DTCC



THE DEPOSITORY TRUST & CLEARING CORPORATION AN OVERVIEW



November 4, 2011

[Classification]

DTCC: Introduction

- Infrastructure: in the fast-moving, global world of financial services, DTCC provides the most secure, reliable, costeffective and responsive post-trade infrastructure in the world.
- Risk Management: our infrastructure has an increasingly critical role in reducing cost and managing risk—including systemic risk—throughout the U.S. securities industry and across financial markets globally.
- Automation: for nearly 40 years, DTCC and its family of companies have helped automate, centralize, standardize and streamline the processing of securities trades and the delivery of financial information.
- Result: we've created greater operational efficiency, reduced risk and lowered cost for our customers across the global securities industry.

DTCC: Scale, Purpose and Structure

- Scale: in 2010, DTCC settled more than \$1.66 quadrillion in securities transactions. (Essentially, we turn over the yearly U.S. GDP every three days.)
- Purpose: to help grow the world economy by furthering the development of low-cost, efficient capital.
- Structure: DTCC is a holding company that brings together a family of subsidiary companies.

DTCC: Who We Are

1. National Securities Clearing Corporation (NSCC)

- Handles clearing and settlement of trades in equities, corporate and municipal bonds, unit investment trusts, index funds and other securities.
- Is the leading processor of mutual fund and insurance transactions in the U.S.

2. The Depository Trust Company (DTC) provides

- Securities custody and safekeeping services.
- Underwriting and asset servicing.
- Settlement for institutional trades, money market instruments and other securities transactions.

DTCC: Who We Are (continued)

- 3. Fixed Income Clearing Corporation (FICC) provides clearing and risk management for trades in
 - U.S. government securities and repurchase agreements.
 - Mortgage-backed securities.
- 4. Deriv/SERV LLC operates a global trade repository called Warehouse Trust and post-trade processing services for overthe-counter (OTC) derivative transactions. Deriv/SERV LLC also has two subsidiaries within it, called Warehouse Trust Company LLC and DTCC Derivatives Repository Ltd.
- DTCC Solutions LLC operates the world's most comprehensive services for global corporate action announcements, managed accounts and the global syndicated loan market.

DTCC: Who We Are (continued)

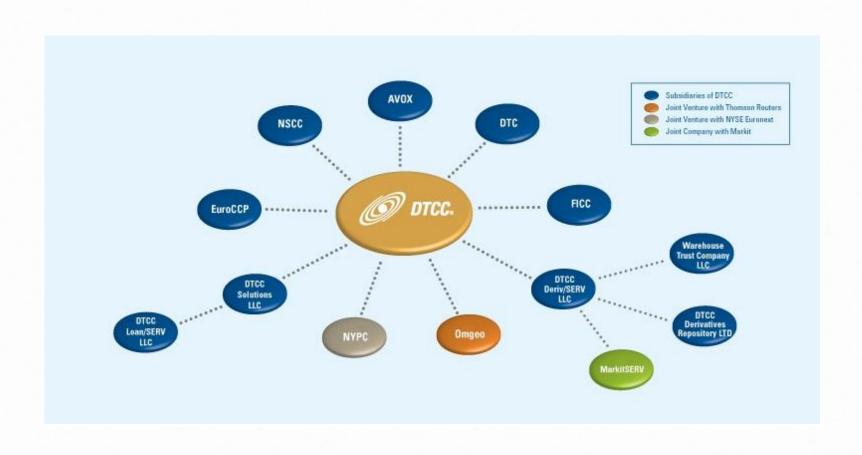
- EuroCCP, based in London, provides clearing, settlement and risk management services for multilateral pan-European equities trading facilities.
- 7. Avox, based in Wrexham, UK, validates, corrects, enriches and maintains business entity reference data. This includes data such as corporate hierarchies, registered address information, industry sector codes and company identifiers.

DTCC: Who We Are (continued)

Joint companies

- Omgeo: DTCC's international joint venture with Thomson Reuters that serves the post-trade needs of institutional investors.
- MarkitSERV: DTCC's joint venture with U.K.-based Markit, providing a single portal for electronically matching and confirming a wide range of global OTC derivative transactions.
- New York Portfolio Clearing: DTCC's joint venture with NYSE Euronext for clearing interest rate derivative transactions and creating capital efficiencies by margining those transactions with cash market trades from FICC (awaiting regulatory approval).

DTCC: Our Subsidiary Structure



DTCC: Who Our Customers Are

- DTCC's customer base extends to thousands of companies within the global financial services industry – either directly or through correspondent relationships.
- In the U.S., DTCC also supports more than 50 trading facilities:
 - The NYSE Euronext Group
 - The Nasdaq Stock Market
 - Regional U.S. exchanges (e.g., National Stock Exchange, Philadelphia, etc.)
 - Electronic trading and communications networks (ECNs)
- DTCC also has dozens of strategic partners and maintains strong working relationships with clearing agencies and depositories in numerous countries worldwide.

DTCC: How We Serve Our Customers

- Included in the more than \$1.66 quadrillion in securities transactions that DTCC subsidiaries settled in 2010 are:
 - \$217.4 trillion in equity, bond and ETF transactions
 - \$1.1 quadrillion in U.S. government securities transactions
 - \$66 trillion in mortgage-backed securities transactions, and
 - \$2.9 trillion in mutual fund transactions
- Average daily value of trades processed by DTCC subsidiaries in 2010 exceeded \$6.6 trillion.

DTCC: How We Serve Our Customers

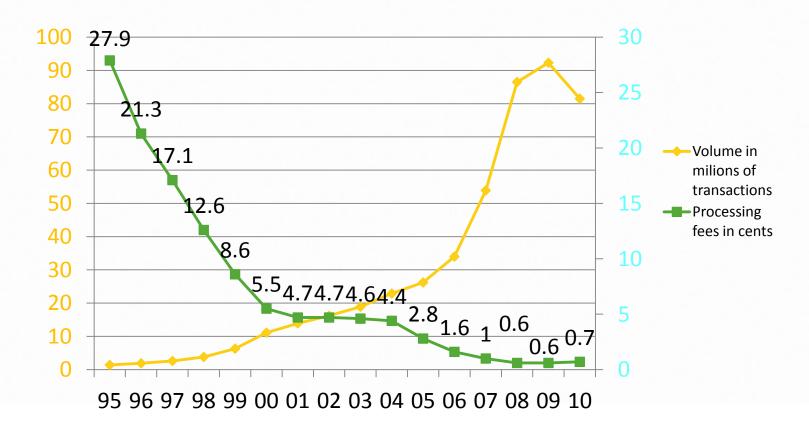
- Our depository holds securities in custody worth \$36.5 trillion. (By contrast, at \$1,500 an ounce for gold, Fort Knox holds about \$220.8 billion in gold reserves.)
- Our depository also handled \$2.97 trillion in dividend, interest, redemption and reorganization cash payments in 2010.

DTCC: Our Financial Profile

- Services at cost: DTCC is an industry-owned cooperative operating on an at-cost basis and returning excess profits to customers.
- Revenue for DTCC in 2010 was \$948.5 million.
- Credit ratings: NSCC, FICC and DTC all have a Standard & Poor's credit rating of AA+.
- Collateral: Nearly all our customers/participants are required to meet clearing fund requirements and maintain collateral (cash and securities) with us based on the nature and volume of their trading activities as well as our margining requirements.

DTCC continues to shrink processing fees

DTCC's clearing subsidiary has reduced average equity transaction fees per side from 82 cents in 1977 to 27.9 cents in 1995 to 0.7 cents in 2010. A trade is made up of two sides: a sell order and a buy order.



DTCC: Business Continuity Planning

- Multiple operating and data centers in the U.S. and overseas, functioning 24/7, so that we can sustain our full processing load in case any single center fails as a result of a disaster or power loss.
- Data centers capable of extremely rapid market data replication (less than 2-minute lag time).
- Processing horsepower: mainframe database for equity processing capable of 800 million transactions per day.
- Frequent testing and disaster preparedness drills, including mandatory communications testing with customers.
- Highly resilient, self-healing telecommunications network.
- Liaison with international, national and state disaster/homeland security organizations.

DTCC: Global Operating Capabilities

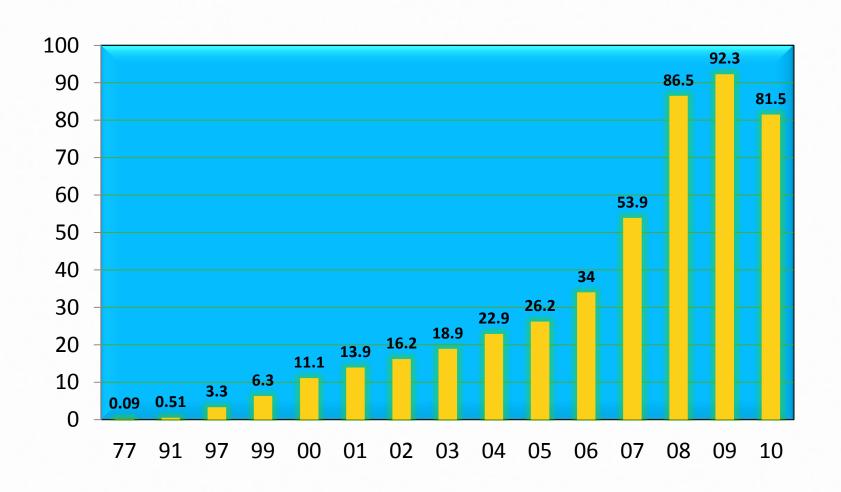
- Real-time input: DTCC's subsidiaries accept trade data in real-time from numerous exchanges and other marketplaces.
- Handle multiple currencies: we accept trades in multiple currencies via international messaging standards.
- International offices: we have facilities in locations in Europe,
 Asia and North America.
- 24/7 operations: several of our global businesses operate around the clock.
- Global private communications: our SMART network is a secure, centralized communications infrastructure that provides connectivity for all post-trade processing.

Clearing and Settlement: Equities

Clearing and Settlement: Equities, Corporate and Municipal Bonds, Unit Investment Trusts, Exchange Traded Funds

- NSCC subsidiary processes all broker-to-broker cash equity, corporate and municipal bond trades in U.S. markets.
- Provides clearance, settlement and post-trade information services to more than 2,500 brokers, dealers, banks, mutual funds, insurance carriers and other financial intermediaries.
- Average daily value of transactions (both buy and sell sides) processed in 2010: \$869.8 billion.
- Sharply reduces security movements and capital requirements through its Continuous Net Settlement system.

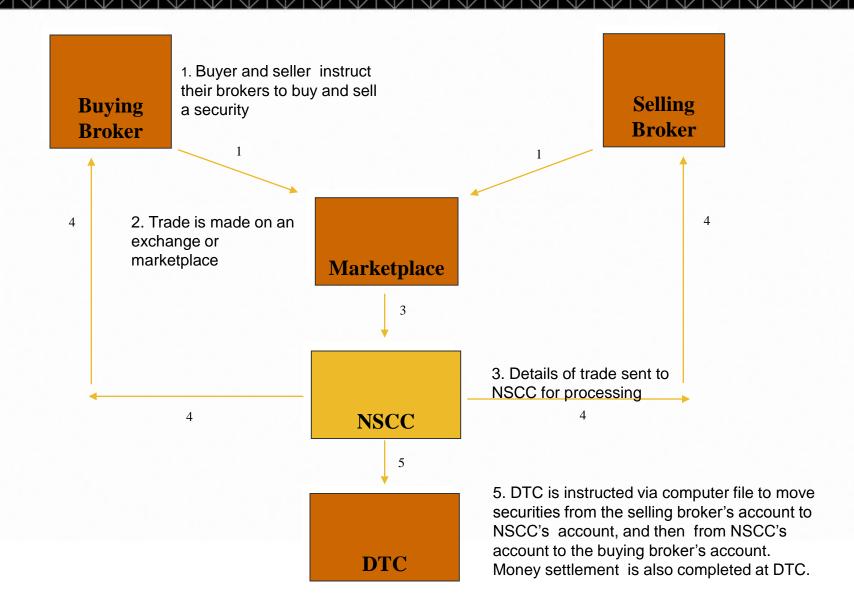
Average Daily Number of Equity, Muni and Corporate Bond Transactions (millions)



Clearing and Settlement: The Role of the Depository

- This DTCC subsidiary is the world's largest securities depository:
 - At year-end 2010, it had \$36.5 trillion worth of securities in custody.
- Operates clearinghouse for settlement of securities trading activity, transferring funds and securities:
 - Settled securities transactions (both buy and sell sides) in 2010 with a market value of \$295 trillion
 - Handled book-entry delivery of securities in 2010 valued at \$117.5 trillion.
- Settles institutional trades, money market instruments and other securities transactions
 - In 2010, settled \$79.3 trillion in money market instruments.

Clearing and Settlement: How a Trade Clears Through NSCC and DTC



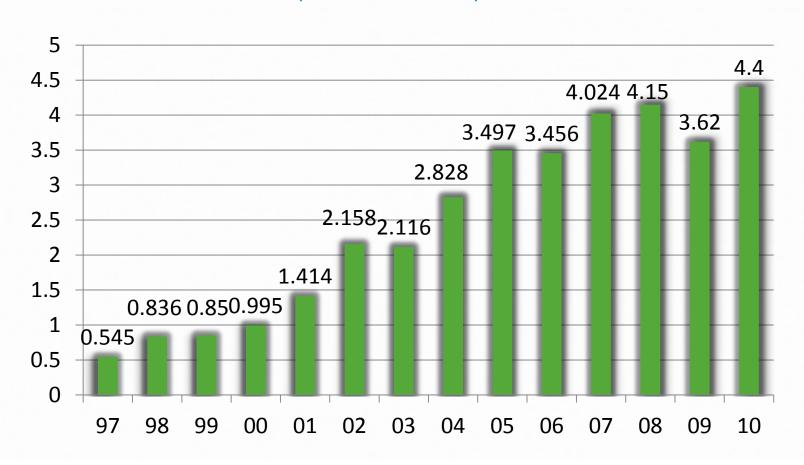
Clearing and Settlement: Fixed Income Securities

FICC's Government Securities Division provides automated comparison and settlement services, risk-management benefits and operational efficiencies to the U.S. government cash securities marketplace.

- Annual volume: in 2010, cleared 34 million transactions worth \$1.1 quadrillion.
- Daily value: averaged \$4.4 trillion worth of transactions into net each day.
- Repurchase agreement (repo) value: total value of GCF (General Collateral Finance) repo agreements in net in 2010: \$198.2 trillion.

Fixed Income Securities (continued)

Average daily value of U.S. government cash dealer securities trades in net (in US\$ trillions)



Fixed Income Securities (continued)

FICC's Mortgage-Backed Securities Division is the sole provider of automated post-trade comparison, netting, risk management and pool notification services to the agency mortgage-backed securities market.

- Annual volume: Processed mortgage-backed securities trades in 2010 valued at: \$104.2 trillion.
- Mortgage pools: Face value of electronic pool notification (EPN)
 messages reached \$9.8 trillion, while the total of pools delivered
 reached 10.6 million.
- New initiatives: Building a new central counterparty structure to provide a trade guarantee for mortgage-backed securities trades and reduce processing costs and risks, set for 2011.

Asset Services

Through its depository, DTCC provides services for securities, from origination to retirement, including:

- Underwriting: 36,665 underwriting events in 2010.
- Direct Registration System (DRS): Totally paperless electronic registration of securities.
- Custody: Electronic and vault storage and accounting for securities: 3,610,000 issues from the U.S. and 121 other countries.
- \$2.97 trillion in cash dividend, interest, redemption and reorganization payments in 2010.

OTC Derivative Services

DTCC's MarkitSERV joint venture is widely recognized by the industry as the global standard for over-the counter (OTC) derivative transaction processing.

- In 2010, matched, confirmed and processed 11.5 million credit default swap trades.
- Has the largest community of users in the OTC derivatives market (more than 2,150 firms), including global dealers, investment managers and hedge funds in 62 countries.

OTC Derivative Services (continued)

Trade Information Warehouse:

- Created to provide a safe, efficient, paperless, global processing environment throughout the life cycle of an OTC derivatives contract, which can extend 5 years or more.
- As a centralized trade repository, serves as world's only global reference source on credit default swap market.
- Warehouse holds 2.3 million derivatives contracts worth \$26 trillion and handled 8.7 million payment obligations in 2010.
- DTCC won industry approval to create trade repositories for equity, interest rate, commodity and foreign exchange derivatives

Mutual Fund Services

Mutual Fund Services automate and standardize the processing and payment activities that take place between mutual funds and their distribution networks (brokers/banks)

Services include:

- Fund/SERV®, the industry standard for automating the purchase, registration, redemption and settlement of fund investments (219 million transactions valued at \$2.9 trillion in 2010).
- Networking, a centralized account reconciliation service between broker/dealers and mutual funds.
- Mutual Fund Profile Service, a dynamic central source for rules governing operational processing and other prospectus information.
- Defined Contribution Clearance & Settlement: facilitates the processing of retirement and other plans.

Insurance & Retirement Services

- Automates and standardizes the processing and payment activities that take place between insurance carriers and their distribution networks during the life of an insurance or annuity contract.
- Links more than 179 insurance carriers including all the major companies — with their distributors.
- Handled \$33 billion in commission, application and premium transactions in 2010

Horizontal vs. Vertical Structure

- DTCC is an example of horizontal model serves all major U.S. exchanges and more than 50 other trading platforms.
- CME is an example of vertical model clears and settles only for CME Group trading platform.
- Benefits of horizontal vs. vertical:
 - Horizontal model levels playing field for exchanges/trading platforms, permitting greater competition
 - Collateral requirements are reduced because all trades flow to a single clearing and settlement infrastructure
 - Netting of financial obligations is maximized, freeing up capital

New York Portfolio Clearing

- 'Single pot' margining fixed income securities from FICC and interest rate futures from NYPC are margined together in a single pot, reflecting cash positions and their natural derivatives hedges
 - Eliminates redundancies
 - Reduces systemic risk by creating a transparent view into risk of entire portfolio
 - Realizes capital efficiencies for participating firms
- Physical delivery becomes an automated process, rather than a manual, error-prone one.
- Regulators are able to have a better handle on risks being assumed by trading firms – i.e., are they hedging fixed income security buys and sells with the futures market or doubling down?

Key Issues for DTCC

- Legal Entity Identifiers
- Indemnification of foreign regulators on information regarding credit default swaps trades
- Systemic risk
- SDR filing
- Accelerated Trade Guaranty
- MBS CCP
- Basel III capital impact

Legal Entity Identification

- LEI is a program to develop a single alphanumeric ID system for legal entities of financial organizations so that industry participants and regulators can identify legal counterparties and better manage systemic risks globally.
- LEI would provide information about the entity, including parent company, address, regulatory jurisdiction, etc.
 - OFR and SEC issued request for proposal for Legal Entity Identification system, and requested industry recommendations last spring
 - SIFMA and other international industry groups joined together to develop recommendations in summer
 - DTCC and SWIFT team with the International Standards Organization (ISO) was selected by the industry, along with ANNA and NNAs in local countries, to provide the LEI
 - Discussions are now ongoing with other national regulatory groups to create international consensus prior to moving forward with an international LEI system

Indemnification Issue

- Dodd-Frank requires foreign regulators to indemnify U.S. SDRs on inadvertent release of data
- Foreign regulators unlikely to sign such an indemnification and will stop providing data to a global repository
- Such a move will destroy the possibility of having a single industry repository per asset class for OTC derivatives, greatly increasing systemic risk, since regulators will not have a complete picture of exposures and will have difficulty gather international data
- Also increases the probability of double-counting contracts and missing contracts completely
- Unless a standard reporting format is adopted, also may make it difficult or impossible to combine data from multiple repositories globally

Systemic Risk Matters

- DTCC may be designated as a "SIFI" a systemically important financial institution.
- Rationale: if DTCC infrastructure goes down, much of the financial system would be paralyzed
- Impact of designation
 - DTCC subsidiaries would have access to the Fed window
 - The Fed would become FICC's lead regulator

Accelerated Trade Guarantee

 Proposal: essentially guarantee equity trades when they are validated, rather than at midnight of T+1

Impact:

- Eliminates up to 30 hours of open counterparty risk
- Eliminates implied burden on DTCC (and its members) of carrying the risk on these not-yet-guaranteed trades (which we have always done) before the formal guaranty is established.

MBS: Central Counterparty

- Long term: market depends on decisions involving government guarantees for mortgages
- Current: Agency MBS market is large and active
- Challenge: FICC is seeking to create a central counterparty for this market which would establish pool netting and gradually add:
 - Novation of trades upon matching
 - Daily net of all TBA trades
 - Cash pass-through of daily trade mark-to-market
 - Fail netting

Issue of liquidity to meet trade guaranty obligations handled through a Capped Contingency Liquidity Facility.