

Credit Derivatives in 2009 & Current Developments

d-fine – Risk Management Breakfast – Tower 42

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London, 25 September 2009

Introductory Remarks

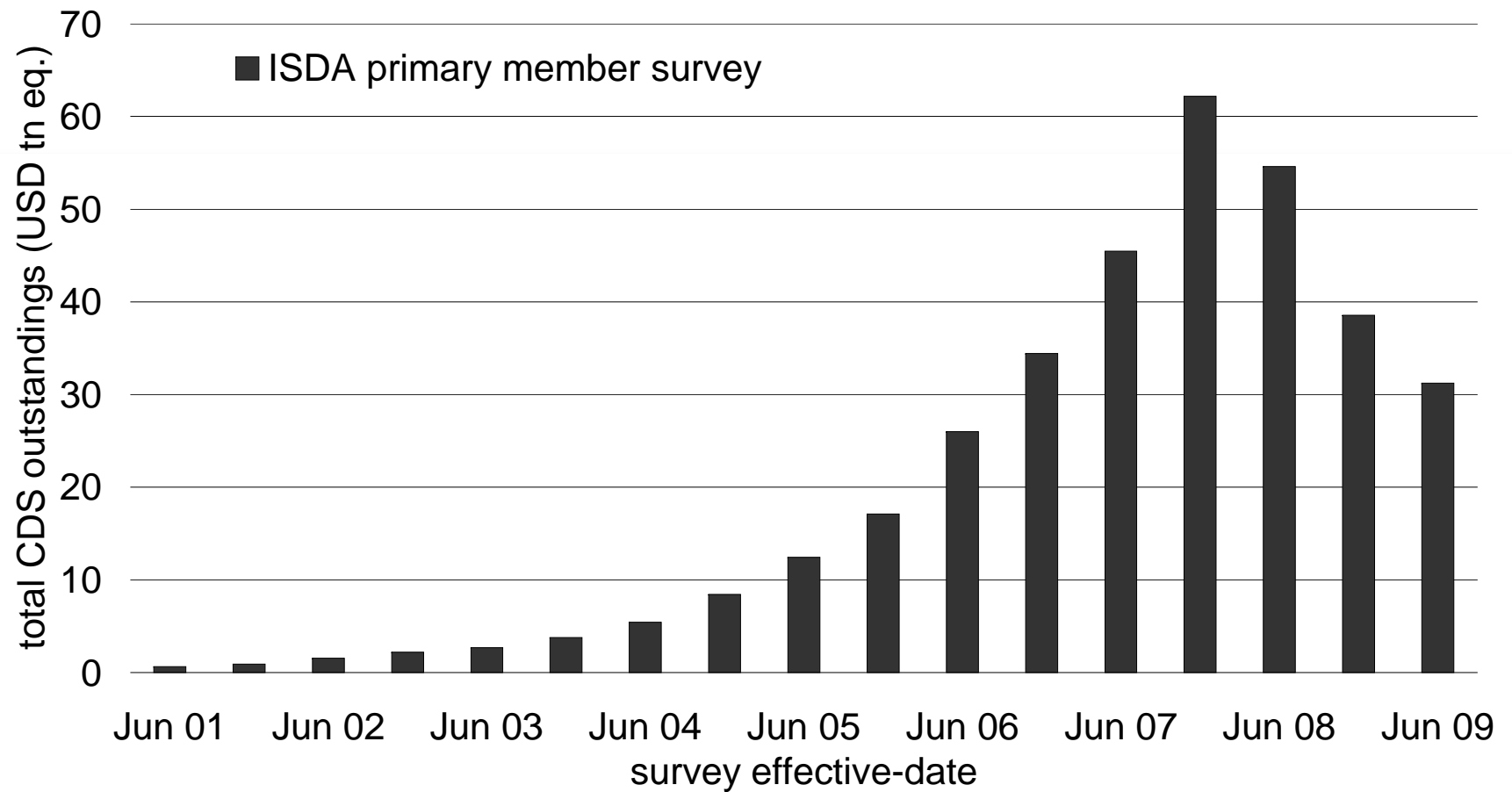
- During the crisis, credit derivatives "enjoyed" particular attention by politicians, regulators and the media (as well as securitizations and structured credits).
 - Regulation, processing, standardization and central clearing of OTC derivative markets have been debated for years.
 - CDS sometimes became a sort of scapegoat for the financial market crisis (Buffet, Soros, Dinallo, Petersen, etc.). But not the instruments failed, investment strategies did.
 - "Naked" CDS long; opaque market; central counterparty clearing
 - The demise of Bear Stearns, Lehman Brothers and, last but not least, the bailout of AIG (Financial Products) put the industry under intense pressure to improve the resilience of the market with respect to counterparty risks.
 - Some not-so-constructive proposals are not yet entirely off the table, but much has changed during the past 11 months
 - "Financial regulatory overhaul", "Resilience of OTC derivatives market", ISDA, ICE
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AGENDA

- GLOBAL OTC DERIVATIVES
 - VERY SHORT COURSE ON CDS
 - CORPORATE AND SOVEREIGN CDS
 - TRADING CREDITS DURING THE CRISIS
 - CDS CENTRAL COUNTERPARTIES
-

From more than 100% annual growth to a 50% decline

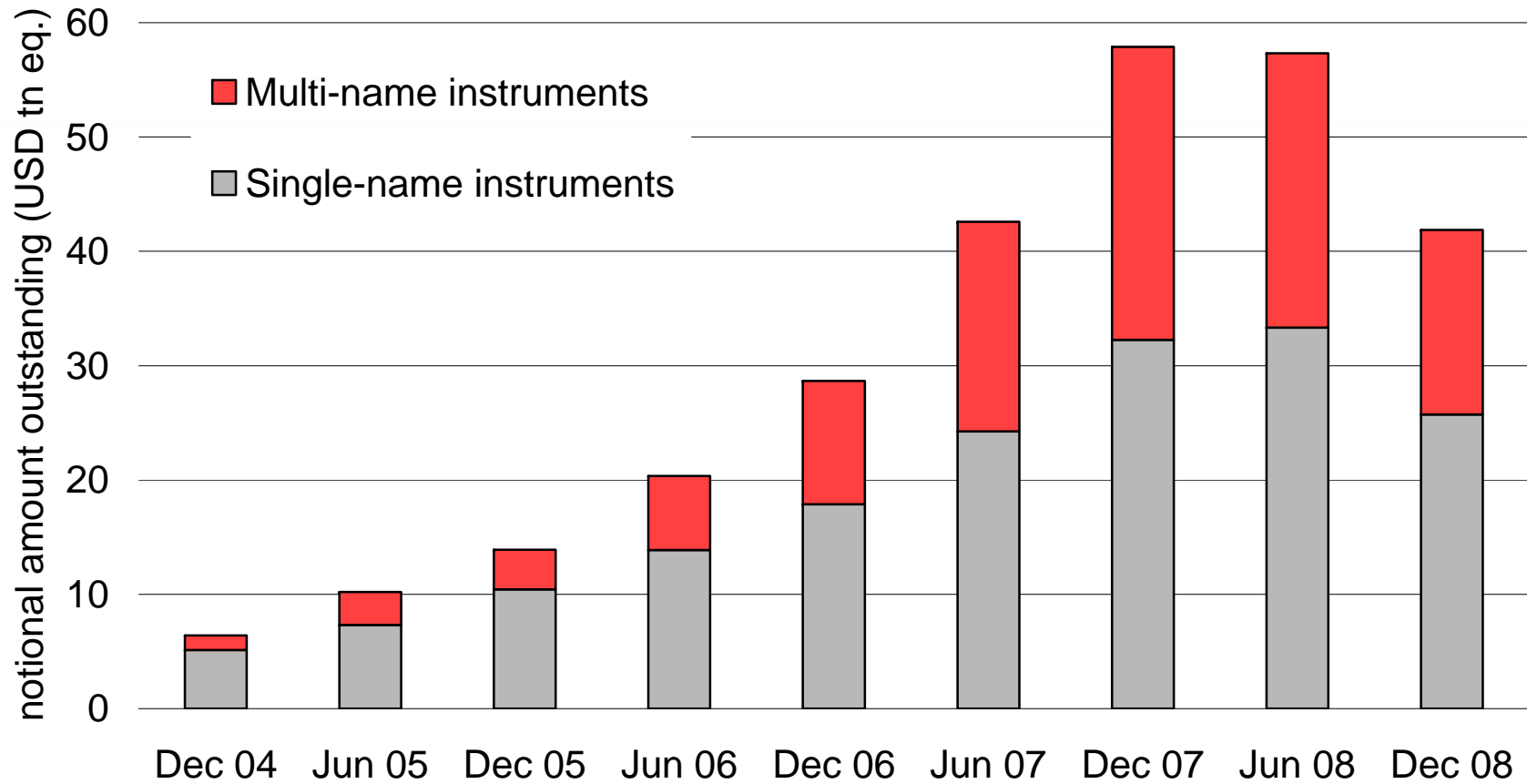
CDS outstanding volumes (ISDA semi-annual primary member survey)



Source: ISDA, UniCredit Research

Shrinking global CDS volumes indicate change in 1H08

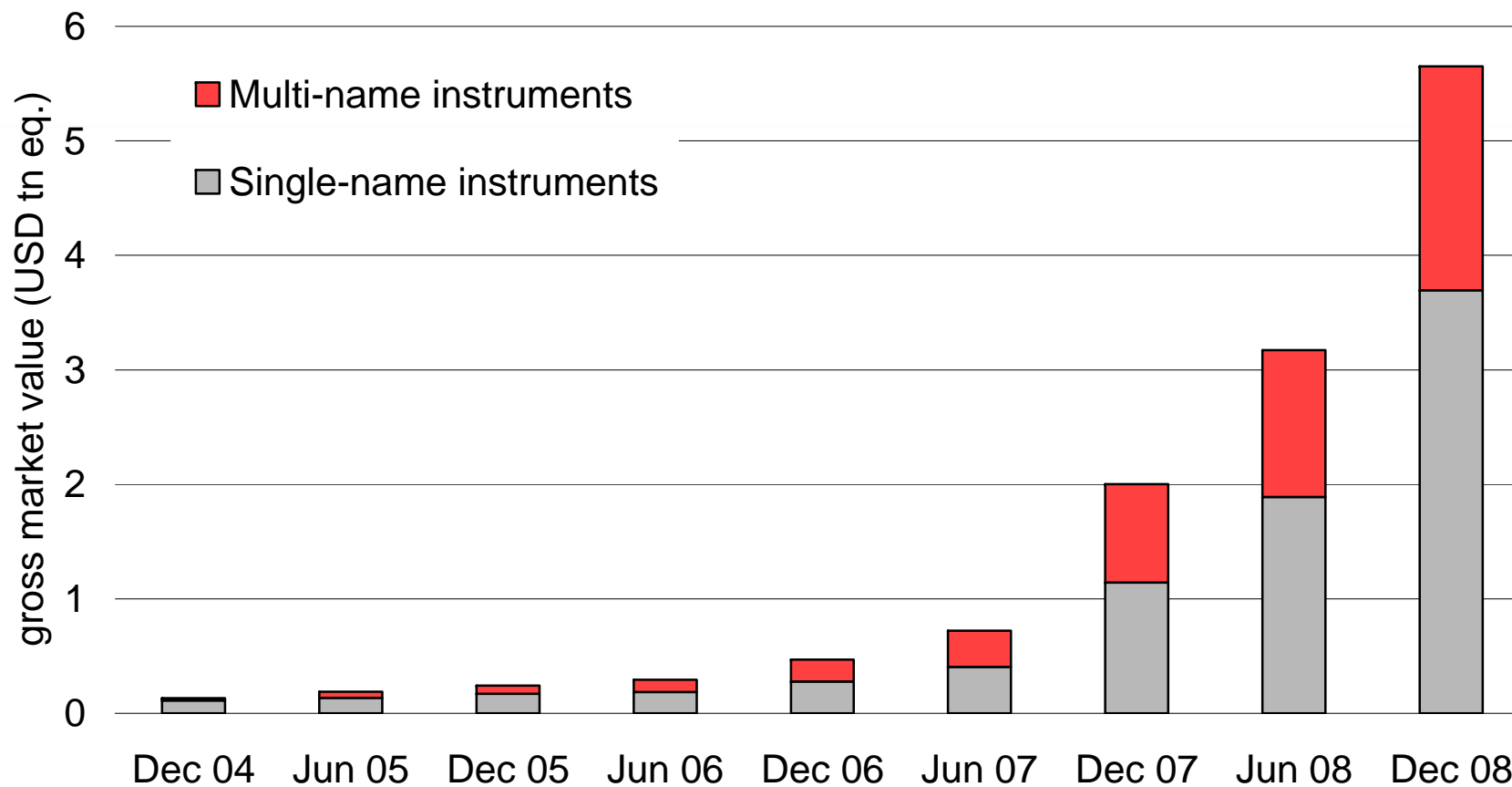
CDS outstanding volumes (BIS semi-annual G10 survey data)



Source: BIS, UniCredit Research

Gross market value surges to USD 5.7tn at YE 2008

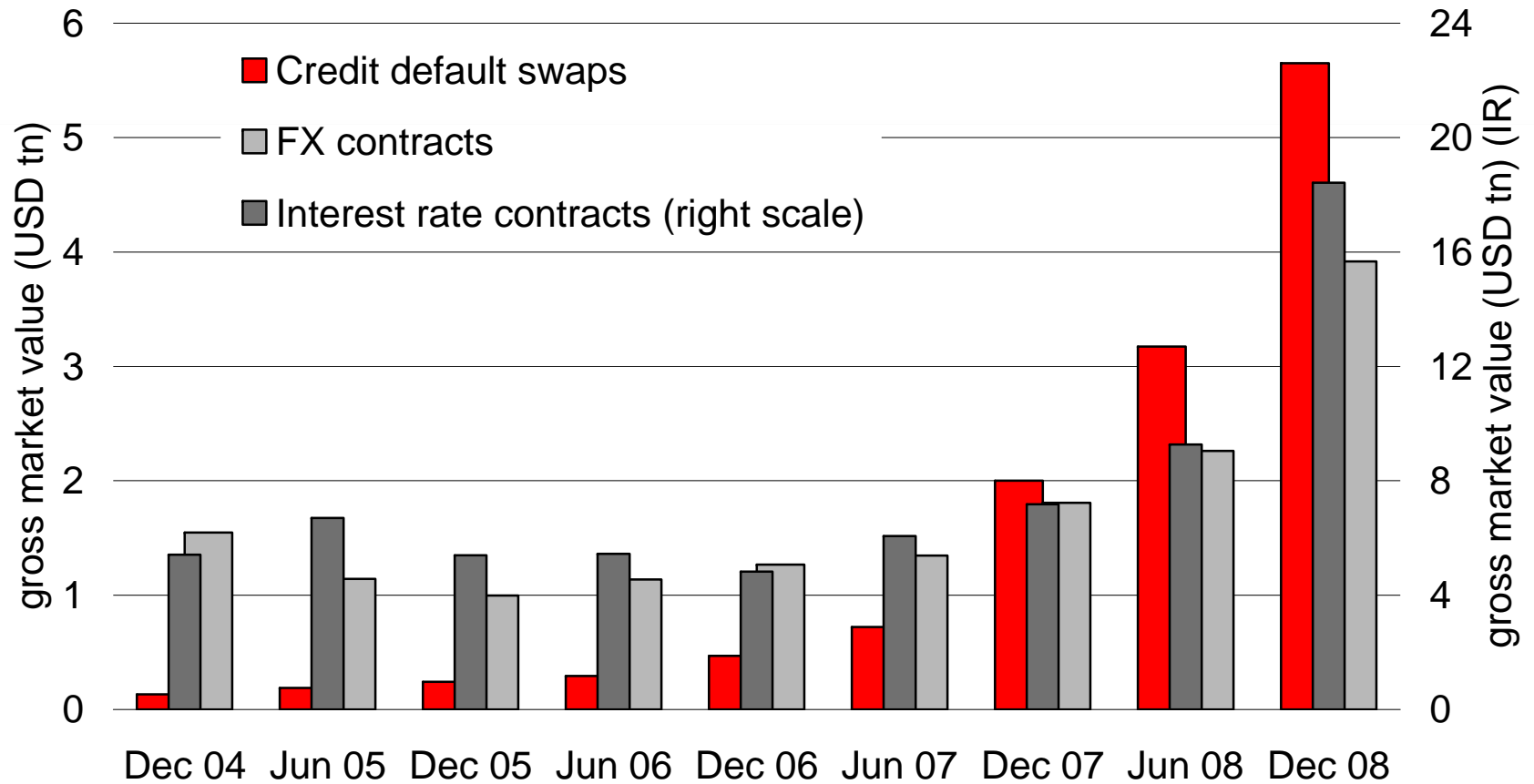
Global CDS gross market values (BIS semi-annual survey data)



Source: BIS, UniCredit Research

CDS gross market value grows at fastest pace

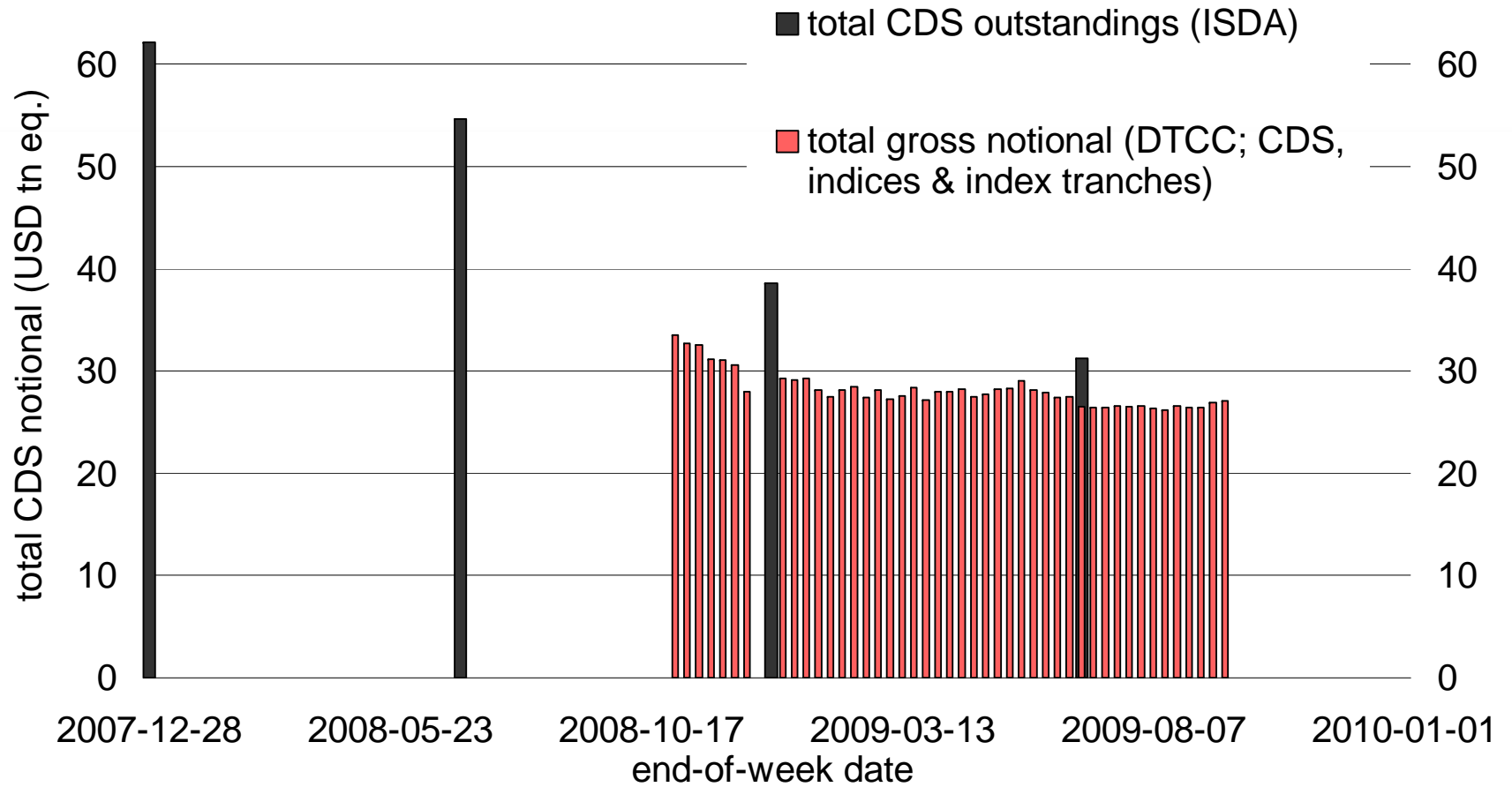
Global OTC derivatives gross market values (BIS semi-annual survey data)



Source: BIS, UniCredit Research

DTCC covers about 80% of the market

ISDA semi-annual primary member survey compared to DTCC TIW data



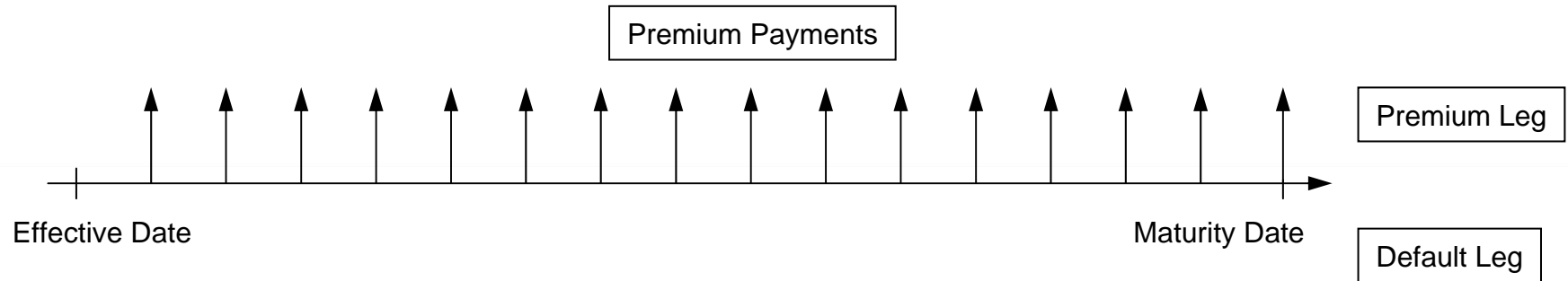
Source: ISDA, DTCC, UniCredit Research

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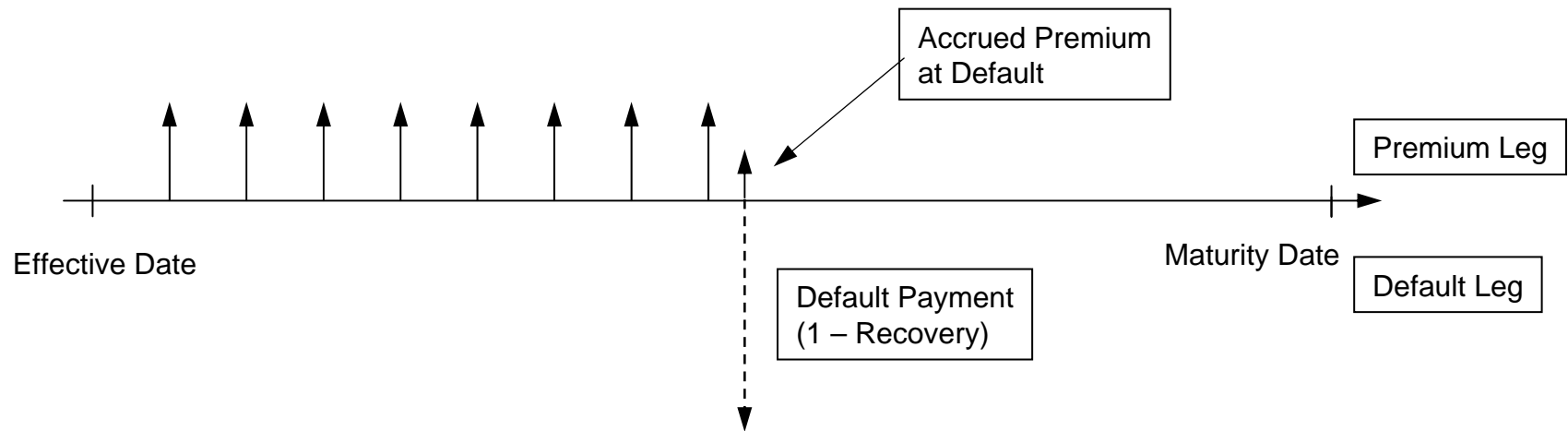
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Single-name CDS – The most simple contract

(A) No default event

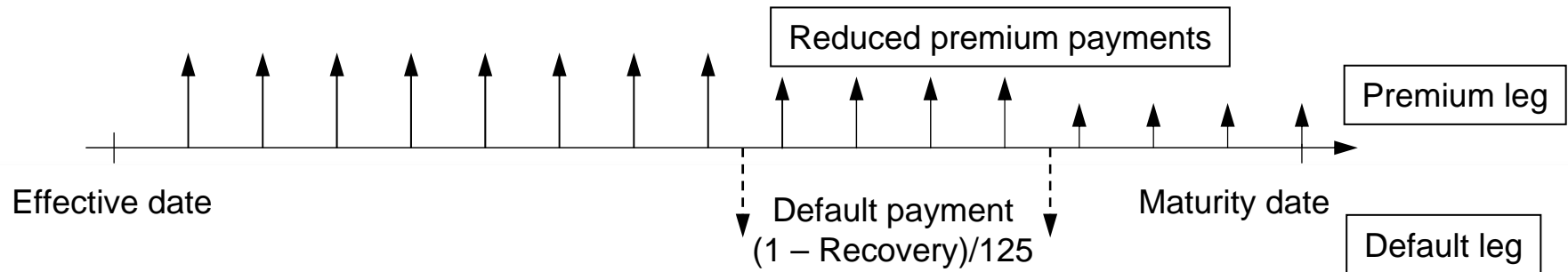


(B) Default event

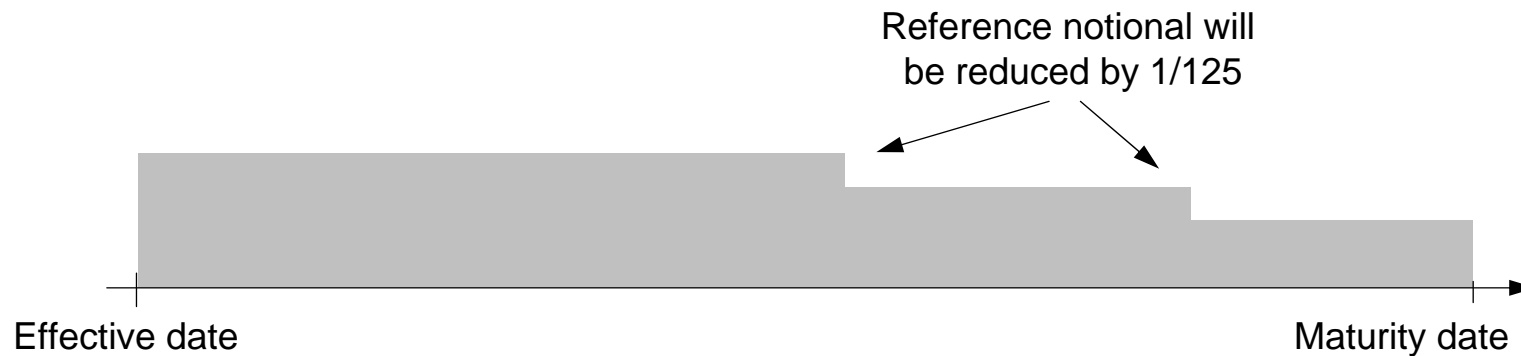


Index CDS – The cornerstone of CDS liquidity

Example with two default events



Reference notional



Credit derivatives referencing corporate and sovereign credit risk

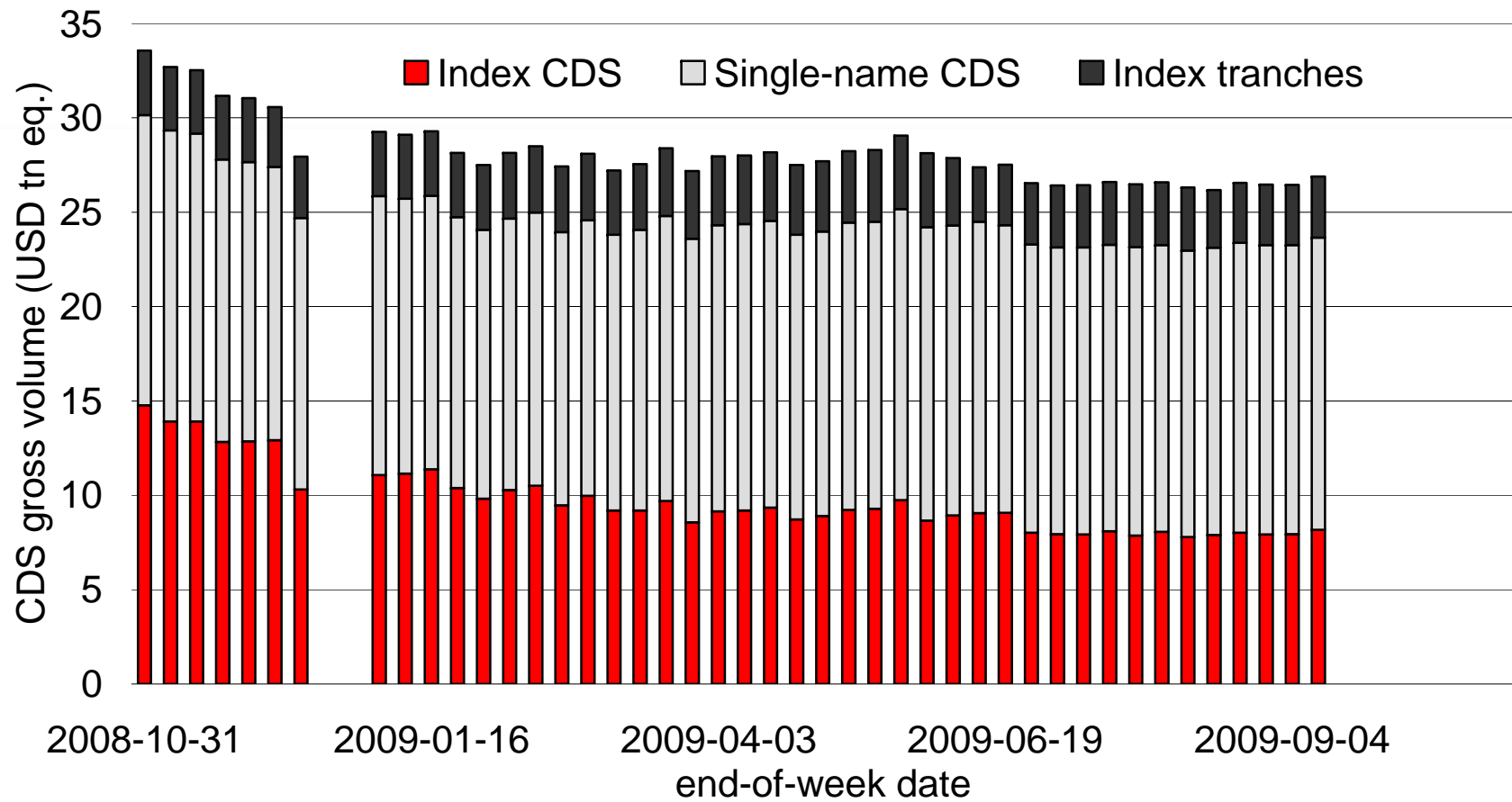
Risk type	Single-name	Portfolio
Linear Spread Risk	<ul style="list-style-type: none"> ■ Credit Default Swaps (CDS) ■ Digital Default Swaps (DDS) ■ Forward CDS ■ Constant Maturity CDS 	<ul style="list-style-type: none"> ■ CDS Indices (iTraxx, ...), Futures ■ Bespoke Linear Baskets ■ Dynamic Leverage Note (e.g. CPDO) ■ CPPI Structures
Default Correl.		<ul style="list-style-type: none"> ■ First-to-Default (FTD) Baskets ■ Index Tranches (iTraxx, CDX) ■ (Bespoke) Coll. Debt Obl. (CDO) ■ CDO² ■ Equity Tranches, POETs, Tranchelets
Spread Volatility	<ul style="list-style-type: none"> ■ Credit Default Swaptions 	<ul style="list-style-type: none"> ■ CD Swaptions, Variance Swaps ■ Options on Futures / TR Locks
Hybrid Risk	<ul style="list-style-type: none"> ■ Hybrid Capital (Financials/Non-Fin.) ■ Sub CDS, Equity Default Swaps ■ Capital Structure Arbitrage 	<ul style="list-style-type: none"> ■ First-to-Trigger Baskets on EDS ■ Collateralized Fund Obligations (CFO)

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Outstanding CDS volumes continue to shrink in 2009

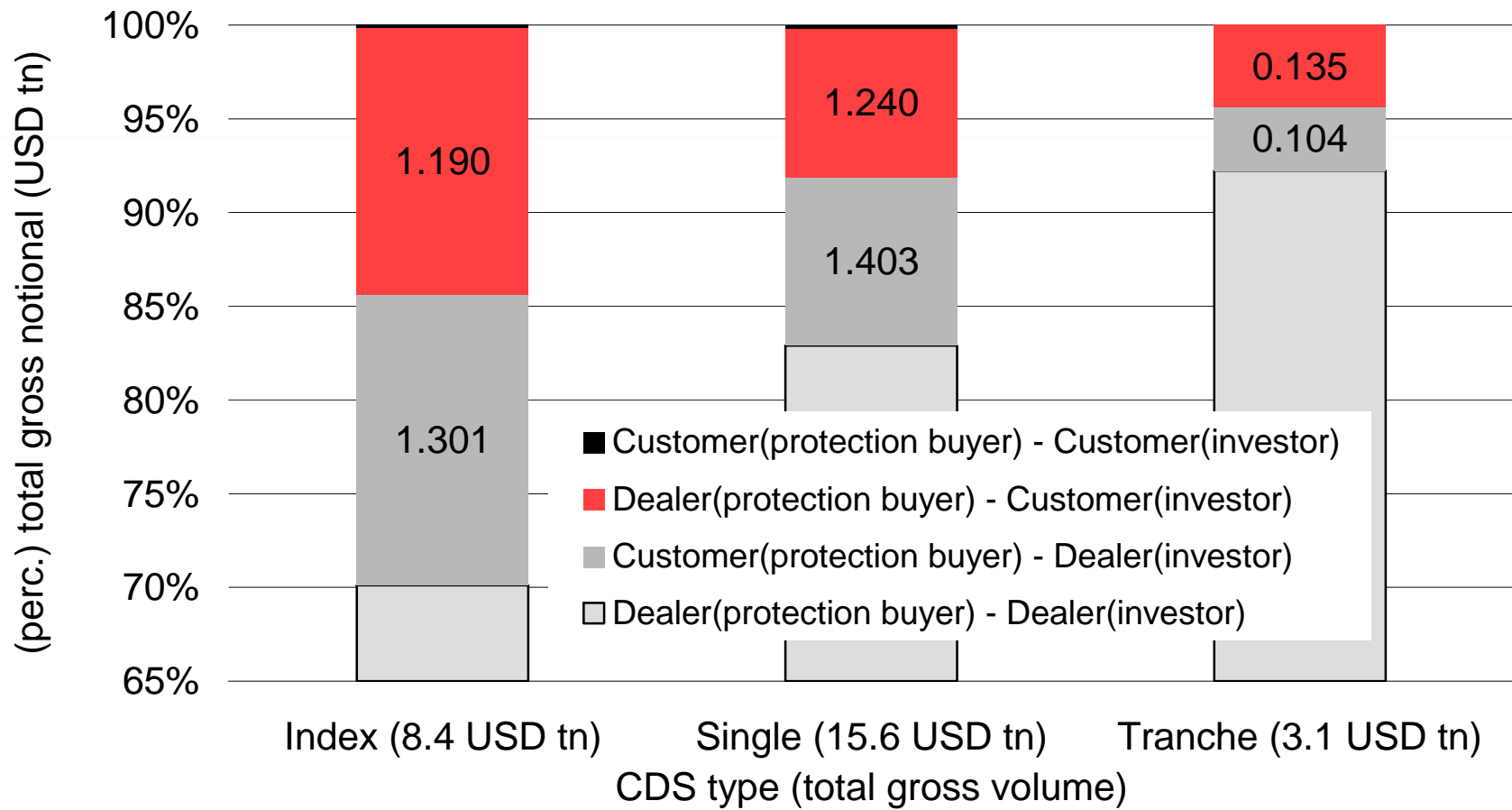
Aggregated CDS gross volume (DTCC trade information warehouse, weekly data)



Source: DTCC, UniCredit Research

Dealer vs. customer – Who buys CDS?

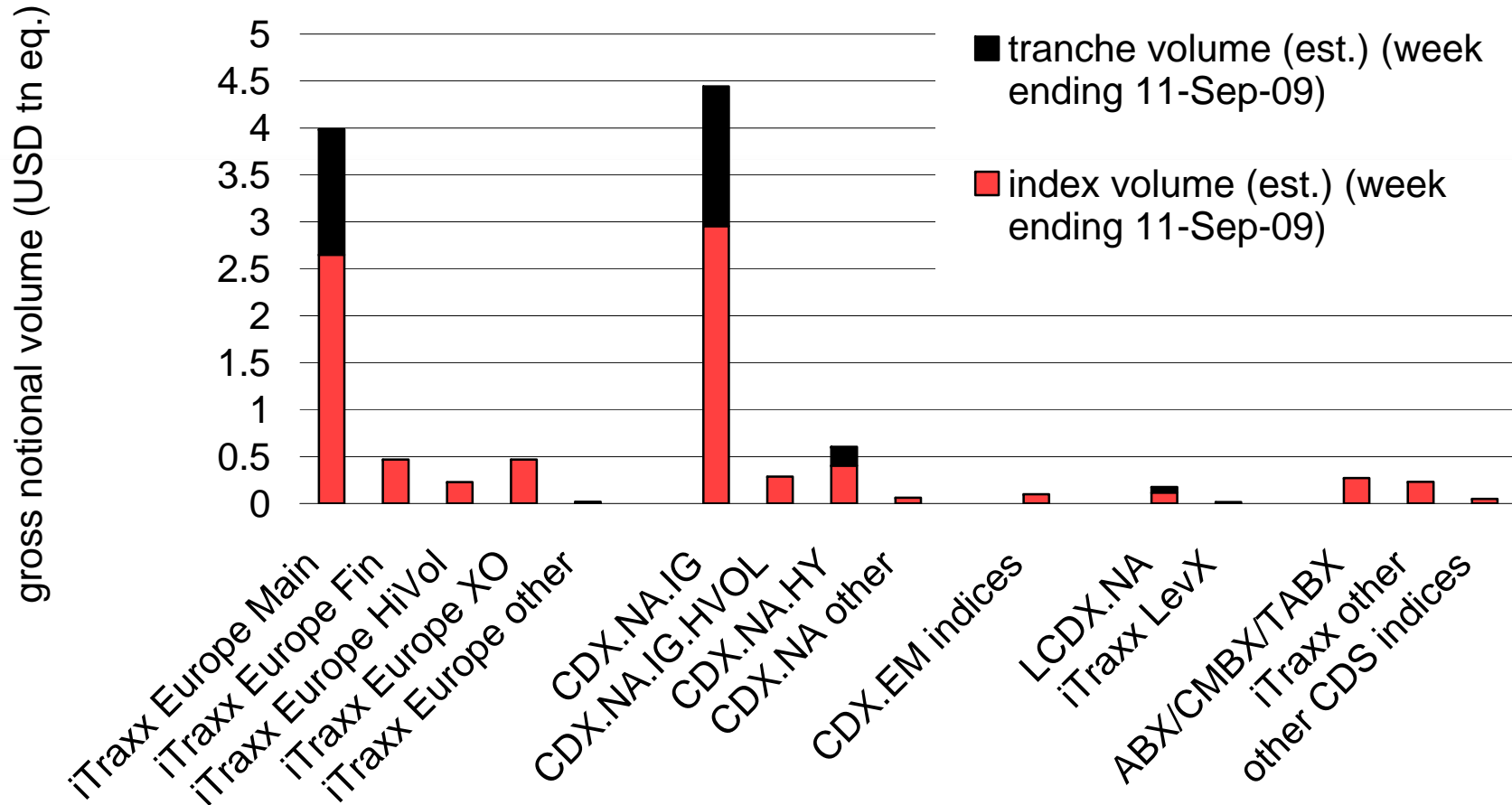
Global CDS breakdown by CDS type, CDS buyer and seller (DTCC)



Source: DTCC, UniCredit Research; effective date: 18 September 2009

Investment-grade CDS indices are most liquidly traded

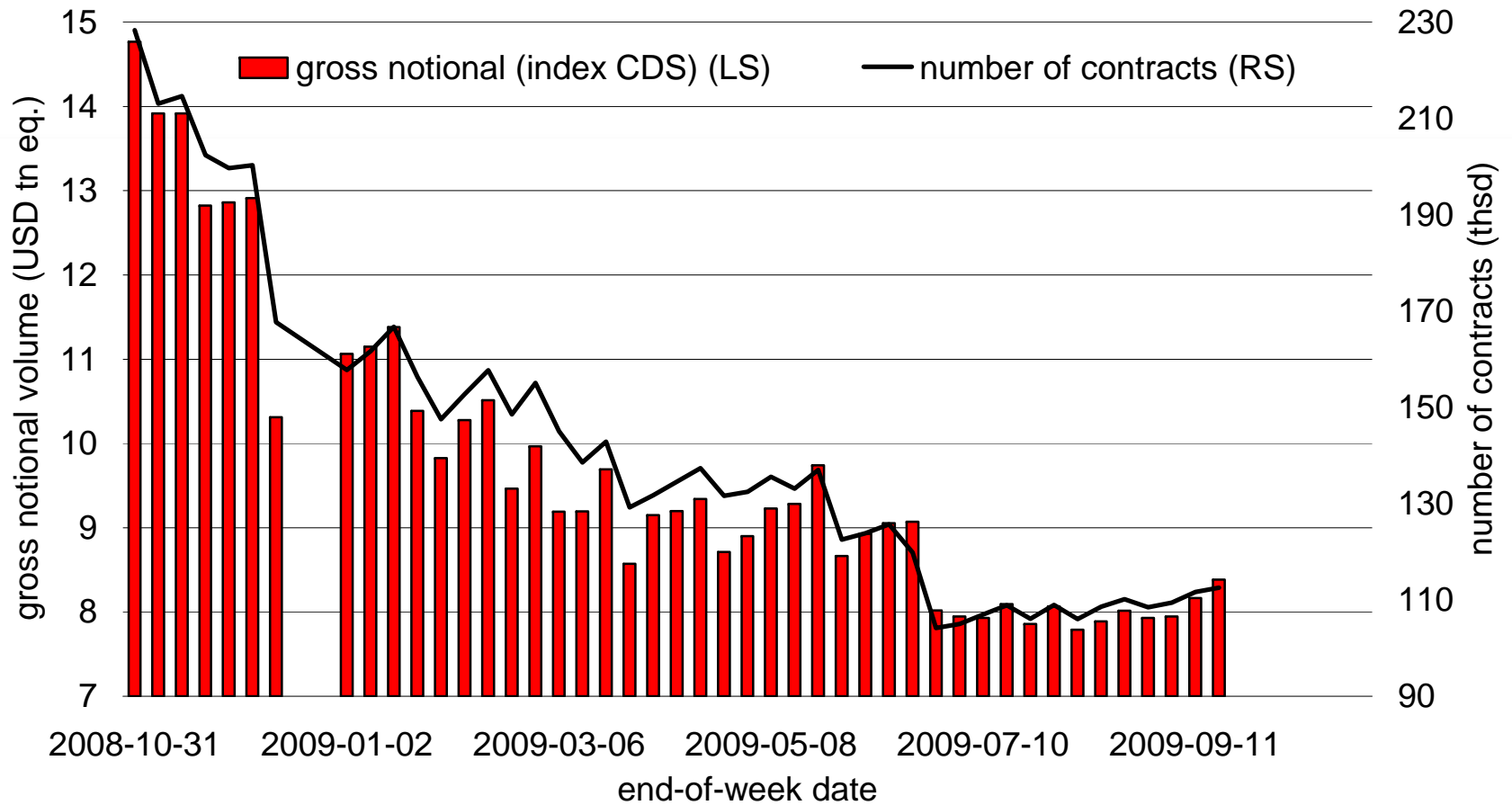
Gross notional: Break-down by index/index tranche family



Source: DTCC, UniCredit Research; effective date: 11 September 2009

Index-CDS standardization facilitates trade compression

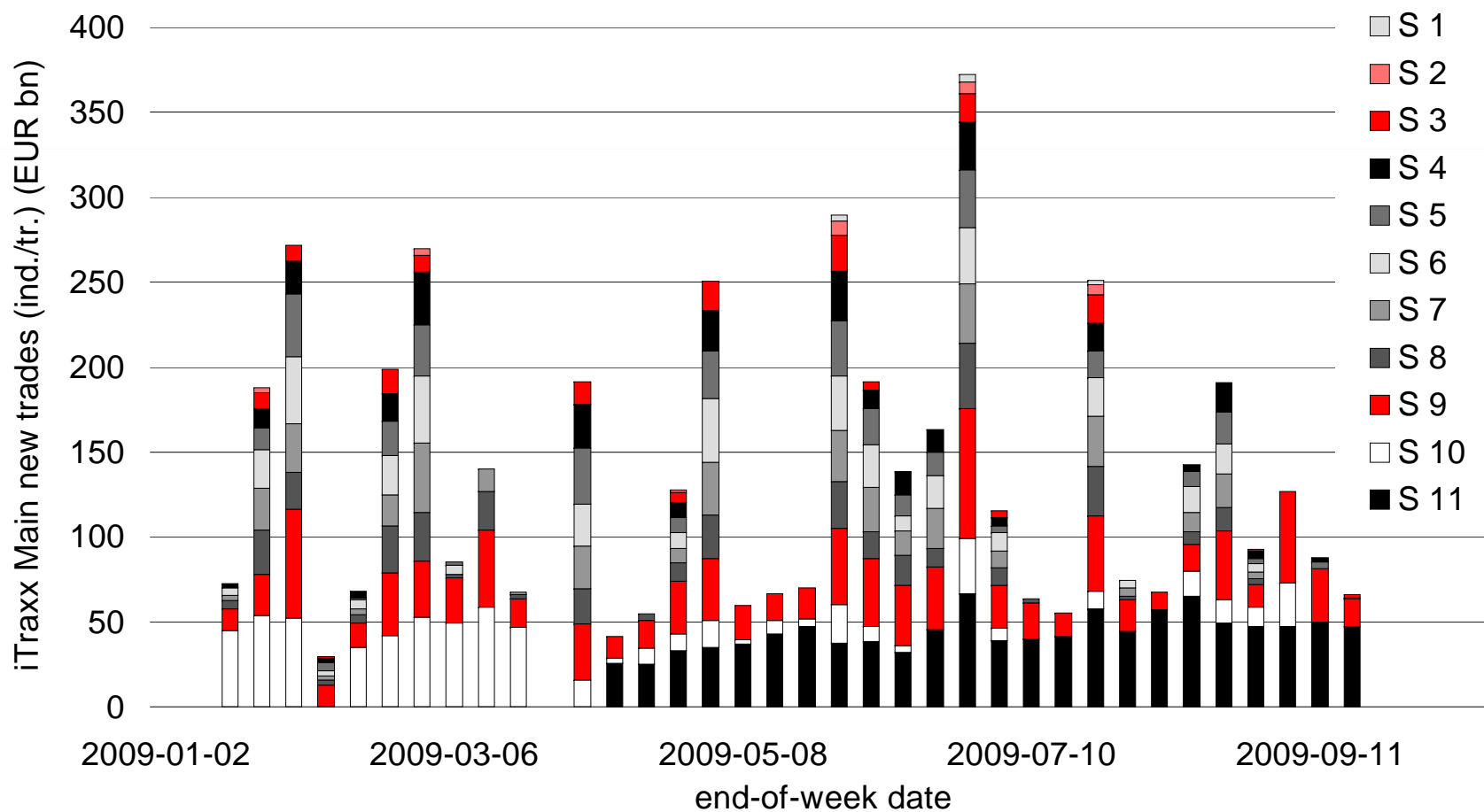
Aggregated index CDS gross volume (DTCC TIW, weekly data)



Source: DTCC, UniCredit Research

The fingerprints of index-portfolio compression trades

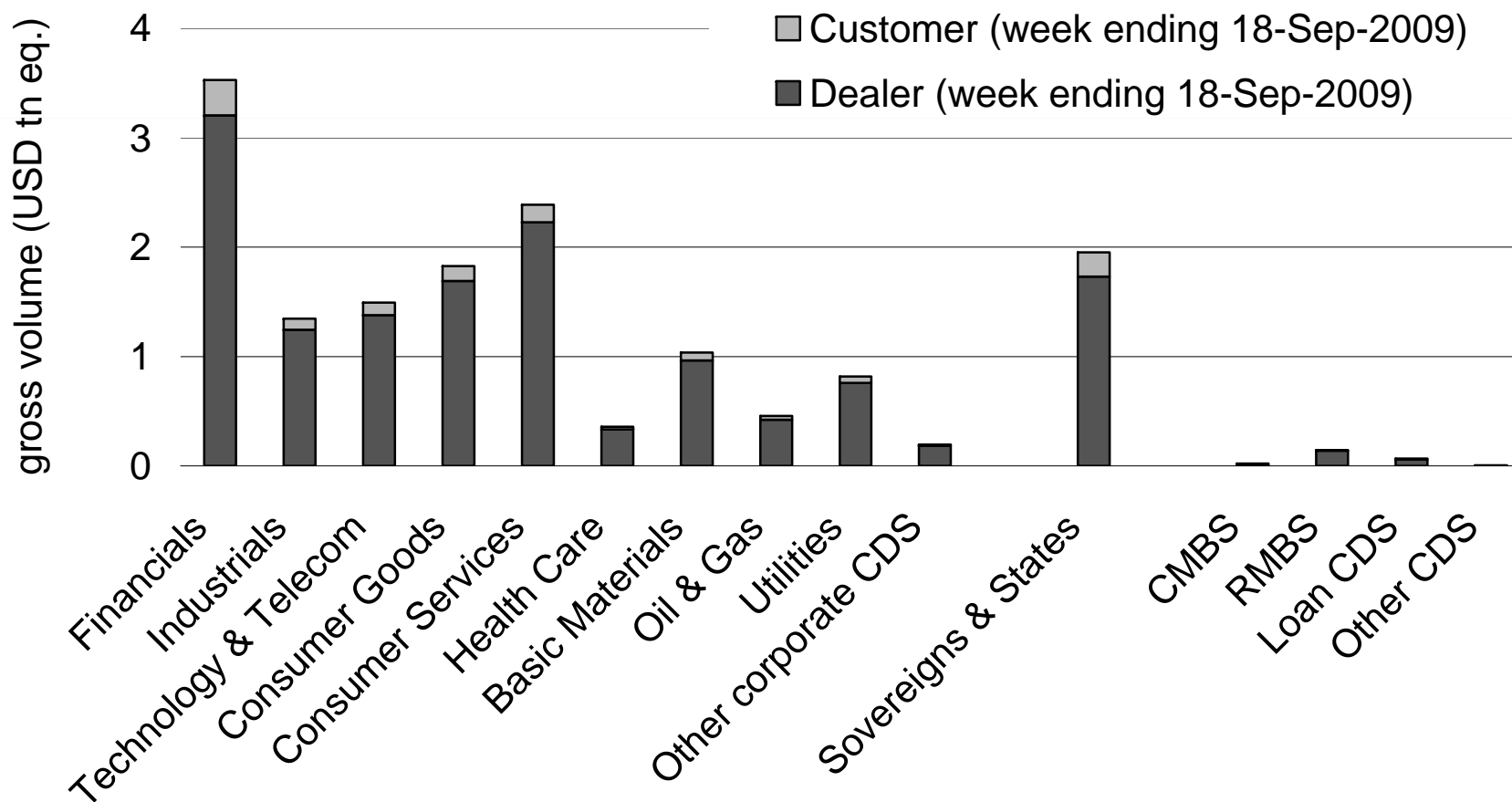
New-trade volumes of iTraxx Europe Main, index & tranching-index (not complete*)



Source: DTCC, UniCredit Research; *DTCC only releases data for a particular index series if a minimum activity level is reached within the respective week.

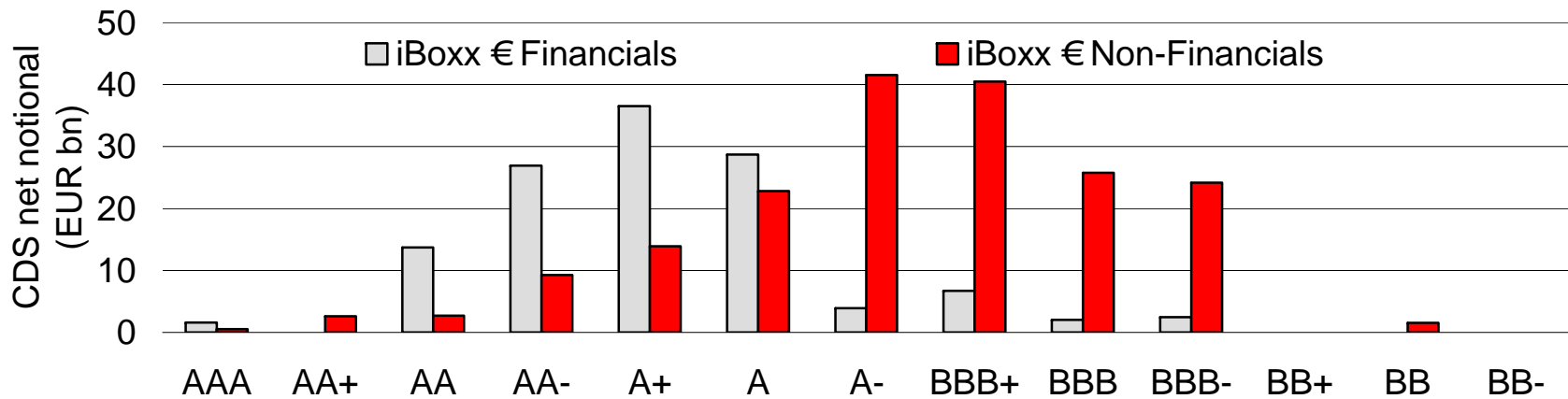
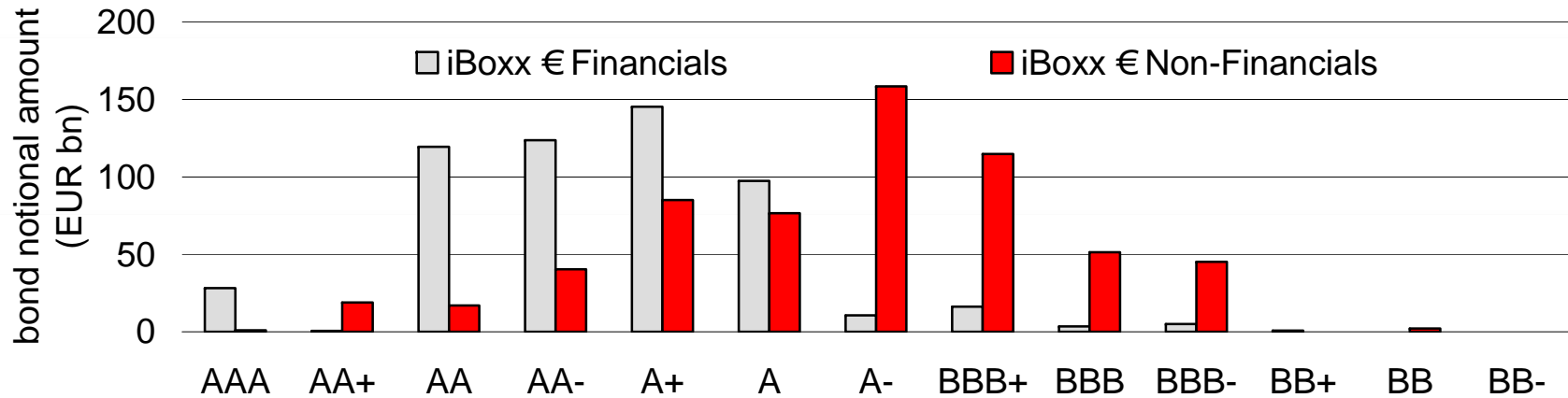
During the crisis sovereign and financial CDS gained in importance

Single-name corporate and sovereign CDS: breakdown by sector and CDS seller



Source: DTCC, UniCredit Research; effective date: 18 September 2009

iBoxx € Corporates credit risk – Cash outweighs CDS



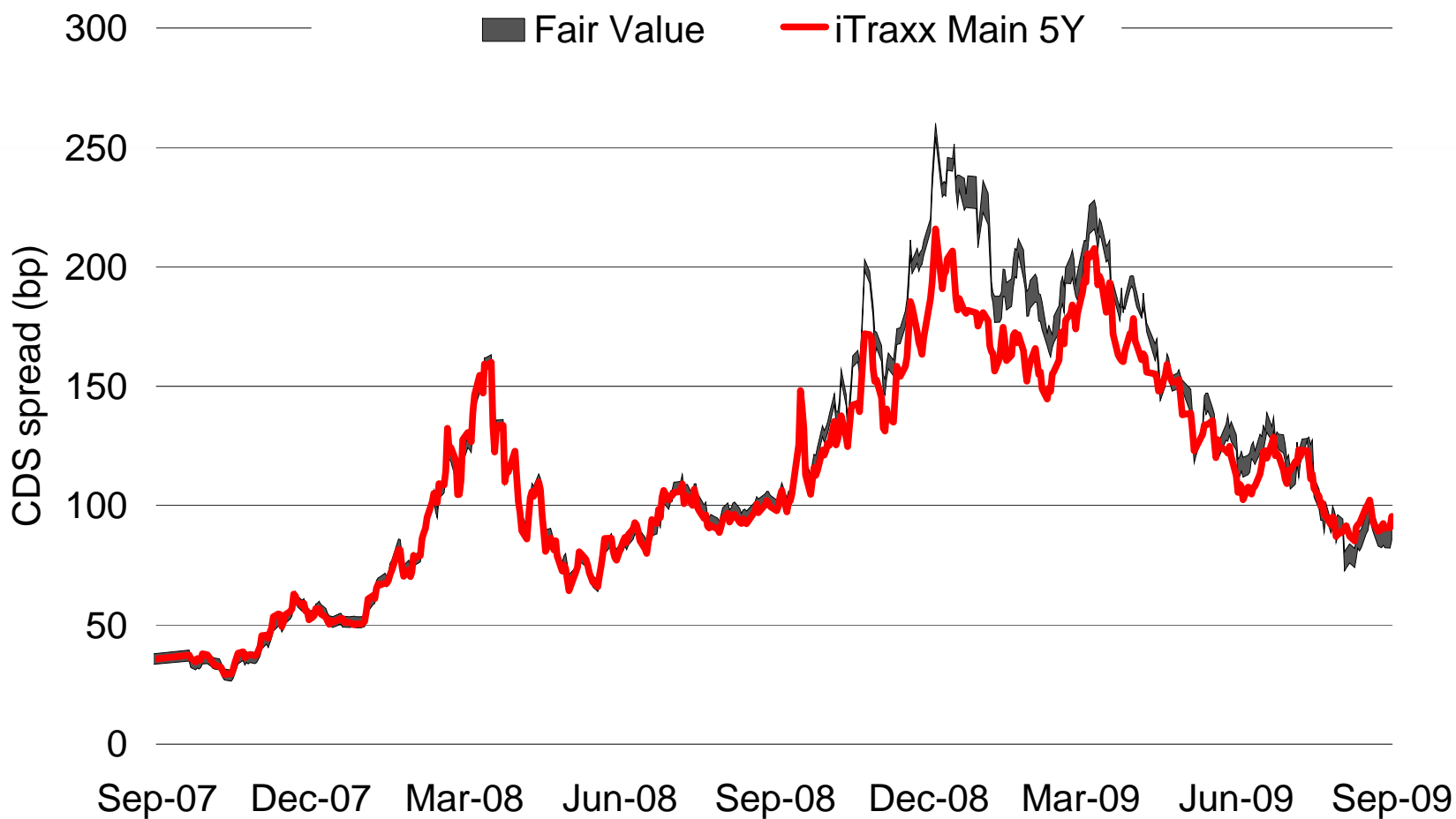
Source: Markit, DTCC, UniCredit Research; effective date 24 July 2009; CDS volumes for iBoxx-DTCC entities and single-name CDS only; iBoxx-DTCC entities are iBoxx € issuers which are also listed among the most important single-name CDS reference entities by the DTCC TIW

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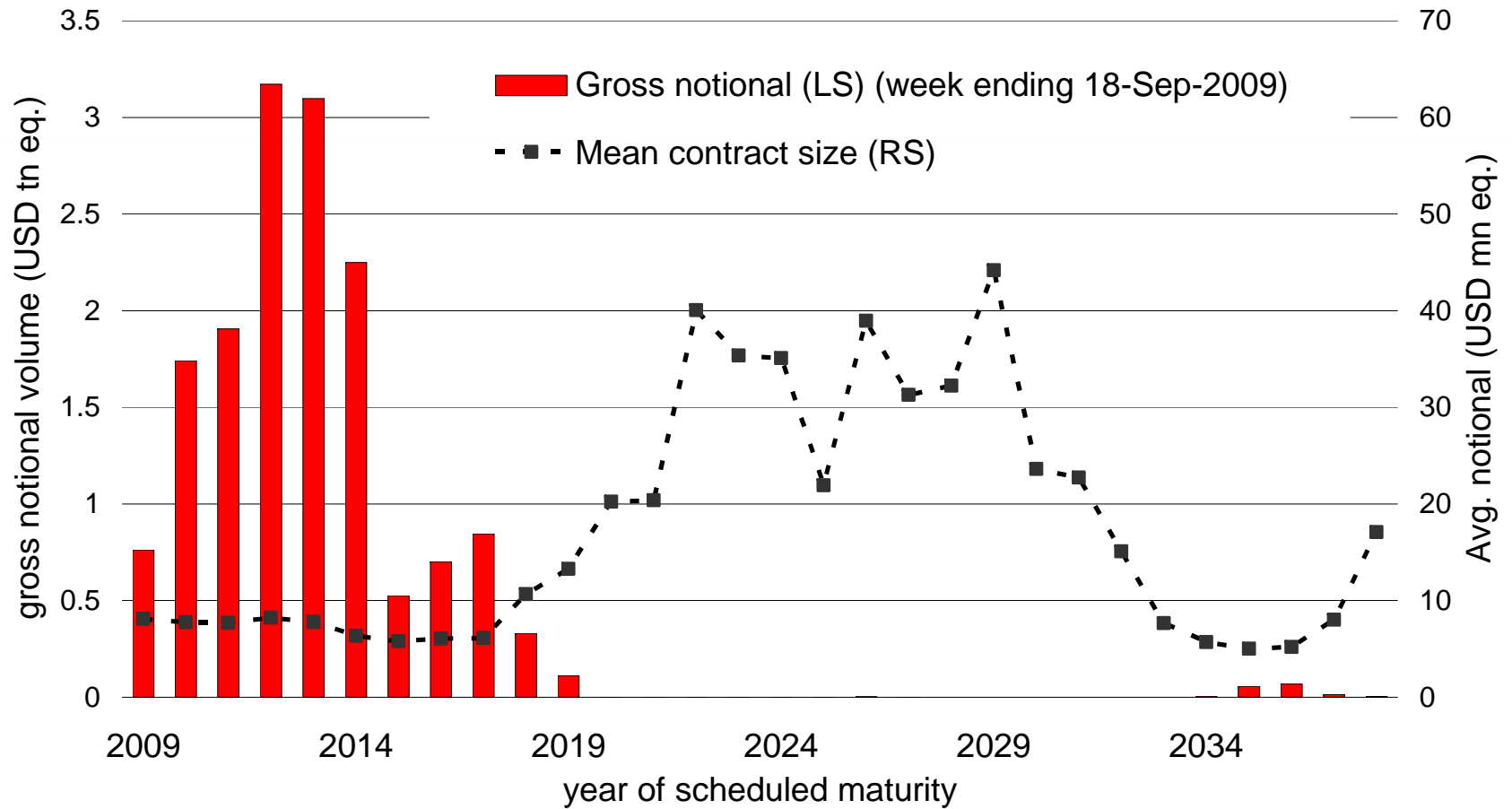
CDS market only became illiquid in 4Q08

iTraxx Europe index skew (index fair value vs. traded spread)



Are single-name CDS for trading or hedging?

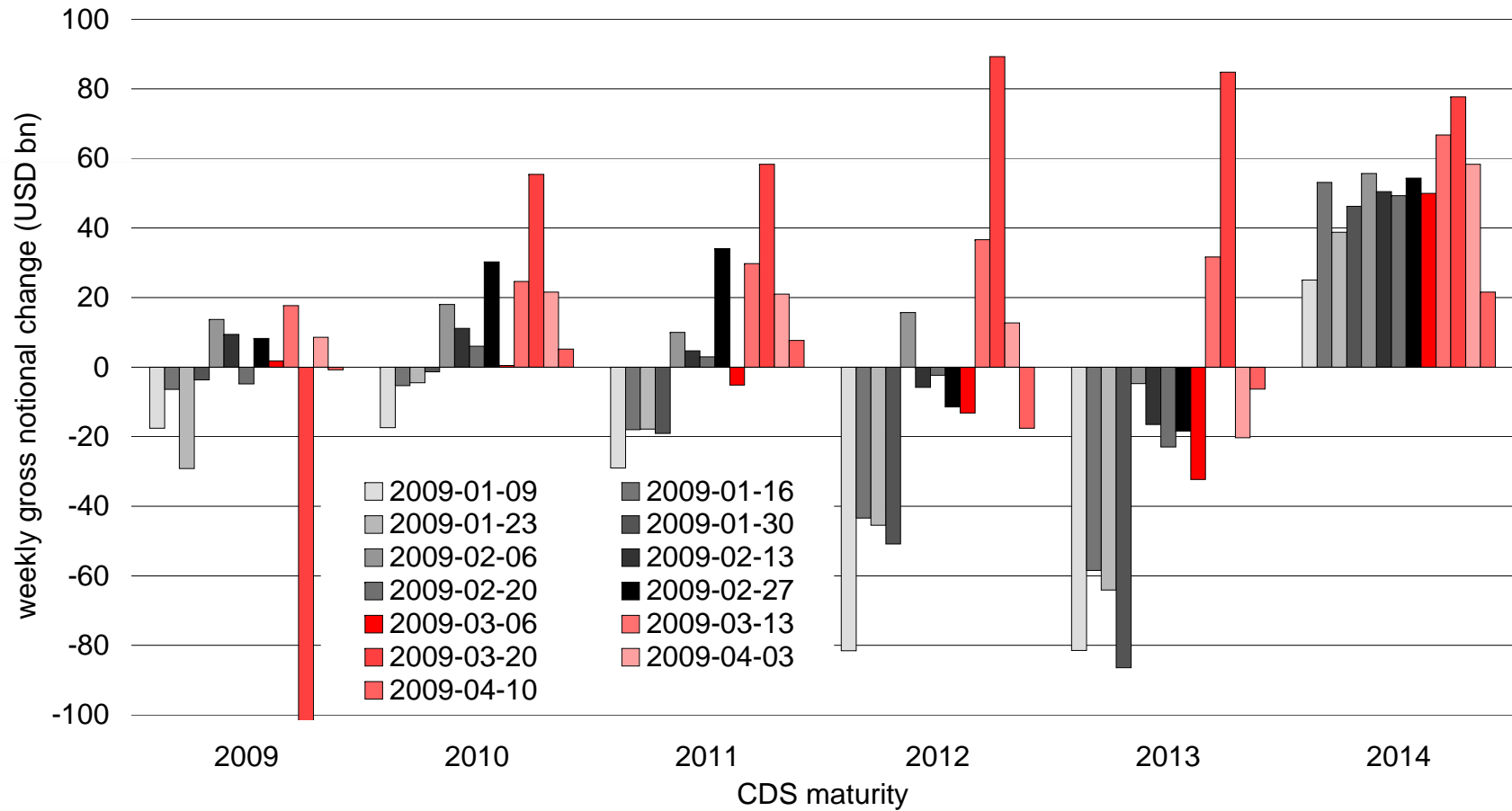
Aggregate single-name contract volume by maturity



Source: DTCC, UniCredit Research

Single-name CDS market activity: Staying liquid vs. cash-hedging

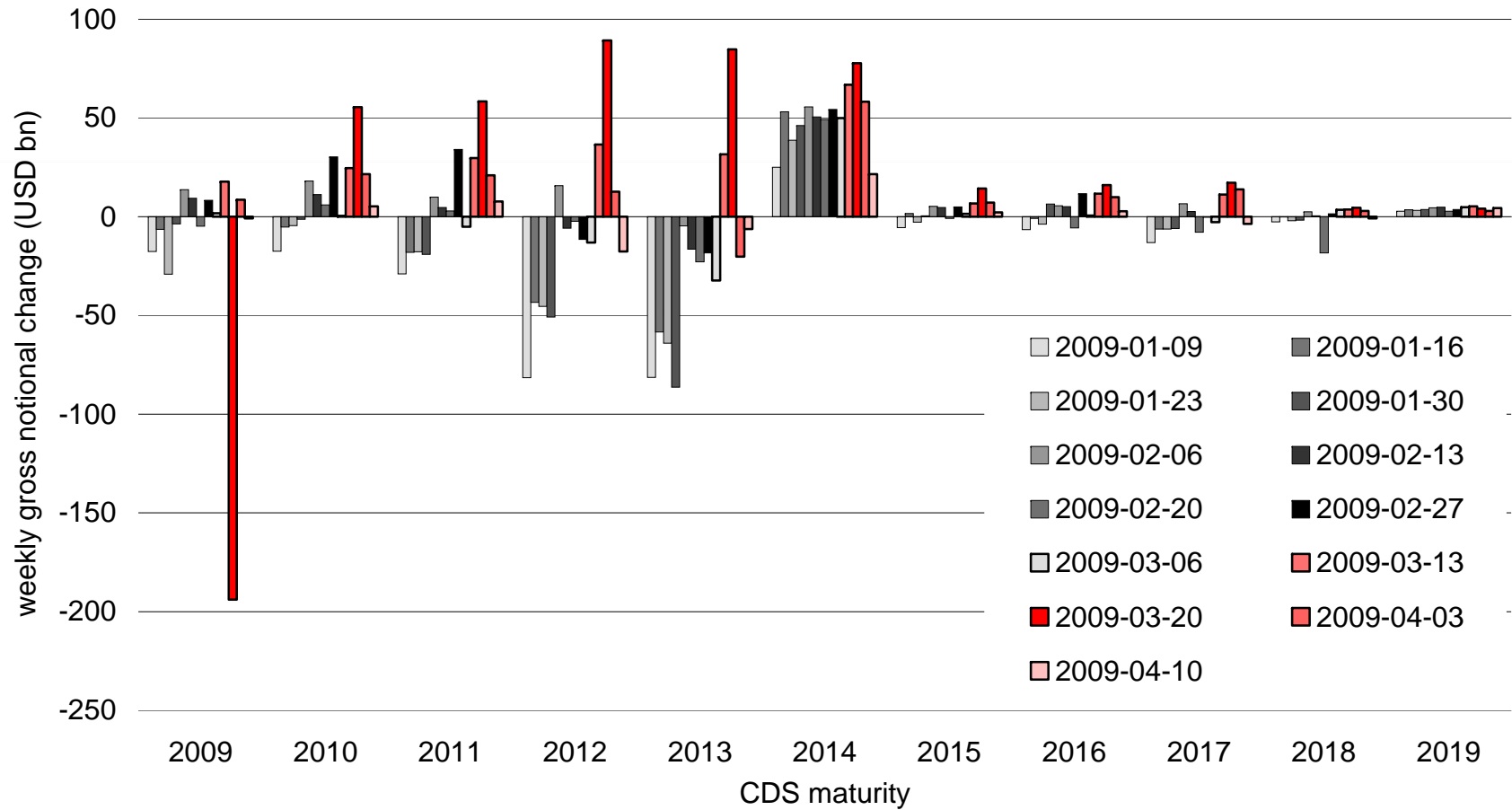
Aggregate weekly single-name gross vol. changes by year of scheduled termination



Source: DTCC, UniCredit Research.

Single-name CDS market activity: 5-year is king

Aggregate weekly single-name gross vol. changes by year of scheduled termination



Source: DTCC, UniCredit Research.

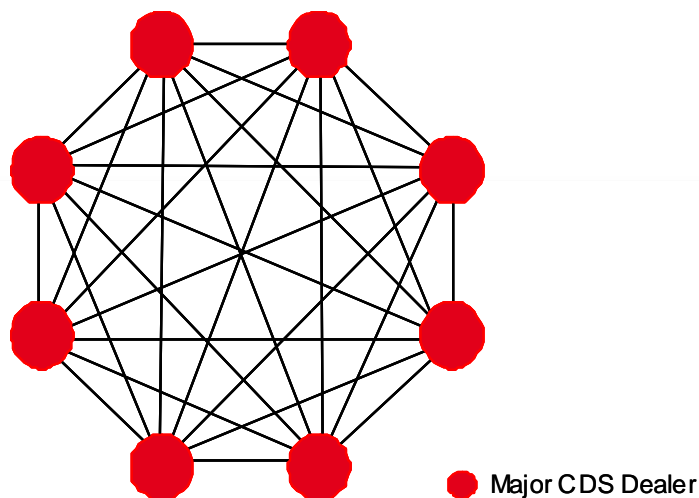
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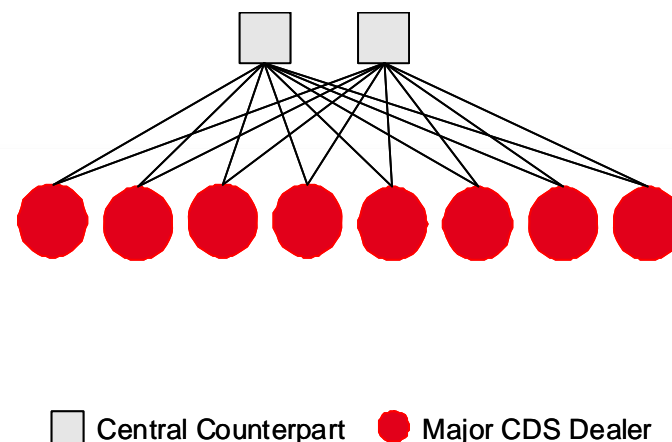
CDS central counterparty – A simple notion that bears subtleties

CDS central counterparty

Purely bilateral trading and settlement

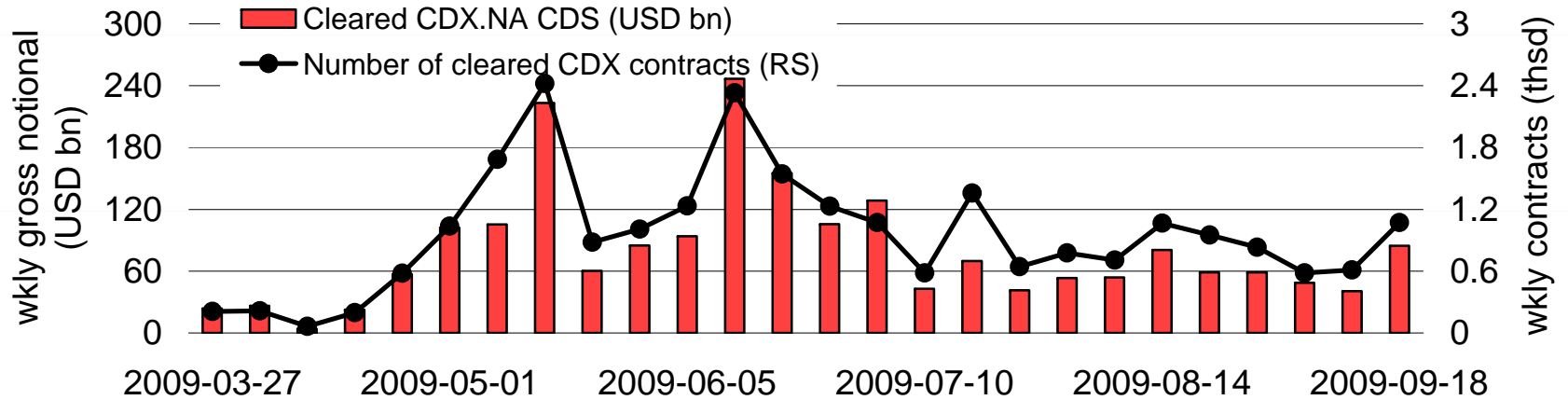


Central counterparty clearing of CDS



- A clearinghouse acts as the buyer to every seller and seller to every buyer, reducing the risk of a counterparty defaulting on a transaction. It also provides one location for regulators to gain insight into traders' positions (and possibly their prices).
- Assuming the existence of 2 CCPs and around 20 major dealers, the number of bilateral relationships is reduced from 190 to 40 by using the CCP CDS settlement model.
- The schematic view depicted above hides the complexities that are associated with switching from one regime to the other: Credit event settlement, efficient and prudent margining/risk management, trading model.

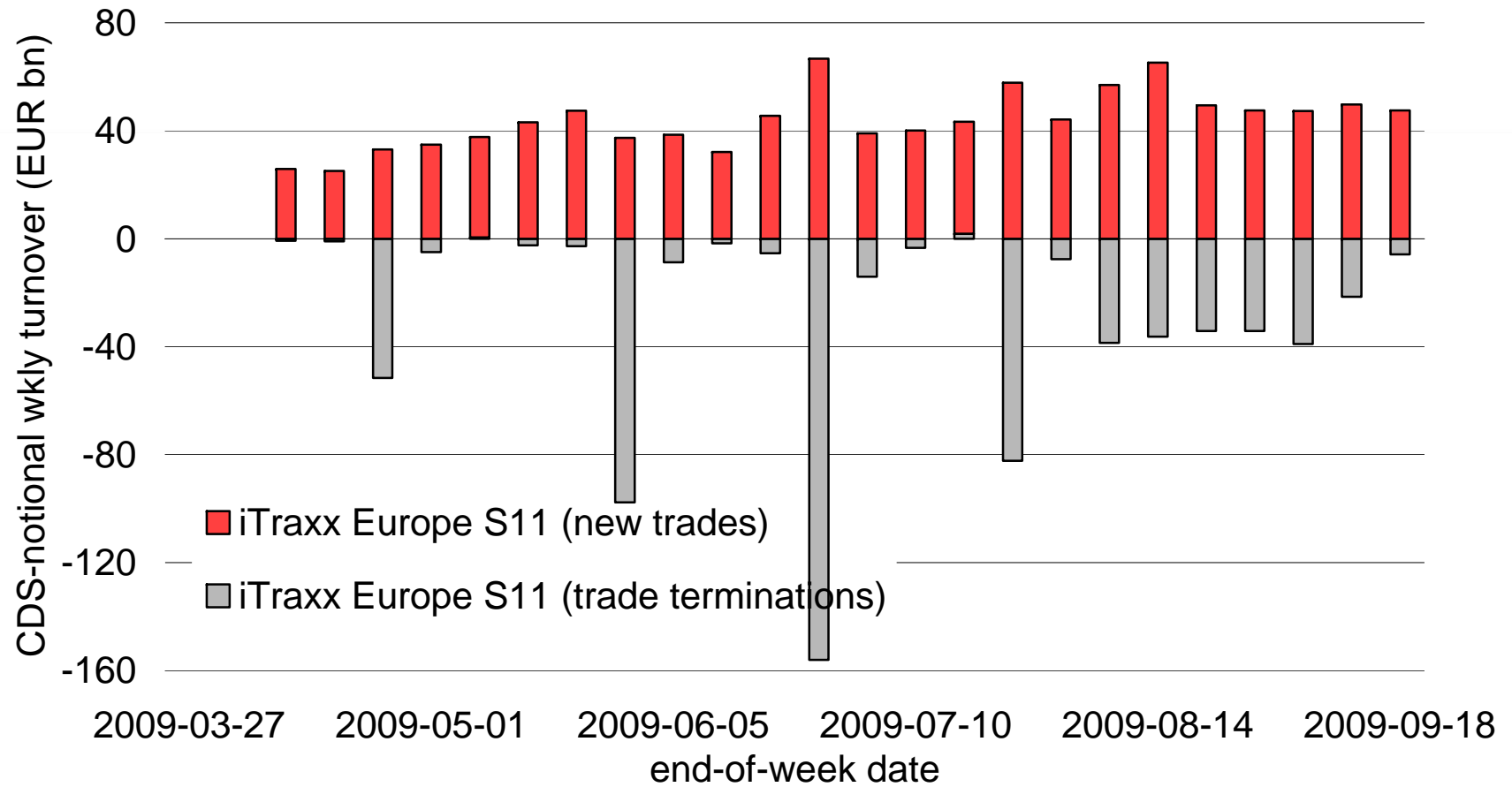
ICE Trust US cleared USD 2.1tn CDS to date



Source: ICE Trust US, ICE Clear Europe, UniCredit Research

On-the-run iTraxx Europe avg weekly turnover exceeds EUR 40bn

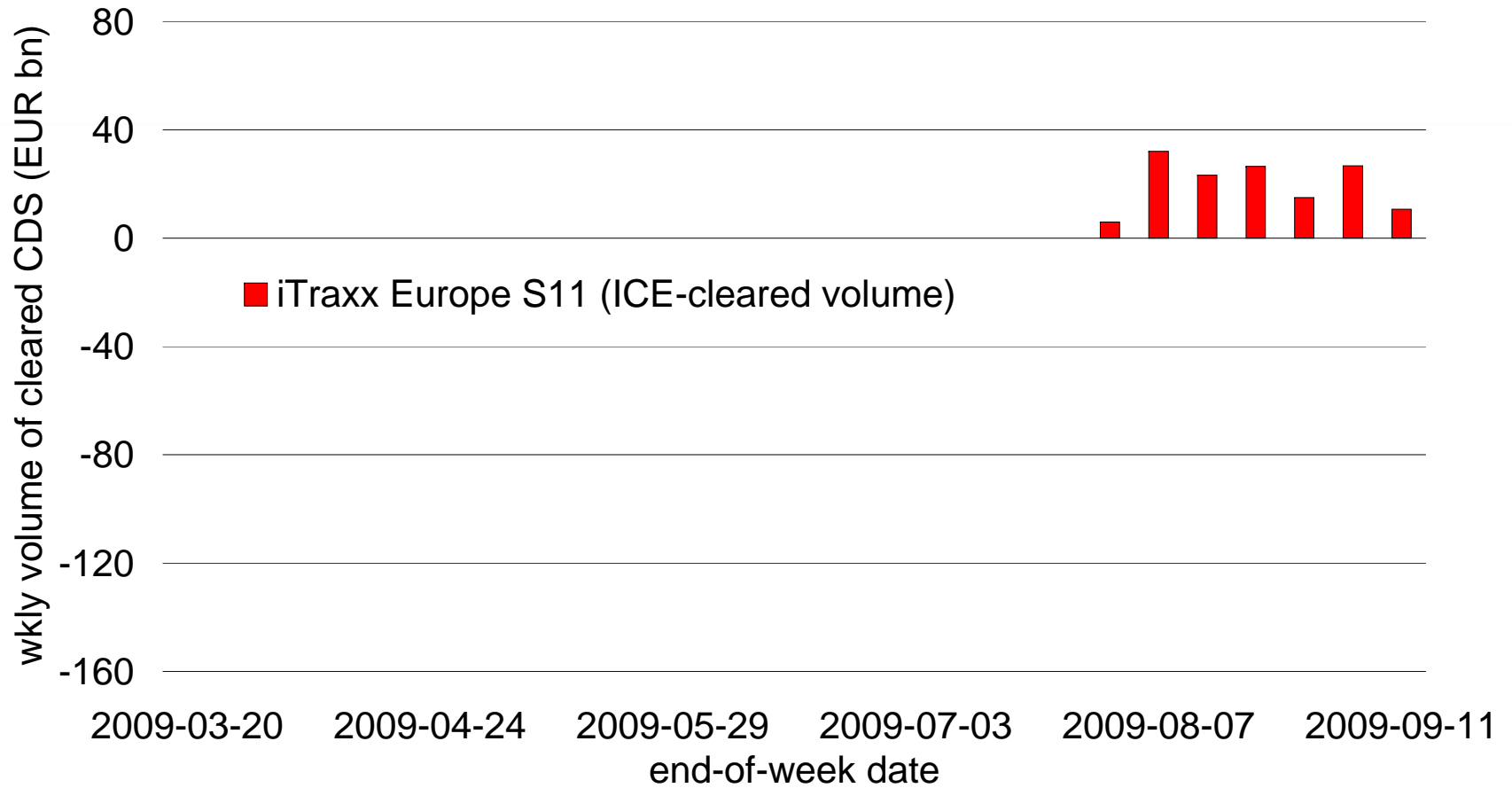
Weekly turnover in the most liquid euro-denominated CDS: iTraxx Europe S11



Source: DTCC, UniCredit Research

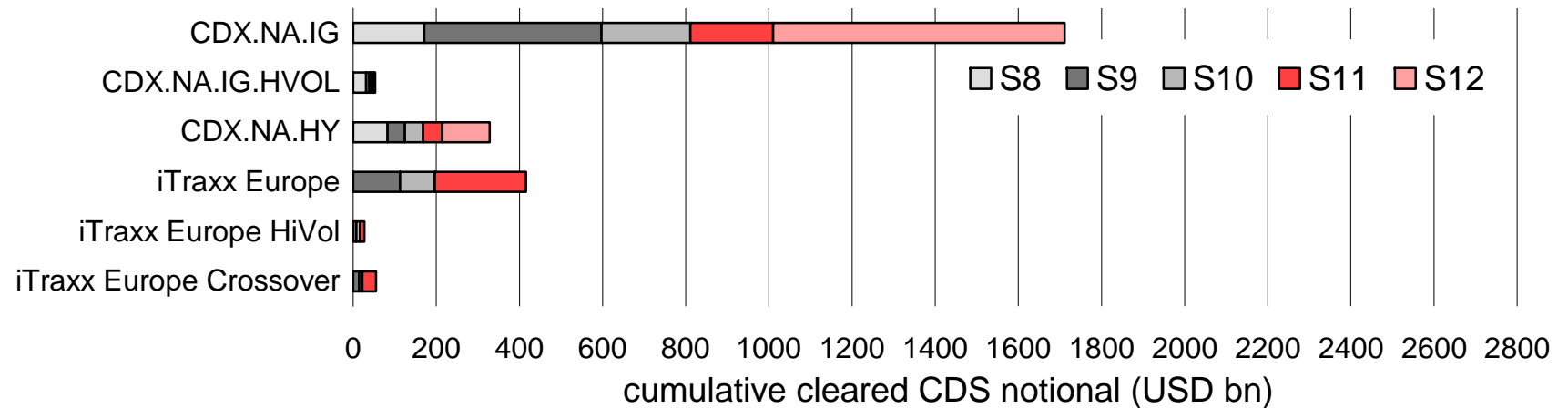
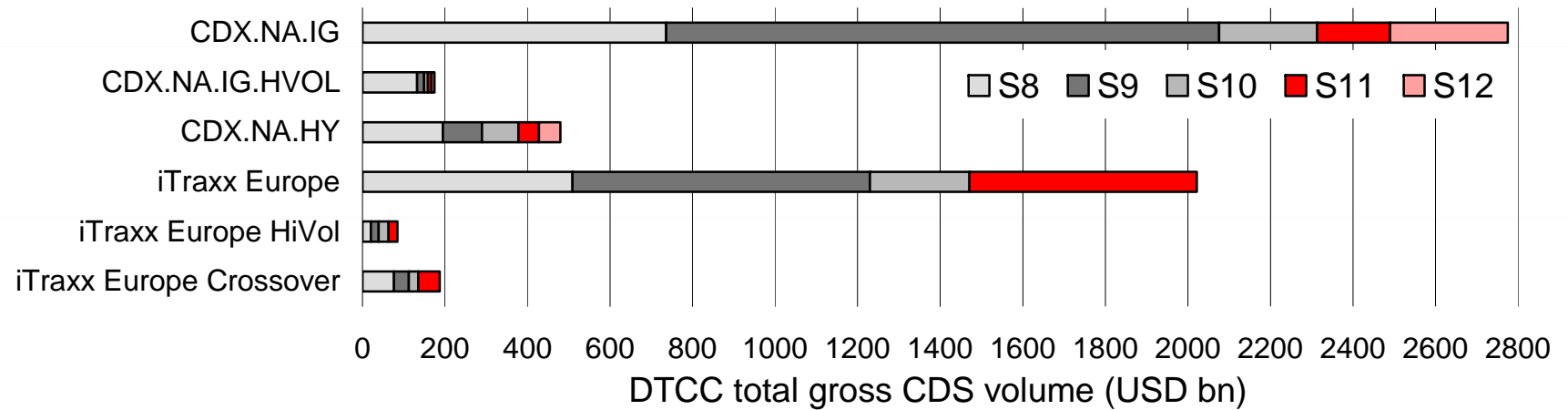
On-the-run iTraxx Europe avg weekly clearing volume is EUR 20bn

Cleared volume of untranched iTraxx Europe Main Series 11 (ICE Clear Europe)



Source: ICE Trust US, ICE Clear Europe, UniCredit Research

"G15" committed to clearing 80% of historic "eligible" CDS by Oct.

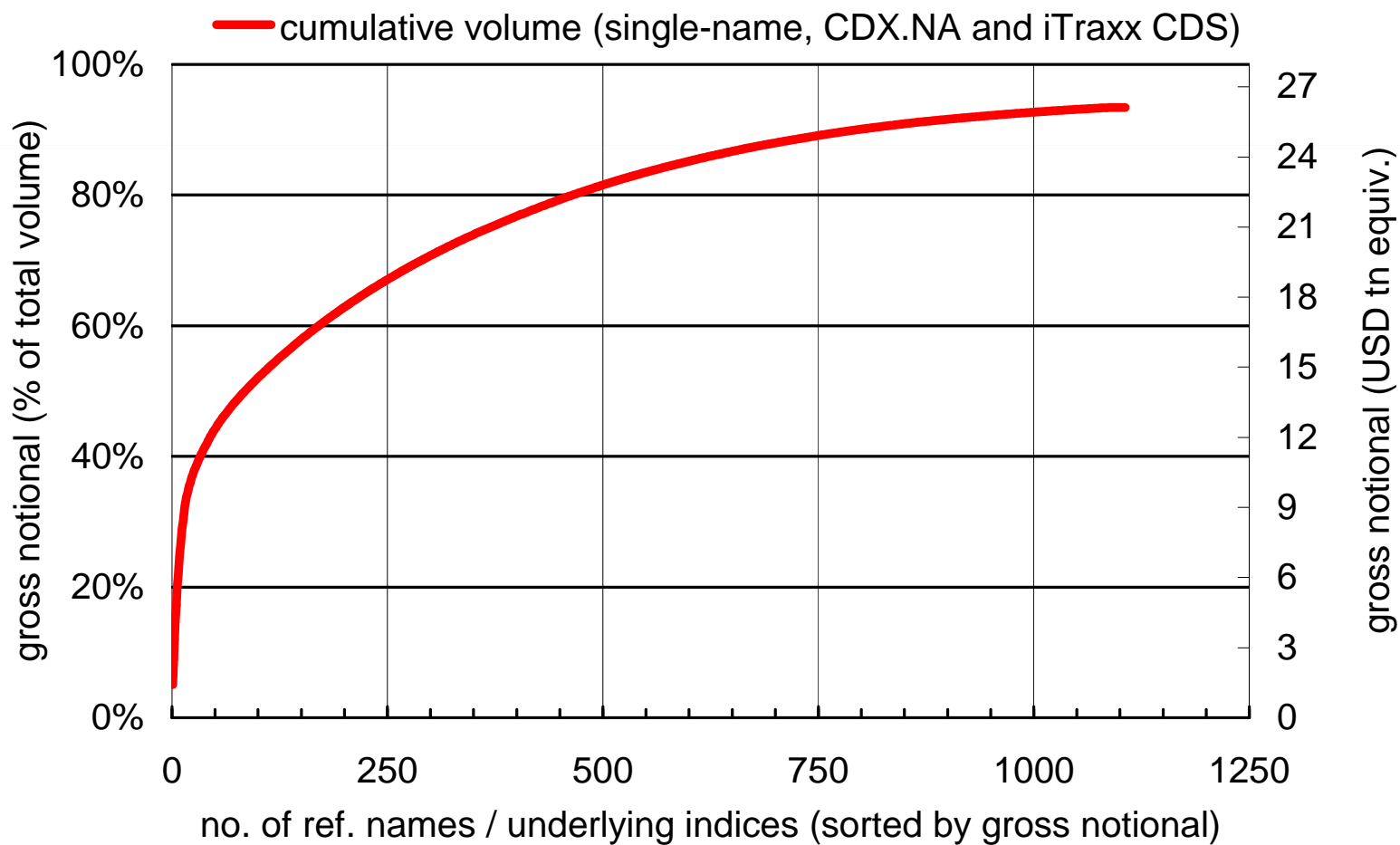


Source: DTCC, ICE Trust US, ICE Clear Europe, UniCredit Research; effective date is 18 September 2009

How many single-name CDS will be offered by CCPs?

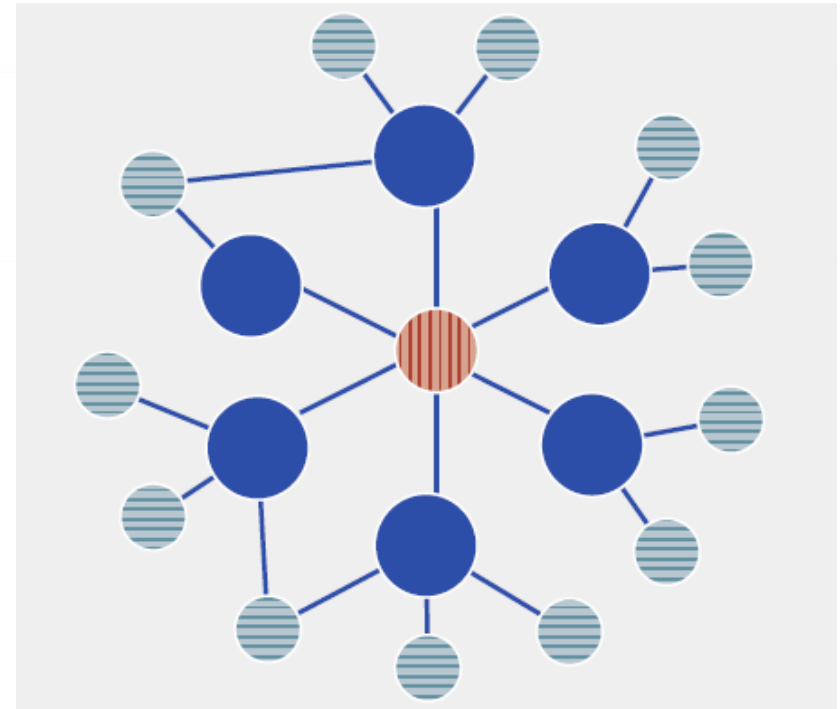
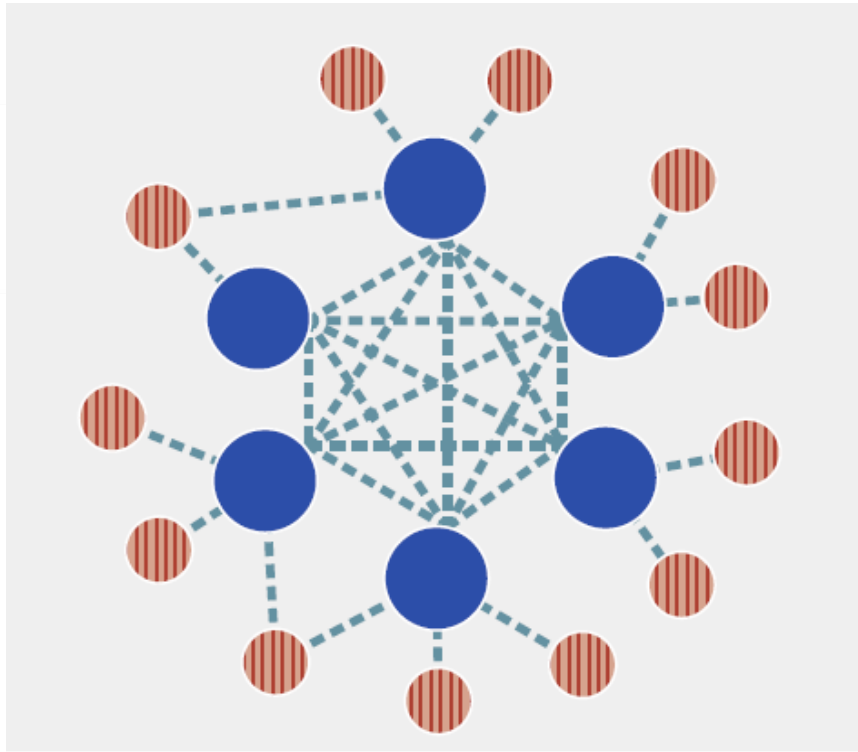
CDS central clearing

Top-500 CDS references (indices, single-names) represent ~80% of gross volume



Source: DTCC, UniCredit Research; effective date 3 April 2009

Buy-side access to central clearing will be launched in October 09



- Non-dealers get access to ICE via account segregation, separating the customers' margin payments and positions from those of their dealers.
- Who is eligible to become an ordinary clearing member?
- How many clearing houses will emerge for CDS?
- Will regulators sanction bilateral trades among non-dealers?

Your contacts

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