

# **An Introduction to DTCC**

Services and Capabilities



*The Depository Trust &  
Clearing Corporation*

## Introduction

For more than 36 years, The Depository Trust & Clearing Corporation's (DTCC's) family of companies has helped automate, centralise, standardise and streamline processes that are critical to the safety and soundness of the capital markets. As a result, we've helped our customers increase their operational efficiency, reduce risk and lower cost.

At its core, DTCC is a huge data processing business, involving the safe transfer of securities ownership and settlement of trillions of dollars in trade obligations, under tight deadlines every day. At the same time, DTCC's primary mission is to protect and mitigate risk for its members.

For example, following the Lehman bankruptcy in 2008, DTCC played a critical role in protecting the industry from loss. Because of our ability to manage risk and see exposure from a central vantage point across asset classes, DTCC worked with market participants and regulators to successfully wind down over \$500 billion in open trading positions from trades in equities, mortgage-backed and US government securities, without any loss to the industry – and avoiding additional burden on US taxpayers. Likewise, DTCC's overseas subsidiary, European Central Counterparty Limited (EuroCCP), closed out and settled €21 million in pending trades by Lehman Brothers International (Europe).

DTCC was established in 1999 as a market-neutral, member-owned and governed holding company by combining The Depository Trust Company (DTC) and National Securities Clearing Corporation (NSCC). Those companies, in turn, grew out of Wall Street's paperwork crisis in the late 1960s and early 1970s. Neither company, however, started out serving a national market. They were formed initially to immobilise

securities and clear and settle trades for the New York Stock Exchange and American Stock Exchange and, later on, Nasdaq.

### Need for Greater Efficiencies

Clearing and settlement in the US was highly fragmented at the time. Regional markets, such as those in Boston, Philadelphia and Chicago, each maintained separate clearing and depository businesses. As trading volumes grew, customers became concerned about the high costs, inefficiencies, redundant systems and disparate processes as well as the need to post collateral at each of the clearing companies.

At the same time, US regulators sought to encourage the creation of a unified national market mechanism. To guide the process, they advanced a number of key concepts. At the heart of them were two primary principles:

- the need for customer choice, and
- the need for price transparency.

To give traders an opportunity to buy or sell a security wherever the best price could be found, regulators required the creation of links between the exchanges and between clearing and settlement organisations – enabling dealers to choose the market where a trade would be executed.

The corollary to this was, if a trade could be executed on any market, it could also be cleared and settled by whichever settlement organisation offered a better price or more efficient service. In short, customer choice and competition were encouraged.

## **Advantages of Centralised Infrastructure**

Over time, US market participants came to realise that there were considerable cost efficiencies and risk-reduction advantages to be gained by commoditising back-office functions, while continuing to compete on the front end of the market. They began to see the advantages of a centralised infrastructure model that could achieve economies of scale from critical mass. They also saw the value of centralised trade netting to reduce cost and risk. Eventually, customers began to direct their business to a single clearing and single depository organisation – a process that took a number of years to complete.

Between 1977 and 1995, the five regional exchanges that competed with NSCC and DTC exited the business of clearance and settlement, and customers consolidated this activity at NSCC and DTC. And, the process of consolidation continues. Beginning in 1999, DTCC worked to bring our depository, DTC, and our equities clearing organisation, NSCC, under one roof.

Later, we brought in – and consolidated – two more clearing corporations for fixed income securities, Government Securities Clearing Corporation (GSCC) and MBS Clearing Corporation (MBSCC).

Today, DTCC subsidiaries clear and settle nearly all US market trades in equities, corporate and municipal bonds, US government securities and mortgage-backed securities, money market instruments and over-the-counter (OTC) derivatives. We also provide securities safekeeping and asset servicing capabilities for equities, corporate and municipal debt, collateralised mortgage obligations, exchange-traded funds, money market instruments and many other types of securities.

## **An At-Cost Organisation**

DTCC is owned by its principal users and operates on an at-cost basis, which means that

we look to return any excess revenues to our customers. Driven in part by economies of scale and tight fiscal controls, our transaction fees are among the lowest in the world.

As our customers look to move beyond traditional trading in cash equities and fixed income securities markets to trading derivatives instruments, we continue to work with them, responding to market forces that are driving their businesses. For instance, we leveraged our experience and technology to rapidly build Deriv/SERV to automate matching and confirmation and lower risk for the growing global market in credit default swaps and other OTC derivatives instruments.

The point is, of course, that by developing services in conjunction with customers, we know our services will be widely used.

## **Broad Experience, A Competitive Advantage**

DTCC's size has not prevented us from being quick to market or innovative. In fact, the breadth of our experience across product lines and the need to build different technology solutions for diverse market sectors offer a distinct competitive advantage. We've been able to repurpose technology and leverage existing software design to minimise our technology development costs.

In 2009, for the sixth year in a row, our customers have given us a strong vote of confidence on the quality of service we provide to the industry. In our annual industry-wide customer satisfaction survey, DTCC received a world-class score of 91%.

We look forward to the continued growth and development of additional services as we work to anticipate our customers' needs and the changing nature of the industry. In our increasingly global industry, we also look forward to collaborating and partnering more closely with our colleagues around the world.

## The Depository Trust & Clearing Corporation

The Depository Trust & Clearing Corporation (DTCC), through its subsidiaries, provides clearing, settlement and information services for equities, corporate and municipal bonds, government and mortgage-backed securities, money market instruments and OTC derivatives. In addition, DTCC is a leading processor of mutual funds and insurance transactions, linking funds and carriers with their distribution networks. DTCC's depository provides custody and asset servicing for 3.6 million securities issues from the US and 121 other countries and territories, valued at \$33.9 trillion. In 2009, DTCC settled nearly \$1.48 quadrillion in securities transactions.

DTCC's principal subsidiaries include:

- National Securities Clearing Corporation (NSCC)
- The Depository Trust Company (DTC)
- Fixed Income Clearing Corporation (FICC)
- DTCC Deriv/SERV LLC
- DTCC Solutions LLC
- European Central Counterparty Limited (EuroCCP)

Each of DTCC's subsidiaries operates separately from the others. Each is self-funded from fees paid by users and each has its own risk profile, collateral fund and safeguards.

DTCC also strategically partners with other companies to create joint venture companies where it can help extend the reach of our services to customers when appropriate.

Omgeo, a DTCC joint venture company with Thomson Reuters formed in 2001, plays a critical role in institutional post-trade processing, acting as a central information management and processing hub for brokers, investment managers and custodian banks. It has 6,000 customers in 42 countries.

In September 2009, DTCC formed a new joint company with Markit called MarkitSERV. MarkitSERV brings together Markit's trade confirmation service, Markit Wire, for interest rate derivatives and DTCC's Deriv/SERV matching and confirmation engine for credit derivatives.

Also in development is New York Portfolio Clearing (NYPC), a U.S. futures clearing organisation that is a joint venture of DTCC and NYSE Euronext. NYPC will clear interest rate products and will support the margining of fixed income cash products from DTCC's Fixed Income Clearing Corporation with their related, offsetting derivatives trades in a "single pot." This innovative approach to margining will deliver significant capital and operational efficiencies for market participants, while reducing risk and enhancing transparency. NYPC will be a Commodity Futures Trading Commission (CFTC)-regulated Derivatives Clearing Organization, and expects to begin operation in the fourth quarter 2010, pending regulatory approval.

### What Markets Does DTCC Serve?

#### A. Clearing and Settlement in the US 1. Equities, Corporate and Municipal Bonds

DTCC's subsidiary, NSCC, established in 1976, provides clearing, settlement, risk management, central counterparty services and a guarantee of completion for virtually all US broker-to-broker trades involving equities, corporate and municipal debt, American depository receipts, exchange-traded funds and unit investment trusts. It supports more than 50 exchanges, electronic communications networks (ECNs) and other trading venues. NSCC also nets down the total number of trading obligations requiring financial settlement by 98%. NSCC generally clears and settles trades on a T+3 basis.

Services available:

- Automated Customer Account Transfer Service (ACATS)
- Continuous Net Settlement (CNS)
- Custom Index Share Processing
- Inventory Management System
- Obligation Warehouse (3Q 2010)
- Processing Trade Reporting and Confirmation
- Real-Time Trade Matching (RTTM)
- Settlement Services
- Stock Borrow Program

## 2. Government Securities

The Government Securities Division (GSD) of FICC, a subsidiary of DTCC, provides real-time trade matching, clearing, risk management and netting for trades in US Government debt issues, including repurchase agreements, or repos. Securities transactions processed by GSD include Treasury bills, bonds, notes, zero-coupon securities, government agency securities and inflation-indexed securities.

Services available:

- Auction Takedown
- Fail Netting
- General Collateral Finance Repo Services
- Government Securities Net Settlement Services
- Real-Time Trade Matching®/RTTM Web
- Repo Agreement Processing

## 3. Mortgage-Backed Securities

The Mortgage-Backed Securities Division of FICC, a subsidiary of DTCC, provides real-time automated trade matching, trade confirmation, risk management, netting and electronic pool notification to the mortgage-backed securities market.

Key participants in this market are mortgage originators, government-sponsored enterprises, registered broker/dealers, institutional investors, investment managers, mutual funds, commercial banks, insurance companies and other financial institutions.

Services available:

- Electronic Pool Notification Services

- Mortgage-Backed Securities Clearing Services
- Netting Services
- Real-Time Trade Matching (RTTM)

## 4. Clearing and Settlement of Equities in Europe

EuroCCP is the European subsidiary of DTCC that was established in 2007 to provide pan-European low-cost clearing services. EuroCCP's services were launched in 2008 for Turquoise, a trading platform formed by nine global banks, to compete in Europe with other trading venues.

EuroCCP has subsequently been selected to clear and settle for block trading platform SmartPool and the high-frequency trading platform NYSE Arca Europe, both of which launched in 2009. EuroCCP has also been selected to clear for Pipeline Financial Group Limited and the Nasdaq OMX Nordic markets.

EuroCCP uses Citi's Global Transaction Services as its settlement agent. EuroCCP currently clears and settles trades for more than 6,000 securities in 19 countries in nine currencies. In early 2010, it added the ability to clear and settle trades in a number of major U.S. securities done on Turquoise and NYSE Arca Europe, and in late 2009 also began clearing exchange-traded currencies and depositary receipts.

EuroCCP is a Recognised Clearing House in the U.K. and is headquartered in London.

## B. Asset Services

DTCC's subsidiary, DTC, established in 1973, was created to reduce costs and provide clearing and settlement efficiencies by immobilising securities and making automated "book-entry" changes to ownership of the securities. DTC provides securities movements for NSCC's net settlements, and settlement for institutional trades (which typically involve money and securities transfers between custodian banks and broker/dealers) as well as money market instruments. In 2009, DTC settled transactions

worth almost \$299.4 trillion and processed more than 299 million book-entry deliveries.

In addition to settlement services, DTC brings efficiency to the securities industry by retaining custody of about 3.6 million securities issues worth about \$33.9 trillion, including securities issued in the US and 121 other countries.

Services available:

- Custody & Safekeeping Services
- Deposit & Withdrawal Services
- Dividend, Reorganisation and Proxy Services
- Direct Registration System Service
- Data Delivery Service
- Legal Notification Service (LENS)

### **C. Global Corporate Actions**

DTCC's Global Corporate Action (GCA) Validation Service, operated by DTCC Solutions LLC, simplifies announcement processing by providing a centralised source of "scrubbed" information about corporate actions, including tender offers, conversions, stock splits, and nearly 100 other types of events for equities and fixed income instruments traded in Europe, Asia-Pacific and the Americas.

For banks, broker/dealers and other financial institutions, the GCA Validation Service transforms the way corporate action announcements are managed globally by eliminating redundant operations and technology, and by reducing the high fixed costs associated with this labor-intensive processing. In 2009, the Validation Service processed about 990,000 corporate actions from more than 160 countries and more than 5.9 million scheduled payment announcements, the most complete global coverage of corporate actions by any organisation. The GCA Browser Service, launched in early 2009, provides direct, low-cost, online access to the entire GCA announcement system database on over two million securities. The GCA Browser is available as a separate service offering to both new clients and existing clients of the GCA Validation Service.

### **D. OTC Derivatives**

In 2003, DTCC Deriv/SERV LLC created automated matching and confirmation services for OTC credit derivatives trades. In 2009, Deriv/SERV took its matching services and combined them with Markit's confirmation services for OTC derivatives into a new joint company called MarkitSERV. MarkitSERV now provides a single portal for electronically confirming OTC derivatives trading.

DTCC Deriv/SERV now is focusing its efforts for the OTC derivatives market principally through global trade repositories. DTCC's Trade Information Warehouse (Warehouse) is the market's first and only centralized global repository for trade reporting and post-trade processing of OTC credit derivatives contracts. DTCC's customer base includes all the major dealers in credit derivatives as well as more than 1,700 participant firms from 52 countries. The Warehouse is operated through DTCC's regulated subsidiary, Warehouse Trust Company LLC.

DTCC, collaborating with industry participants, developed the Warehouse to address operational efficiency needs by establishing a centralised service for post-trade processing for payment calculation, credit event processing and central settlement of OTC credit derivatives. This enables participants to mitigate operational risk and increase efficiencies. In 2009, Deriv/SERV processed a record 11.5 million transactions.

In addition, DTCC is currently developing a global trade repository for OTC equity derivatives trades. That repository became operational at the end of July 2010. It will offer reporting for regulators and participants. Deriv/SERV will also offer lifecycle processing services, beginning with cash flow matching and processing for equity derivatives.

Services available:

- Trade repository
- Lifecycle processing
- Central Settlement

## **E. Wealth Management Services**

DTCC provides a family of services to support mutual funds, managed accounts and the growing interest in alternative investment products. Mutual Fund Services, provided by DTCC's subsidiary NSCC, are the acknowledged industry standards for processing fund transactions, communicating account-related information, and linking fund companies with their growing network of distribution firms. Fund/SERV® automates purchases, registrations, redemptions and settlement of these fund transactions in the US and for offshore funds.

Other capabilities include coordinating account information between funds and firms; processing defined contribution transactions; settling commission payments; transferring accounts between firms and assets in IRAs between fund companies; and providing a centralised repository for information contained in a fund's prospectus, thereby expanding the service's role as a primary industry source for rules-based processing.

Mutual Fund Services also provide money settlement of transactions through the Fedwire system.

Services available:

- ACATS-Fund/SERV
- Commission Settlement
- Defined Contribution Clearance & Settlement
- Fund/SERV®
- Fund/SPEED
- Mutual Fund Profile Service
- Networking
- Transfer of Retirement Assets

DTCC's Managed Accounts Service standardises the exchange of account and investment information through one central gateway, significantly reducing operational costs, errors and other related risks. Introduced in 2006 by DTCC Solutions LLC, the service simplifies an unwieldy and costly account set-up process, linking investment managers, sponsoring broker/dealers and service providers through one centralised,

automated platform. The service also includes features that address account maintenance, corporate actions and fee billing.

Features available:

- Account Set-Up
- Account Maintenance
- Corporate Actions
- Fee Billing

DTCC's Alternative Investment Products Service brings automation and efficiency to critical transactions like subscriptions, redemptions and position and valuation reporting for hedge funds, funds of hedge funds, real estate investment trusts and other alternative investments. The service is built on a platform that streamlines trade order, documentation workflow, reporting and settlement of these complex products.

The service has been designed to accommodate global hedge fund providers and settlement reporting in multiple currencies immediately prior to entering production. The service is provided by DTCC's subsidiary, NSCC.

## **F. Insurance & Retirement Services**

Insurance & Retirement Services (I&RS), provided by DTCC's subsidiary, NSCC, is helping to commoditise and mainstream annuities, life insurance and retirement programs. The services include processing of annuity applications and premiums, licensing and appointments, commission payments, positions and valuations, asset pricing, financial activity reporting and annuity customer account transfers.

In 2008, two services were added: Fund Transfers within variable annuities and Attachments, which will support the electronic transfer of images, signatures and other documents. I&RS also introduced in early 2009 LNA Access<sup>SM</sup>, the first of its standalone Web "Access" applications, giving distributors and carriers an online data entry request and confirmation reporting tool for the full Licensing & Appointment (LNA) service.

The aim of the business is to automate and provide seamless end-to-end communication between insurance carriers, distributors and their solution providers for the sale, processing and money settlement of all types of insurance products nationwide.

## **G. Syndicated Loan Processing**

Loan/SERV is helping automate and streamline processing for the global syndicated loan market. The Loan/SERV Reconciliation Service enables agent banks and lenders to view and reconcile loan positions on a daily basis. Its Contract Reconciliation Service provides reconciliation at all levels, from commitment and facility level down to individual contracts, with all relevant transactions details.

The Loan/SERV Messaging Service provides a safe and automated network for the transmission, receipt and online storage of industry-standard loan messages. New services will include the Loan/SERV Cash on Transfer, which provides cash settlement for the syndicated loan market, helping provide certainty to loan traders that cash settles simultaneously with changes to positions recorded by the agent bank.

## **Who Are Our Customers?**

DTCC's customer base extends to thousands of companies within the global financial services industry. DTCC serves brokers, dealers, institutional investors, banks, trust issuers, mutual fund companies, insurance carriers, hedge funds and other financial intermediaries – either directly or through correspondent relationships. Increasingly, DTCC's customers operate both in the US and overseas.

In the US, DTCC provides critical services to the markets for US Government and mortgage-backed securities, and to all US equity marketplaces, including the New York Stock Exchange,

the Nasdaq Stock Market and regional US markets, as well as electronic trading and communications networks (ECNs).

## **Who Owns DTCC?**

DTCC is owned by its customers, which are members of the financial community such as banks, broker/dealers, mutual funds and other financial institutions. DTCC operates on an at-cost basis, returning excess revenue from transaction fees to its member firms.

## **Who Regulates Us?**

All services provided through the US clearing corporations and depository are registered with and regulated by the US Securities and Exchange Commission (SEC). The depository is also a member of the US Federal Reserve System and a limited-purpose trust company under New York State banking law. EuroCCP is regulated by the Financial Services Authority (FSA) in the U.K. DTCC also received approval in early 2010 to have its OTC derivatives Warehouse Trust Company LLC regulated as a limited purpose trust company, becoming a member of the Federal Reserve system and also regulated by the New York State Banking Department.

## **What Are DTCC's Global Operating Capabilities?**

DTCC's services are increasingly being developed to accommodate not just US but global requirements, and now encompass thousands of companies in dozens of countries. DTCC supports not only US firms who operate globally, but European, Asian and Latin American firms that want to leverage DTCC's risk management capabilities and low-cost services.



In addition to DTCC's clearing and settlement operations in the US, our London-based subsidiary, EuroCCP, provides pan-European, low-cost clearing and settlement services to multilateral trading facilities (MTFs) in Europe. EuroCCP, with its settlement agent, Citi Global Transaction Services, clears and settles equity trades in 19 countries in nine different currencies.

Globally, the OTC derivatives market continues to grow rapidly. DTCC has developed a flexible and growing infrastructure to support matching, confirmation, payment and lifecycle support of these contracts globally. We now have more than 1,700 customers in more than 52 countries using the service, through offices in New York and London.

The Global Corporate Action Validation Service provides corporate actions announcement information on more than two million securities in more than 160 countries. In addition to the almost one million corporate actions event announcements a year, it also provides almost 6 million announcements on scheduled payments annually for DTC-eligible fixed income instruments. That information is validated and distributed to client firms around the world via service centers in New York, London and Shanghai, and DTCC is continuing to focus on building its reference data services globally.

DTCC has 16 cross-border depository links with central infrastructure organisations worldwide, including a link with the Canadian Depository for Securities, which enables DTC to settle transactions in Canadian dollars on behalf of its participants. DTCC also has signed information and cooperation agreements with major post-trade infrastructure organisations in Japan, Korea, India, China and Taiwan.

Omgeo, DTCC's joint venture with Thomson Reuters, provides global support for institutional post-trade processing and offers more than 6,000 customers in more than 42 countries centralised, automated access to trade management services. In 2009, DTCC launched a new electronic Alternative Investment Products

Service, linking hedge funds around the world to distributors such as banks and broker/dealers to allow them to set up and service hedge fund accounts for qualified customers.

Increasingly, DTCC's services are using international standards and messaging at multiple data centers and operations facilities to process trades and service assets through a growing network that operates around the world and around the clock. DTCC recognises the importance of supporting the increasingly global trading environment with optional efficiencies and low-cost infrastructure service, which will lead to cost savings for investors everywhere.

## **What Are DTCC's Financial Strengths?**

In 2009, each of DTCC's regulated subsidiaries (DTC, NSCC, FICC) received Standard & Poor's highest credit rating, AAA/A-1+.

DTCC's subsidiaries' rules require most participants to maintain deposits of collateral related to their activities, based on calculated requirements to secure participants' obligations and certain liabilities of the subsidiaries.

## **How Does DTCC Establish Its Fees?**

DTCC members pay the lowest equity clearance fees in the world – DTCC charges an average of three-tenths of a cent per transaction or about 56 thousandths of a cent per 100 shares. Included in that fee are our comprehensive risk management program, enormous processing capacity and business continuity. These programs are designed to protect our members and guarantee that trades will be completed under both ordinary and extraordinary circumstances, which has the potential to save financial firms hundreds of millions of dollars, especially when the markets are in turmoil.

DTCC continually works to reduce fees of our core services by controlling fixed costs, which yields economies of scale and unit savings. DTCC has created a “networked community” of banks, broker/dealers, mutual funds, insurance carriers, hedge funds, paying agents, transfer agents and others that help it achieve the critical mass needed to lower costs and achieve savings.

Since our subsidiaries are stand-alone entities, our allocation of staff and operating costs is based on actual usage to support each particular business segment. For example, even as transaction volumes have increased dramatically, DTCC has kept annual expenses flat at less than \$100 million a year for the past three years for NSCC’s clearing operations for the entire US equities market, although the number of transactions has doubled over the same period.

While our fees represent the initial billing for services, the actual cost borne by our customers is the net amount paid after rebates and discounts. Fees are a means of tracking usage and allocating our costs to customers.

Fee reductions and rebates are only part of the savings DTCC delivers to the industry. Netting, which reduces the number of trade obligations requiring financial settlement, and streamlining settlement processes free up trillions of dollars of capital each year that customers can then use for other investment purposes.

In 2009, NSCC, through netting, reduced the total value of obligations requiring financial settlement by 98% – from \$209.7 trillion to \$5 trillion. And even on peak volume days, NSCC nets down financial obligations requiring settlement by as much as 99%.

Through its daily netting process, FICC also sharply lowers the total number of government and mortgage-backed securities trade obligations that require financial settlement. In 2009, FICC’s netting process eliminated almost 80% of all government securities trades and

more than 93% of all mortgage-backed securities trades requiring settlement. This markedly increased the capital available to the financial services industry, while lowering risk and improving efficiency.

Extensive risk mitigation services from DTCC also help the industry avoid potential loss. (See How Does DTCC Manage Risk? – page 10.)

## Who Does DTCC Partner With?

DTCC has hundreds of strategic partners – major companies, and smaller and specialised software providers. In addition, DTCC maintains strong working relationships with clearing agencies and securities depositories in dozens of countries worldwide.

We partner with well-respected technology and telecommunications companies, where this collaboration could bring about innovation. DTCC welcomes service organisations reaching out to us, where business knowledge and technological advantage can add value to the breadth of capabilities we can jointly offer to our customers. DTCC has pursued a strategy to “buy vs. build” solutions where it would reduce costs. We create alliances with major consulting companies where their adeptness at helping the financial service industry identify opportunities for greater efficiency can be joined with our expertise as an infrastructure organisation.

Our history of business partnerships began in 2001 with the establishment of Omgeo. In 2009, we announced two of our latest strategic partnerships. DTCC formed a new joint company with Markit called MarkitSERV, which provides a single matching and confirmation portal for various OTC derivatives.

DTCC also teamed with NYSE Euronext to create a joint venture known as New York Portfolio Clearing (NYPC). This futures clearinghouse, currently under development, is expected to initially clear Treasury and other fixed income

futures contracts traded on NYSE Liffe US and other futures trading platforms and margin those trades in a single pot with the cash Treasury market trades handled by FICC. This innovative approach to margining will deliver significant capital and operational efficiencies for market participants, while reducing risk and enhancing transparency. NYPC will be a CFTC-regulated Derivatives Clearing Organization and is pending regulatory approval.

## How Does DTCC Manage Risk?

Managing the risks inherent in executing securities transactions and holding securities in custody is a key component of DTCC's business. The globalisation of financial markets, the trading of more complex instruments and the application of new technologies all make the management of risk more critical – and more challenging. Fortunately, DTCC has the most battle-tested central counterparties in the world to deal with these risks.

Today's markets require strong risk management, and our customers place their confidence in DTCC. DTCC routinely examines a wide range of factors associated with market risk, credit risk, operational risk and enterprise risk. Tools DTCC employs to mitigate risk include continuous trade netting, capital adequacy standards, a common clearing fund, a fully collateralised settlement system that is marked-to-market daily, ongoing operational risk assessment, business resiliency exercises, the wide geographic dispersion of operating and data centers, a variety of advanced quantitative analytical methodologies such as back and stress testing, and a special focus on regulatory and compliance issues. In addition, DTCC's principal regulated subsidiaries all carry the highest credit ratings.

DTCC transfers counterparty risks from individual firms to DTCC and manages that risk from a central vantage point. By assuming the counterparty risk of its customers, DTCC substantially reduces one of the key systemic risk factors

that the industry would otherwise face, especially when dealing with the failure of large, interconnected financial firms like Lehman Brothers.

The crisis that followed the Lehman bankruptcy in 2008 was indicative of the critical role DTCC plays. Because of its ability to manage risk and see exposure from a central vantage point across asset classes, DTCC was instrumental in helping ensure that market risk – and systemic risk – were controlled. When Lehman failed, DTCC became responsible for over \$500 billion in exposure on trades in equities, mortgage-backed and US government securities that it had guaranteed or taken responsibility for on Lehman's behalf. The closeout of these open Lehman positions – the largest and most complex in DTCC's 36-year history – was completed in a matter of weeks with no market disruption, no impact to DTCC's retained earnings, and no loss to our market participants' clearing fund deposits.

In the course of assuming this level of risk, each regulated DTCC subsidiary sets minimum standards for capital adequacy and collateral that its customers must meet in order to do business. Customers typically must post collateral, and each customer's collateral requirements can change daily, based on its open trading positions. The risk management programs operated by DTCC's clearing subsidiaries determine how much collateral is required from each customer to secure its outstanding trading obligations. DTCC's depository controls the final settlement of transactions in equities, corporate and municipal debt, money market instruments and unit investment trusts, ensuring its ability to complete settlement payments through a series of settlement controls, including net debit caps and collateralisation.

DTCC has expanded its use of analytical value-at-risk methodologies for stress testing of customer and participant exposure in extreme market conditions. The company regularly performs back testing of the quality and accuracy of its risk management systems. And it uses the results of these tests to recalculate clearing fund and collateral requirements placed on

its customers, or to respond to other risk factors the tests may reveal.

DTCC has long been in the business of managing risk on behalf of the industry – and views it as a core competency. That role has never been more important and more central to DTCC's mission or the industry than it is today.

## **How Does DTCC Ensure Business Continuity?**

DTCC's business continuity plan includes multiple data and operating centers, a highly resilient, self-healing telecommunications network and data replication technology, which allows data to be captured and automatically saved within two minutes at remote locations at a distance of more than 1,000 miles.

On September 11, 2001, when the US markets closed, DTCC's facilities in lower Manhattan (10 blocks from the World Trade Center) remained open to ensure the completion of trade settlement. DTCC settled more than \$280 billion on 9/11 and \$1.8 trillion in equity securities transactions that week, which was critical to the resumption of trading in the following weeks.

Afterward, DTCC moved swiftly to enhance its comprehensive business continuity plan to further protect and decentralise staff and systems. DTCC enhanced its communications network and expanded connectivity testing with major customers and the documentation we provide on testing results.

DTCC now has fully redundant capabilities for all critical business functions. We can, and have, completed daily settlement from different locations. In 2005, DTCC mobilised to help our customers manage through Hurricane Katrina and its aftermath. DTCC swiftly enacted steps to help customers impacted by the storm, along with issuers and agents, to cope with operational problems, reduce risk and restore business as usual.

## DTCC 2009 Performance . . . In Brief

Performance Item	2009	2008	% Change
<b>Revenue</b>	\$960 million	\$1.4 billion	- 17%
<b>Settlement Activity</b>			
<ul style="list-style-type: none"> <li>• <b>Total value of securities transactions settled through DTCC</b></li> <li>• Value of money market settlement activity (one side)</li> <li>• Value of securities on deposit at DTC</li> <li>• Value of non-US issues on deposit</li> <li>• Volume of book-entry deliveries</li> </ul>	<b>\$1.48 quadrillion</b> \$94.6 trillion \$33.9 trillion \$6.6 trillion 299.5 million	<b>\$1.88 quadrillion</b> \$139.7 trillion \$ 27.6 trillion \$4.9 trillion 316.6 million	<b>- 22%</b> - 32% +23% +34% - 5%
<b>Equity, ETF, corporate and municipal bond transactions processed (NSCC)</b>			
<ul style="list-style-type: none"> <li>• Value of NSCC equity, bond and ETF transactions processed</li> <li>• Volume</li> <li>• Volume on peak day (NSCC-10/10/08)</li> <li>• Peak day netting factor</li> </ul>	\$209.7 trillion  23.3 billion No new peak day n/a	\$ 315.1 trillion  21.9 billion 209.4 million 98%	- 33%  + 6% n/a n/a
<b>Government securities transactions processed (FICC)</b>			
<ul style="list-style-type: none"> <li>• Value of trades in-net</li> <li>• Volume</li> </ul>	\$905.1 trillion 28.7 million	\$1.04 quadrillion 34.4 million	- 13% - 17%
<b>Mortgage-backed securities transactions processed (FICC)</b>			
<ul style="list-style-type: none"> <li>• Value</li> <li>• Volume</li> </ul>	\$94.8 trillion 2.4 million	\$ 111.3 trillion 2.6 million	- 15% - 10%
<b>Deriv/SERV</b>			
<ul style="list-style-type: none"> <li>• Transactions volume</li> <li>• Total customers</li> </ul>	11.5 million 1,741	10.1 million 1,313	+ 14% + 33%
<b>Mutual fund transactions processed (NSCC Fund/SERV)</b>			
<ul style="list-style-type: none"> <li>• Value</li> <li>• Volume</li> </ul>	\$2.4 trillion 197 million	\$ 2.6 trillion 194 million	- 7% + 2%
<b>Insurance applications, premiums and commissions processed (NSCC)</b>			
<ul style="list-style-type: none"> <li>• Value</li> <li>• Volume</li> </ul>	\$29.8 billion 82.9 million	\$ 29.6 billion 73.4 million	+ 1% + 13%
<b>Underwriting</b>			
<ul style="list-style-type: none"> <li>• Value of issues</li> <li>• Volume of issues</li> </ul>	\$2.38 trillion 40,067	\$2.4 trillion 53,402	- 1% - 25%
<b>Cash dividend and interest processing</b>			
<ul style="list-style-type: none"> <li>• Value of dividend and interest payments</li> <li>• Volume</li> </ul>	\$1.41 trillion 4,585,000	\$ 1.66 trillion 4,837,000	- 15% - 6%
<b>Corporate actions processing (Reorg)</b>			
<ul style="list-style-type: none"> <li>• Value of payments involved</li> <li>• Volume</li> <li>• Number of certificates maintained (excluding custody)</li> </ul>	\$1.53 trillion 294,562 1,713,000	\$1.89 trillion 300,667 2,040,000	- 19% - 2% - 16%

DTCC = The Depository Trust & Clearing Corporation; NSCC = National Securities Clearing Corporation; FICC = Fixed Income Clearing Corporation; DTC = The Depository Trust Company

For more information go to: [www.dtcc.com](http://www.dtcc.com)

DTCC 2009 Annual Report: <http://www.dtcc.com/about/annuals/2009/index.php>

#### **NSCC PEAK MARKET ACTIVITY**

	<b>June 8, 2006</b>	<b>August 16, 2007</b>	<b>October 10, 2008*</b>
<b>Transactions</b>	50.1 million	98.5million	209.4 million
<b>Value of Transactions</b>	\$1.02 trillion	\$2.23 trillion	\$3.2 trillion
<b>Final Settlement Value</b>	\$16.6 billion	\$31 billion	\$57.5 billion
<b>Netting Factor</b>	98%	99%	98%

\*The number reported for this day represent a single day of transactions. However, because of the Columbus Day holiday, there was a double settlement day involving trades done on Oct. 10. As a result, the numbers reported involving dollar value for settlement and netting factor are for the two-day total.

