

DTCC: Works in Progress

Richard Macek, Executive Managing Director, Risk and Finance

The Depository Trust & Clearing Corporation

At the Bank Depository Users Group (BDUG) annual meeting

Scottsdale, AZ, Oct. 25, 2005

Good afternoon, everyone. It's a great to see all of you here today.

This is always an important gathering for DTCC. You invite us here to speak, which we're only too glad to do. But we also come to listen, because you are active users of so many of our services.

My assignment is to bring you up to date on DTCC. Since I'm also the chairman of Omgeo, I'd like to take an extra few minutes letting you know where that business is going as well.

So far this year, we've been extremely busy at DTCC.

We now process more than a quadrillion dollars worth of security transactions a year. We opened a Southern Business Center in Tampa. We transplanted more than 250 employees from our New York headquarters to Tampa—without disrupting services to our customers— to ensure business continuity. We introduced new processing platforms to automate and streamline the handling of insurance, derivatives, and other securities. We achieved CMMI Level 2, which is a worldwide standard for software development. We were voted the “Best Corporate Actions Solutions Provider” by readers of a leading financial publication for the second year in a row. We launched a major, multi-year project to reengineer our underwriting and corporate actions systems. We prepared to settle securities trades in a foreign currency for the very first time. We're well down the road to creating a central counterparty for mortgage-backed securities trading.

And this is still October!

The Big Picture

What I'd like to do today is put some of this in context, so that you understand where we're going and why we need to get there. Let me begin with a view from about 10,000 feet, a big picture about...

Where we were a few years ago,

Where we are today, and

Where we're headed tomorrow.

Then I'll zoom in for a closer look at some of our recent initiatives. They reflect our more current direction and what we're doing to meet your needs...and your customers' needs.

Grains of sand

Last year, we passed a significant milestone at DTCC. For the first time, we completed settlement of a quadrillion dollars in securities transactions.

We all know a quadrillion is the next step up after a trillion. It's a one followed by 15 zeros. But that doesn't really tell us much. Let me try a different illustration.

If you went out into the Arizona desert with your shovel, and you dug one foot deep, and one foot across...and continued digging until you had a trench a mile long...and then counted all the grains of sand you had dug out,

you wouldn't be close to a quadrillion. You'd be thirsty, but you'd be far short of your goal. Only when you had dug 99 more trenches like that...each a mile long and a foot deep...would you start to have a quadrillion grains of medium sand.

How did we get to the point at DTCC where we could contemplate this kind of volume, and then actually prepare to handle it?

It's a journey we began five years ago when we integrated NSCC and DTC. As you know, we created a new company, DTCC, and we adopted a mission statement that reflected a marked shift in our vision and direction. We set out to operate more like a "for-profit" company, and we looked to serve our customers wherever in the world their business might take them. Initially, that quest led us into the partnership which created Omgeo, a company with many international customers and offices. Today, that quest has taken us all the way to China, where we opened an office in Shanghai last year to support our Global Corporate Action Validation service.

Powerful forces

When we set out on this corporate journey, there were some strong trends through which all of us in financial services had to navigate.

One of those trends was the drive toward industry consolidation, which many of you on the banking side have seen it up close and personal. But it's hardly limited to banks. We even see consolidation occurring among the marketplaces. Two or three years ago, the notion that the New York Stock Exchange and Archipelago might get together as one company would have seemed unimaginable. Now it may well happen.

Hedge funds

Meanwhile, we've also seen the amazing growth of hedge funds—not to mention the emergence of complex new asset types and trading strategies. Hedge fund assets now top the \$1 trillion mark. Many of these funds rely on automated, algorithmic trading, and they use merger arbitrage, convertible arbitrage and dozens of other strategies to try and beat market returns.

One result of all this is that trading volumes have risen. It's estimated that hedge funds now account for 40 to 50 percent of all trades on the New York Stock Exchange and Nasdaq. Another result is that, in complex hedge fund transactions, interactions among counterparties are becoming much more complicated. With synthetic, over-the-counter derivatives like credit default swaps, there's seldom just a buyer and seller. In reality, these are bilateral contracts and may involve many firms on both sides of the contract.

From a risk perspective, the processing gets even more complex when firms in a swap assign their swap obligations to third parties without telling the original counterparty. Piecing together who owes what to whom in these situations can be a challenge. In fact, the sheer amount of manual processing to support these trades is becoming a serious problem. No matter how sophisticated some automated, "black box" trading strategy is, there's no "black box" equivalent on the post-trade, or post-settlement, side—at least not yet.

All of which means the level of risk in the system has grown. And when risk levels grow, regulators start paying closer attention. As a consequence, we all face much more regulatory and compliance scrutiny than we did in the past...at more cost.

Global Reach

Finally, as we all know, our business today is ever more global. All of us saw it moving that way five years ago, but I'm not sure we all understood how fast this transformation would take place. One example I like to cite involves beer, which will certainly interest you if you're still out in the desert digging trenches to find a quadrillion grains of sand.

Last year, one of Brazil's major brewing companies, Ambev, proposed a merger with Interbrew, a giant Belgian company. In response, Anheuser-Busch, concerned about its ranking as the world's largest brewer, decided to make an offer to buy a major Chinese brewer. As a result, a series of corporate actions involving

four distinct companies operating on four different continents had an impact on literally thousands of investors and intermediaries across the globe, including us at DTCC. In other words, our business now takes us around the world—and again, that means more cross-border transactions, greater complexity and more work.

All of us here have to navigate through these trends. And it's not easy. In order to deliver to our customers over the course of the last five years, we worked hard at DTCC to transform our organization and culture. And we set a number of objectives we thought we had to reach in order to do that.

Deriv/SERV: quick-to-market

One was to become an organization that's quicker-to-market with solutions to industry problems. We've succeeded in doing this in a number of areas. We got out in front in a hurry with business continuity solutions, for instance. And we moved fast to find answers to the breakpoint problems that were dogging the mutual fund industry. Perhaps the best example of this, however, is our creation and rapid rollout of the Deriv/SERV platform for credit default swaps.

As early as 2002, we saw problems starting to mount in the skyrocketing market for credit default swaps. Within nine months, we were able to create and launch an automated matching service that very quickly won customers from all over. Today, the service has expanded to more than 25 global dealers and another 140 buy-side firms around the world. The industry has committed to its regulators to bring another 900 buy side players into Deriv/SERV by the end of the year. In addition, we continue to increase the range of products we cover. We now offer automated matching and confirmation services for interest-rate swaps, swaptions, equity swaps and a host of other derivative products. Our payment netting service now achieves over 90% netting on one million payments quarterly. This should enable the industry to reduce its risk in this volatile arena.

“Thought Leader” role

A second goal we set for ourselves five years ago was to be an industry “thought leader.” Again, we wanted to put to rest the perception that we couldn't or shouldn't raise questions, analyze problems or aggressively put forward ideas to help address issues impacting the industry. We have since taken the lead on a number of matters, and let me cite one example.

Last year, when we were working to expand our corporate action services globally, we kept running into very different perceptions throughout the marketplace of the risk involved in corporate actions. Everyone admitted to concerns about risk. But no one had a handle on how big the risk might be. So we decided to find out. We commissioned a study by Oxera, a European economic analysis group, that in fact showed the risks to be enormous.

“Individual securities firms,” Oxera reported, and I'm quoting directly from their study, “face potential risk that could run into tens of millions of euros from just one complex corporate action event.” Oxera estimated that trading risk in the front office, where traders might make sub-optimal trades based on incomplete or incorrect information, could run as high as 8 billion euros a year. In short, the study answered our question, and has helped us lead the industry to understand and better deal with this serious risk..

Technology leader

A third goal we set for ourselves is to be a company that delivers and is in command of proven, reliable technology. Technology obviously lies at the heart of our ability to process and handle information, so we've pushed hard on this goal across a number of fronts.

For example, we upgraded the capacity and resilience of our SMART network to support our business continuity efforts. Over the course of the last two years, we've also brought into our network hundreds of customers who were still using SIAC's systems. Coming into our SMART network has reduced their costs and helped improve their own continuity links. Another example of our technology work is the Leadership Technology Award we earned last year from Computerworld. They awarded it to us for the groundbreaking system we built to replicate data quickly (at that point, two hours) over long distances. We're working with EMC to

reduce that time frame to a couple of minutes.

A fourth goal we set ourselves was to continue to standardize processing as much as possible. This is key to ensuring quality and helping to reduce development costs. And we've made progress on that front as well. This year, as I mentioned, we achieved level two CMMI certification for how we manage software development. This means our project management routines are tighter, we have good measures of performance, and we've established an environment that encourages continuous improvement. We're aiming for level three certification, which not too many companies earn, on several measures by the end of this year.

Quality service provider

When we launched DTCC five years ago, we all agreed that we should be a premier provider of quality service. We understood this was how we could distinguish ourselves in the industry, and I believe we're getting traction in this area too. Earlier this year, for example, our corporate actions service was again rated the top in the industry, and just recently, Operations Management magazine gave us the Best Utility Technology Award for 2005. We're working hard, using Six Sigma and other techniques, to infuse this level of quality into all our services.

Bottom-Line orientation

Our attention to the bottom line and economies of scale has allowed our customers to get a better return on their investment. Across the board at DTCC, we've handed back to our customers discounts and rebates over the last five years totaling almost \$700 We're also looking at significant price reductions in many of our services for 2006.

Avoiding complacency

After pushing this hard, it would be nice if we could kick back and rest on our laurels. But none of us can afford to get complacent. The corporate landscape is littered with companies that lost their sense of direction, overlooked innovations in technology, or didn't keep pace with trends in their industry.

This is why we're pushing to get so much accomplished this year. Earlier today, Lee Cutrone and others talked about what they see coming in the next few years. Well, we see some of those things coming too. And not only do we need to be ready for them, but we need to be prepared to help you deal with them as well. So let me highlight a few of the initiatives we have under way that continue to focus on our technology, our position at the center of the industry, and our leadership role.

Reengineering

On the technology front, one of our major initiatives is to completely rebuild the systems we use to process corporate actions and underwriting distributions.

The challenge we face is clear. Our current systems were created 20 years ago, and it's very expensive to maintain and constantly update them. We need the capacity to handle higher volumes. We need to be able to accommodate the new types of securities and asset classes now emerging. And we need to be able to service these new, often complicated assets.

To deal with this, we decided it was time to reengineer our systems completely. We will combine what are now more than 60 separate legacy systems for underwriting, dividends and reorganization into an integrated platform that can service even very complex securities from "cradle to grave". We also want to support international messaging standards, be able to process multi-currency transactions, and use international identifying numbers such as ISIN.

For our customers, the payoff will be reduced risk, more transparency, more functions, faster turn-around, and more operational control to deal with new instruments and expanded-offer types. You'll also get better notification methods and, last but hardly least, lower cost.

Dematerialization

Meanwhile, we're also making good headway on one of our long-term goals for the industry—getting rid of physical certificates...and reducing the \$300 million it costs all of us every year to handle them. There's a breakout session set for this afternoon to bring you up to date on dematerialization, so I will just touch on three matters you can expect to hear about.

First, you can expect further dematerialization. Since 1990, we've reduced the inventory of paper certificates in our vault from more than 30 million to somewhere around 3.6 million. We plan to reduce it even further.

Second, you can also expect to do some investor education about the value of electronic ownership.

Now that Delaware no longer requires companies to issue paper equities, we're likely to see a real change taking place. After all, more than half of all publicly traded U.S. companies are registered in Delaware. A number of them, such as Intel, have already announced they're not issuing any more paper certificates. Investors who expect to receive physical securities—and there are still a number of these people out there—may be confused or annoyed that they can no longer get paper stock. Which means some of you may end up having to explain to them the advantages of electronic ownership—and why paper certificates are no longer available.

The third thing you can expect is that you will have to deal with a rising number of restricted securities. As you know, instead of granting stock options, companies are issuing more and more restricted securities. But the challenge is that they're physical, with all the problems that involves, which is why we've created a new service to deal with them. Our family of services for restricted securities helps clear the securities of their restrictions. The result is that they can then be dematerialized, transferred or traded far more easily. You can do this on your own, of course, but it's time consuming and expensive. Our service, which has different options for low and high-volume users, makes the task easier—and is far less expensive.

New central counterparty for CMOs

Another major improvement we're bringing to our core services is the creation of a central counterparty for the trading of mortgage-backed securities. We believe this will eventually generate substantial savings for the industry by reducing collateral requirements.

We're working toward this goal in several stages. Next year, we'll begin by providing automated substitution of pool allocations. Before the year is out, we also expect to have a pool netting service in place. This will sharply lower the number of pool settlements, which means it will also lower the costs and operational risk involved in this post-trade process. In 2007, our goal is to get trade netting itself up and functioning, thus freeing up millions of dollars for the industry that would otherwise have to be committed as collateral.

Compliance and risk management

Meanwhile, like many of you, we're having to come to grips with the new compliance and regulatory mandates that have been thrust on us. We're also continuing to examine risk in the industry and our capacity to cope with it. We obviously need to stay ahead of the curve on this.

How we do that is by monitoring market and credit risk through back tests and financial stress tests. Back tests allow us to review various real-life situations to see how well our risk management systems actually functioned. They let us see if our systems did what they were supposed to do and, if not, why not. Stress tests calculate the extent of losses our subsidiaries might be exposed to under extreme market conditions. This testing is so intensive, by the way, that we had to acquire a supercomputer in order to do the calculations. We use what we learn from the tests to continue recalibrating our systems and reviewing our financial safeguards, including the levels of collateral and clearing funds that we require from you.

InsurExpress and Alternative Investment Products

As we look to the future, it's clear that a potential area of strong growth for our customers involves insurance. After all, we don't need a demographer to tell us that next year the first of the baby boomers will turn 60. Nor does it take a lot of research to figure out why annuity sales are continuing to rise. Baby boomers are buying them as they plan for retirement.

The problem is that actually buying an annuity or an insurance policy can often take weeks and sometimes months. First the application has to be submitted. Then various quotes have to be obtained. Then the applicant has to take a physical exam. Then the policy has to be customized. Then payment has to be submitted. You can probably buy a house faster than you can buy a variable annuity or insurance policy.

As we looked at this, we decided there had to be a better way. After all, our charter at DTCC has always been to streamline and automate the processing of transactions in order to reduce costs and increase customer revenues. And we believe we do have ways to do that for the insurance industry and its distributors. It's called InsurExpress. What it does is simplify the annuity and life insurance application process—and significantly reduce the time needed to complete a policy. Earlier this year, we launched it in a pilot program and we're looking to expand it over time.

Alternative Investments

We're also working to apply the experience we've gained over the years with the mutual fund industry to the alternative investment segment of the industry. Historically, DTCC's subsidiaries have been focused on the street side of the industry, the broker dealers, banks and financial intermediaries who sell equities, bonds, mutual funds and treasuries. Like our customers, however, we can see that the growth of hedge funds offers DTCC a new market space of products we can create and new customers we can service—all in keeping with our mandate to serve the industry however we can.

Omgeo

And that, in turn, leads me to talk a little about Omgeo.

Omgeo is the global leader in institutional, post-trade processing. That's our bread and butter. We're a business institutional investors recognize. They work with us all the time. Lately, we've been leveraging those relationships as a way to introduce products or services to our customers that they might not otherwise see.

Last year, for example, we took Bloomberg's front-office trading platform for fixed-income investors and married it to our real-time central trade management service. This provides a relatively seamless, total processing package that the fixed-income market has found very useful.

Now, based on an informal marketing agreement with DTCC, we're taking their Deriv/SERV product to a segment of the business DTCC itself doesn't regularly talk to.

In May, the Omgeo board spent two days mapping a strategy to take the company forward over the next several years. The board agreed that Omgeo's Central Trade Manager—or CTM for short—should remain the company's strategic trade management platform. While some investment managers are now beginning to migrate from their legacy systems to CTM, we decided not to set any "hard" dates for when customers would have to leave our legacy systems. Instead, the board said clients should migrate to CTM when they see value in doing so. Once we have a critical mass migration from a legacy system, we might then consider imposing a kind of "legacy" penalty fee after a suitable warning period to complete the migration.

The Omgeo board also agreed with management's aim to provide a hub solution for investment managers, so that they'll need only one gate to connect with Omgeo's services as well as other vendor solutions. In other words, all managers have to do is connect to Omgeo, and Omgeo will take care of all the other connections. Not surprisingly, we call it Omgeo Connect. We are live with CTM on "Connect" right now. We'll have a connection to Oasys Global before the end of the year, and we'll develop a buy side connection to DTCC's Deriv/SERV by March of next year.

What's more, in addition to the existing FIX capability via Bloomberg, we're working with two other buy side firms to develop FIX messaging capabilities for CTM by the end of this year. This will allow Omgeo to deliver more completely on its promise of straight-through processing to the buy side community.

Finally, the board also endorsed Omgeo's goal of expanding the asset classes that can be processed through CTM. We're working on the business cases for those asset classes, but will probably focus on repos and foreign exchange as a starting point.

We believe this strategy will not only bring a lot more services to Omgeo current customers, but will also bring a lot more customers to Omgeo.

Conclusion

Now it's time for me to stop talking before I wear out my welcome. As I said at the beginning, we're here to talk and to listen. Now it's time to listen. I'm very grateful for the opportunity to participate in your annual conference.

Thank you.