Market Infrastructure Outlook for 2012 and Beyond

Thank you, Jorge. Good morning, everyone. As always, it's a pleasure to take part in a gathering of ACSDA members. It gives me a chance to catch up with old friends, make new friends, and share ideas and plans with my colleagues in the infrastructure business.

It's also an honor to be here in Cartagena, because this city has an unusual link to General George Washington, the first president of the United States. About 40 years *before* General Washington became president, his older brother, Lawrence Washington, accompanied the British Admiral Edward Vernon to Cartagena.

They did not come in peace. Instead, they tried to capture Cartagena. Fortunately, the people of Cartagena were too tough. They defeated Admiral Vernon and the British. But due to this contact, Lawrence Washington came to admire Admiral Vernon so much that, when he returned home, he named his plantation after the admiral. He called it Mount Vernon.

Later, the plantation passed to his younger brother, George. And so today, millions of tourists go every year to visit George Washington's home, Mount Vernon. But few have any idea that it was named after the admiral defeated by the brave citizens of Cartagena who, a generation later, successfully declared their own independence

Next month, Cartagena will be once more in the news as the 34 heads of state from the Organization of American States gather here for the Summit of the Americas. Later this year, a group many of you work with—FIAB, or the Ibero-American stock exchange federation of Latin America, Spain and Portugal—will also hold its general assembly in Cartagena, in September. The host for that gathering is Juan Pablo Córdoba, CEO of the Colombia Stock Exchange, who is coming here to talk to all of us tomorrow.

Obviously, Cartagena "está de moda". And so is Latin America itself. This is perhaps most prominently symbolized by Mexico's current role as President of the G-20 group of global leaders and coordinator for the seventh G-20 summit that will be held in June at Los Cabos in Baja California. This upcoming summit will be a crucial meeting for the financial services community and for us as financial market infrastructures. Latin America's role as the convenor of this very vital meeting represents its rising role in the global economy and the reality that this region's accelerating growth is an increasingly important contribution to global economic health.

The G-20 agenda includes among its critical work items for 2012 the following:

- Restoring economic stability, as a essential pre-condition for growth and the creation of jobs;
- Promoting both the strengthening of financial systems and financial inclusion in order to boost economic growth; and
- Improving the international financial architecture so it is fit for a fully interconnected global economy.

A challenge for all of us, as critical components of the world's "financial architecture," is how we should be proceeding – how we should be evolving our services and our interactions with our members – to contribute to achieving these important global objectives. Our success in the market infrastructure community in continuing to strengthen our resilience and expand our capacity will be an essential part of that contribution. And we will be receiving considerable guidance over the next months – from the G-20 and elsewhere – as to how we will be expected to do that.

Responding From Strength

We respond to these future challenges from a very strong position. Even as we face them, our own businesses continue to grow and change. Here in Latin America, of course, you manage a large, growing and increasingly efficient market infrastructure, and a good deal of your success is based on a degree of collaborative effort that we don't see anywhere else in the world. To cite a few examples:

- The exchanges and depositories of Colombia, Peru and Chile—as you know—are linked through MILA, with synchronized market hours. And now Mexico has decided to join the MILA initiative.
- On the other side of the Caribbean from Cartagena, there is another cross-border trading
 platform, called Caribbean Exchange Network or CXN, among the exchanges and CSDs of
 Jamaica, Trinidad and Barbados, and I understand they are all involved in a promotional road
 show on this venture in the UK this week.
- Here in Colombia, just earlier this month, Deceval's supervisor announced that Colombia is now a signatory to the prestigious IOSCO Multilateral Memorandum of Understanding Concerning Consultation and Cooperation and the Exchange of Information, the gold standard in global coordination now among 82 securities and futures regulators worldwide. Colombia is only the fourth country in Latin America to attain this recognition, along with Brazil, Mexico and Uruguay. My congratulations to our Colombian colleagues on this achievement, and I'm sure we will hear more about this tomorrow morning when Gerardo Hernandez addresses this assembly.

This growth also shows in the increasing degree to which we're all interconnecting, and we at DTCC are very pleased to be part of those collaborative interactions with our ACSDA colleagues. I won't dwell on all the details, but to cite a few examples –

- DCV and, as of this month, Cavali, have collocated part of their disaster-recovery at one of DTCC's own data centers, for their long-distance backup. Victor and Magaly, thank you – we look forward to partnering with you.
- DTCC's Omgeo affiliate and DCV will launch the DCV-Omgeo global matching platform and service in Chile in a few weeks.
- And most recently, Strate and DTCC have concluded an agreement under which Strate will
 market reference data products of DTCC's subsidiary, Avox, to financial institutions in

Africa generally. Avox technology is closely affiliated with the Legal Entity Identifier project I will reference in a few moments.

The Markets' Challenges

So these "green shoots" testify to continuing strong growth in our infrastructure businesses, strength that our collaboration reinforces even further. But we will need that strength as we confront the challenges that the post-crisis period brings upon us. It is becoming a complex, and even bewildering world.

We in the market infrastructure community universally see our 2008 performance as stellar and stabilizing, and I think rightly so. Nonetheless, we have not been and will not be spared from the new regulatory reforms and scrutiny. It really is something of a shock, that we, who have always been so deeply rooted in regulation and who pride ourselves on having saved the world a few years ago, now find ourselves, like our members, tarred with the same brush of skepticism and yes, distrust, by our supervisors, legislators and the public. And that's disconcerting, because we know that we are uniquely capable of collectively helping the financial industry and regulators to expedite the recovery by extending efficient risk management tools and supporting a return to safely managed innovation. Yet, as we offer this support, supervisors, themselves still recovering from the nightmare, are demanding that we justify every action, every step of the way.

Further, these challenges directly aimed at us come at the same time as a much broader set of challenges for the global financial markets as a whole. The new Basel III standards show the measure of the G-20's determination to reduce the probability and severity of future banking crises worldwide by mandating higher levels of better-quality capital and introducing new liquidity regimes. Big portions of the financial reform regulations in the U.S. and Europe, prescribing comprehensive risk management and operating regimes, are set to go into effect this year, and many other countries will be enacting similar regulations this year and next. These rules also put constraints on capital, restrict financial institutions' ability to pursue certain kinds of business, or mandate the use of central clearing or other central infrastructures for many types of financial assets.

And of course, along the same lines but even more specific to us, we are now awaiting CPSS-IOSCO's new "Principles for Financial Market Infrastructures." Having seen and commented on the earlier consultative report, we are anticipating that the final version that we will see later in April will incorporate the hardest lessons learned from the financial crisis through tougher operating principles and raising the bar further on minimum capital required for depositories and central counterparties.

Compounding our challenge is that, just as we will need more support from our members for the costs of added risk monitoring activities within our own organizations, many of the new regulations will require our customers to bolster and set aside more of their own capital. The higher capital requirements and business constraints found in the new regulations mean that our customers will see sharply eroding margins on their business. This will force them to turn to us for more help in reducing their cost of doing business as much as possible even as we continue to mitigate their risks, or for help in meeting their new compliance demands. Whether we operate as cooperative entities or for-profit businesses, we all face the same set of challenges.

So let's look at a few of these infrastructure challenges in more detail:

CPSS-IOSCO

Obviously, the new CPSS-IOSCO principles are high on everyone's planning agenda. And I assume we will learn a little more about what CPSS-IOSCO has in mind from our next speaker, Joaquin Bernal Ramirez from Colombia's Central Bank, who is here to talk about the principles.

The changes the proposed revisions to the "Principles" will bring are extensive. As many of you did, I expect, we at DTCC agreed with many of the proposals. We agree, for example, that there should be a standard rule for measuring the adequacy of capital resources. No matter what level of capital adequacy CPSS-IOSCO proposes, it will ultimately not be effective unless there's a uniform way to measure that level. A global, CPSS/IOSCO standard is probably the best way to ensure that the various parts of the infrastructure can work with each other with the confidence

that "what you see is what you get". Quite simply, we all need to play by, and be judged by, the same set of rules for determining capital adequacy.

In recent months we have been devoting considerable work to the kinds of changes we'd have to make to most effectively meet this proposed capital adequacy test. We've reviewed our businesses to see whether some should be moved outside the entities that will be subject to the CPSS/IOSCO capital tests, since they're not core clearance and settlement functions. We've assessed our rules, to see if there are provisions that will have an adverse impact on this capital standard. We're looking at the structure of our margin funds, to see if structural changes are called for to improve our compliance. And we already have a number of actions in motion to achieve these changes in the coming months.

Liquidity Issues

The CPSS/IOSCO standards also look to strengthen financial infrastructures' management of their liquidity risks. Now, post-crisis, we must all work through the liquidity implications of even the most extreme scenarios, to make sure we understand how we'd meet those liquidity stresses and that we have the necessary authority to do so. For example, when we applied a few years ago to build a central counterparty for the U.S. mortgage-backed securities markets, the word came back to us that while our regulators would be pleased to see more guaranteed trades, they were particularly concerned about the liquidity resources sustaining that guaranty. Our plan was that, if a member failed, we'd meet our liquidity needs through the repo markets as we unwound the member's positions, as, for example, we had done in the Lehman failure. But we were challenged to think through what would happen in the event that the market turmoil following a major firm failure caused the repo markets to shut down – how would we meet our liquidity needs in that extreme scenario?

Well we stewed about this for a while because the straight-forward solution – maintaining a standby line of credit to meet our obligations – would be extremely expensive, if it was even doable. Then we hit upon the idea for what we call a capped contingency liquidity fund.

If a member firm failed and the public repo markets were disrupted in the ensuing turmoil, our mortgage-backed securities unit would go to its other members for temporary funding by using mandated financing trades as a temporary expedient until the failed member's portfolio could be liquidated. By rule, each member would be obligated to accept those financing trades, but only up to a certain limit; given the nature of the collateral, the members could, in turn, finance these positions at the central bank. As a co-operative approach, this avoids the need for dedicated, expensive liquidity back-up. As a "capped facility" it also limits each member's contribution to the amount of its offsetting transactions with the failed firm. Our regulators accepted this approach, and it is part of the CCP for mortgage-backed securities trades that, in fact, will go into operation next Monday.

Collateral Issues

I'm not sure how relevant that specific solution would be to your own situations, but the more general principle that we all have to think through, and have answers to, how we would address even the most extreme situation in our markets is one that is very relevant to all of us. That principle, in fact, also lies behind our recommendation to the CPSS/IOSCO regarding the issue of the appropriate tests to be applied to the adequacy of margin or collateral resources in a central clearing house. You may know of that debate under the phrase "cover two" – whether market infrastructures should assure that they have resources to cover the simultaneous failure of their two largest members.

We think this issue of collateral adequacy is crucial, for what may sound like a very pessimistic reason. The enormous success of the market infrastructures in weathering the financial crisis – a success we're all very proud of – has had the somewhat perverse effect of making it look too easy to manage and run a financial infrastructure. As a consequence, post-crisis regulators have sought to push into central clearing houses many more financial assets – even some that have no business being in a central clearing arrangement. That assumption that central clearing is a "silver bullet," in our view, makes it more likely that markets and regulators will try to do "too much of a good thing," and stretch central clearing beyond its capabilities, to the point that there's a real risk that a central clearing house will snap. All the more reason why all this focus on the collateral and liquidity resources of the central clearing houses is well-placed. We need to

be absolutely sure that all clearing houses will be able to withstand all of the pressures they may have to face.

In our view the right way to do that is to agree, globally, on standards for stress testing of clearing houses and market infrastructures. Just as banks around the globe have had to undertake prescribed stress tests in several cycles publicized over the past few years, we too should come under a standard stress testing regime that measures just how effectively we can respond to market pressures at specific levels, and points out areas where we may need to focus to raise the level of risk mitigation we can provide. That permits regulators and the markets generally to assess how well we'd respond to market stresses, while calibrating the tests to the types of stresses our individual organizations would be likely to face. We suggested this approach in our response to CPSS/IOSCO, and volunteered to help in an effort to create a standardized stress testing approach. I'm sure many of you would be interested in participating as well.

ACSDA Response to Draft Principles

We also agreed very strongly with the key points ACSDA made in its comment letter on the proposed CPSS-IOSCO principles. Among other things, the ACSDA letter raised an important issue when it noted that the proposed Principles didn't take into account very well the reality of many ACSDA markets where many of you operate central securities depositories without corresponding central counterparties to clear transactions. The proposed principles more or less assume that the two are linked in all infrastructures and yet, as the letter noted, that's not the case, with some markets facing different issues.

Another key point ACSDA made, which we wholeheartedly endorse, concerns the lack of any discussion in the proposed principles about the role of asset servicing, especially for corporate actions. Everyone here today knows that servicing the assets we hold in our depositories is a major part of our responsibility to our members, and that it's an increasingly global and difficult business...a business where uniform principles would be welcomed and very helpful in creating best practices that could reduce the risk of misinterpretation.

Some of you will know that at DTCC we have been working for several years now to advocate the use of a standardized language such as Extensible Business Reporting Language – XBRL – to tag key elements in corporate actions in the documents announcing the action to the marketplace; SWIFT has joined us in this effort. XBRL-tagged data could easily be converted into the familiar ISO 20022 message format. Tomorrow, in the last session, Michael Finck will share the success that BNYMellon is having, as an issuer of American Depositary Receipts, in a pilot that demonstrates the benefits of using XBRL in the processing of corporate actions. Some of you have probably heard me speak about this before— I'm convinced this is a relatively straightforward and inexpensive way to improve the flow of information from issuers to investors and control many of the current risks in corporate action processing. In the absence of any current global standard, we're hopeful the industry will adopt this approach and make it the standard used 'round the world. That has also been the message of ISSA's Corporate Actions Working Group.

Legal Entity Identifiers

Still another infrastructure issue on the agenda today is the growing consensus on the need to create a global, uniform, legal entity identification system. This idea for a global system came up, as you can guess, in the aftermath of the 2008 market meltdown, when regulators found they couldn't consistently identify the counterparties across the various global payment and settlement systems, so couldn't really evaluate the nature of a particular financial institution's global exposures.

Standards for identifying counterparties are, of course, not a new idea. But it wasn't long after the crisis that regulators came to the conclusion that there was an urgent need for a single global standard legal entity identifier – an "LEI" – and that this was a job for a global utility. Quite simply, the regulatory community realizes it can no longer afford a tower of Babel with a hodgepodge of proprietary and third-party codes used to identify counterparties in individual payment or settlement systems. In order to monitor systemic risk across global markets, regulators need to know what the counterparties are doing across these systems. A number of prominent regulators have endorsed this concept, including, most recently, the Bank of England. Moving ahead with a system for identifying legal entities is an item on the agenda of the G-20 in

Mexico in June, when it receives recommendations on this topic from the Financial Stability Board.

In preparation for that mandate, the industry—pushed initially by European and US regulatory authorities—has already done a great deal of organizing to create a consortium of entities to manage the process of building and managing an LEI database. The consortium includes:

- DTCC as a facilities manager to validate and to maintain basic information around legal entities,
- SWIFT as the registration authority to assign a number,
- the ISO as the organization that creates and maintains the standard for the legal entity identifier, and
- ANNA, the Association of National Numbering Agencies as a key partner and focal
 point for its network of 82 National Numbering Agencies to help validate and federate
 some of the input of information into the central utility, since the National Numbering
 Agencies have specific knowledge about legal entity information for the 118 geographic
 markets they serve.

As you may know, there is even a draft standard, ISO 17442, which calls for the use of a 20-digit alphanumeric code as the legal entity identification number. Once the G-20 endorses the FSB recommendations, I expect the industry, in partnership with the regulatory community, will move forward to implement a vast database of legal entity identifiers. And when that database is a reality, we'll wonder how we ever managed to get along without it for so many years.

Global Trade Repositories

I don't need to tell this audience how much the centralization, collection and sharing of data has been at the heart of market infrastructures' DNA. But in the current era of newer global markets, there is universal support for addressing the roots of a source of global regulatory anxiety – the lack of transparency in the world's swaps and derivatives markets.

Years before this became a regulatory worry, DTCC had begun building repositories to capture and retain data from the over-the-counter swaps markets. We created our first repository primarily to help our participants in the industry track, consolidate and maintain their swaps data.

But it didn't take long for the industry—and regulators—to realize that having a central repository is key to bringing transparency to the swaps derivatives markets. When data are consolidated in a central repository, market positions and concentration of risk can become fully transparent, providing regulators and policymakers, in particular, with a big picture view as well as immediate access to accurate underlying specifics that will enable them to make better and faster decisions.

Last year, to provide greater transparency for these markets and make it much more accessible for regulators to track credit default swaps, we built a special "regulators' portal" into our Trade Information Warehouse, a repository for CDS. This regulatory portal gives global supervisors direct electronic access to comprehensive transaction data on virtually any CDS trade executed worldwide in which they have a material interest. Today, some 40 global regulators are actively using this portal to monitor systemic risk, and the upshot is that the CDS market, once considered murky and difficult to penetrate, is now considerably more visible to market overseers and to market participants generally.

We are now building extensively on this experience. We now operate trade repositories for interest rate and equity derivatives, and will launch repositories for currency and FX and commodities derivatives in the coming months. We are also in discussions with regulators around the world as we expand the portal to these asset classes. We encourage you to get your regulators engaged.

The lesson to be learned here is that beyond centralizing data storage, it's a good idea to have a centralized effort to create legal entity identifiers and a global effort at standardizing operating principles for financial markets everywhere. Unfortunately, not everyone understands that lesson. Regulators in some markets worry about having to rely on data sources outside their immediate jurisdiction, and so there are pressures to build data repositories for specific geographic markets. That, of course, totally defeats the purpose of a centralized, global repository. It fractures the data across different databases in different jurisdictions with different priorities. As a regulator, you would never be sure you are seeing the whole picture or all the counterparties involved.

This is a message we take to our regulators, and I hope you will take to your regulatory authorities as well.

In closing, let me thank you again for the opportunity to share some of my thoughts today on the infrastructure challenges we all face. I am so impressed by the growth and sophistication of the market infrastructures that we have all evolved since we first met as a group some fifteen years ago, how effectively we have responded to the issues and the crises of the past decade, both in our individual businesses and as a strong and robust association, and the great potential we have to work together to succeed in all of today's global challenges.

Here, where Spanish kings once used the vaults of Cartagena as a depository for much of the gold they extracted from the region, I think you'll agree that the depository and clearing businesses running throughout the Americas today are where the real gold of reliability and risk reduction can be found.

Thank you.