

Equities
Corporate & Municipal Bonds
Government
& Mortgage-Backed Securities
Derivatives
Syndicated Loans
Money Market Instruments
Mutual Funds
Alternative Investment Products
Insurance Transactions

WITH ...

Broker/Dealers
Investment Banks
Institutional Investors
Investment Managers
Issuers
Fund Companies
Exchanges and Marketplaces
Banks
Trust Companies
Insurance Carriers & Distributors
Central Securities Depositories
Transfer Agents

DTCC Businesses: Securing Today, Shaping Tomorrow

- Premier post-trade market infrastructure for financial services industry
- FICC clears U.S. government, agency and MBS TBA transactions
- NSCC clears virtually all broker-to-broker equity, corporate, muni and UIT transactions in the U.S. and provides centralized clearing for over 50 exchanges and equity trading platforms
- DTC provides central securities depository, settlement, custody and asset servicing for securities issued from well over 100 countries



Other DTCC Businesses (DTCC Solutions)

Omgeo

Provides
institutional clients
with automated and
standardized trade
processing
solutions

Data Services

Centralizes
business oversight
of DTCC's data
assets to determine
how best to
leverage their value

Global Trade Repositories (GTR)

Reports derivatives trades on more than \$500 trillion in gross notional value of global transactions

Clarient

Provides control, standardization and transparency during client onboarding and through client life cycle

Global Collateral

Will combine the expertise of the two largest post-trade infrastructures in U.S. and Europe to manage \$75 trillion collateral asset pool

DTCC Business Portfolio

V V V	Core (SIFMUs)	DTCC Solutions		
Segment -		Omgeo & Data Services	Derivatives	Emerging Businesses
Services	Clearance, settlement and asset services	Institutional post-trade processing and client data management services	OTC derivatives trade reporting and processing	Client reference data utility; Collateral management utility
Legal Entities	FICC, NSCC, DTC	Omgeo, GMEI, AVOX, Soltra JV	Deriv/SERV	Clarient, Global Collateral JV
Business _ Activities	 Fixed income clearing Equities clearing Wealth Management services Settlement services Asset services 	 Automated trade communication and processing Legal entity identifier Cyber threat management Enterprise Data Management 	 Derivatives reporting through Global Trade Repository network CDS Trade Information Warehouse Cash flow matching services 	 Document management for client onboarding and after Collateral allocation and mobilization

Economies of Scale

In 2014, DTCC's subsidiaries processed securities transactions valued at approximately **US\$1.6 quadrillion**

NSCC is the central clearinghouse for more than 50 exchanges and equity trading platforms in the U.S.

FICC processes approximately **US\$4 trillion each day** in U.S. governmentand mortgage-backed securities
transactions

DTC provides custody and asset servicing for securities issues from 139 countries and territories valued at US\$46 trillion

Particle Deriv/Serv (Global Trade Repository) processes tens of millions of submissions per week covering 5 asset classes

Avox validates global business entity reference data on more than 1 million entities in its advanced database

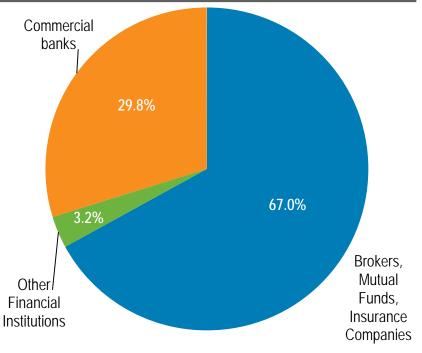
DTCC: Who Owns Us?

SHAREHOLDERS:

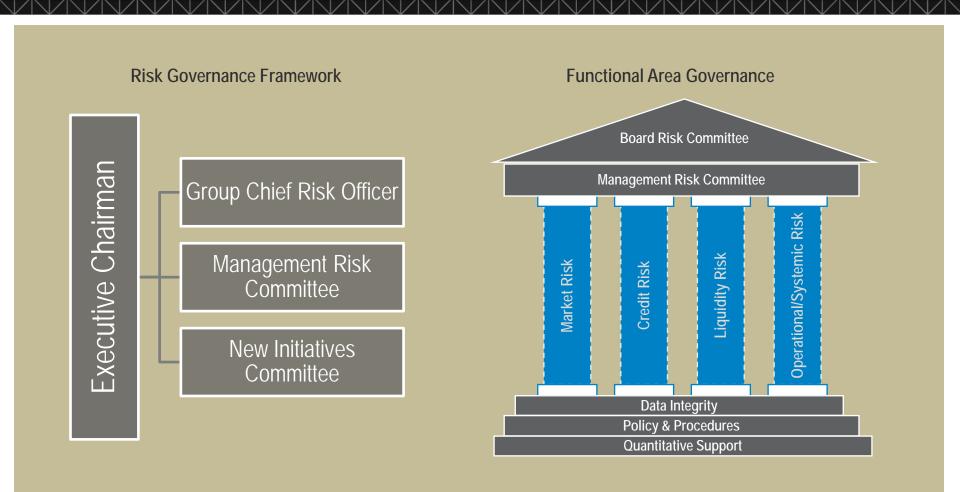
315 participant shareholders, each a user of one of DTCC's wholly-owned, regulated clearing agency subsidiaries

OWNERSHIP:





Governance Structure



Risk maintains a comprehensive set of metrics that measure key exposures and benchmarks. These metrics align with the Board and Management's risk strategy and tolerance.

ERM Objectives

Enterprise Risk Management's (ERM) Mission

Provide effective and efficient identification, measurement, monitoring and control of market, liquidity and credit risks related to the clearing and settlement process

- Works in conjunction with Board and management to manage risks within defined tolerance levels
- Works closely with Operational Risk Management and Systemic Risk Office to ensure an integrated and comprehensive approach to enterprise risk management at DTCC and an effective second line of defense.

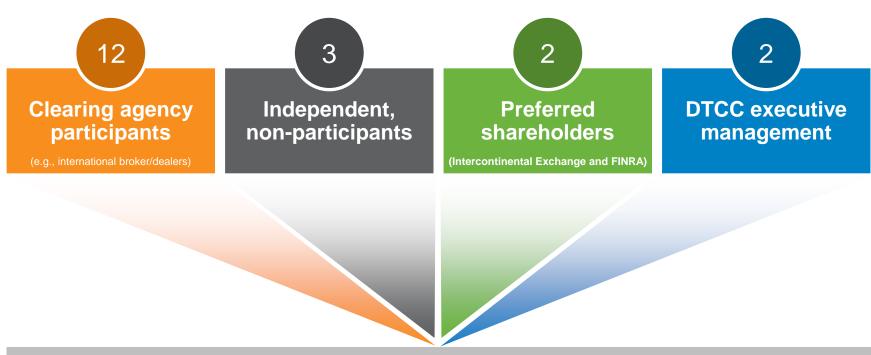
ERM's mandate for DTCC's clearing agencies

- Ensure sufficient collateral to cover any losses associated with liquidation of a defaulting member or family portfolio
- Ensure sufficient liquidity resources are available so that the entity is able to settle all transactions as contracted in the event of a failure by the single largest member or family
- Ensure robust highest quality membership criteria and ongoing member surveillance
- Ensure that ERM has deep and broad product knowledge and risk framework to effectively measure and manage market, liquidity and credit risk

PMIs and Board Governance

- As a Systemically Important FMU, DTCC rules and governance must be designed to minimize the extent to which difficulties experienced by one member can spread systemically and reduce our vulnerability to failure.
 - In assessing DTCC risk management, we provide risk tolerance statements and analysis of our key risks to our board on a quarterly basis.
- DTCC is a member-owned company.
 - This encourages the alignment of owner, executive and participant interests.
 - Board members are nominated from our owners, and a strong user representation in the our governance provides industry assessment and insight.
 - We also included independent directors on both the board and the risk committee can help to provide a balanced and impartial view.

DTCC Board of Directors



- Includes senior executives with broad industry experience
- Reflects traditional domestic and emerging international business interests
- Plays a key role in developing policy and establishing corporate objectives, financial management, operational planning and helping arrange financial resources
- Serves on board committees and as directors on the boards of DTC, NSCC and FICC

Risk Communication

- Effective risk communication between the board and management is critical given the size and complexity of the central counterparties exposures.
- The foundation of effective risk communications is comprised of:
 - Defined risk responsibilities and escalation/ delegation thresholds.
 - Clear and enterprise-wide of view of risk.
 - Risk tolerance statement with qualitative and quantitative risk assessments.
 - Focused risk reporting and dialogue.

Liquidity Risk Management Drivers of Liquidity Need

Situation Analysis:

- By virtue of being a central counterparty, when a member defaults, NSCC/FICC
 assumes responsibility for completion of the guaranteed transactions of the defaulted
 member.
- Effectively, this requires NSCC/FICC to pay for the securities that would have been otherwise been delivered to and paid for by the defaulted member. NSCC/FICC must maintain cash reserves to satisfy these settlement obligations.
- In addition, NSCC/FICC assumes the members delivery obligation of securities at the point of default, such that NSCC/FICC needs to purchase these securities.
- NSCC/FICC is required to maintain sufficient liquid resources to complete settlement on behalf of a defaulted member throughout the settlement cycle.

Liquidity Risk Management Regulatory Background

Current SEC Clearing Agency Standards

Financial Resources Rule § 240.17Ad-22 (b)

- A registered clearing agency that performs central counterparty services shall establish, implement, maintain and enforce written policies and procedures reasonably designed to:
 - [...]
- (3) Maintain sufficient financial resources to withstand, at a minimum, a default by the participant family to which it has the largest exposure in extreme but plausible market conditions; [...]

<u>Wider Background – International Standards</u>

The 2012 CPSS-IOSCO *Principles for Financial Market Infrastructures* contain, among other things, standards regarding liquidity risk management for CCPs, including "cover 1" requirements and stringent eligibility requirements for liquidity resources.

The CFTC and Fed have implemented the PFMIs into their respective regulatory framework. The SEC has proposed for public comment revised rules incorporating the PFMI and plans to implement into their regulations.

Liquidity Management by FMU

Key Building Blocks

- Measurement
 - Daily Liquidity Measurement
 - Review Drivers of Peak Liquidity Needs
 - Stress Testing
- Dialogue and Escalation
 - Management and Board Engagement
 - Regulatory Dialogue
 - Membership Outreach
- Adequacy of Resources
 - Trending Analysis assessing current and future liquidity needs and resources
 - Development of Additional Resources

Liquidity Measurement

- We perform a daily potential Cover-1 liquidity analysis for each CCP.
- Peak day activity and drivers are investigated within the liquidity risk group and escalated as appropriate.
- Stress testing is currently completed on a quarterly basis.

Liquidity Dialogue

- Daily liquidity studies are provided to management and regulators.
- Liquidity metrics are presented to the management and board risk committee as well as the regulators monthly.
- Peak day activity and drivers are discussed with the members.

Liquidity Resources

• NSCC

- Cash held in member margin accounts
- Committed credit facility
- Mandated liquidity deposits

• DTC

- Member debit caps
- Cash held in member margin accounts
- Committed credit facility

FICC

- Cash held in member margin accounts
- Repo facilities
- Fail financing from our settlement banks
- Capped Contingent Liquidity Facility

Conclusion

- The board's responsibility is to provide oversight.
 - Setting and evaluation of risk tolerance.
 - The board should see that the appropriate measures and resources are available to identify, assess, and respond to risk.
 - Align risk information with the company's major exposures, goals and strategies.
 - Staying abreast of regulatory requirements and industry developments.
- Management is responsible for developing and executing activities.
 - This is built on a deep understanding of the business, value drivers, strategy and associated risks.
 - Risk management, timely escalation and reporting.
 - Member and regulatory communication and interaction.
- Management and the board must share a clear understanding of the risk appetite and its relationship to the overall strategy and objectives.