ISDA® Safe, Efficient Markets

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Regulatory Reform in Europe: An Overview

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Contents

- The G20 Meeting in Pittsburgh
- Global Regulatory Reform
- European Regulatory Reform
  - EMIR
  - MiFID
  - Bilateral Margining of Non-Cleared OTC derivatives
- ET Issues
- Capital Reforms
- Other Issues

The G20 Pittsburgh Summit

- In the aftermath of the 2008 crisis, the G20 met at the Pittsburg Summit in September 2009

  … "committed to take action at the ***national and international level*** to ***raise standards together***" and "***implement standards consistently*** in a way that ensures a ***level playing field*** and avoids ***fragmentation*** of markets, protectionism, and regulatory arbitrage" …

- And specifically for OTC derivatives,

  … All ***standardized*** OTC derivative contracts should be ***traded on exchanges or electronic trading platforms***, where appropriate, and ***cleared through central counterparties*** by end-2012 at the latest. OTC derivative contracts should be ***reported to trade repositories***. Non centrally cleared contracts should be subject to ***higher capital requirement …***

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Dodd-Frank, EMIR & MiFID Revision

- The G20 statement was all encompassing, calling for action both at national and international level
- The USA came out first in 2010 with legislation on OTC derivatives – The Dodd-Frank Act (DFA)
- The EU has been slower, due to the more complex and more decentralized nature of policy making in Europe. It has taken two forms; New regulation – EMIR, and revision of MiFID. Specifically,
  - Clearing & Risk Mitigation → EMIR
  - Trade repositories → EMIR
  - Trading Platforms (OTFs, MTFs) → MiFID
  - Higher Capital Requirements → Basel III / CRD IV
  - Margin for Non-Cleared OTC → WGMR

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Dodd Frank – US Regulatory Reform

- US Regulatory Reform has been largely implemented
  - Clearing - done
  - Transaction reporting - done
  - Trading on electronic platforms – done
  - Capital reform – under way
  - Margin for non-cleared OTC – RTS consultation just released

- Speed of execution has left loose ends which are being worked out

- Most importantly, it has led to a number of potential extra-territorial issues and interpretations

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EMIR - Product Scope

- "Derivatives" are defined as financial instruments in MiFID Annex I.C pts 4 -10

- OTC Derivatives include:
  - Derivatives traded on MTFs
  - Physically settled FX and forward swaps, principal in currency swaps, and other contracts if within MIFID definitions (still under consideration)

- MIFID 2 also includes physically settled commodity contracts traded on OTFs from 2017 on, although
  - Certain Energy (Electricity, gas etc.) contracts have been exempted
  - Transitional exempt period for Oil & Coal contract until mid-2020 at least, and possibly until mid-2023
  - EC report on impact on energy contracts early 2018

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EMIR - Who is subject to?

FC (Financial Counterparty)

- Investment firms
- Credit institutions
- Insurance/reinsurance undertaking
- UCITS and pension schemes
- Alternative investment funds managed by an alternative investment fund manager
- In each case where authorised or registered in accordance with the relevant EU directive

NFC (Non-Financial Counterparty)

- Entities established in the EU which are not a FC or a CCP

NFC+

- A *non-financial counterparty* whose positions in OTC derivatives exceed a specified clearing threshold

Certain non-EU entities

- Entities established outside the EU which would have been subject to the relevant obligations if established in the EU

DMOS and Central Banks

- EU entities NOT subject to EMIR rules
- US and Japanese also not subject (through Implementing Act)

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What obligations apply to NFCs?

Confirmations (*)	FCs and NFCs must have procedures and arrangements to confirm transactions by set deadlines
Portfolio reconciliation (*)	FCs and NFCs must agree processes for regular portfolio reconciliation with counterparties
Portfolio compression (*)	FCs and NFCs with ≥ 500 contracts with a counterparty must have processes to address portfolio compression opportunities
Dispute resolution (*)	FCs and NFCs must agree procedures for identification, recording, monitoring and resolution of disputes
Reporting to TRs	Counterparties must report all their OTC and ETD transactions to registered/recognised Trade Repositories (TRs) or to ESMA (including backloading of contracts outstanding on or after 16 August 2012)

(*) Applies to non-cleared OTC derivative contracts

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Additional obligations for NFC+s

NFC+ notification	NFCs who exceed the clearing threshold must notify their competent authority
Confirmations (*)	FCs and NFC+s are subject to shorter confirmation deadlines when dealing with each other
Portfolio reconciliation (*)	FCs and NFC+s must reconcile portfolios more frequently than when dealing with each other
Daily valuation (*)	FCs and NFC+s must carry out daily mark-to-market/mark to model valuations
Margin (*)	FCs and NFC+s must have procedures for exchange of collateral (to be specified by RTS)
Reporting to TRs	FCs and NFC+s must report additional information on exposure value and collateral
Clearing	FCs and NFC+s must clear OTC derivatives contracts which are declared subject to the clearing obligation through an authorised/recognised CCP when they trade with each other or with 3rd country (non-EU) entities that would be subject to the clearing obligation if established in the EU

(*) Applies to non-cleared OTC derivative contracts
Intra-group exemption for available for margin and clearing rules, on conditions

EMIR Timeline - When will the obligations apply?

15 Mar 2013

- NFC+ notification
- Confirmations
- Mark-to-market/model

15 Sep 2013

- Portfolio reconciliation
- Portfolio compression
- Dispute resolution

12 Feb 2014

Reporting to TRs for all asset classes starts

12 Aug 2014

Valuation and collateral reporting to TRs

Early 2015

- Clearing RTS in effect

Ja n	Fe b	Ma r	Ap r	Ma y	Ju n	Jul	Au g	Se p	Oc t	No v	De c	Ja n	Fe b	Ma r	Ap r	Ma y	Ju n	Jul	Aug	Sep	Oct	Nov	De c	Ja n	Fe b	Ma r	Ap r
2013												2014												2015			
Ja n	Fe b	Ma r	Ap r	Ma y	Ju n	Jul	Au g	Se p	Oc t	No v	De c	Ja n	Fe b	Ma r	Ap r	Ma y	Ju n	Jul	Aug	Sep	Oct	Nov	De c	Ja n	Fe b	Ma r	Ap r

18 Mar 2014

- CCPs authorized
- Clearing member obligations
- Frontloading periods start

3rd Quarter 2015

- First clearing obligations start
- Phase-in for Cat 1, 2, 3 and 4

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EMIR Clearing Obligation – Next Steps

- Products Covered
  - Basis swaps in EUR, GBP, JPY, USD (28 day up to 50 year maturity)
  - Fixed-to-float swaps in EUR, GBP, JPY, USD (28 day up to 50 year maturity).
  - FRAs in EUR, GBP, USD (3 day to 3 year maturity)
  - OIS swaps EUR, GBP, USD (7 day to 3 year maturity)
- Next Steps
  - ESMA CO Final Draft RTS for Rates was published on October 1
  - EC has up to 3 months to rubber stamp the RTS
  - The European Parliament and Council then have a month to approve the RTS

  - ESMA expected to deliver draft RTS for CDS to EC on October 18, as well as RTS on FX NDFs by the end of the year
  - Expected CCP Equivalence Rules re US CCPs (end of 2014)
  - Entry into force of CO RTS for Rates (expected early 2015)
  - CO starts at around Q3 2015
    - **Cat 1 (Clearing Members):** August 2015 - 6 months after the RTS enter into force
    - **Cat 2 (FCs above €8 billion):** February 2016 - 12 months after the RTS enter into force
    - **Cat 3 (FCs not in Cat 1 or 2):** August 2016 - 18 months after the RTS enter into force
    - **Cat 4 (NFC+s):** February 2018 - 3 years after the RTS enter into force

EMIR - Frontloading

Period A

- Runs from March 18, 2014 (1st CCP authorisation and notification to ESMA), to November 2014 at the earliest (and up to June 2015, latest) when the RTS is published in the Official Journal (OJ)
- ESMA has proposed that the minimum remaining maturity (MRM) for derivatives traded during this period be set at a level so as to <u>exclude</u> all contracts from the frontloading requirement

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EMIR - Frontloading

Period B

- Runs from the publication of the RTS in the OJ to the end of the respective phase-in periods for counterparty categories
  - Cat 1: 6-month phase-in
  - Cat 2: 12-month phase-in
  - Cat 3: 18-month phase-in
  - Cat 4: 36-month phase-in
- Frontloading will <u>only</u> apply to Cat 1 and Cat 2 entities
- ESMA has proposed that the MRM be set at 6-months for OTC derivatives traded during Period B

MiFID – An Overview

- Liquidity Assessment: Fundamental to the determination of the trading obligation, pre- and post- trade transparency rules

- Trading obligation rules: Liquid instruments that are subject to the clearing obligation and available on one or more trading venues may be subject to an obligation to trade on a regulated market, MTF, OTF or equivalent third-country venue

- Pre-trade transparency rules: Requires publication of bid and offer prices before a trade takes place

- Post-trade regime: Requires reporting of trade information (including price and volume) soon after the transaction is executed. ESMA suggests publication within 5 minutes for liquid instruments

MIFIR: Liquid instruments

- OTC derivatives are subject to pre- and post-trade transparency requirements
- Possibly subject to trading obligation
- Exemptions exist:
  - Large-in-scale: Applies to trades considered to be large compared to ‘normal’ market size
  - Size-specific waivers: Set at a lower level than large-in-scale and apply to request-for-quote and voice trading systems only

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MIFIR: Liquid market definition

- There must be "***ready and willing buyers and sellers on a continuous basis***"

- Following criteria used for assessment:
  - Frequency (ESMA proposes setting both a minimum number of transactions and the number of trading days on which at least one transaction occurred within a certain period)
  - Average transaction size
  - Number of market participants
  - Average size of spreads, when available

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ESMA bond threshold example

	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6
At least x trades during the 1-year period	480	480	240	240	240	2,400
Traded on at least x number of different days during the 1-year period	120	240	240	120	120	120
Average daily volume is at least x EUR	100,000	100,000	1,000,000	1,000,000	10,000,000	1,000,000
ALL BONDS						
Percentage of bonds captured as liquid	4.71%	1.61%	1.27%	3.39%	0.93%	1.00%
Percentage of volume qualified as liquid	86.67%	62.90%	62.42%	86.91%	82.19%	65.93%
Percentage of trades captured as liquid	75.40%	52.44%	45.70%	60.41%	35.26%	47.97%

Source: ESMA

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MiFID - ISDA Swap Data Analysis

- Interest Rate Swap (IRS) and CDS data from DTCC's swap data repository

- Captured fixed-floating IRS trades between April 2013 and March 2014

- Only price-forming trades included: Novations, terminations, amendments, delta-neutral compressions etc. have been removed

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ISDA IRS analysis

Table 6 – Analysis results – scenario 6 – all trades

All Trades	scenario 6
At least x trades during the 1 year period	2,400
Traded on at least x number of different days during the 1 year period	120
Average daily volume is at least x EUR	100,000,000
Total # of classes	5,500
total # of classes captured as liquid	28
Percentage of swaps captured as liquid	0.5%
Total # of trades	479,855
Total # of trades captured as liquid	219,871
Percentage of trades captured as liquid	46%
Total volume	33,776,862,785,276
Total volume captured as liquid	13,352,439,990,038
Percentage of volume qualified as liquid	40%

Source: ISDA, DTCC

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ISDA IRS analysis

Table 7 – Analysis results – scenario 7 – all trades

All Trades	scenario 7
At least x trades during the 1 year period	4,800
Traded on at least x number of different days during the 1 year period	240
Average daily volume is at least x EUR	100,000,000
Total # of classes	5,500
total # of classes captured as liquid	13
Percentage of swaps captured as liquid	0.2%
Total # of trades	479,855
Total # of trades captured as liquid	173,098
Percentage of trades captured as liquid	36%
Total volume	33,776,862,785,276
Total volume captured as liquid	11,163,015,598,709
Percentage of volume qualified as liquid	33%

Source: ISDA, DTCC

ISDA CDS index analysis

Index	Roll date	Pre-roll 5-day average trade count (old series)	Post-roll 1-5 day average trade count (old series)	Change	Post-roll 6-10 day average trade count (old series)	Change	Post-roll 11-15 day average trade count (old series)	Change	Post – roll 16-20 day average trade count (old series)	Change
Itraxx Europe 5Y	20/03/2014	171.8	28.6	-83%	16.6	-90.3%	6.4	-96.3%	7	-95.9%
Itraxx Crossover 5Y	20/03/2014	143.4	41.4	-71.1%	16.4	-88.6%	10	-93.0%	13.2	-90.8%
Itraxx Sr Fincl 5Y	20/03/2014	37.6	9.6	-74.5%	5.4	-85.6%	2.4	-93.6%	1.6	-95.7%
NA.HY 5Y	27/03/2014	160.8	62.8	-60.9%	39	-75.7%	30	-81.3%	12.6	-92.2%
NA. IG 5Y	20/03/2014	192.8	64	-66.8%	27.8	-85.6%	16.4	-91.5%	18	-90.7%
CDX. EM 5Y	20/03/2014	29	16.8	-42.1%	5.2	-82.1%	4.6	-84.1%	1	-96.6%

Source: ISDA, DTCC, Bloomberg

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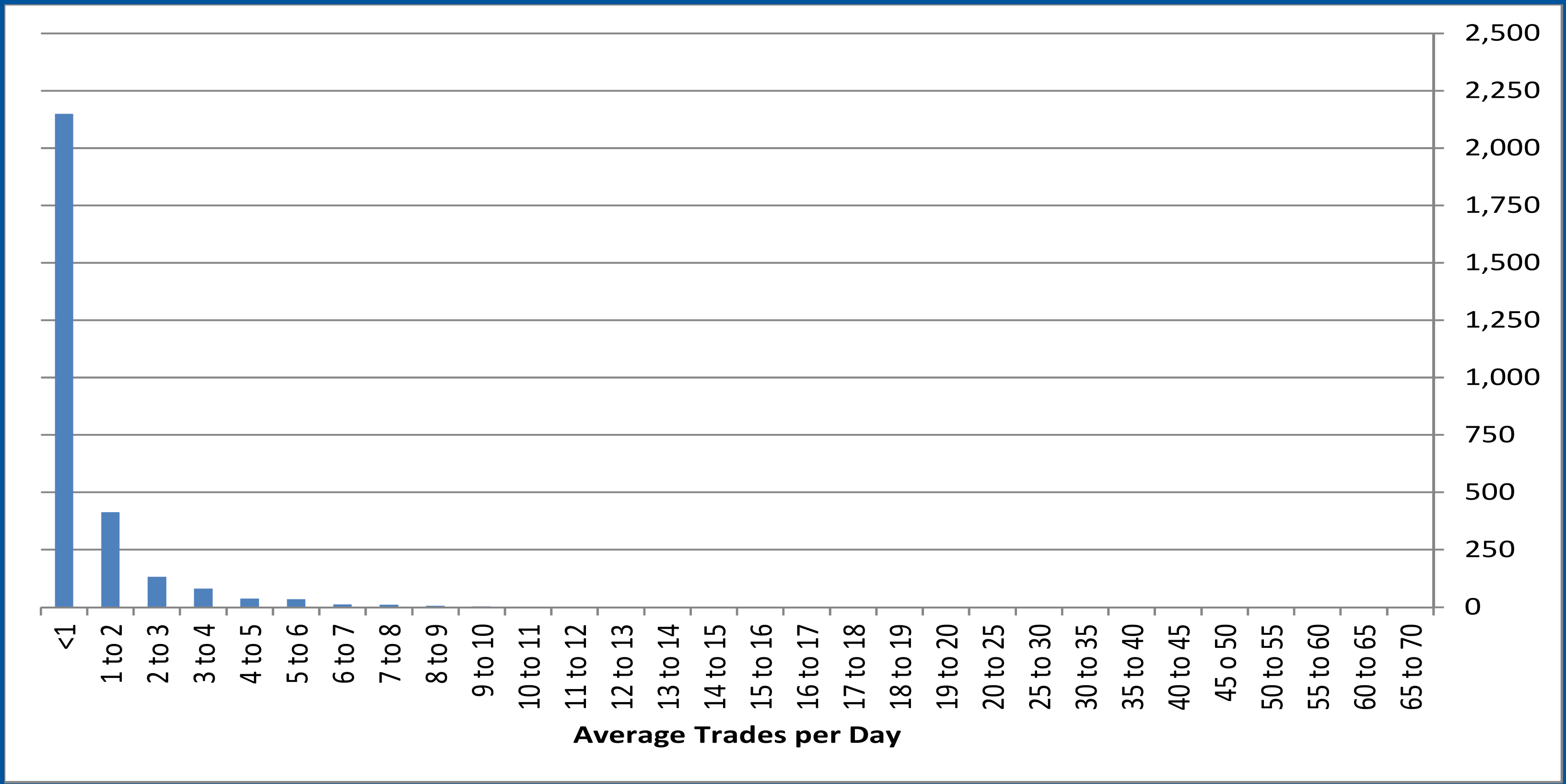
ISDA Single-name CDS analysis

Chart 1 describes the frequency of Group A Average Trades per Day



*Average Trades per Day equals Total Contracts during the analysis period/250
**Data has been bucketed by day intervals: "<1" includes fractions up to but not including 1, "1 to 2" includes figures ranging from one up to but not including 2, "2 to 3" includes figures ranging from one up to but not including 3, and so on.

Source: ISDA, DTCC

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ISDA Swap Data Analysis - Conclusions

- €100,000 average transaction size too low; €100 million more appropriate
- Liquid instrument – must trade every day
- Liquid instrument – should actively trade 15-40 times a day
- One or two trades a day does not meet the “continuous” buying and selling activity requirement under MIFID

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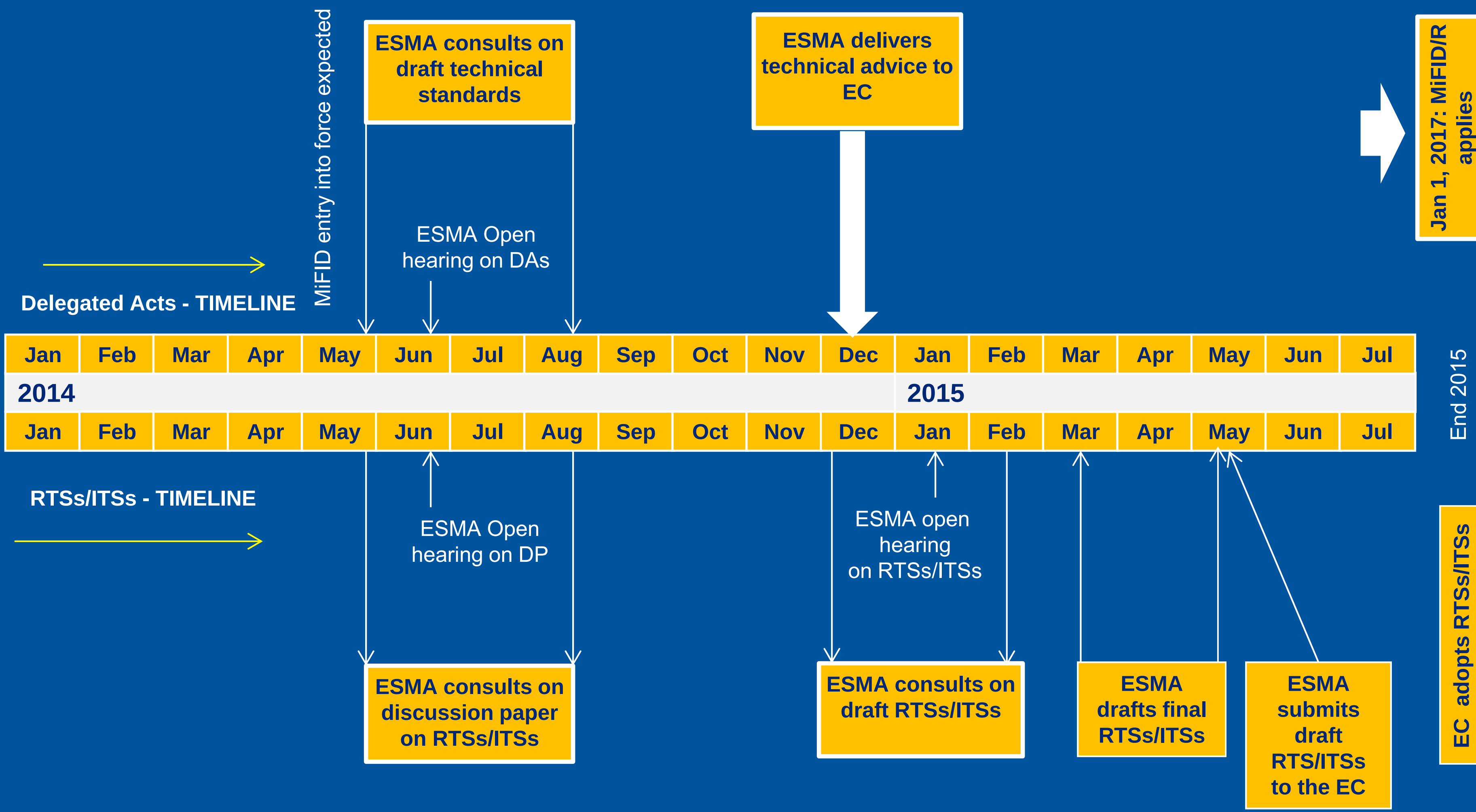
ISDA Swap Data Analysis - Conclusions

- Thresholds need to be set based on an objective analysis of the data
- “Continuous buying and selling activity” should be more than one trade a day
- Capturing infrequently traded instruments in the public reporting framework would not provide meaningful information to investors
- In fact, it may counterproductive, as it may dis-incentivize market-makers in these products to stop providing liquidity, as other market participants could use the public data to trade against them

MiFID II/MiFIR – Expected Timetable



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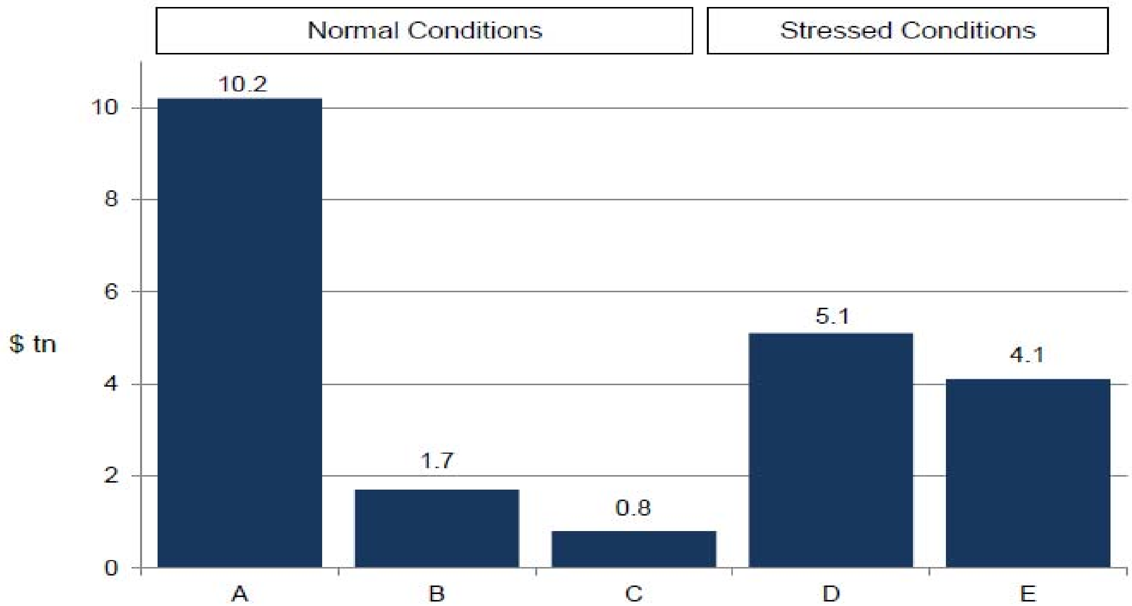
Margining for non-cleared OTC Derivatives

- BCBS Proposals
- Universal, two-way margining; E50 million threshold; phase-in period; below $8 billion ($3 billion in the US) permanent exclusion; FX products not included; cross-currency swaps treatment
- Quantum and Pro-cyclicality of Collateral
- Challenging Operational Considerations
- Significant ET elements
- Higher Costs of OTC derivatives – Foregone conclusion
- The ISDA WGMR Project

Required Collateral – Quantum and Pro-cyclicality

Initial Margin Estimate Based on BCBS/IOSCO Proposal



A All firms using standard margin schedule, no threshold
B All firms use internal models; no threshold
C All firms use internal models; €50mm threshold
D All firms use internal models; no threshold; stressed conditions
E All firms use internal models; €50mm threshold; stressed conditions

BCBS/IOSCO includes mandatory universal two-way IM posting; estimates based on $127tn of unclearable OTC derivatives.

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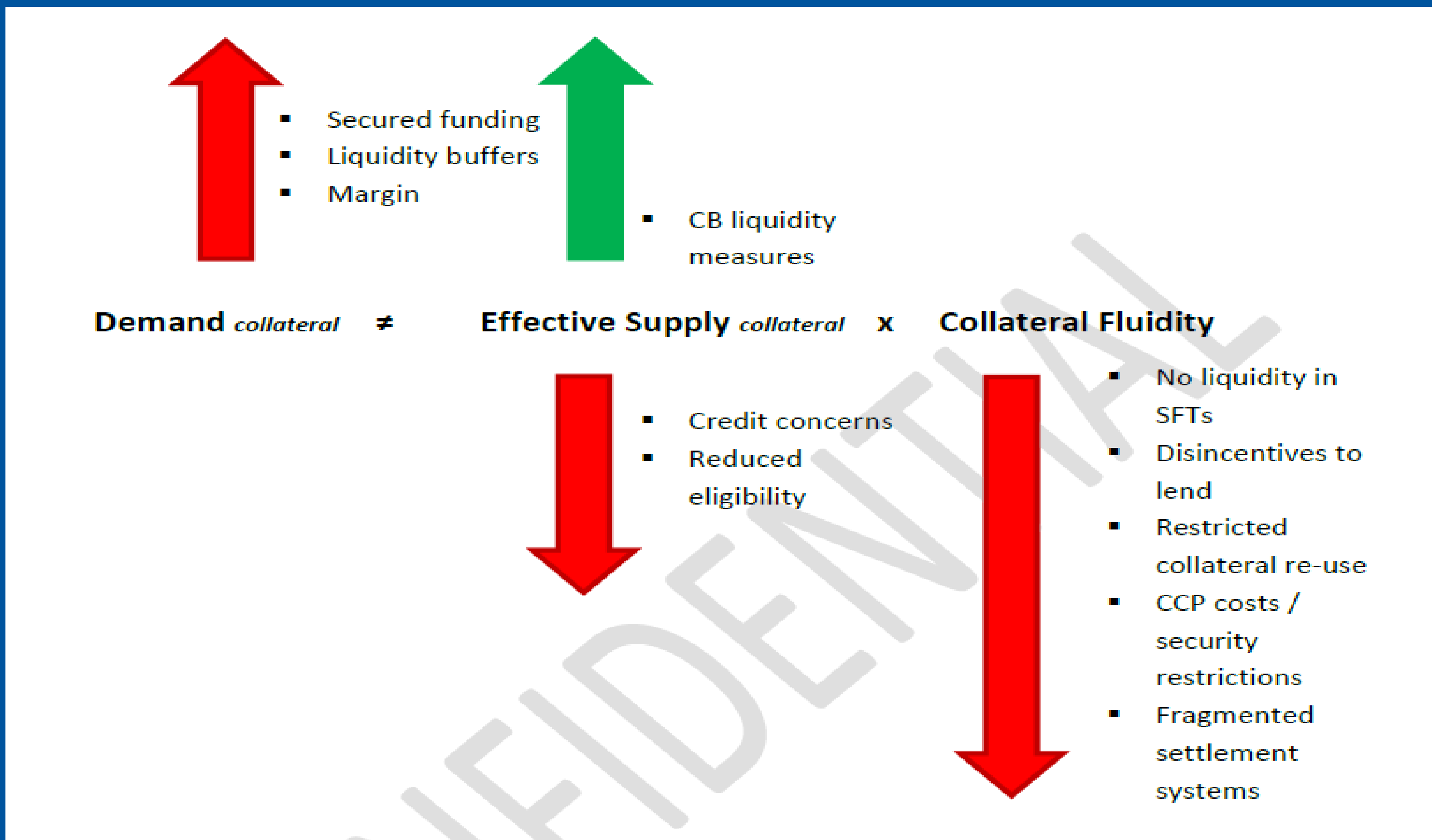
Re-hypothecation and Potential Collateral Shortages during Stress



Source: "Collateral is the new cash", ICMA Paper, March 2014

SIMM and ISDA's WGMR Project

- Agreement on Initial Margin is a big challenge with Margin Proposals
- Need for Standardized Initial Margin Methodology (SIMM)

Criteria	Description
Non-procyclical	Margins are not subject to continuous change due to changes in market volatility
Ease of replication	Easy to replicate calculations performed by a counterparty, given the same inputs and trade populations
Transparency	Calculation can provide contribution of different components to enable effective dispute resolution
Quick to calculate	Low analytical overhead to enable quick calculations and re-runs of calculations as needed by participants
Extensible	Methodology is conducive to addition of new risk factors and/or products as required by the industry and regulators
Predictability	IM demands need to be predictable to preserve consistency in pricing and to allow participants to allocate capital against trades
Costs	Reasonable operational costs and burden on industry, participants, and regulators
Governance	Recognizes appropriate roles and responsibilities between regulators and industry
Margin appropriateness	Use with large portfolios does not result in vast overstatements of risk. Recognition of risk factor offsets within the same asset class.

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Other Implementation Challenges - ISDA's WGMR Project

- Agree on Standardized IM methodology is only part
- Several other major building blocks are required
  - Counterparty and product Scope
  - Trade Population Integrity
  - Allocation of Trades to Risk and Class Bucketing
  - Infrastructure to produce and maintain risk framework (recalibration of model parameters, associated data requirements, etc.)
  - Collateral and Payment processes
  - New Legal documents, including new CSA(s), custodian agreements and protocols
  - Dispute Resolution
- These challenges are currently addressed at a major ISDA led industry WGMR Project

Next Steps – Technical Standards from the various National Authorities

- ESA RTS Consultation currently under way - Issues
  - ➢ Scope
    - Possible margin requirements on non-EU entities by a EU FC and NFC+
    - E50 mill threshold and below $8 billion exemption not applicant to non-EU entities
    - Exemptions for Securitization SPVs
    - Definition of “group” and exclusion of Inter-affiliate trades from $8 billion exemption
    - E50 million threshold should apply to non-EU entities and exclude FX
  - ➢ 8% Haircut on FX mismatch between collateral and settlement currency
  - ➢ Issues with segregation and re-hypothecation
  - ➢ IM Recalibration and collection frequency
- Most importantly, it is increasingly obvious that meeting the Dec 2015 deadline, may not be possible

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ET Issues

- Jurisdictional Approach to G-20 regulatory reform, inevitably, is leading to substantial extra-territorial (ET) issues
  - Reporting
    - Multiple TRs, inconsistent practices and formats
  - Clearing
    - Different margin practices
    - Different segregation regimes
    - Lack of mutual recognition framework (for CCP recognition and equivalence/exempt DCO)
  - Trading on Electronic Platforms
    - US person definition and obligation to register as US SEF
    - Emerging signs of global fragmentation
  - Capital Requirements
    - Different local interpretations and implementations of Basel rules (leverage ratio, CVA)
  - Margin for non-cleared derivatives
    - Despite stated objectives, evidence of different local interpretations is emerging

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Capital Reforms

- Basel III – more and better quality capital
- Capitalizing OTC exposures – The xVA Family
- Liquidity Coverage Ratio
- Net Stable ratio
- Leverage Ratio – Binding?

> - **Significant Impact on Cost of Liquidity**
> - **Impact on secondary markets trading**

- Fundamental Review of the Trading Book – Major Challenge
- CCP Default Resources, CCP R&R
- Clearing Bank Capital for CCP exposures

> - **Impact on Cost of Clearing?**
> - **Clearing Capacity?**

- Cumulative Effect on Above – will know after 2019/20

Other Issues

- EU Bank Structure
- Benchmarks
- FTT