ICE Trust Europe Credit Derivatives Clearing Solution

European Central Bank 24 February 2009
CDS CLEARING EXECUTIVE SUMMARY

• **ICE Trust Europe has a phased approach to our launch**
  – Complete extensive testing of core processing capabilities with all participants
  – Prioritized clearing backlog trades; launch date in Q2 pending regulatory approval
  – Initial European launch will include iTraxx indices followed by single-name constituents of iTraxx Europe

• **ICE is uniquely qualified to provided a CDS clearing solution**
  – ICE already operates clearing houses in the UK, US and Canada
  – Extensive experience operating in multiple jurisdictions and regulatory environments

• **ICE has extensive CDS DOMAIN EXPERTISE**
  – Provides several pieces of critical CDS market infrastructure
  – In-depth understanding of the unique operational and risk management challenges of CDS products (including European Restructuring issues and Fixed Coupon amendments)

• **ICE has a complete RISK MANAGEMENT FRAMEWORK in collaboration with Clearing Participants**
  – Adopted industry best practices and adhered to Basel/IOSCO recommendations
  – Adopted a comprehensive waterfall approach for managing systemic risk including membership criteria, margin, intra-day monitoring, guaranty fund, and periodic risk assessments

• **ICE is deploying an OPEN ARCHITECTURE model that enables integration with multiple execution / matching venues and participation from both buy and sell-side firms**

• **ICE will PROTECT customers through segregated client accounts**
  – ICE Trust Europe will provide facilities for the segregation of initial margin
  – Client funds may be held in segregated accounts

• **ICE will observe European LEGAL AND REGULATORY REQUIREMENTS**
  – Observing all relevant requirements for the BIS/IOSCO recommendations for central counterparties
  – Will provide transparency into the CDS markets for regulators
**RISK MANAGEMENT FRAMEWORK**

**Waterfall Approach for Managing Systemic Risk**

- **Membership Criteria**
  - Ensure each Clearing Participant has sufficient financial resources, operational capabilities and risk management experience

- **Risk Margin / Initial Margin Requirement**
  - Collateralise potential Clearing Member portfolio loss under distressed market conditions

- **Mark-to-Market / Variation Margin**
  - Adjust Clearing Member collateral through a daily debit/credit based on EOD mark-to-market

- **Intra-day Risk Monitoring** (including ad hoc margin calls)
  - Identify additional margin requirements based on a comparison of unrealised P/L to Risk Margin, understanding unusual market fluctuations, etc.

- **Guaranty Fund**
  - Utilise losses under extreme but plausible market scenarios

- **Powers of Assessment (subject to a cap)**
  - Oblige Clearing Members to contribute a capped amount of additional default funding
CDS Credit Event (Default) Procedures Framework

This framework is designed to ensure timely and accurate response to protect the interests of all non-defaulting Clearing Participants.
## T-ZERO PLATFORM

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<thead>
<tr>
<th>Feature</th>
<th>Description</th>
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<td><strong>Flexible and open architecture</strong></td>
<td>T-Zero’s open architecture integration framework, known as AgnosticConnectivityTM, has allowed it to API-connect directly to the systems of dealers and prime brokers as well as buy-side firms. This has allowed interoperability between the systems of market participants and vendors such as DTCC, Bloomberg, GlobeOp, Calypso, Creditex, Tullet Prebon, BGC Partners.</td>
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<td><strong>Ambitious standards for accuracy and timeliness of trade matching errors</strong></td>
<td>T-Zero provides the ability today for trade errors to be identified and resolved on trade date (T+0) for all major credit derivative products.</td>
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<td><strong>CDS lifecycle processing</strong></td>
<td>T-Zero is the only platform that captures and automates all CDS lifecycle events including creation of new contracts, termination, novation, allocation, give-up to prime broker.</td>
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<td><strong>Operational reliability and scalability</strong></td>
<td>T-Zero is built on state-of-the-art software and architecture that is highly reliable and scalable and has been vetted extensively by broker dealers. The platform is globally distributed, has 99.9% uptime, and is connected to banks over a high-speed private network with full redundancy, failover and disaster recovery.</td>
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<td><strong>Promotion of CDS industry standardization</strong></td>
<td>T-Zero promotes industry standard workflow for credit derivatives through automation. This includes automation of ISDA Novation Protocol II as well as industry standard prime-broker give-up workflow. Additionally, T-Zero incorporates the RED reference entity standard as well as FpML.</td>
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End of Day Pricing

Proper risk management requires robust end-of-day pricing

- Combination of Markit/ICE Trust market data provides breadth and depth of pricing data unmatched in the marketplace

- Margin exchanged between Clearing Participants based on ICE Trust marks
  - Enhanced marks also improve collateral process for non cleared trades

- Enhanced dealer polling and executable marks

- Intraday exposures to ICE Trust are monitored and action taken as needed
  - Intraday marks are available to ICE Trust in addition to all pricing runs from dealers

- End-of-day prices will be made available to market participants

- Regulators are provided with additional level of transparency
  - Trading levels and volumes reported by ICE Trust
  - Total volume information available through DTCC
MARGIN HELD AT CLEARINGHOUSE

1. Client trades directly with member
2. Client can hold multiple accounts with different members
3. Client initial margin rehypothecated to clearinghouse will be held in omnibus segregated account
4. Margin requirements will be calculated separately for each member’s house and client segregated accounts.
5. Members will be required to pass on margin requirements to clients, at a minimum
6. Holding margin at clearinghouse enhances portability of client margin and related positions.
MARGIN HELD BY CLEARING MEMBER

1. Prime Broker intermediates between client and Clearing House
2. Client can hold multiple accounts with different members
3. Clearing House margins Prime Broker on the basis of net position
4. Prime Broker free to determine size of margin requirements that clients must post to it (subject to any regulatory minimum), independently of any margin requirements the Clearing House applies to the member’s net position. Unless otherwise agreed, Prime Broker cannot rehypothecate client initial margin
5. Client can move account by arranging for a different Prime Broker to intermediate trades. Clearing of Prime Broker-Clearing House leg facilitates transfer of positions.
Additional slides
ICE OVERVIEW

ICE is a leading, global derivatives exchange operator. Through our sophisticated trading and clearing technology infrastructure, we offer benchmark futures and options contracts for energy, soft and agricultural commodities, equity indexes and currencies, as well as the leading electronic global OTC energy marketplace.

**Global Reach**
- Screens and customers in 55 countries
- 3 regulated futures exchanges: ICE Futures Europe, ICE Futures U.S. and ICE Futures Canada
- 3 regulated clearing houses: Europe, U.S., Canada

**Diverse Products and Markets**
- Energy, agricultural, financial products
- Futures, options and OTC markets

**Superior Technology**
- Sophisticated, scalable & widely distributed trading platform
- Focus on innovation, customers and technology

**A History of Innovation**
- ICE was the first to introduce clearing to the power markets, which were the domain of voice brokered, bilateral transactions similar to how credit default swaps markets operate today
ICE CREDIT DEFAULT SWAP EXPERTISE

ICE has an established track record of leading the CDS market in critical industry initiatives

- **T+0 Trade Processing**: ICE’s T-Zero platform is the most widely adopted platform for same-day processing of CDS affirmations and novation consent with 16 CDS dealers, 7 Prime Brokers and over 360 live Buy-Side (over 140 in Europe)

- **Electronic Connectivity**: T-Zero connectivity provides interoperability between the CDS systems of dealers, prime brokers, buy-side, interdealer brokers, vendors and the DTCC Trade Information Warehouse

- **Credit Event Auctions**: ICE is the official co-administrator of auctions used to settle CDS contracts following default. Auctions have been used recently in connection with all recent defaults including those of Fannie Mae, Freddie Mac, Lehman Brothers and Iceland banks Landsbanki, Glitnir and Kaupthing

- **Portfolio Compression**: ICE provides the industry standard platform for multi-lateral termination of single-name CDS contracts. The platform is a critical piece of infrastructure that can be leveraged to facilitate backloading of existing CDS portfolios into the clearinghouse

- **Electronic Trading**: ICE was the first to launch electronic trading for CDS in Europe and continues to lead the market with innovative electronic trading solutions that facilitate liquidity and risk management. Over 75% of ICE CDS volumes in Europe are traded electronically.

- **Tradeable Credit Fixings**: ICE pioneered the development of industry standard Tradeable Credit Fixings which provide fair and reliable benchmarks and settlement rates for CDS products
OPEN ARCHITECTURE APPROACH

• Open clearing platform allowing delivery of trades directly from multiple trade execution/matching venues (e.g. T-Zero, MarkitWire, Brokers, Trading Platforms, etc.)

• Open architecture connectivity and interoperability model
  – ICE has existing electronic connectivity to CDS systems of all dealers and over 360 buy-side
  – Buy-side integration model is low-cost (typically 6-8 weeks to complete systems integration)

• Integration and co-existence with other elements of CDS processing infrastructure, including Trade Information Warehouse (TIW) and buy-side access to independent Warehouse record
  – TIW is the only trade information repository in the CDS market. Therefore, most Clearing Participants, including buy-side, currently use DTCC’s TIW in both Europe and the US

• Payment and securities processing through safest instruments available

• Immediate back loading of existing trades into the CCP
  – Periodic clearing cycles will be used to address existing trade backlog
PROTECTION OF CUSTOMER FUNDS

- ICE, together with its clearing members, will offer non-members margin protection and portability.
- Initially each non-member, through its Clearing Participant, will have the option of having its initial margin segregated. In the future, the non-member will also have the option to have initial margin segregated at the Clearinghouse.
- In Clearinghouse segregation approach, rehypothecation of client initial margin by the Clearing Member will be permitted ONLY to the omnibus client account at the Clearing House and for no other purposes.
- In Clearing Member segregation approach, rehypothecation of client initial margin by the Clearing Member will not be permitted, unless specifically agreed by client.