

## **MEMORANDUM**

TO: File

FROM: Michael E. Coe  
Office of Commissioner Luis A. Aguilar

DATE: October 6, 2010

SUBJECT: Meeting with Representatives of JPMorgan Chase & Co.

On October 5, 2010, Commissioner Aguilar, along with Zachary May and Michael E. Coe, Counsel to the Commissioner, met with the following representatives of JPMorgan Chase:

Jeremy Barnum, Managing Director, Market Structure Group  
David A. Olson, Managing Director, Futures & Options and OTC Clearing  
Don Thompson, Managing Director and Associate General Counsel  
Katherine Childress, Managing Director, Global Government Relations & Public Policy  
Annette L. Nazareth, Esq. of Davis Polk & Wardwell LLP

The discussion included, among other things, the provisions of Title VII of the Dodd-Frank Act regarding mandatory exchange trading and swap execution facilities. JPMorgan Chase also provided the attached presentation entitled "Observations on the OTC Derivatives Market."

# OBSERVATIONS ON THE OTC DERIVATIVES MARKET

October 05, 2010

STRICTLY PRIVATE AND CONFIDENTIAL

J.P.Morgan

## Introduction

- OTC markets benefit from certainty
- Ensuring an efficient and liquid market under the new framework a shared goal
- Meaningful data will inform better policy outcomes

# Policy Map: Key policy objectives and how the legislation addresses them

✓ Policy addressed by section

[ ] Key rulemakings

		Key sections of OTC derivatives legislation				
		Clearing mandate	Swap Dealer / MSP registration	Execution mandate / SEFs	Post-trade transparency	Business conduct rules
Key policy objectives	Systemic risk reduction	✓	✓		✓	
	Anti-manipulation enforcement		✓	✓	✓	✓
	Customer protection			✓	✓	✓
	Increase liquidity			✓	✓	



## Summary of important observations from existing regulated market frameworks

### Flexibility to allow for adequate execution mode along continuum

#### Description

- Existing market construct, across different asset classes and products provides an “outlet” for liquidity to move to most adequate point along execution continuum, e.g.,
  - Cash equities being highly liquid and with a high degree of retail participation trade in a pure exchange-like manner (multiple Limit Order books connected under a regulatory framework)
  - Corporate Bonds trade almost exclusively OTC
  - In Futures and Options allowances are made for trades to be negotiated privately when liquidity is not present on exchange (e.g., in products with less/no retail participation, higher kurtotic returns and a larger number of unique instruments)

### Co-existence of trading centers

- In markets like cash equities, multiple trading centers co-exist and compete with each other under a harmonized pre-trade price discovery and execution framework (e.g., under Order Protection Rule)
- One single clearing / settlement utility system or competing clearing venues ensures there is no trading center “stickiness”

### Block trading definition

- The CFTC has a useful framework on block trades which calibrates for observed liquidity, recognizes the need for periodic revisions and highlights the importance of quality data as an input to making threshold decisions for block trade qualification

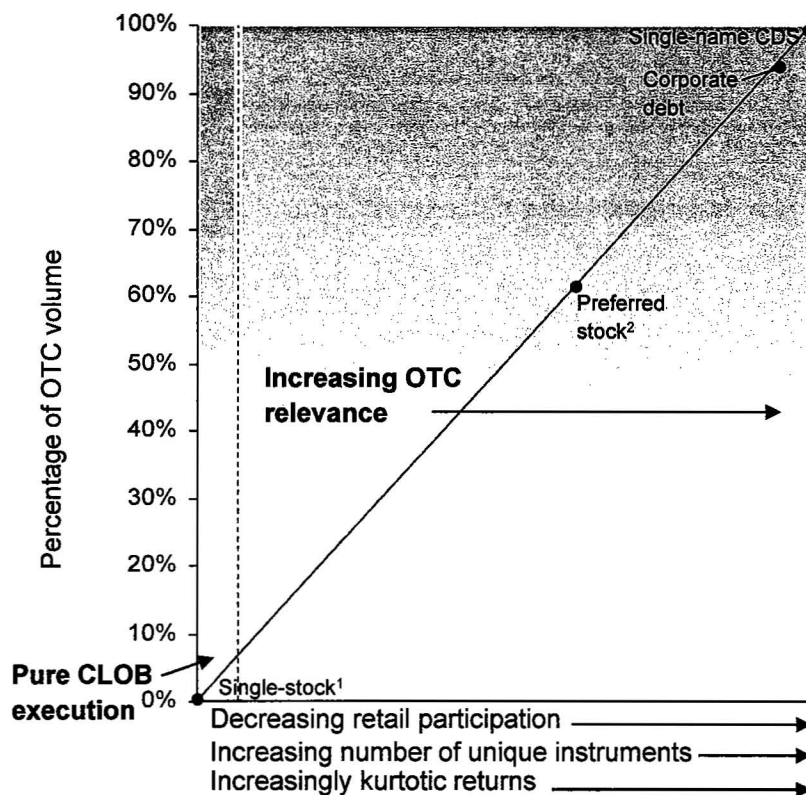
### Pre-trade / post trade flexibility

- The optimal balance of pre-trade and post-trade transparency needs to be determined by asset class, product and instrument, one size does not fit all
  - E.g., Cash Equities has partially mandated rules on pre-trade price transparency, whilst observed pre-trade transparency in Corporate Bonds is not mandated

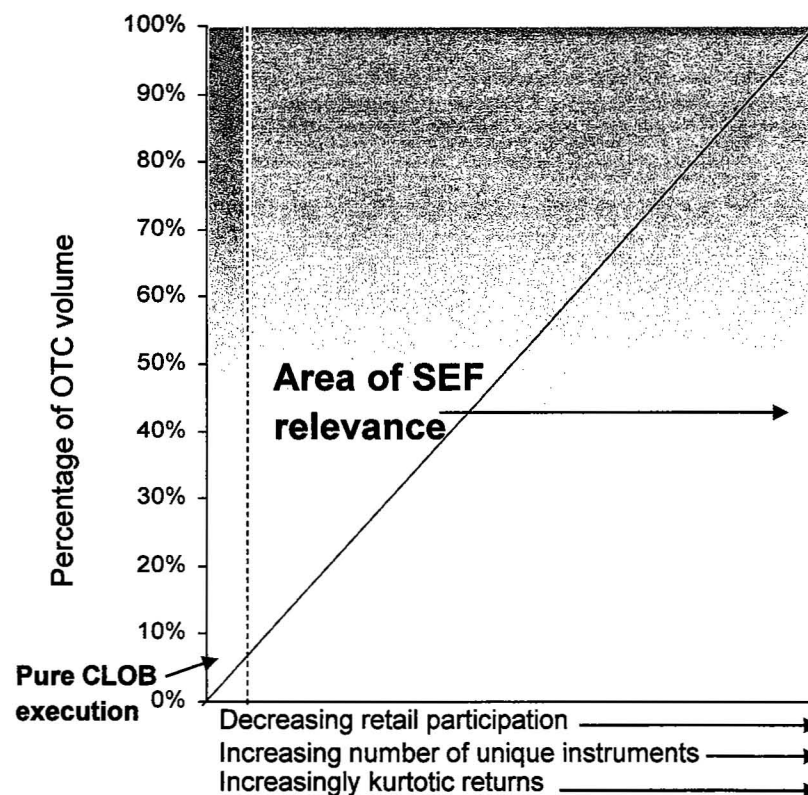
# Existing market construct supplies useful insights

PRELIMINARY  
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Current market construct



End-state derivatives construct (illustrative)



Source: JPMC estimates;

<sup>1</sup> With the exception of pink sheets

<sup>2</sup> Assumes \$1000 Face preferreds trade 100% OTC and \$25 Par preferreds trade 5% OTC (former accounting for 60% of volumes and latter for 40%)

- The more idiosyncratic and customized and less retail flow a product has, the higher the % of privately negotiated volume
- In the current market, if the natural state of execution is to have a material percentage of flow be privately negotiated, the OTC market provides an escape valve to provide execution flexibility. So within exchanges, we don't observe many contracts with very high % of privately negotiated volume, because those products will tend to gravitate towards OTC trading
- There is significant scope to define a SEF to fill this "continuum gap", yet still allowing for a liquidity "outlet" when private negotiations are optimal

## Important observations from the cash equities framework

### Current equities framework under Reg NMS

- Under **Order Protection Rule** (Rule 611), trading centers must establish, maintain and enforce written policies and procedures reasonably designed to prevent execution of trades at prices inferior to protected quotations displayed by other trading centers (subject to applicable exemptions)
- **Market Access** (Rule 610) ensures fair and non-discriminatory access to protected quotes and establishes a limit on trading center access fees
- Further rules also updating requirements for treatment of market data, e.g.,
  - Formula for allocating revenues generated by market data fees and
  - Requirements for consolidating, distributing, and displaying market information
- All trades cleared by DTCC, regardless of trading center chosen for execution

### Key observations

- Existence of multiple competing trading centers for the same security (e.g., exchanges, ATSS, ECNs, etc), operating under one unified pre-trade and trade framework
- Ensures execution fairness and optimization for investors, as orders are executed inside the **NBBO** (National Best Bid and Offer) and **TOB** (Top of Book) volumes are taken out (subject to exceptions)
- One single clearing / settlement system underlying all execution ensures that there is no trading center “stickiness”
- Reg NMS further drove increase in market share of ATS vs. incumbent exchanges, lowering of trading costs and overall increases in liquidity / trading volumes (despite fragmentation)

# Current futures market “privately negotiated transaction” construct useful guide for OTC market

## Evolution of block trade definition in futures markets

- In 2004 the CFTC proposed that an acceptable minimum size for block trades would be at a level larger than 90% of the transactions in a relevant market (“90% threshold”)
  - Some exchanges disagreed with the proposed minimum size of the 90% threshold suggesting the numbers were unresponsive to market needs and that there may be instances where 90% could be too high or not high enough
  - CBOT suggested that an acceptable minimum block trade size be at the point where the block would move the market or where the customer would not be able to obtain a fair price or fill the order on the centralized market
- In response the CFTC changed the proposed guidance and acceptable practices on this topic
- Block trades are allowed to be transacted off the centralized market for two reasons
  - Prices attendant to the execution of large transactions on the centralized market may diverge from prevailing market prices that reflect supply and demand of the commodity as the centralized market may not provide sufficient liquidity to execute large transactions<sup>1</sup>
  - Block trading facilitates hedging by providing a means for commercial firms to transact large orders without the need for significant price concessions and resulting price uncertainty
- As such, the proposed guidance notes that minimum block trade sizes should be larger than the size at which a single buy or sell order is customarily able to be filled in its entirety at a single price (though not necessarily with a single counterparty) in that contract's centralized market, and exchanges should determine a fixed minimum number of contracts needed to meet this threshold
- The CFTC proposes as an acceptable practice that DCMs review the minimum size thresholds for block trades no less frequently than on a quarterly basis to ensure that the minimum sizes remain appropriate for each contract (i.e., for each asset class and specific product)
- The importance of data, and specifically “adequate” data, is highlighted as a key input for making informed decisions on what constitutes a block trade

<sup>1</sup> In this sense block trading also provides execution certainty for investors (i.e., they know liquidity will not disappear)

Source: <http://www.cftc.gov/LawRegulation/FederalRegister/e8-21865.html>

# OTC market currently serves as “outlet” for products not suited to exchange trading

OBSERVATIONS ON THE OTC DERIVATIVES MARKET

	Execution continuum (pre-legislation)	Description	Key observations
Exchange paradigm	<p><b>Binary system:</b> either all-to-all or purely bi-lateral execution</p>	<ul style="list-style-type: none"> <li>In the exchange execution paradigm there are 2 options</li> <li>1 Participants must trade on exchange (all-to-all CLOB), unless</li> <li>2 Trade qualifies as a block trade and bi-lateral (privately negotiated) execution is possible</li> </ul>	<ul style="list-style-type: none"> <li>OTC market is not just about customization, it also provides an execution mode “outlet”</li> <li>If a product is standardized trading on an exchange does not necessarily maximize liquidity <ul style="list-style-type: none"> <li>Legislation recognizes this by creating the concept of a SEF</li> </ul> </li> </ul>
OTC paradigm	<p><b>Choice along the continuum:</b> participants can choose execution mode</p>	<ul style="list-style-type: none"> <li>Participants can choose execution mode along the continuum <ul style="list-style-type: none"> <li>Either all-to-all (1) or bi-lateral (2) as above, or</li> <li>3 Orders shown to and negotiated with multiple participants, but not all-to-all</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Pre-legislation the question of “causality” (does a product trade on exchange because its liquid or is it liquid because it trades on exchange) was less important, because exchange and bilateral trading co-existed</li> </ul>
<ul style="list-style-type: none"> <li>Pre-legislation, an exchange could list a new product for trading, and it would attract liquidity if the exchange mode of execution was optimal. If bilateral execution was preferred by market participants, an “outlet” existed to optimize liquidity</li> <li>Examples: (1) Treasury futures trade on exchange, but treasuries themselves continue to trade bilaterally, although some increasingly trade in SEF-like platforms. (2) Stocks trade on exchanges, but corporate bonds trade OTC. (3) Short-dated Libor-based derivatives trade almost entirely on exchange, long-dated ones trade primarily OTC</li> </ul>			

Preliminary data shows a low number of active participants in OTC derivatives, implying there can be less than one participant per instrument

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EXAMPLES

	Number of active <sup>1</sup> participants	Approximate # of "benchmark" instruments	Number of total instruments	Participant to "benchmark" instrument ratio	Participant to total instrument ratio	Average number of benchmark trades <sup>2</sup> per day	Average number of total trades <sup>2</sup> per day
Single-name CDS	■ 220	■ 225	■ 83,000	■ 0.98	■ 0.003	■ 1.9	■ 4.3
Index CDS	■ 180	■ 4	■ 80	■ 45	■ 2.250	■ ~200	■ ~250
Vanilla IR Swaps	■ 510	■ >25	■ >100,000	■ <20.4	■ <0.005	■ ~700	■ ~1000
WTI Futures	■ >20,000	■ 1	■ 70	■ >20,000	■ >285	■ 150,000	■ >250,000
S&P e-Minis	■ >150,000	■ 1	■ 5	■ >150,000	■ >30,000	■ >160,000	■ >200,000

**Note: For methodology and key assumptions please refer to appendix**

Source: DTCC data, E\*Trade public information, preliminary Markit data, Internal JPMC data and interviews

<sup>1</sup> Defined as trading at least 5 times per year

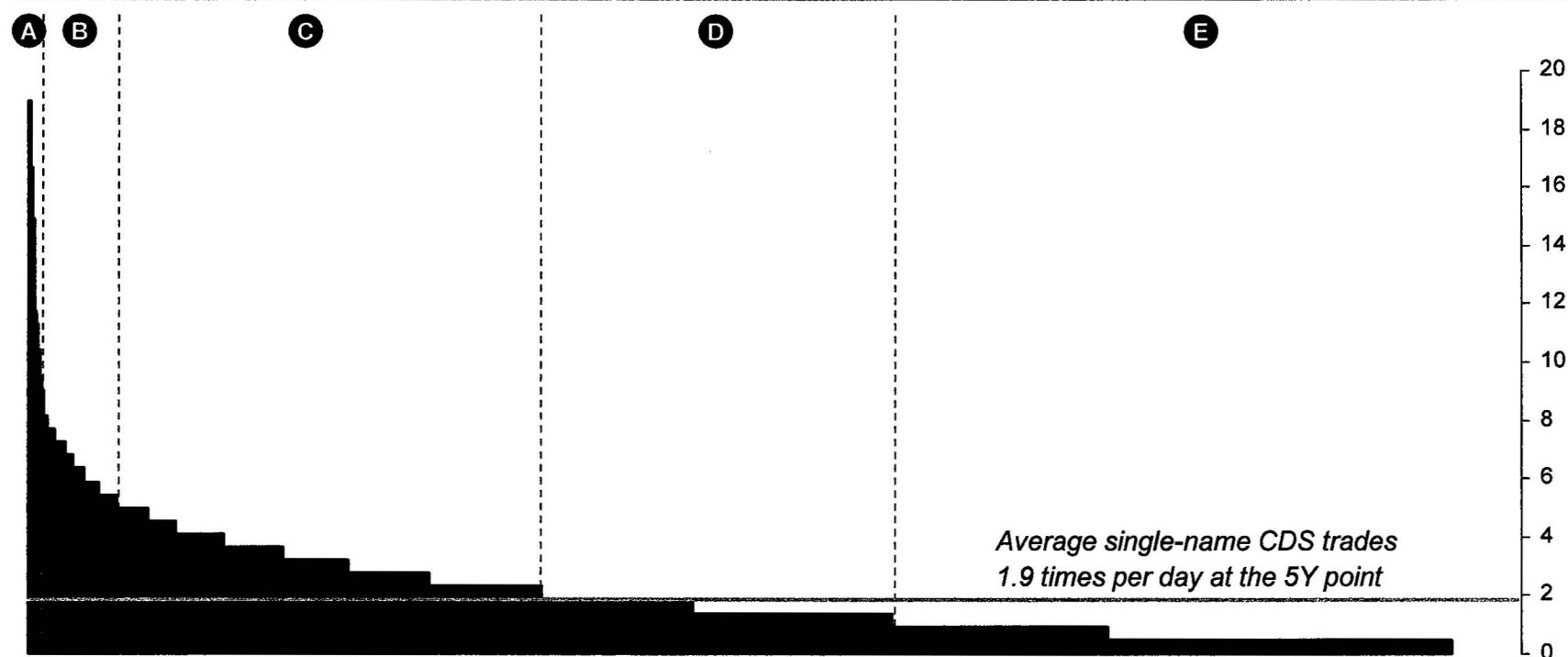
<sup>2</sup> Note that for S&P e-mini numbers reflect estimates on number of orders rather than number of trades (as orders get broken down by algo systems into multiple trades)

In OTC derivative markets, number of trades per day is significantly lower than in the most liquid futures markets

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**Note: We have focused the analysis on Credit as: (1) more data was available and (2) this will likely be the first area of focus**

**Top 1000 single-name CDS - # of trades per day at the 5-Year point<sup>1</sup>**



Source: DTCC data adjusted per JPMC internal analysis

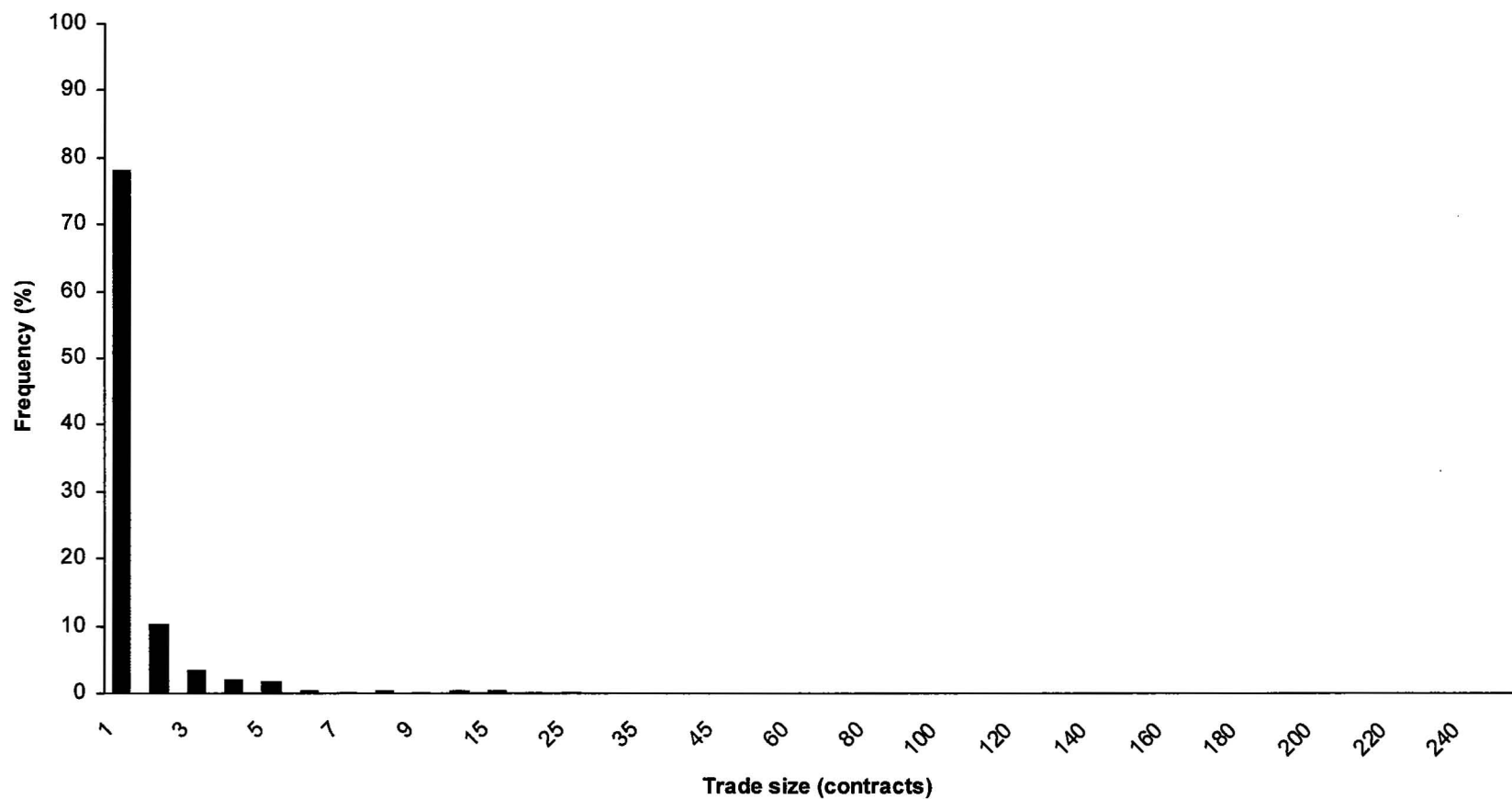
- A** 7 names trade more than 10 times per day
- B** 52 names trade more than 5 times per day, but less than 10
- C** 282 names trade more than 2 times per day, but less than 5
- D** 234 names trade more than 1 time per day, but less than 2
- E** 425 names trade less than 1 time per day

<sup>1</sup> Assumes that 45% of volume is concentrated on the 5 year point (as per previous JPMC analysis)



~90% of trades in liquid futures contracts are small

Trade size histogram for WTI front contract June 16th, 2010



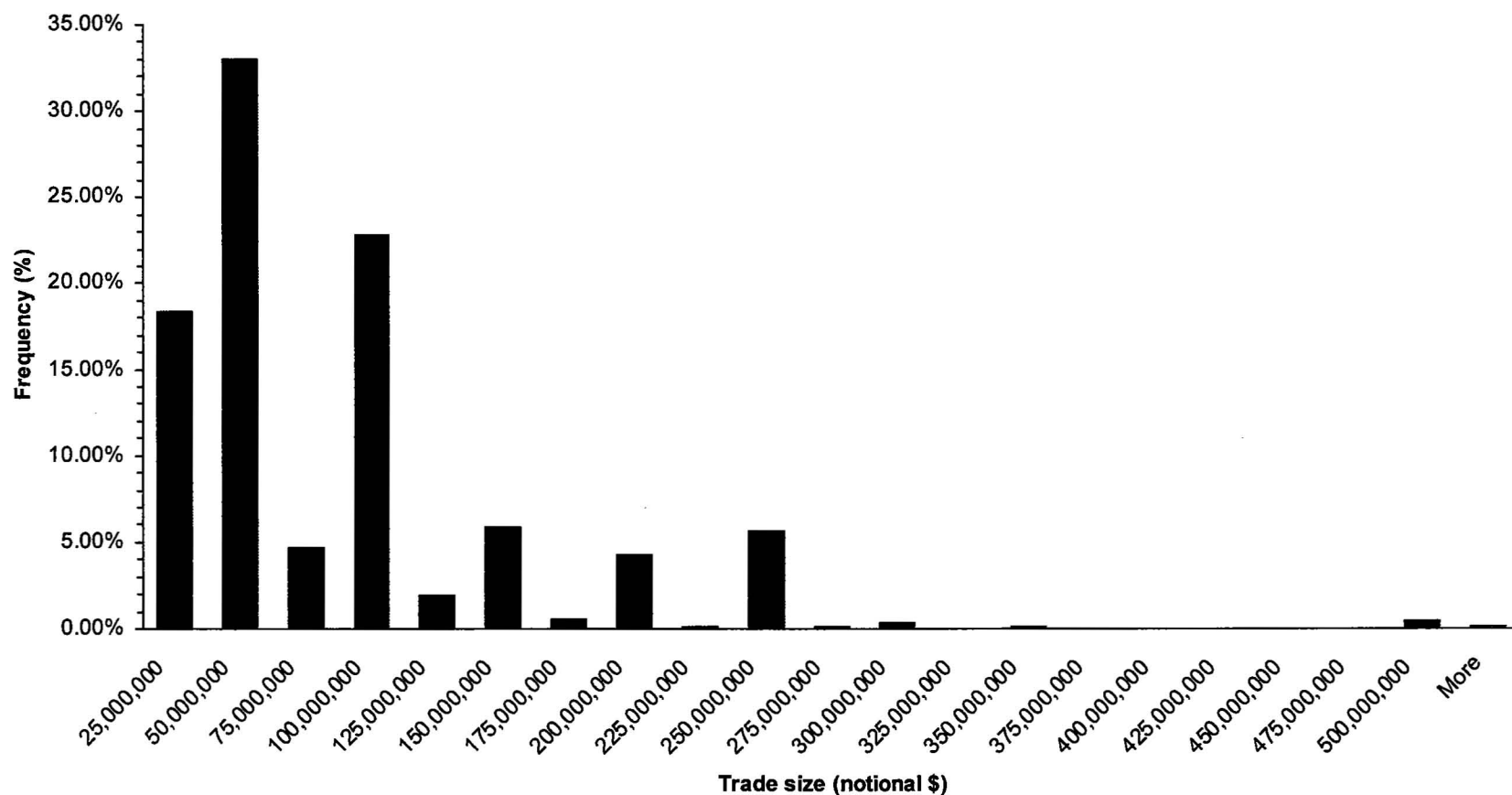
Source: Nymex data

Note: Analysis may understate average order size because orders typically get broken up into small individual trades



In CDS index trades, however, indicate higher percentage of “larger” trades

Trade size histogram for CDX IG-14



Source: JPMC internal data

Normalizing by volatility shows that typical trade sizes in OTC markets are comparable to block minimums for futures

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**Current futures market (liquid contracts) - examples**

	<b>Block Trade minimum (# contracts)</b>	<b>Block Trade minimum size (\$mm)</b>	<b>Daily volatility (2 Standard Deviations)<sup>1</sup></b>	<b>\$ - equivalent 2 standard deviation range</b>
10 year note (futures)	5,000	615	0.78%	4,810,000
30 Day Fed Funds (futures)	2,000	9,980 <sup>2</sup>	3.10%	50,000
HH Natural Gas (futures)	100	5	5.31%	260,000
Gold (futures)	200	25	2.06%	490,000
EUR/USD FX (futures)	150	25	1.50%	370,000

**Current OTC Derivative market (typical trades) - examples**

	<b>Typical trade size<sup>3</sup> (\$mm)</b>	<b>Daily volatility (2 Standard Deviations)<sup>1</sup></b>	<b>\$ - equivalent 2 standard deviation range</b>
NA HG Index	125	0.29%	390,000
NA HY Index	25	1.25%	320,000
5Y IRS	100	0.59%	590,000
1Y EUR Straddles	100	0.19%	190,000
Spot EUR/USD	25	1,50%	370,000
1Y 10Y Swaption Straddles	100	0.07%	70,000
1Y S&P Variance	300,000 (vega)		230,000

Source: Bloomberg, CME Group, JPMC analysis

Note: all calculations are based on observed data for 08/02/2010 and numbers are rounded to nearest \$10,000

<sup>1</sup> 2 standard deviations used to calculate risk with a 95% confidence level

<sup>2</sup> Each contract is based on \$5mm of notional. Please note the volatility number shown is that of the interest rate as value at risk is a function of the volatility on the rate rather than on the notional

<sup>3</sup> Typical trade size refers to the most common trade size in the professional dealer community

## Comparing size and liquidity across futures and OTC markets

		Trade sizes		
		Retail market size	Futures block or institutional OTC typical size	Institutional OTC block
Current Futures construct	Applicability	✓	✓	✗
	Typical trade as % of ADV	n/a	<10%	
End-state derivatives construct (currently OTC)	Applicability	✗	✓	✓
	Typical trade as % of ADV		20-100%	5-10x
	Important observations	<ul style="list-style-type: none"> <li>■ There is no retail participation<sup>1</sup> in OTC derivative markets</li> <li>■ This suggests OTC markets have a lower number of participants at any given time than exchange traded markets</li> </ul>	<ul style="list-style-type: none"> <li>■ Pre-trade negotiation flexibility becomes increasingly important</li> </ul>	<ul style="list-style-type: none"> <li>■ In addition to pre-trade negotiation flexibility, post-trade reporting delays become important for these trade sizes. This type of transaction is exceptionally uncommon in futures</li> </ul>

<sup>1</sup> Although there is minimal participation by sophisticated high-net worth investors (well in excess of the QIB minimums)

# Important post-trade reporting considerations

- There is a clear need and for post-trade reporting
- Market participants can assist in helping define templates to facilitate data gathering that can be useful in rule drafting

## Important differences between OTC derivatives and Futures market to consider for post-trade reporting rules

- Even for block trades in the current futures construct, the post-trade reporting delay is only five minutes
  - For the category of institutional block trades representing several days or weeks of trading volume, a five minute reporting delay is insufficient and would likely lead to certain products not trading and clients not being able to offset risk
- Worth noting that even in the products where there is significant on-exchange liquidity and where the block minimums are material even from an institutional risk perspective (eg 10y Note futures<sup>1</sup>) these minimums are a small % of the ADV
- In certain OTC markets, block trades can represent weeks if not months of trading volume
  - This concept does not exist in exchange world
  - **New post-trade regime should contemplate appropriate block trades as well as appropriate reporting delays for risk management purposes to make information meaningful without disrupting market liquidity**

## International coordination: CESR recommendations to EC on post-trade transparency

- **Liquidity as key input to post-trade regime:** "CESR is of the view that the calibration of thresholds and time delays for the proposed regime should ideally be based on liquidity of the asset in question"
- **Post-implementation review:** "At the core of CESR's recommendations to the Commission is the need to undertake a post-implementation review (for all asset classes) with a view to reaching conclusions one year after introducing the new transparency obligations"

<sup>1</sup> Block trade minimum as a % of ADV (2010 YTD) can be <5% depending on the contract

## Potential risks where SEF rules could reduce liquidity rather than increase it

### It is broadly accepted that SEFs will...

- Supply post-trade transparency and reporting to data repositories
- Provide an orderly, rules-based means of execution
- Guarantee electronic confirmation and STP
- Enforce anti-manipulation rules (and escalate/support to CFTC enforcement as appropriate)
- Enforce customer protection rules (and escalate/support to CFTC enforcement as appropriate)
- Supply pre-trade transparency as appropriate to increase liquidity

### ... but there are risks that could impact liquidity

- Current execution paradigm in futures construct is binary
  - SEFs should be fluid, flexible and allow for the types of execution models that ensure competitive markets while maximizing liquidity
  - Post-trade reporting should generate a data set to verify that customers aren't consistently behaving contrarily to their best interests and should support future rule making
- The relationship between size and permissibility of "RFQ-like" negotiation: in a non-retail market with limited potential liquidity, the framework should take into account RFQ-like negotiation

## General considerations

- Consider developing **templates for post-trade reporting** in cooperation with service providers and market participants to supply the Commission with meaningful data to inform rule making
- In drafting liquidity-sensitive rules --primarily post-trade transparency and “block trade/private/less than all negotiation”-- consider **making rules dynamically refer to the underlying liquidity data** to ensure efficient responsiveness to evolving market conditions
- Consider that the **OTC market** is not only a means of customizing, but also an “**outlet**” for **risk transfer on less liquid assets**; restricting participants’ ability to move institutional amounts of risk will impact overall liquidity and market efficiency
- Consider the **key distinction characterizing products currently traded OTC**
  - Small number of participants relative to the universe of tradable instruments
  - Participants are almost exclusively large, sophisticated institutions

# Appendix

## Methodology and key assumptions for Slide 6

### Methodology and key assumptions

	Number of participants	Number of instruments	Number of trades/day
<b>Single-name CDS</b>	<ul style="list-style-type: none"> <li>Used internal JPMC client trading data to estimate number of active participants in US (defined as trading at least ~5 times per year)</li> <li>Assumes JPMC trades with all active participants</li> </ul>	<ul style="list-style-type: none"> <li>Included all 100 names in HY index and 125 names in HG index for "benchmark instruments"</li> <li>For total instruments assumed 1038 entities (JPMC internal data), with 40 maturities and 2 coupons each</li> </ul>	<ul style="list-style-type: none"> <li>Used data for top 1000 single-names CDSs (globally) from DTCC report "Market Activity Snapshot"</li> <li>Assumed 45% of trades happen at 5Y point (benchmark) as per previous JPMC analysis</li> </ul>
<b>Index CDS</b>	<ul style="list-style-type: none"> <li>Used internal JPMC client trading data to estimate number of active participants in US (defined as trading at least ~5 times per year)</li> <li>Assumes JPMC trades with all active participants</li> </ul>	<ul style="list-style-type: none"> <li>Assumes benchmark products are "on the run" and previous index series both for HY and HG</li> <li>Assumes 10 active series and average of 4 maturities per series for total products for each of HY and HG</li> </ul>	<ul style="list-style-type: none"> <li>Estimate total number of trades per day in US at ~250 based on interviews</li> <li>Assumed 70% of trades happen at 5Y point (benchmark) as per previous JPMC analysis</li> </ul>
<b>Vanilla IRS</b>	<ul style="list-style-type: none"> <li>Used internal JPMC client trading data to estimate number of active participants in US (defined as trading at least ~5 times per year)</li> <li>Assumes JPMC trades with all active participants</li> </ul>	<ul style="list-style-type: none"> <li>Assumes 10+ short term benchmarks (&lt;1Y), another 10 (1Y – 10Y) and at least 5 in over 10Y maturities</li> <li>For total instruments number shown is a lower bound since in reality each trade is a unique instrument</li> </ul>	<ul style="list-style-type: none"> <li>Used preliminary MarkitSERV May data, applied a correction factor of 0.85 to account for post-trade allocations</li> <li>Assumes 75% of trades reported through MarkitSERV</li> </ul>
<b>WTI Futures</b>	<ul style="list-style-type: none"> <li>High-level estimates based on JPMC internal interviews with Oil Trading team</li> </ul>	<ul style="list-style-type: none"> <li>Contracts for every month in this year (Sep-Dec), every month until end 2015, and then 2 contracts per year until end 2018</li> <li>Front-month is "benchmark" contract</li> </ul>	<ul style="list-style-type: none"> <li>Tick data for front contract on June 16<sup>th</sup> shows &gt;150,000 trades</li> <li>Assumes 60% of trades are in the front month "benchmark" contract</li> <li>Triangulated with ADV July 2010 data</li> </ul>
<b>S&amp;P e-Minis</b>	<ul style="list-style-type: none"> <li>Assumes that there are &gt;150,000 participants (for example Refco had ~200,000 accounts before it filed for bankruptcy)</li> <li>Actual number of total active participants likely to be higher</li> </ul>	<ul style="list-style-type: none"> <li>For total instruments, counted all 5 outstanding quarterly contracts (Sep '10 – Sep '11) as per CME product specification information</li> </ul>	<ul style="list-style-type: none"> <li>July 2010 ADV is 2.1mm contracts, assumes average trade is of ~10 contracts (potentially lower)</li> <li>Assumes 80% of trades are in short-dated "benchmark" contract</li> </ul>