Meeting between OTC Derivatives Regulators Forum (ODRF) members and representatives of central counterparties (CCPs) and trade repositories (TRs) November 2 - 3, 2010

Participants: See attached three Attendee Lists: (i) ODRF Attendees, (iii) CCP Representatives and (iii) TR Representatives.

Summary: On 2 November, 2010, OTC Derivatives Regulators Forum members, including Federal Reserve staff met, with representatives of nine CCPs that currently provide or are planning to provide OTC derivatives clearing services, to discuss questions and issues related to clearing of OTC derivatives products. ODRF members also met with representatives of five service providers on 3 November, 2010 that currently provide or are planning to provide trade repository services, to discuss questions and issues related to trade repository functionality and market transparency.

The CCPs and TRs provided brief status updates of their respective services. In addition, the group discussed current market developments, including Dodd-Frank Wall Street Reform and Consumer Protection Act, and ongoing engagement with ODRF members. See attached agendas for the topics covered.

Press Releases related to the November ODRF meeting are available at:

- ODRF Press Release: http://www.otcdrf.org/press_releases/pr_20101104.htm
- FRBNY Press Release: http://www.newyorkfed.org/newsevents/news/markets/2010/ma101104.html

OTC Derivatives Regulators' Forum
Meeting Participants (as of 3 November, 2010)
2 November, 2010

Federal Reserve Bank of New York 33 Liberty Street New York, New York 10045

Central Counterparty (CCP) Representatives

Central Counterparties	Participant
CME	Mark Cox Alexander Rozenberg Kim Taylor
Eurex	Thomas Book
ICE Clear Europe	Paul Swann Mark Woodward
ICE Trust US	Peter Barsoom
International Derivatives Clearing Group (IDCG)	Garry O'Connor Alan Sobba
Japan Securities Clearing Corporation	Mitsuhiro Hasegawa Takeshi Hirano
LCH.Clearnet Ltd/SwapClear	Michael Davie Daniel Maguire
LCH.Clearnet SA	Roger Liddell
SGX Asiaclear	Grace Mok Wei Ching Muthukrishnan Ramaswami

OTC Derivatives Regulators' Forum Meeting Participants (as of 3 November, 2010)

2 – 3 November, 2010

Federal Reserve Bank of New York 33 Liberty Street New York, New York 10045

Agency	Participant
Australia	
Australian Prudential Regulatory Authority	Greg Pisani
Reserve Bank of Australia	Mark Chambers
Canada	
Bank of Canada	Carolyn Wilkins
 Office of the Superintendent of Financial Institutions (OSFI) 	Brad Shinn
Ontario Securities Commission	Debra Foubert
 Quebec Autorité des Marchés Financiers 	Jean-Philip Villeneuve
European Union	
 Committee of European Securities Regulators (CESR) 	Fabrizio Planta*
European Central Bank	Corinna Freund
European Commission	Patrick Pearson
France	
Bank of France	Philippe Mongars
	Philippe Troussard
 Autorité de Contrôle Prudentiel (ACP) 	Julien Mignot
- Francis Fire and in I Manufactor Acuthoraite.	Philippe Richard Catherine Dias
French Financial Markets Authority	Catherine Dias
Germany	
 Deutsche Bundesbank 	Niels Weiffenbach
 German Federal Financial Supervisory Authority (BaFin) 	Claudia Grund
	Nicolas Ostler
Hong Kong	
 Hong Kong Monetary Authority 	Polly Yuk King Lee
	Daniel Ling Chi Leong
 Hong Kong Securities and Futures Commission 	Rico Leung
International Standard Setting Group	
 Committee on Payment and Settlement Systems (CPSS) 	Gudrun Mauerhofer

^{*}Attendee will participate via teleconference.

Agency	Participant
Italy	
 Bank of Italy Italian Commissione Nazionale per le Società e la Borsa (CONSOB) 	Domenico Gammaldi Luca Amadei
Japan	
Bank of JapanJapan Financial Services Agency	Koichiro Suzuki Makoto Seta
Netherlands	
Netherlands BankNetherlands' Authority for Financial Markets	Frans Rijkschroeff Wim Moeliker
Singapore	
 Monetary Authority of Singapore 	Tiak-Peow Phua
Spain	
Bank of Spain	Montserrat Jiménez
 Spanish National Securities Market Commission (CNMV) 	Miguel Angel Herrero
Sweden	
Sveriges Riksbank	Susanna Grufman
Swedish Financial Supervisory Authority	Jan Axelsson Mathilda Stjernberg
	Watinda Sijernberg
Switzerland	
Swiss National Bank	Robert Oleschak
United Kingdom	
Bank of England	GrahamYoung
UK Financial Services Authority	David Bailey
	Ben Mitchell Jodie Ryan*
	Jodie Nyaii
United States	
 Commodity Futures Trading Commission 	Sarah Josephson
• Enderal Denosit Insurance Corneration	Aaron Miller Petrina Dawson
Federal Deposit Insurance Corporation	John Feid
Federal Reserve Bank of Chicago	Richard Heckinger
-	Robert Steigerwald

^{*}Attendee will participate via teleconference.

<u></u>		•
Federal Reser	rve Bank of New York	Michael Alix
		Shari Ben-Haim
		Caren Cox
		Stacy Coleman
		Thomas Ferlazzo
		Timothy Grob
		Joyce Hansen
		Lisa Joniaux
		Ann Miner
		Wendy Ng
		Marsha Takagi
		Lily Tham
		Janine Tramontana
		Christopher Tsuboi
 Federal Reser 	rve Board of Governors	Erik Heitfield
		Jennifer Lucier
		Stuart Sperry
 New York Sta 	ite Banking Department	Marjorie Gross
		Regina Stone
 Office of the 	Comptroller of the Currency	Greg Coleman
		Caroline Smith
 Securities and 	d Exchange Commission	Ann McKeehan
		Catherine Moore
		Babback Sabahi

Agency

Participant

^{*}Attendee will participate via teleconference.

OTC Derivatives Regulators' Forum
Meeting Participants (as of 3 November, 2010)
3 November, 2010
Federal Reserve Bank of New York
33 Liberty Street
New York, New York 10045

Trade Repositories (TR) Representatives

Trade Repositories	Participant
DTCC Derivatives Repository Ltd	Andrew Green Stewart Macbeth
DTCC Warehouse Trust Company	Marisol Collazo Ian McLelland
Regis-TR (BME/Clearstream)	Jesús Benito Thilo Derenbach
TriOptima	Mireille Dyrberg Raf Pritschard
Xtrakter Limited	Bradley Koehler Janet McGrath

OTC Derivatives Regulators' Forum

Federal Reserve Bank of New York 33 Liberty Street 10th Floor, Multi-Purpose Room New York, NY 10045-0001

Joint Session with Regulators and CCPs Tuesday, 2 November, 2010 2:00 pm – 4:30 pm

Proposed Agenda

- 1. Short (2 minute) presentations by each central counterparty (CCP), providing an overview of its services and information on any plans to increase its service offering
 - a. CME
 - b. Eurex
 - c. ICE Clear Europe
 - d. ICE Trust US
 - e. International Derivatives Clearing Group (IDCG)
 - f. Japan Securities Clearing Corporation
 - g. LCH.Clearnet Ltd/SwapClear
 - h. LCH.Clearnet SA
 - i. SGX Asiaclear
- 2. Open discussion on the following questions:
 - a. In light of legislative developments regarding clearing of OTC derivatives transactions, what are the risks and considerations in expanding clearing services? In particular, please discuss the challenges and potential solutions associated with:
 - i. Increasing product clearing eligibility;
 - ii. Accepting smaller dealers, buy-side firms and foreign institutions as direct participants;
 - iii. Expanding client clearing;
 - iv. Facilitating customer segregation and portability;
 - v. Clearing trades between two indirect participants;
 - vi. Creating links between CCPs; and
 - vii. Ensuring comparable risk management frameworks among CCPs

- b. What information are CCPs making publicly available to facilitate market transparency? Currently, there is no commonality regarding information that CCPs make publicly available about their respective clearing activity. Are there specific areas in which CCPs would appreciate common guidance from authorities?
- c. What actions, guidance or coordination do CCPs seek from authorities and where can the Forum, which brings together different types of authorities across jurisdictions, add value?
- d. Plain Language Summaries (PLS)
 - i. In preparing/updating the PLS, what feedback would CCPs like to share with the Forum?
 - ii. What would be an appropriate frequency for regulators to request updates to the PLS? For example, every two years or sooner whenever there are major changes to the services? How soon after major changes could PLS updates be prepared?
- 3. Summary of discussion

OTC Derivatives Regulators' Forum

Federal Reserve Bank of New York 33 Liberty Street 10th Floor, Multi-Purpose Room New York, NY 10045-0001

Joint Session with Regulators and TRs Wednesday, 3 November, 2010 9:00 am - 10:30 am

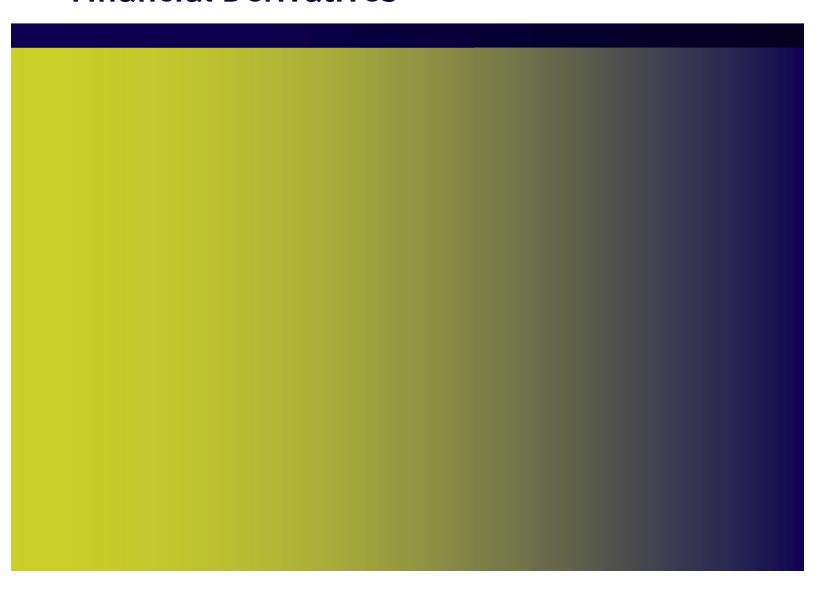
Proposed Agenda

- 1. Short (2 minute) presentations by each Trade Repository (TR) providing an overview of its services and information on any plans to increase its service offering
 - a. DTCC Derivatives Repository Ltd
 - b. DTCC Warehouse Trust Company
 - c. Regis-TR (BME/Clearstream)
 - d. TriOptima
 - e. Xtrakter Limited
- 2. Open discussion on following questions:
 - a. Do TRs have any comments or questions regarding the TR Functionality Outline that has been shared with TRs?
 - b. Reporting
 - i. What measures can the TRs take to ensure sufficient data quality, particularly to address problems relating to double counting?
 - ii. What are the challenges associated with expanding the range of reporting to TRs from other institutions beyond the major dealers?
 - iii. What measures can the TRs take to address client confidentiality issues? What measures should authorities consider?
 - iv. In light of legislative developments regarding reporting requirements to a TR, what are the key challenges and considerations for TRs?
 - c. What tools are TRs developing (or could be developed) to allow better query and analysis of the data by both regulators and the public?

- d. To ensure consistency and completeness of information, what measures can be taken to address risks of information fragmentation due to the development of multiple TRs supporting the same asset class?
- e. What information are TRs making publicly available to facilitate market transparency?
- f. What actions, guidance or coordination do TRs seek from authorities and where can the Forum, which brings together different types of authorities across jurisdictions, add value?
- g. Plain Language Summaries (PLS)
 - i. In preparing/updating the PLS, what feedback would TRs like to share with the Forum?
 - ii. What would be an appropriate frequency for regulators to request updates to the PLS? For example, every two years or sooner whenever there are major changes to the services? How soon after major changes could PLS updates be prepared?
- 3. Summary of discussion



OTC Clearing For Oil, Commodity, Freight & Financial Derivatives



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BACKGROUND TO SGX

SGX, Asia-Pacific's first demutualised integrated securities and derivatives exchange, is a public-listed company since November 2000.

Established from the merger of the Stock Exchange of Singapore (SES) and the Singapore International Monetary Exchange (SIMEX), SGX has many years of clearing experience in securities and derivatives. Its trading and clearing activities are regulated by the Monetary Authority of Singapore (MAS).

SINGAPORE EXCHANGE DERIVATIVES CLEARING (SGX-DC)

SGX-DC, a subsidiary of SGX, is a regulated clearing house with over 20 years of proven derivatives clearing experience.

From its beginnings as a clearing house for exchange-traded interest rate derivatives, SGX-DC has expanded to clear Asian benchmark exchange-traded equity index futures and options, and OTC commodities, freight, oil, foreign exchange and interest rate derivatives under SGX AsiaClear.

SGX-DC pioneered the Mutual Offset System (MOS) in 1984 with one of the largest exchange and clearing house in US, the most successful interoperability model between exchanges and clearing houses in recent times.

Enhancing Your Oil, Commodity Trading and Shipping Business in Asia-Pacific

Complementing Asia's oil, bunkering, commodity trading and shipping activities, the Singapore Exchange (SGX) offers SGX AsiaClear®, an OTC clearing facility for energy and freight derivatives. As an Asian-based clearing house with more than 20 years' experience in derivatives clearing, SGX is well-positioned to work in partnership with the OTC market to provide this central counterparty clearing system to serve your growing trading and risk management activities.

Developed in co-operation with the industry, the SGX AsiaClear® facility is a clearing-only platform in which OTC voice brokers can conveniently register OTC trades of market participants for SGX clearing and netting.

No membership is required for users to clear their OTC trades. Only a single clearing agreement with an SGX OTC Clearing Member is needed in order to use this clearing and netting facility.

Some of the key benefits of leveraging on SGX AsiaClear® as an OTC clearing partner include:

Synergy with the OTC Market

While OTC market participants and Inter-Dealer Brokers continue their existing trading activities, SGX AsiaClear® plays a complementary, value-added role by providing post-trade registration, central counterparty clearing, netting and settlement.

Real-time OTC Clearing and Certainty in Asian Time

OTC trades submitted to and accepted by the SGX AsiaClear® Trade Registration System are cleared real-time without waiting for approval by Clearing Members or the Exchange later. This clearing feature provides voice brokers and market participants certainty in managing their counterparty risks real-time.

Multilateral Position Netting Efficiency

Off-setting positions cleared under the same account with an SGX OTC Clearing Member will be netted and liquidated. There is no need to manage opposite positions bilaterally with multiple counterparties. With multilateral position netting, proprietary traders can also conveniently do intra-day trading with multiple counterparties and yet have their opposite positions automatically netted at the end of the day.

Using SGX AsiaClear®

The SGX AsiaC ear® system for clearing involves market participants, Inter-Dealer Brokers, Clearing Members, banks and the SGX clearing house.

This is how it works:

Market Participants or Oil/Freight Users

To use SGX AsiaClear®, an oil or freight user simply establishes a relationship with an SGX OTC Clearing Member by opening a clearing account. With the clearing account, the participant can call their Inter-Dealer Brokers to transact OTC deals for SGX clearing with other similar participants, without the need for bilateral agreements. Those transacting bilateral trades directly can register the trades for clearing via Clearing Members.

Inter-Dealer Brokers

In order to enable the clearing of OTC trades, SGX provides Inter-Dealer Brokers with an SGX AsiaClear® Trade Registration System (TRS). The TRS will accept trades consummated by Inter-Dealer Brokers for participants who have established clearing accounts.

SGX OTC Clearing Members

SGX OTC Clearing Members will approve and set up clearing accounts and limits on the TRS. They will manage the margin requirements and settlements between the SGX clearing house and OTC participants. They can also work with financial institutions to provide third-party margin financing to clients. Clearing Members also provide end-of-day transaction recapitulation, contract statements when trades are cleared and monthly account statements.

Direct Clearing Members

In order for companies with large trades or financial institutions to clear their own and related-group's proprietary OTC trades, they may consider becoming a Direct Clearing Member.

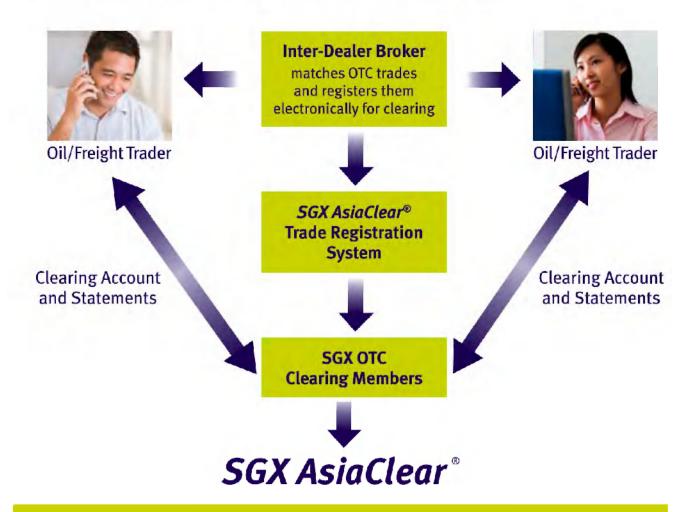
Banks

In line with international derivatives clearing convention, SGX requires the margining of outstanding contracts or positions. Banks can facilitate third-party financing of margins or letters of credit for their clients' clearing accounts with Clearing Members.

SGX Clearing House

SGX AsiaClear® offers clearing under Singapore Exchange Derivatives Clearing Ltd (SGX-DC), the SGX clearing house for derivatives. Together with its Clearing Members, SGX-DC will perform the central counterparty clearing role. It will manage the risks using its daily mark-to-market and margining system. This means a minimum margin deposit is required for each outstanding position. Each position is then marked-to-market or revalued daily, and any variation profit or loss is accounted and settled daily among the Clearing Members, representing their clients. SGX will provide daily trade and position information electronically to its Clearing Members for their back-office processing and settlement.

SGX AsiaClear® System of Clearing



Clearing is conducted under Singapore Exchange Derivatives Clearing Ltd, a wholly-owned subsidiary of Singapore Exchange Limited

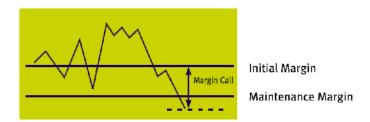
Margining

Margins represent good faith deposits from customers to ensure the performance of the obligations associated with the OTC positions. Clearing Members may accept a variety of securities or collaterals from their customers as margin. These may include cash, banker's guarantee, certificate of deposits, letter of credits, Singapore and selected foreign Government securities, gold bars and gold certificates, and stock and shares listed on SGX and selected foreign Exchanges. After collecting the initial margin for new open positions, Clearing Members are required to collect additional margins only if the margin balance on deposit falls below the prescribed maintenance level. The margin requirement is determined by SGX based on the price volatility of the products.

Daily Mark-to-Market

SGX-DC revalues all open positions on a daily basis. This daily revaluation is called 'Mark-to-Market' (MTM). The main objective of carrying out MTM is to prevent huge losses from being accumulated without settlement.

The effect of margining and daily marking of positions to market ensures all losses due to daily price fluctuations are being accounted for and settled, preventing huge losses from being accountable.



Initial Margin:

The amount of funds and/or collateral required in an account before a contract is opened.

Maintenance Margin:

The minimum amount of funds and/or collateral required to be maintained in an account for each outstanding contract or open position.

Margin Call:

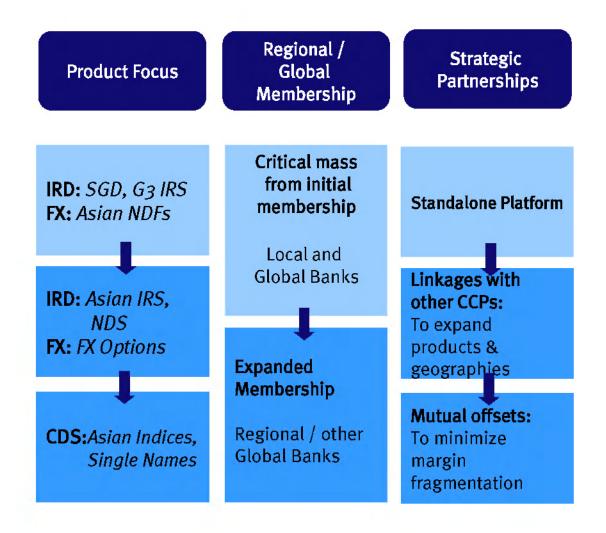
A call for additional margins if the margin balance on deposit falls below the prescribed maintenance margin level after the daily mark-to-market of positions.

OTC TRADED FINANCIAL DERIVATIVES

SGX-DC offers the clearing of OTC Interest Rate Swaps (IRS) and Asian FX Forwards¹ as it is currently traded in the OTC market.

As demand evolves, the offering would eventually include IRS in other currencies, Non-deliverable Swaps (NDS), Asian Credit Default Swaps (CDS) Indices and Asian single-name CDSs.

Our product focus, membership and strategic partnerships will develop over time as follows.



¹ The clearing of FX Forwards will be launched in the second quarter of 2011.

OTC TRADED FINANCIAL DERIVATIVES MEMBERSHIP

The membership comprise local, global and Asian domiciled banks as Bank Clearing Members ("BCMs").

The list of current clearing members includes:

- 1. Barclays Bank PLC,
- 2. Citibank N.A.,
- 3. Credit Suisse AG,
- 4. DBS Bank Limited,
- 5. Deutsche Bank AG,
- 6. The Hongkong and Shanghai anking Corporation Limited,
- 7. Oversea-Chinese Banking Corporation Limited,
- 8. The Royal Bank of Scotland plc,
- 9. Standard Chartered Bank and
- 10. United Overseas Bank Limited.

CLEARING RIGHTS

Clearing Members would be able to clear proprietary IRS and FX Forwards positions at launch.

As demand evolves, the clearing rights of the clearing membership would include clearing for customer positions.

OTC TRADED FINANCIAL DERIVATIVES MEMBERSHIP CRITERIA

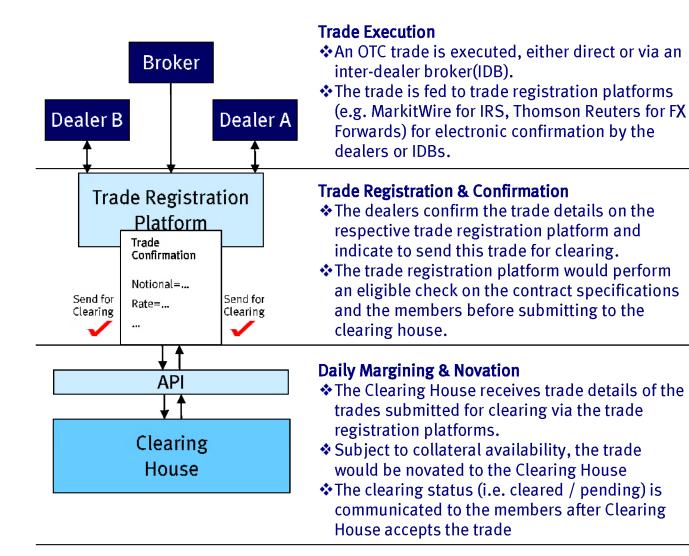
Market participants that meet the following requirements can apply for SGX membership:

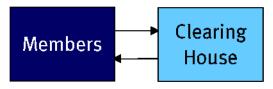
Membership Category	Bank Clearing Members ("BCM") (Singapore Licensed Banks)
Participation	IRS & FX Forwards Clearing
License Requirements	Authorised to conduct banking business in Singapore pursuant to Section 4 of the Banking Act (Chapter 19) Banks licensed to operate in Singapore are exempted from CMS
	license from MAS
Minimum Financial Requirements	Holding company must have group shareholders' funds of at least S\$1 billion
Minimum clearing fund contribution	US\$10M for IRS & FX Forwards participation
Credit/Financial Strength Rating ²	Member or its parent has a Long Term Credit Rating of at least A and a Financial Strength Rating of at least C
Other ongoing requirements	Please refer to SGX-DC Rules.

 $^{^{2}}$ Moody's Investors Service, Standard & Poor's Corporation, Fitch, or any equivalent international rating agency deemed acceptable by the Clearing House,

OTC TRADED FINANCIAL DERIVATIVES CLEARING PROCESS

The high level operational flow below illustrates how a typical OTC trade between 2 counterparties would be sent to SGX DC for clearing.





Post Trade Life Cycle Processing

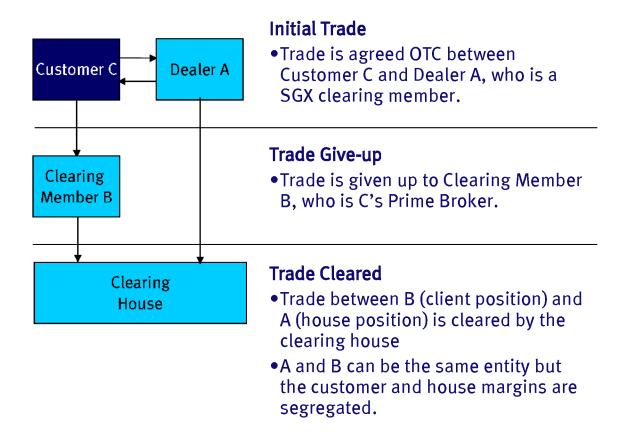
The Clearing House would provide daily pricing data, resets, and reports on positions, margins, collateral and payments to members.

OTC TRADED FINANCIAL DERIVATIVES CLEARING SERVICES FOR THIRD-PARTY CLIENTS

As demand evolves, clearing members will have the ability to clear customer positions in IRS and FX Forwards. Existing SGX Derivatives Clearing Members will be able to clear FX Forwards on behalf of their customers.

Customers who do not meet the membership criteria may establish client relationships with clearing members

House and Customer margins are required to be segregated. No offsets are allowed for house and customer positions belonging to the same clearing member. SGX DC will look to the clearing member for the collection of customer margins.



OTC TRADED FINANCIAL DERIVATIVES GLOBAL INTEROPERABILITY

The global landscape for CCP clearing for OTC derivatives is evolving, with multiple clearing houses focusing on differing geographies and asset classes. No single dominant clearing house has emerged across geographies or asset classes.

Financial institutions operating across geographies and in multiple asset classes, are keen to avoid margin fragmentation from clearing with different CCPs.

SGX will actively explore linkages with other clearinghouses to develop clearing arrangements for the benefit of our membership.

These arrangements would allow members to trade across geographies and hold collateral at a single CCP of their choice.

This will help avoid margin fragmentation and ensure cost effective clearing capabilities.

SGX SAFEGUARDS

A robust risk management framework for OTC Traded Financial Derivatives

FINANCIAL SAFEGUARDS

Maintenance Margin Requirement

- •Value-at-Risk (VAR) methodology, Portfolio Approach
- Net Margining across multiple accounts with same legal entity
 - Differentiation based on member long term credit rating

Mark-to-Market/Settlement Variation

- Transparent valuation methodology
 - •Fixings/Curves published daily
 - Daily Mark-to-market
 - •Intra-day VM calls

Adequate and Scalable Default fund

- •Single default fund for all derivatives ensures capital efficiency
 - Daily stress testing to ensure adequacy
 - •Scalable structure in proportion to members' exposure

OTHER SAFEGUARDS

Regulatory Oversight

•SGX DC - Clearing House regulated by the Monetary Authority of Singapore (MAS)

Membership Supervision

 Ongoing supervision by SGX to monitor financial adequacy of members

Default Management

- Utilisation priority of default fund
- Robust default management processes

SGX SAFEGUARDS MARGINING

Margins represent good faith deposits from clearing members and their customers to ensure the performance of the obligations associated with the OTC traded positions.

MAINTENANCE MARGIN (MM)

Maintenance Margin ensures the adequate collaterisation of potential clearing member portfolio loss under normal market movements based on historical simulation.

Value-at-Risk (VaR) is used for calculating MM. VaR looks at the portfolio as a whole and calculates the portfolio risk using the historical volatility of each position as a basis. Maintenance margin will be set on a single-asset portfolio basis e.g. an MM is calculated on a portfolio of SGD IRS, and will be based on prevailing market conditions and expected liquidation period. Net margining will be applied for multiple accounts with the same legal entity.

The acceptable collateral for MM would be cash and/or Singapore Government Securities, limited to on-the-run securities.

Margins would be differentiated based on Members' financial standing through Margin Multipliers. Portfolio concentration multipliers and product specific risk multipliers may be imposed on the MM.

MARK-TO-MARKET (MTM) AND SETTLEMENT VARIATION (SV)

IRS positions will be marked-to-market using SGX's zero-coupon yield curve, which will be published to Clearing Members. FX Forward positions will be marked-to-market based on forward points which will be published to Clearing Members.

The settlement variation requirement would be the summation of the daily change in valuation for each trade for the CM's house and customer portfolios.

For SV, only cash in the currency of the underlying trade is accepted as collateral.

Regulatory Capital Treatment

Members may engage with regulators in their home jurisdictions to seek guidance on applicability of regulatory capital relief for collateral placed with SGX-DC.

SGX SAFEGUARDS CLEARING FUND & DEFAULT MANAGEMENT

The Clearing Fund is designed to cover potential market risk, over and above MM, in stressed conditions following a clearing member default.

SGX-DC will maintain a single default fund across the following market segments:

- 1. Exchange traded derivatives
- 2. OTC commodities and freight forwards
- 3. OTC financial derivatives including IRS and FX Forwards.

In the event of default, members of defaulting market segment will be assessed prior to other members.

The Clearing Fund will have a scalable structure in proportion to growth of business, members' exposure, and number of asset classes. Fund contribution is proportionate to the risk exposures of members' cleared trades.

Daily monitoring on the adequacy of the Clearing Fund will be conducted based on the rolling average 3 months' historical margin requirements.

The following diagram illustrates the sequence of utilisation of the Margins and Clearing Fund in the event of default of a Clearing Member:



Please refer to page 14 for an illustration on a Clearing Member's obligations to the Clearing Fund and page 15 on the components of the Clearing Fund.

Default Management Group

A Default Management Group comprising SGX-DC risk managers and default managers (appointed members) will be established.

Management of defaulting member's OTC positions

SGX will leverage on the OTC market expertise of the default managers to manage the defaulting member's OTC positions in the event of default.

This will include transfer of clients' positions to non-defaulting members, hedging of the defaulting member's portfolio by appointed traders, and processes to facilitate liquidation of the hedged portfolio.

ILLUSTRATION:

Clearing Fund

Question: What is the maximum liability of a clearing member at any point in time?

In the event of a default, the total liability of each surviving Clearing Member is the sum of the Security Deposit and the Further Assessment. The apportionment of the liability would be proportionate to the member's margin requirements.

- (a) Security Deposit is set at 3% of the Margin Requirement for a Clearing Member, subject to a minimum of US\$5M. This will increase proportionate to the member's size of exposure. This amount is placed with the Clearing House.
- (b) Further Assessment is up to 3 times the Security Deposit. Only a portion of this amount needs to be funded (1 time SD) and placed with the Clearing House.

The Security Deposit and Further Assessment will be applied in direct proportion of each member's security deposit requirement relative to other non-defaulting members' security deposit requirement.

Please note that all of the above are subject to approval from MAS.

Example 1:

Maximum liability of a Clearing Member A

Assuming that a Clearing Member A has a total Margin Requirement of USD 200 million for its exposure to the clearing house, the required contribution to the clearing fund and its maximum liability in the event of another member's default is calculated as follows:-

Security Deposit	= 3% x Margin Requirement	= US\$ 6 M
Further Assessment	= 3 x Security Deposit	= US\$ 18 M
Maximum liability	= Security Deposit + Further Assessment	= US\$ 24 M

Example 2:

Application in direct proportion of member's requirement relative to other non-defaulting members' requirement

Assume that in the event of a default of Clearing Member B, the losses to the clearing house amounted to US\$ 300 M. The losses after applying the defaulting member's margins, excess collateral, and security deposit and SGX capital is US\$ 20 M.

Assume further that Clearing Member A's margin requirements is 10% of the total margin requirements of all non-defaulting members.

In this case, the liability of Clearing Member A will be US\$2 V [10% of US\$20 №].

GLOSSARY

MARGINING

Maintenance Margin ("MM")

The maintenance margin is the minimum amount to be collateralized by the Clearing Member to the Clearing House to protect the Clearing House from future normal market movements against a Clearing Member's open positions (based on historical simulation) in the event of the member's default. This amount is calculated by the Clearing House and has to be funded fully with cash and/or acceptable collateral. This is referred to as "initial margin" at LCH.Clearnet SwapClear.

Settlement Variation ("SV")

The settlement variation is the calculated profit or loss arising from a comparison between the (mark-to-market) values of the open positions with reference to the previous day's value. The Clearing House shall receive payment from, or pay to, Clearing Members the SV at least once a day. This is to ensure the adequacy of the MM to buffer for Profit-and-Loss swings under normal market conditions and to prevent the accumulation of losses. This is referred to as "variation margin" at LCH.Clearnet SwapClear.

CLEARING FUND

Security Deposit ("SD")

The Security Deposit is the contribution by Clearing Members to the Clearing Fund. The amount is calculated as the higher of (a) 3% of Margin Requirements, and (b) US\$5 million. This has to be fully funded with the Clearing House.

Further Assessment ("FA")

This is the further obligation on non-defaulting Clearing Members in the event of a default by a clearing member. The amount is calculated and capped up to a multiple of the Clearing Member's Security Deposit. A portion of the Further Assessment has to be funded partially with the Clearing House.

Clearing Fund ("CF")

The Clearing Fund is designed to cover potential market risk, over and above MM, in stressed conditions following a clearing member default. The components of the clearing fund are detailed in the table below:-

SGX-DC capital & reserves, financial guarantee and/or default insurance	SGX's contribution to the clearing fund
Security Deposits of non-defaulting Clearing members	For Exchange Traded Derivatives & OTC Commodities: Minimum of US\$500,000 For OTC Financial Derivatives: Minimum of US\$5 million Based on 3% of members' average risk margin' amounts over a 3-month period applied to in direct proportion of each member's security deposit requirement relative to other non-defaulting members' security deposit requirement
Further Assessment by SGX-DC on non- defaulting Clearing Members	Limited to up to 3 times of respective member's security deposit requirement Members will be required to fund a proportion of this FA, based on member's historical margin
SGX-DC second tier capital	SGX's additional contribution to the clearing fund

Singapore Exchange Limited
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Singapore 068804
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ORDF meeting - Trade Repositories

DTCC Derivatives Repository Ltd

3rd November 2010.



Equities - EDRR

Current Status

- Monthly submission and reporting \$ notional/number of open positions by
 - Product type
 - Counterparty Type
 - Notional CCY
 - Maturity Date
- The current Users are the G14 and have been using the EDRR for the last 3 months,
 - 6 buy side organisations and regional banks at varying stages of on boarding.
 - Existing client service team ready to assist any other organisations wishing to join.
 - Proven UAT and Operations groups to support firms from their internal development through testing to go live.
- Regulator specific reporting tools, through secure online portal.
 - Standard across credit and equity.
 - > 5 (out of the 7) Global regulators able to access participant and industry reports
 - All ODRF Regulators able to access industry information. 10 have completed the on-boarding process.
- Other facts.
 - Data can be stored indefinitely.
 - MIS and process improvements going live in December.



Equities - EDRR

Short to medium term functional enhancements which have been defined by the ISDA Equity Steering Committee. DTCC has started the analysis on these initiatives.

- Short Term
 - Entity Specific reporting.
 - Expansion of economical data, including external matching status.
 - Expansion of product range and definition.
 - New static reports to support information growth and the use of CSV.
- Medium Term
 - Underlying data.
 - Position matching through the use of a common identifier.
 - Increased frequency.

To meet Dodd Frank and other Regulator requirements the following functionality is being reviewed. Improved industry standardisation is required to be fully effective.

- Transactions both individual and Authoritative. The capture of the transactions that make up the position certain lifecycle events are not standard or confirmed. Corporate Actions
- Authoritative Positions take positions records from a confirm platform Again certain events such as exercises are not confirmed so not captured.
- Complete product definition. The identification and classification off all Equity Derivative products.
- Full matching. Through the delivery of the above and other elements, a mechanism to tie out the market



Company Structure and Credit - TIW

DTCC Derivatives Repository Ltd.

- Final board structure in place, made up of industry users.
- FSA approval received for the DDRL to hold both Credit and Equity data.

Credit TIW To independently store Credit data from the Trade Information Warehouse data in a European location.

- Phase 1. Replicate the data from US platform and store on independent servers based in London, with manual reporting functionality - Due December.
- Phase 2. Through the DTCC strategic reporting initiative the data will now be more accessible, with enhanced reporting tools Due July 2011.
- Phase 3. Independent data submission to the European arm the TIW.





OTC Derivatives Regulators Forum

ICE Clear Europe & ICE Trust

02 November 2010

ICE Introduction

IntercontinentalExchange (ICE) is a leading operator of integrated futures exchanges and over-the-counter (OTC) markets, clearing houses, trade processing and data services for the global derivatives markets.

Global distribution

- Screens distributed in 70 countries
- 3 regulated futures exchanges and 2 OTC marketplaces
- 5 clearing houses in the U.S., Europe and Canada

Diversified markets

- Energy, agricultural, equity index, currency and credit products
- Futures, OTC and Options

CDS Businesses

- Clearinghouses in the US and Europe
- Inter-dealer broker
 - Voice broker and electronic trading execution and matching businesses
 - Co-Administrators of ISDA Cash Settlement Auctions
 - Co-Administrators of industry-wide portfolio compression for single-name CDS





ICE Overview

ICE Regulated Futures Exchanges

ICE OTC

OTC CONTRACTS

ICE Data & Services

U.S. & CANADA	
AGRICULTURAL	FINANCIAL
Cocoa	FX
Coffee	US Dollar Index
Cotton	Russell Equity
Sugar	Indexes
Orange Juice	
Barley	
Canola Oil	

Brent Crude WTI Crude Sour Crude Gas Oil/Heating oil Natural gas Electricity Coal Emissions

EUROPE ENERGY

OTC Energy Oil and refined products Physical/Financial gas Physical/Financial power Natural gas liquids OTC Credit – Creditex CDS – indexes, single names, structured products OTC Iron Ore

MARKET DATA Real-time prices/screens Indices and end of day reports Tick-data, time and sales Market price validations SERVICES

ICE eConfirm
Coffee & cocoa grading
facilities

ICE Clear U.S., ICE Clear Canada

ICE Clear Europe - CDS and Energy

ICE Trust - CDS Clearing

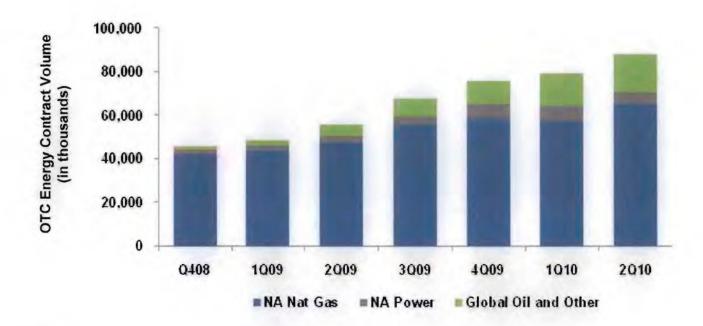
Integrated Markets, Clearing and Technology

Overview of ICE Clear Europe

- ICE Clear Europe (ICE Clear) is a Recognised Clearing House supervised by the U.K.'s Financial Services Authority (FSA) and is a Derivatives Clearing Organisation in the U.S. ICE Clear has also received Settlement Finality Designation from the U.K. FSA and is a systemically important payment system overseen by the Bank of England.
- ICE Clear currently offers clearing and settlement services to:
 - ICE Futures Europe's contracts (including the ICE ECX Emissions products)
 - ICE Inc.'s Cleared OTC products
 - iTraxx Europe indices and Single Name CDS contracts
- ICE Clear commenced operations on 03 November 2008 and, in relation to its energy clearing business:
 - has 43 Energy Clearing Members
 - clears contracts with a notional value of approximately \$40bn per day
 - holds between \$10-11bn in Original Margin
 - can call on a Guaranty Fund of approximately \$1.8bn (made up from \$650mn cash and collateral deposited in the Fund by ICE and its Members, and powers of assessment)
- CDS clearing was launched on 27 July 2009, and:
 - currently has 15 CDS Clearing Members and has cleared:
 - €3.1tn in notional value across 73,720 CDS Index transactions with an open interest of €123bn
 - €566bn in notional value across 97,645 CDS Single Name transactions with an open interest of €322bn (currently 101 names)
 - can call on a Guaranty Fund of over €3.4bn (made up from cash deposited to the Fund by ICE and its Members, and powers of assessment).

ICE OTC Energy

ICE operates the leading global OTC marketplace for natural gas, power, refined oil products and natural gas liquids



Energy Products

- Over 800 products listed for natural gas, power and refined oil products
- · Over 300 cleared products
- Brokered and electronic markets

Energy Customers

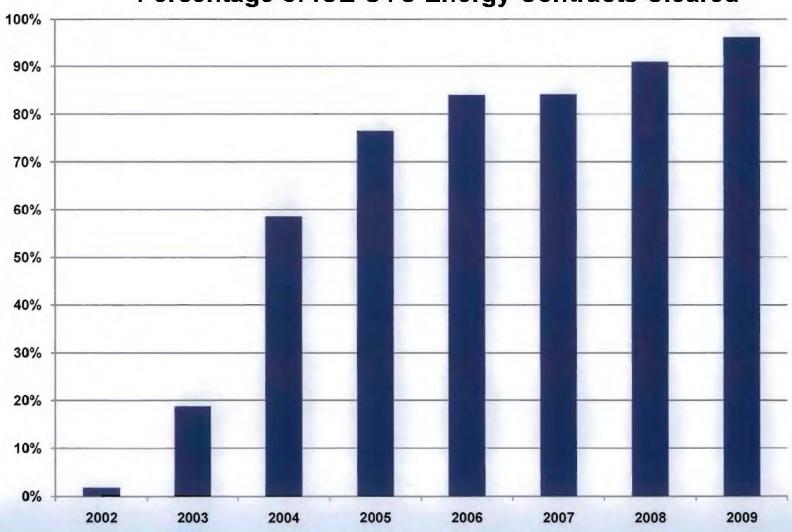
- Commercial energy companies
- ~51%
- · Banks/Financial institution
- ~24%

Liquidity providers

~25%

ICE OTC Energy Contracts





ICE OTC Energy Clearing Members

- ABN AMRO Clearing Bank N.V.
- ADM Investor Services International Ltd
- Advantage Futures LLC
- · Bache Commodities Limited
- Barclays Bank PLC
- BHF Bank Aktiengesellschaft
- BNP Paribas
- BNP Paribas Commodity Futures Ltd
- BP Oil International Ltd.
- Citigroup Global Markets Limited
- Credit Suisse Securities (Europe) Limited
- Deutsche Bank AG London
- Energy Clearing Services LLC
- Glencore Commodities Limited
- Goldman Sachs International
- HSBC Bank PLC
- JP Morgan Securities Ltd
- Jump Trading LLC
- Macquarie Bank Limited London Branch
- Marex Financial Ltd
- MBF Clearing Corp

- Merrill Lynch International
- MF Global UK Limited
- Mizuho Securities USA Inc.
- Morgan Stanley & Co. International Plc
- Natixis Commodity Markets Limited
- Newedge Group (UK Branch)
- Penson GHCO
- Phibro Limited
- Proxima Clearing LLC
- R.J. O'Brien & Associates LLC
- Rand Financial Services, Inc.
- Rosenthal Collins Group LLC
- Royal Bank of Canada Europe Ltd
- SEB Futures, a division of Skandinaviska Enskilda Banken AB (publ)
- Shell International Trading and Shipping Company Ltd
- The Royal Bank of Scotland Public Limited Company
- Triland USA Inc.
- UBS Limited

OTC CDS Clearing: Products & Clearing Members

68 Indices

North America (CDX)		Europe (iTraxx)		
IG	S8 – S15	Main	S7 - S14	
HY	S8 - S15	XO	S9 - S14	
HVOL	S8 - S15	HVOL	S7 - S14	

190 Single Names

North America and Europe		
Sector	Number of Names	
Basic Materials	16	
Consumer Goods	23	
Consumer Services	44	
Financials	21	
Healthcare	8	
Industrials	26	
Oil & Gas	8	
Technology	6	
Telecommunications	16	
Utilities	22	

Clearing Members

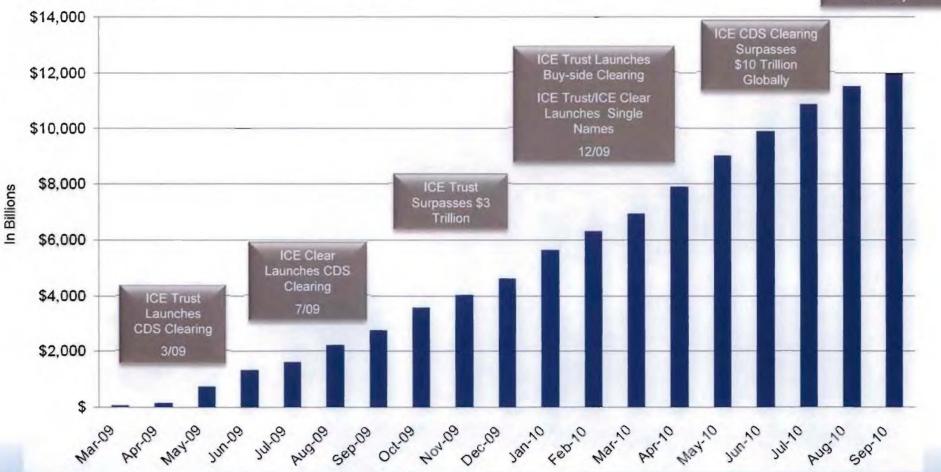
Clearing Member	ICE Trust	ICE Clear
Bank of America	1	✓
Barclays	✓	✓
BNP Paribas	✓	✓
Citibank	✓	✓
Credit Suisse	✓	✓
Deutsche Bank	✓	✓
Goldman Sachs	✓	✓
HSBC	1	✓
JPMorgan	1	✓
Merrill Lynch	✓	2
Morgan Stanley	1	✓
Nomura	✓	✓
RBS	✓	✓
Société Générale	-	✓
Unicredit AG	-	✓
UBS	✓	1

OTC CDS Clearing: Current Status

ICE Global CDS Cumulative Volume

- Over \$12.5 Trillion notional cleared globally
- ICE Trust cleared over \$3.5 Billion in client-related notional

ICE CDS Clearing Surpasses \$12 Trillion Globally



Risk Waterfall



- Ensure each Clearing Member has sufficient financial resources, operational capabilities and risk management experience
- Collateralize potential Clearing Member portfolio loss under normal market conditions
- Adjust Clearing Member collateral through a daily debit/credit based on EOD mark-to-market
- Identify additional margin requirements based on a comparison of unrealized P/L to Risk Margin, understanding unusual market fluctuations, etc.
- Mutualize losses under extreme but plausible market scenarios (i.e., 99.9% confidence interval). Includes ICE contribution
- Oblige Clearing Members to contribute a limited amount of additional default funding

Price Discovery

Guiding Principles

- Simple process applied uniformly across all Clearing Members
- Strong incentives to provide real prices for real markets
- Settlement prices derived directly from submitted quotes – limited ICE modeling
- Acceptable to Regulators for clearing

New Pricing Paradigm

- Consistent framework for producing accurate and robust pricing
- Increased transparency for market participants and Regulators
- Essential for efficient margining systemic risk reduction

Pricing: Then and Now

Pre Clearing

- Limited pricing information
 - Availability of quotes / prices only for most liquid instruments / tenors
 - "Indicative runs" versus "Executable runs"
- Lack of historical time series pricing data
 - Discontinuous quotes / prices since sensitive to market movements
- Lack of benchmark comparison of Mark to Market valuations

Post Clearing

- Increased transparency in CDS prices
 - Clearing Members submit quotes / prices for entire term structure
 - EOD Settlement prices calculated based on an auction process
 - Ensures continuous time series and term structure pricing data for cleared entities
- Pricing accuracy ensured by making Clearing Members trade based on their submissions
- Mark to Market valuations can be compared to ICE EOD Settlement prices

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GAAP and Non-GAAP Results

This presentation includes non-GAAP measures that exclude certain charges the company considers non-operating. We believe that the presentation of these measures provides investors with greater transparency and supplemental data relating to our financial condition and results of operations. These non-GAAP measures should be considered in context with our GAAP results. A reconciliation of Adjusted Net Income and Adjusted Earnings Per Common Share to the equivalent GAAP measure and an explanation of why we deem these non-GAAP measures meaningful appears in our earnings press release dated November 3, 2009 and in the appendix to this presentation. The reconciliation of Adjusted EBITDA to the equivalent GAAP results appears in the appendix to this presentation. Our earnings press releases and this presentation are available in the Investors & Media section of our website at www.theice.com. Our earnings press release is also available in our Current Report on Form 8-K filed with the SEC on November 3, 2009.

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