

NYSE Liffe CDS

IDX, 10th June 2009

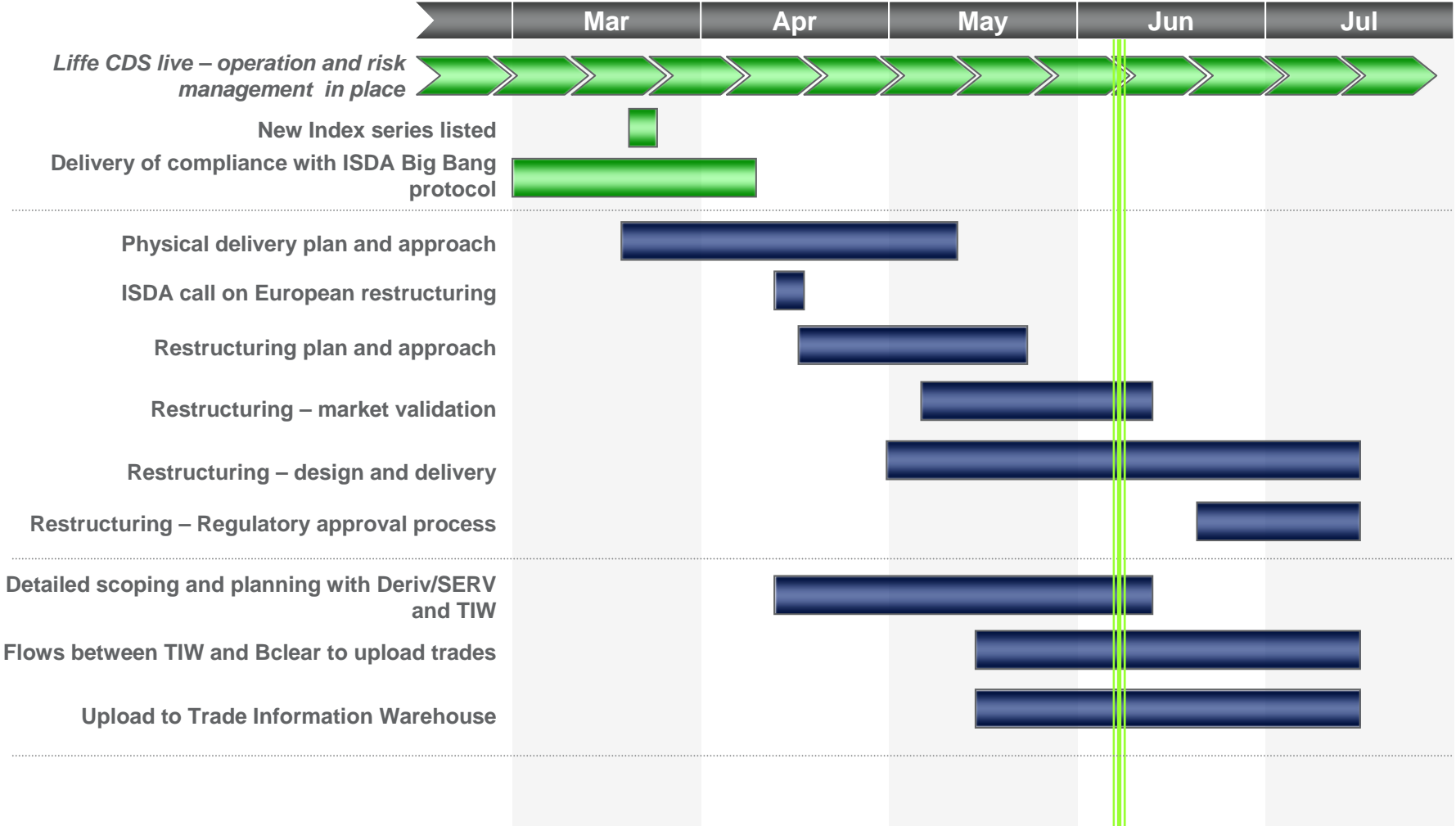
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NYSE Liffe CDS – Key Points

- The only European CDS clearing solution which has received regulatory approval
- Regulated by the FSA in London, approved by the SEC for US customers
- A pre-negotiated market that adds all the benefits of processing and clearing, without forcing you to change your business model
- Compression and balance sheet capital benefits; all trades in the same product are netted and additional balance sheet benefits are available via cross-margining with other NYSE Liffe CDS contracts
- A segregated account structure for the buy-side
- Key contractual agreements already signed with ISDA and Markit
- Fully RED compliant, and mark-to-market valuations are provided daily at no extra cost
- Cleared by LCH.Clearnet Ltd., the most experienced global clearer of OTC markets

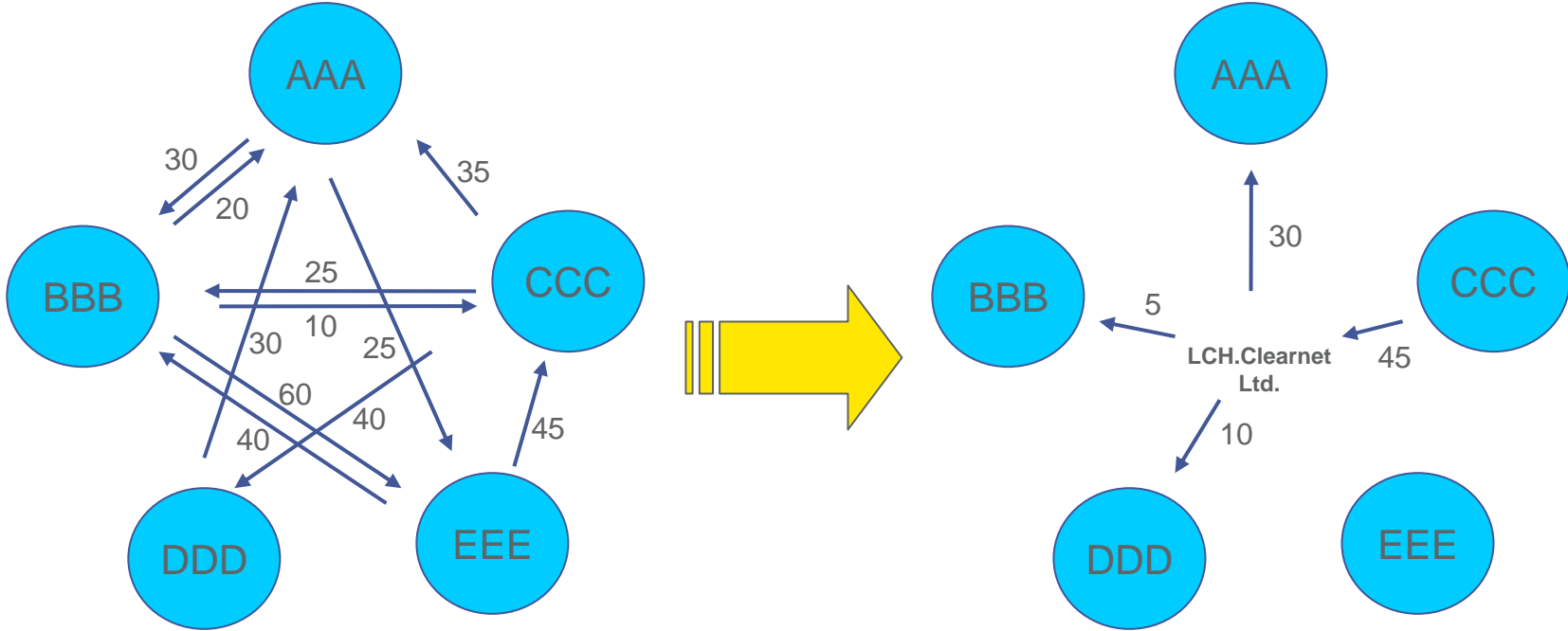
NYSE Liffe CDS – High Level Timeline



NYSE Liffe CDS – Market Structure

- A pre-negotiated and truly multilateral market
- Move in and out of a position with multiple counterparties, facing off against LCH.Clearnet Ltd.
 - Standardising and greatly reducing counterparty risk
- Compression of all trades into a single net position
 - Greatly reducing notional outstanding
- Efficient margining, freeing up balance sheet capital
 - Using systems already present in all broker-dealers
- Account segregation, allowing customer accounts to be isolated from dealer positions

NYSE Liffe CDS – A Multilateral Market

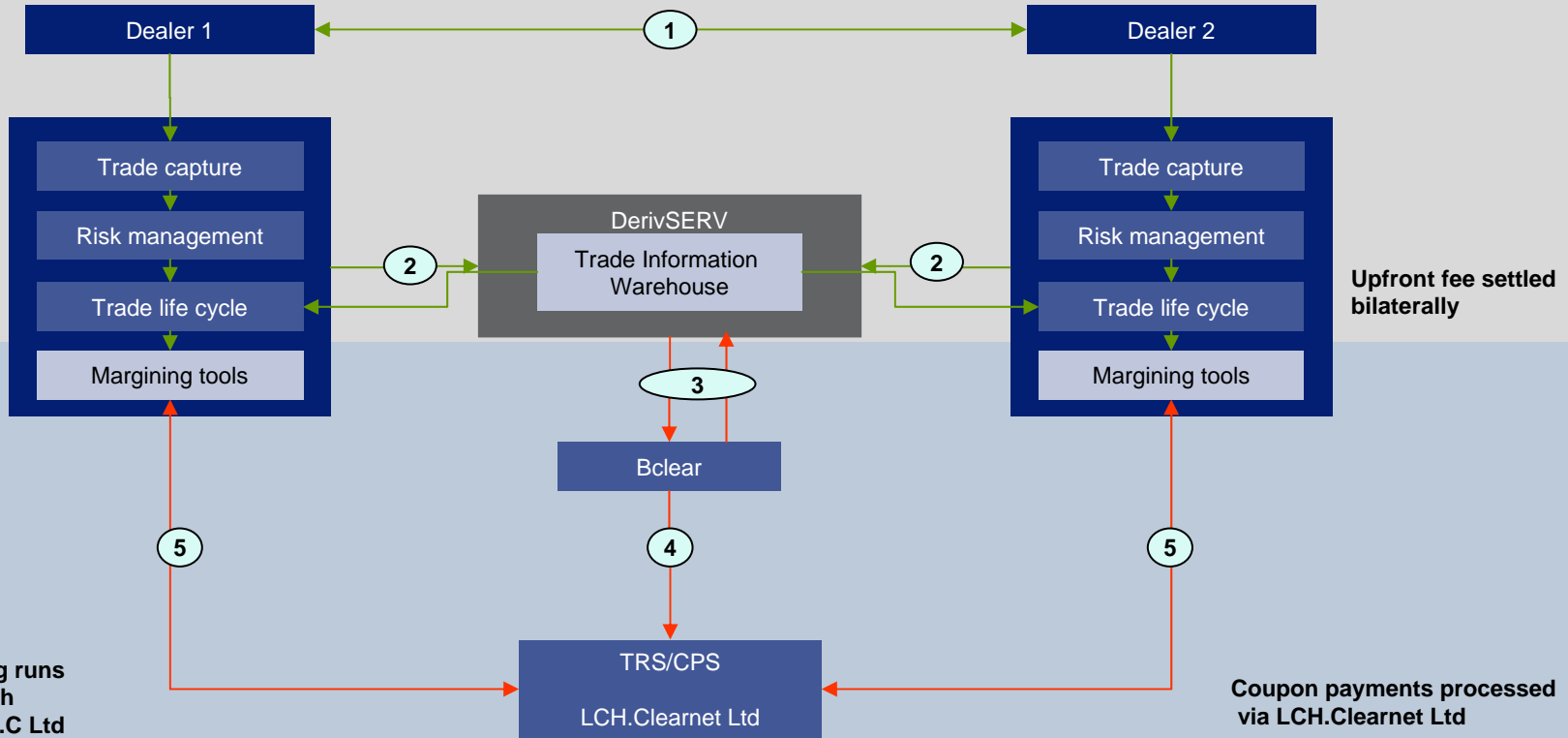


Bilateral market

Multilateral market

Trade Flows - Dealer to Dealer

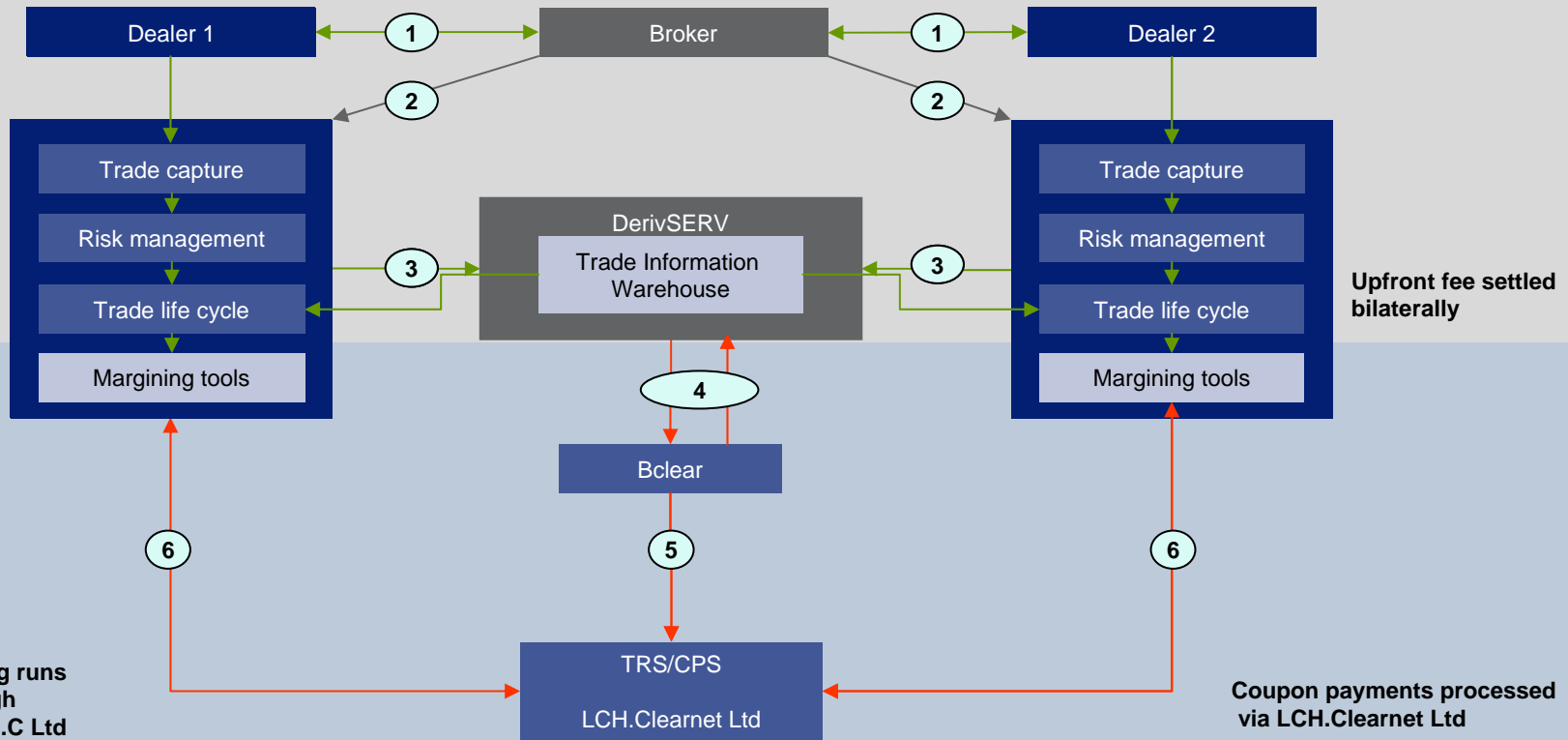
Existing OTC Processes



1. Dealer 1 and Dealer 2 negotiate, agree trade and book in their own systems
2. Back-end trade confirmation agreed via Deriv/SERV, trades appear in the TIW
3. File export of trade details to Bclear – accepted and rejected trades message sent back from Bclear to TIW
4. Bclear sends trades to TRS/CPS for registration and processing
5. End of day settlement files sent across to Members to enable margin process

Trade Flows - Broker Facilitated

Existing OTC Processes



1. Broker facilitates trade between Dealer 1 and Dealer 2
2. Broker sends trade details to Dealers 1 & 2
3. Back-end trade confirmation agreed via Deriv/SERV, trades appear in the TIW
4. File export of trade details to Bclear, accepted and rejected trades message sent back from Bclear to TIW
5. Bclear sends trades to TRS/CPS for registration and processing
6. End of day settlement files sent across to Members to enable margin process

Conformance with User Requirements

A Legal and Regulatory Environment		
A1	Settlement Finality Directive	Y
A2	ESC Recommendations	Y
A3	Governed by EU law	Y
A4	European supervisory oversight	Y
B Governance and Access		
B1	User representation	Y
B2	User consultation	Y
B3	Appropriate access criteria	Y
C Scope		
C1	European indices and single names	Y
C2	US indices	Y
C3	Extension of clearing model	Y

D Stability and Resilience of the CCP		
D1	Segregated accounts for members & 3rd parties	Y
D2	Clear rules around collateral management	Y
D3	Effective default processes	Y
D4	No competition on risk grounds	Y
D5	Access to adequate liquidity means	Y
D6	Separate default fund for CDS (where relevant)	Note 1
E Functionality and Efficiency		
E1	Core CCP competencies	Y
E2	Back loading of existing contracts	Y
E3	Leverage existing systems	Y
E4	Clear in multiple currencies	Y
E5	Interoperability	Note 2
E6	TARGET calendar and opening times	Y
E7	Transparency around pricing	Y

Notes:

- Existing default fund for Index CDS (approved by regulators); separate segment of default fund for Single Names
- Willing to participate in further discussion

LCH.Clearnet - Risk Management

- A global leader in clearing, LCH.Clearnet is the:
 - Global #1 Clearing House in OTC interest rate swaps
 - Global #2 Clearing House in OTC fixed income and repos
 - Global #3 Clearing House in exchange traded futures and options
- LCH.Clearnet Ltd carries out risk management of CDS Index products using the same proven framework as other NYSE Liffe products
- This framework for managing counterparty risk was most recently utilised during the default of Lehman Brothers in September 2008

LCH.Clearnet Ltd – Risk Management

Default Management is the most critical element of establishing clearing in OTC markets: LCH.Clearnet Ltd's experience of this is unparalleled.

CDS index clearing is an evolution of the existing risk management approach applied to existing OTC and other exchange products:

- Existing Membership Criteria for NYSE Liffe products are be applied
- Initial margin is calculated using London SPAN, amended to cope with asynchronous risk profile of buyer and seller of protection and risk of *'jump-to-default'*
- Existing and proven default management arrangements are extended to encompass CDS index products
- Existing Default Fund is employed for index products
- Scenario based stress-testing approach is enhanced to add additional CDS specific scenarios and multiple cross-asset class scenarios
- Mark to market utilising Markit end of day prices

LCH.Clearnet – Default Management


- LCH.Clearnet focuses extensively on default management, and utilised this tried and tested process during the management of the Lehman Brothers International Europe and Lehman Brothers Special Financing Inc defaults



- This process enables business as usual for the remaining clearing members, while protecting customers of the defaulting member wherever possible
- For index products we employ the same process as for other NYSE Liffe products
- For single names we will implement a more formal auction process similar to that used for SwapClear
- LCH.Clearnet is the only CCP with a highly formalised process for OTC products as part of the SwapClear service for Interest Rate Swaps
- This involves significant member participation in the hedging and auction activities; this process was tested during LBSF default, for a \$9 trillion portfolio, and resulted in significant collateral being returned to the administrators

LCH.Clearnet – Post-Default Backing

- As stated, Initial Margin has always been sufficient in previous defaults. However, should this be insufficient there are further protections, as illustrated below



TYPE	AMOUNT January 2009	DESCRIPTION
Defaulter's margin collateral	£x (dependent on the size of the defaulter's positions)	<ul style="list-style-type: none"> Cash, securities or bank guarantees Calculated by bespoke algorithms for each sector to cover inherent market risk in relation to positions Revalued and collected at least daily Recourse is to margin collateral provided by the defaulter
Defaulter's own default fund contribution	£x(dependent on the size of the defaulter's positions)	<ul style="list-style-type: none"> Default fund contribution is assessed relative to the size of the member's positions
LCH.Clearnet Ltd. capital	Up to £20M	<ul style="list-style-type: none"> Before drawing on other members' default fund contributions LCH.Clearnet Ltd would employ up to £20M of that year's retained earnings
Default fund	~£600M	<ul style="list-style-type: none"> The LCH.Clearnet Ltd default fund currently stands at ~£600M The level of the fund is stress tested daily to ensure its adequacy under abnormal market conditions

- The adequacy of the Default Fund is stress tested daily and LCH.Clearnet is able to withstand the default of its largest member and five smaller members or the second and third largest members simultaneously under the most extreme conditions, far surpassing the market events of September 2008.

Single Name CDS Contracts

Scope

- NYSE Liffe and LCH.Clearnet Ltd. encourage the industry to develop and implement standardisation in order to promote the clearing of single name CDS products.
- NYSE Liffe and LCH.Clearnet Ltd. will offer single name CDS contracts on constituents of cleared indexes in 2009, subject to member support.
- **CCP clearing of single names products should be entirely dependent upon support from sell side users in a default management process, see the successful example of LCH SwapClear.**

Membership

- Clearing members will have to fulfil additional requirements in order to clear single name CDS contracts:
 - Minimum capital size or guarantee from parent for legal entity (circa €2-5bn)
 - In respect of a number of our services, LCH.Clearnet Ltd are working on devising models for buy side involvement and protection. We are also feeding into industry processes to design an approach for this in respect of CDS.

Margining

- Single name CDS will be margined through a new LCH.Clearnet Ltd risk management methodology, based around an HS VaR approach

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