

Transforming the Syndicated Loan Market

A White Paper to the Industry – September 2008



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Executive Summary

The global syndicated loan market totaled more than \$4.5 trillion in 2007, an increase of 13% over 2006 and 32% over 2005. The largest market was the United States, with \$2.1 trillion in loan activity, an increase of more than 20% over 2006. The second largest market was the United Kingdom, with \$376.3 billion in syndicated lending. Secondary trading in the market has also grown significantly in the U.S., with an estimated 92% increase in trading volumes in 2007 over 2006.¹

While the United States and Europe account for the lion's share of the market, there are also smaller, but growing, markets in Latin America, Africa, the Middle East and Asia. The Asian market for syndicated lending totaled \$496.5 billion in 2007 compared to \$470 billion in 2006.²

Although current market conditions have significantly slowed syndicated lending in 2008, the syndicated market retains strong growth potential in both the short and long term. Despite expansive growth in the past several years, the syndicated loan market remains hampered by manual processes, outdated communications and an absence of industry-wide processing standards. The industry remains committed to streamlining and automating this loan process, bringing new efficiencies and greater certainty to the marketplace.

Much of the challenge is rooted in the very nature of the market. A syndicated loan, by definition, is a loan provided by a group of lenders usually arranged and administered by a third-party banking agent whose responsibilities include the transmission of information and cash between the parties. Syndicated loans often originate with complex structures – a single syndicated loan typically involves dozens of lenders, and sometimes thousands. When a syndicated loan, or a portion

of it, is sold into the secondary market, as commonly occurs, position reconciliation between borrower, lenders and loan agent becomes even more complicated – and more susceptible to mistakes in recordkeeping. Differences between the records of the loan agents and those of the lenders can result in profit and loss (P&L) corrections and incorrect cash payments.

If current trends persist, the cost of position reconciliation will increase, communications will continue to lag behind other asset classes, and syndicated loan processing will grow increasingly antiquated relative to the broader industry.

Operational inefficiencies not only impact recordkeeping and cash flows, they also impede timely settlement of loans traded in the secondary market. The time it takes to settle a secondary loan falls well short of the industry's goal for the U.S. and European markets, partly because the market is inefficient and volume has exceeded capacity. In the U.S., participants have called for a seven-day settlement cycle, while in Europe the goal is 10 days. In the U.S., the current settlement cycle averages 20 days. In Europe, the process is slower, with an estimated average settlement cycle of 30 days. The lack of standardized documentation is more prevalent in Europe, where cross-border jurisdictional differences compound delays in settlement. Further complicating matters is the fact that the European syndicated loan market tends to have more multi-currency and multiple-borrower deals.

The Depository Trust & Clearing Corporation (DTCC) is working closely with an advisory committee of leading global banks, including The Bank of New York Mellon, Barclays Capital, Citi, Deutsche Bank and The Royal Bank of Scotland to introduce technology and solutions to address the processing and recordkeeping challenges that persist in this market.

¹ Source: Thomson Reuters

² Ibid

DTCC is developing a comprehensive solution for the syndicated loan market called Loan/SERV, a suite of high-speed, user-friendly products that address major drawbacks in syndicated loan processing. By leveraging existing, proven technology, DTCC will introduce two Loan/SERV products in 2008. The first, Loan/SERV Reconciliation Service, is a Web-based service that enables agents and lenders to reconcile loan commitments and transactions on individual loans. This allows both the agent and lender to view and reconcile their loan positions on a daily basis rather than periodically or after a scheduled payment. This service will be available in the third quarter of 2008. A second service, scheduled for release in the fourth quarter of 2008, is the Loan/SERV Messaging Service, which will provide a safe, secure and automated network for the transmission, receipt and online storage of industry standard loan messages. This service also allows market participants who do not wish to receive messages directly into their processing systems to manage their messages online via a message hub.

The Loan/SERV suite of services will introduce increased automation to the industry in several ways. It will:

- Bring standardized loan-servicing language to the marketplace by adopting FpML™ (Financial products Markup Language)³, the e-commerce electronic language with widely-proven success in over-the-counter derivatives trading. Loan/SERV also leaves room for users to opt out of FpML in favor of simpler Web-based communications.
- Reduce position breaks, which can occur when position changes and other vital information are recorded differently by agents and lenders. Through automation, Loan/SERV will track and report position changes daily, providing greater transparency with up-to-date information for all parties.

- Reduce cash breaks, or delays in payment, by providing opportunities on a timely basis to resolve position breaks that can lead to incorrect cash movement.
- Help reduce trade settlement delays caused by inaccurate recordkeeping.
- Reduce fax-based communications. The industry continues to rely on faxes as its primary communication method. Loan/SERV replaces faxes with electronic communications using the industry-prescribed FpML standard messages.

In addition to these initiatives for streamlining the market, DTCC sees longer range applications for improvement which could include:

- Primary loan-closing processes.
- Secondary loan confirmation, assignment and settlement.
- Pre-reconciled cash payment and settlement events.

Through such improvements, Loan/SERV will create more efficient and less risky loan syndication operational processes. This will reduce position and cash breaks, make the flow of information less error-prone and help move the industry towards its goal of closing secondary trades seven days after trade date in the U.S. and 10 days in Europe.

DTCC is uniquely positioned to offer industry-driven solutions to the syndicated loan markets in both the U.S. and Europe. With Loan/SERV, DTCC is following the model of its successful Deriv/SERV product line, which helped automate the over-the-counter derivatives market by providing an automated mechanism to track and service OTC derivative contracts over their lifecycles. Like Deriv/SERV, Loan/SERV will help the market grow while managing operational risk.

Loan/SERV is a service offering of DTCC Solutions, LLC, a subsidiary of DTCC.

³FpML is a trademark of the International Swaps and Derivatives Association.

Introduction

This DTCC white paper describes the challenges facing the syndicated loan market and outlines the most recent proposals for solving the processing and settlement problems that come with syndicated lending.

While the syndicated loan market has shown expansive growth in the past several years, reaching a global volume of more than \$4.5 trillion in 2007, the processing of syndicated loans is hampered by manual processes, outdated communications and an absence of industry-wide standards.

Working with the industry and an advisory committee of five leading global banks – The Bank of New York Mellon, Barclays Capital, Citi, Deutsche Bank and The Royal Bank of Scotland – DTCC is developing Loan/SERV, a new, evolving suite of services that will help automate and streamline the processing of syndicated commercial loans.

This white paper will:

- Describe the historical development of the syndicated loan market in the U.S. and Europe, its recent growth, its current and long-term opportunities and the problems created by its lack of automation.
- Outline DTCC’s proposals for addressing these challenges by streamlining and standardizing syndicated loan processing.
- Consider additional applications for improving syndicated loan processing.

Challenges to Syndicated Lending

The Historical Demand for Syndicated Lending

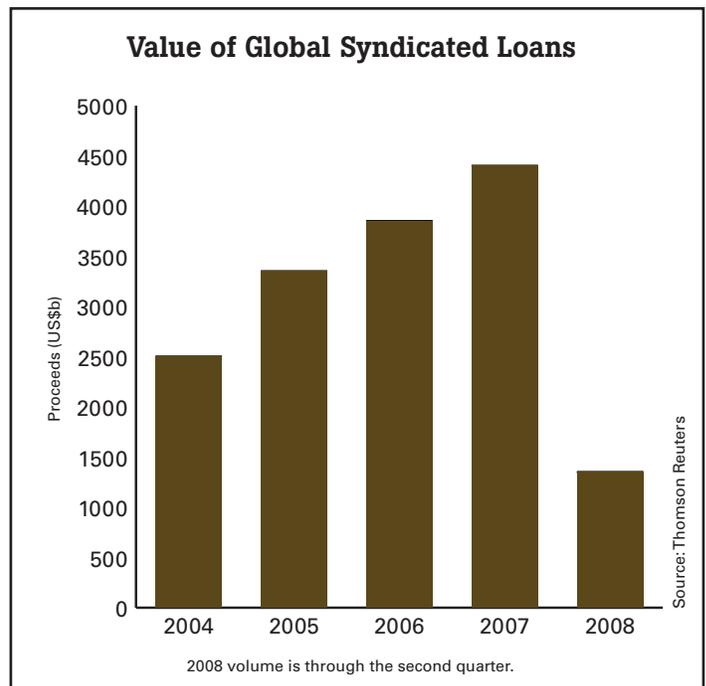
Syndicated lending involves dividing a loan among many lenders, a strategy that allows lenders to share risk and borrowers to have access to multiple sources of funding. Syndicated loans can include a handful of lenders, or as few as two, but typically have dozens, often hundreds and sometimes thousands of participants. Most syndicated loans originate at banks, though institutional investors, including pension plans, hedge funds, mutual funds and insurance companies, are becoming increasingly involved in syndicated lending.

The syndicated loan industry, comparatively minuscule before the early 1970s, grew explosively after the oil crisis of 1973. As petroleum prices soared, banks amassed deposits from oil-exporting countries and funneled them out in syndicated loans to oil-importing countries. While that scenario eventually faded, syndicated lending picked up again in the U.S. in the 1980s with the rise of leveraged buyouts. Corporations in emerging markets were also gradually drawn to syndicated loans because they could be easily and quickly arranged, and because they neatly complemented other financing options, such as bond and stock issues. By 2003, new deals had soared to \$1.6 trillion globally, roughly 10 times the total a decade earlier. The syndicated loan market grew spectacularly over the next few years, especially in 2006 and 2007, due in large part to the vast liquidity in the markets and a sharp increase in leveraged investing. In 2007 alone, worldwide syndicated loan volume totaled a record \$4.5 trillion, up 13% over 2006.

Today the syndicated loan market is more complex than ever, with counterparties typically crossing political and geographic barriers, as trade pacts

continue to expand the global economy and as the multinational web of syndicated lending crisscrosses the globe. Syndicated loans increasingly involve parties in the U.S., Europe, the Middle East, Africa, Latin America and Asia.

The U.S. has historically led the way in volume and activity, and continues to do so, with growth propelled in recent years by waves of refinancing fueled in part by low U.S. interest rates. The market has also grown with the help of new participants, including institutional investors who now make up over 70% of the market.



Although European syndicated lending has lagged behind the U.S. market, Europe became the fastest-growing syndicated loan market with the advent of the euro, which was first introduced to financial markets as an accounting currency in 1999 and subsequently adopted as a hard currency in 2002. By 2000, about 30% of all syndicated loans originated in

Europe, while U.S. lenders accounted for about 55% of the market. European lending, like U.S. syndicated lending, has been fueled largely by corporate mergers and acquisitions, especially telecom mergers. But institutional participation in Europe has not kept up with institutional participation in the U.S., partly because the European syndicated loan market is impacted by cross-border complications. Among these challenges is a lack of standardization, which has hindered the introduction of automation originally designed for U.S. markets.

The Loan Market Association (LMA), Europe's trade association for the syndicated loan market, is leading the push for automation in Europe's primary and secondary markets, aiming for standards and codes that will bring greater clarity and efficiency to syndicated lending.

Current and Long-Term Opportunities

The global credit tightening that began around mid-2007 has affected the primary market in syndicated lending, as it has affected almost every sector of the loan marketplace. In the U.S., for instance, first-half volume in 2008 was down 51% when compared to the

first half of 2007. Global syndicated lending for the first half of 2008 reached \$1.3 trillion, representing a 47% decrease from the first half of 2007.⁴

But the credit crunch has also created potential value for investors in the secondary syndicated loan market. Volume in U.S. trades in the third quarter of 2007 was up 105% over the comparative quarter in 2006. The third quarter of 2007 also saw declines in prices in the secondary syndicated loan market, where trades offered at par prices (typically loans traded at 90 cents or higher for \$1 of debt) plummeted to 4% of volume. Most secondary loans in early 2008 were being traded at what would traditionally be thought of as distressed prices, though the underlying debt may have been solid.

Beneath the short-term strength of the secondary market rests a fundamental and widespread demand for borrowing. Current credit market problems pose a setback to banks' balance sheets, but lending is essential to economic growth, and widely available credit is the lifeblood of businesses and consumers alike. Supply will inevitably merge again with demand, reintroducing a robust primary syndicated loan market.

⁴Source: Thomson Reuters

Automation Initiatives for the Syndicated Loan Market

In the first quarter of 2008, DTCC announced it was developing a new and evolving suite of services called Loan/SERV that would help automate and streamline the processing of syndicated commercial loans. DTCC will introduce two specific services in 2008, including:

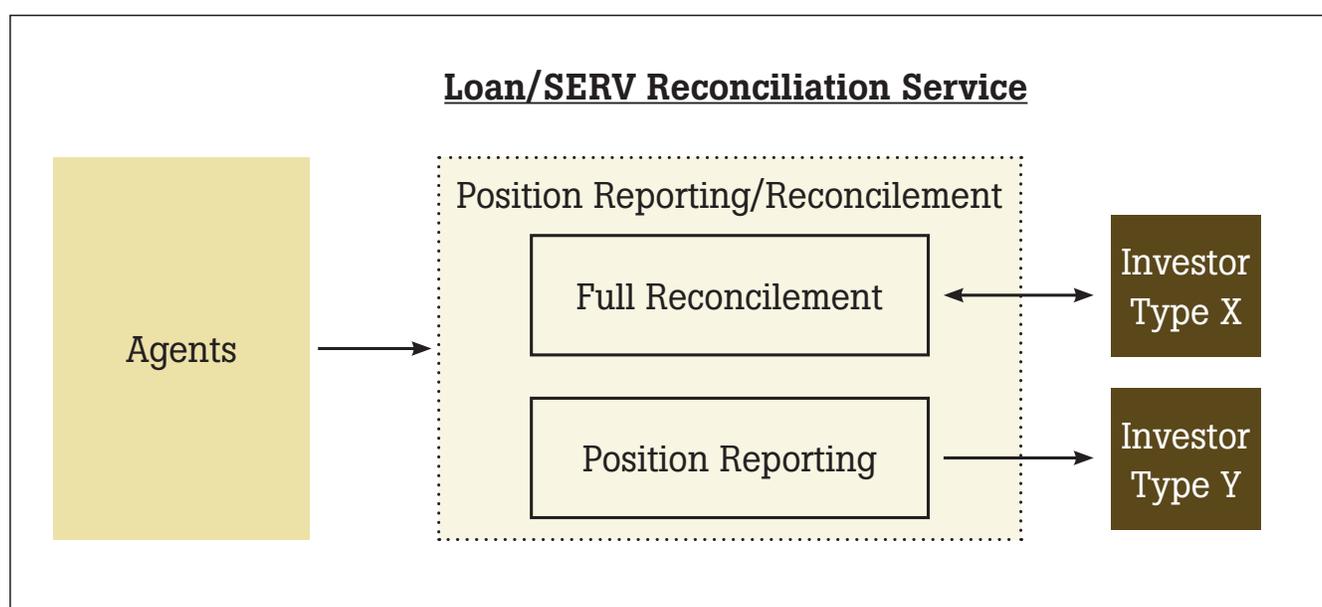
- Loan/SERV Reconciliation Service, which will enable syndicated loan agents and lenders to reconcile loan commitments and transactions on individual loans, allowing them to view and reconcile their loan positions on a daily basis rather than periodically or after a scheduled payment date.
- Loan/SERV Messaging Service, which will provide a safe, secure and automated network for the transmission, receipt and online storage of industry standard loan messages. This service will also allow market participants who do not wish to receive messages directly into their processing system to manage their messages online via a message hub.

These two services will help provide multiple benefits to the syndicated loan market. They will:

- Reduce position breaks and resulting cash breaks.
- Reduce reliance on faxes as a communication method.
- Help introduce standard transaction language.

Position and Cash Breaks

Position breaks happen when records of loan commitment balances registered by the agent differ from those recorded by lenders. Such occurrences are not uncommon because lenders and agents keep completely separate records, and the problem has grown increasingly troublesome with the growth of the syndicated loan market.



Loan/SERV Reconciliation Service will enable syndicated loan agents and lenders to view and reconcile individual loan positions on a daily basis. Investors who do not want the full reconciliation capability can opt to receive a position report only.

Fundamental to the high rate of position breaks are two main shortcomings in the system as it is widely used now:

- Loan activity is recorded independently by agents and lenders. Ideally, changes to investor positions are recorded accurately and in a timely way by all parties, but this is not always the case. Mistakes can have major implications for investors and often go unnoticed until quarterly payments occur.
- The syndicated loan market lacks an all-encompassing, standardized reporting process for position reconciliation. Data flow between agents and lenders is mired in outdated, slow and error-prone methods. Lenders must interact manually, typically via fax – rather than through an automated system – with multiple agents on multiple loans.

Loan/SERV's automation of the syndicated loan market resolves these two main drawbacks, introducing and maintaining a standardized, state-of-the-art servicing system to track and report loan positioning on a daily basis. All parties to a loan have Web-based access to a central platform that provides daily position updates and reconciliation. For lenders, it provides one place to access standard data from multiple loan agents.

Cash breaks are often a direct impact of position breaks. Typically, at the end of each quarter the agent will pay interest, principal and fees to lenders based on information collected throughout the quarter. If there is any discrepancy between the records of the agent and lender that affect the expected cash flow, a cash break will occur.

Under the current system, three days before a payment is due, an agent sends a notice to all investors on the loan, advising them of the exact amount to expect. It may be the first chance investors have to identify a discrepancy between their records and those of the agent. But the three-day window rarely provides enough time to make corrections, and cash changes hands whether

or not the amount is correct. A time-consuming game of catch-up is required to fix a cash break.

For the purposes of illustration, imagine that an Agent showed Lender A as owning a \$1 million position in the syndicated loan for the borrower company. Lender A showed the same position for the first 10 days of the interest period, but actually sold half of its position on day 11 in the secondary market to Lender B – the first time Lender B held a position in this loan. Accordingly, Lender B held a \$500,000 position in the loan for the remaining 80 days of the interest period. The Agent failed to record this trade, and because there is no transparency in the syndicated loan process, none of the participants, including the Agent, Lender A and Lender B, noticed the error. Three days prior to the quarterly interest payment, the Agent sent a fax to Lender A notifying it that it was due to receive \$15,000 in interest. Lender A, however, only expected to receive \$8,334.67. Lender B, which expected to receive \$6,665.33 in interest, did not receive a fax since the Agent hadn't processed the trade that led Lender B to hold the position. Both Lenders A and B tried unsuccessfully to contact the Agent to rectify the issue prior to cash movement, but the cash moved according to the Agent's incorrect records. Now both Lender A and B have cash breaks that need to be resolved with the Agent.

Loan/SERV could have prevented this cash break by giving the Agent and Lenders access to position records daily. Lender A and Lender B would have seen that the Agent made a mistake the day after it was made. This would have given the lenders sufficient time to notify the Agent, who would rectify the error prior to the cash payment.

Reduction of Faxes

Virtually all of the transaction communications in the syndicated loan market are managed via fax, a highly inefficient, manual process susceptible to breaches in security.

By automating the communications process around a Web-based interface via a DTCC hub, Loan/SERV brings three major benefits:

- Greater efficiency. Electronic messaging via a centralized hub eliminates the time-consuming, manual fax process.
- Fewer errors. FpML-formatted messages enable a systematic upload of data with validity checks, thus providing error-free, straight-through processing.
- Greater security. Secure electronic communication with detailed audit trails eliminates the risk inherent in faxes, in which documents can be misplaced, misrouted or seen by parties who have no legitimate interest in a transaction.

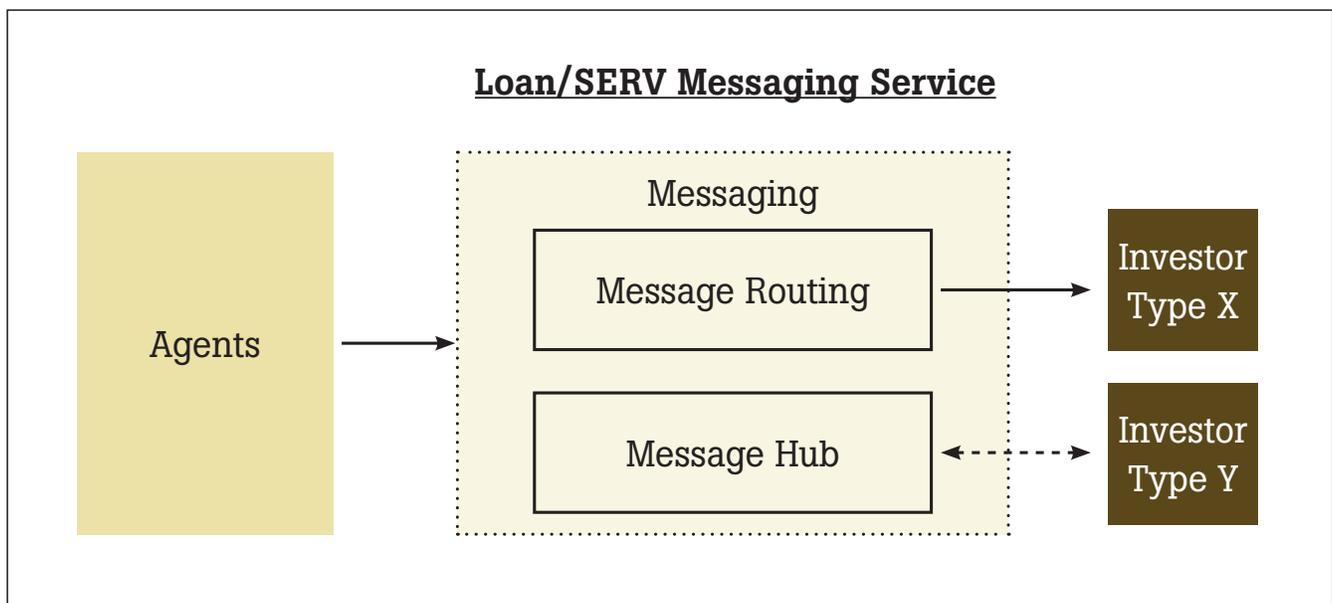
Standardization of Transaction Language

Loan/SERV will help bring efficient syndicated loan communications, in part by embracing FpML

(Financial products Markup Language), the industry-standardized e-commerce language. FpML is well-tested in over-the-counter derivative-trading markets, where it was constructed to combine speed, usability and security.

FpML operates freely across networks regardless of underlying computer systems. In short, unlike some e-commerce computer languages, FpML does not tie users to specific software or transport mechanisms.

Loan/SERV will enable the market to benefit from the use of FpML by providing a mechanism to receive and deliver the messages electronically. Also, because not all lenders will be FpML-compliant, Loan/SERV has an inherent flexibility that allows these users to opt out of FpML, and instead access transaction and recordkeeping information via a Web-based hub at DTCC. All FpML messages received by Loan/SERV will be authenticated to verify that they meet the defined FpML standards. The system will also store the messages to enable ongoing automated retrieval.



Loan/SERV Messaging Service will provide a safe, automated network for the ongoing transmission of standard loan messages dealing with a variety of information such as interest, rate sets, and interest periods. Investors who do not wish to receive messages directly from the loan agent can access messages online via a message hub.

Additional Applications and Strategies Moving Forward

DTCC plans to address other processing challenges to further streamline back office and market processes in the syndicated loan market. Working with the agent banks and others in the industry, DTCC will consider new product developments that address the following:

- Improvements to the primary and secondary loan-closing process.
- Leveraging the Deriv/SERV model by developing a Loan Warehouse that contains real-time definitive loan balances.

- Pre-reconciled cash movements of scheduled payment events and net settlement, a natural outgrowth of the electronic reconciliation included in the main initiatives.
- Establishment of a central, all-encompassing loan information repository with image and data files.

All of these initiatives are rooted in practicality and the growing demand for change. They reflect the fact that if deficiencies continue in syndicated loan servicing, unnecessary costs and operational issues will persist, potentially preventing market growth in a controlled manner.

Conclusion

DTCC will continue to follow the model of its successful Deriv/SERV product line and, like Deriv/SERV, Loan/SERV will grow the market while helping to manage operational risk. Loan/SERV addresses the fundamental issues in both the U.S. and European syndicated loan markets by offering automation initiatives.

In 2008, DTCC will introduce technology to:

- Help reduce position breaks by adopting automation to track, report and update position changes daily.
- Help reduce related cash breaks.
- Replace outdated fax-based communications with a Web-based interface linked to a central platform.
- Employ standardized loan servicing language with the adoption of FpML.

Following the implementation in 2008 of the first two Loan/SERV products – the Reconciliation Service and the Messaging Service – DTCC will work with the industry and its Operations and Planning Committee in both the U.S. and Europe to determine the next steps needed to improve industry performance and bring new efficiencies to help the syndicated loan market grow.

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About DTCC

DTCC's operating business model is unique because it is a user-owned and user-governed organization that operates at an "at-cost" basis. This means that as it gains economies of scale through volume growth, excess revenues are returned to DTCC members in the form of rebates, discounts and fee reductions. Through its subsidiaries, DTCC provides clearance, settlement and information services for equities, corporate and municipal bonds, government and mortgage-backed securities, money market instruments and over-the-counter 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 more than 3.5 million securities issues from the United States and 110 other countries and territories, valued at \$40 trillion. In 2007, DTCC settled more than \$1.86 quadrillion in securities transactions. DTCC has operating facilities in multiple locations in the United States and overseas.

Loan/SERV is a service offering of DTCC Solutions, LLC, a wholly-owned subsidiary of DTCC.

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