EUROPEAN CENTRAL BANK
EUROSYSTEM

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The challenges of standardisation and aggregation of EMIR data in Europe: Six trade repositories and 28 countries

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**The views expressed in this presentation and the underlying paper are solely those of the authors and do not necessarily reflect the opinion of the European Central Bank.*

Overview

1. Introduction
2. Six trade repositories in Europe
3. Data quality caveats
4. Comparison of EMIR data with BIS Over the Counter (OTC) derivatives survey – market of Credit Default Swaps (CDS)
5. OTC derivatives trade reporting worldwide
6. Conclusions and way forward

EMIR = European Market Infrastructure Regulation

- EMIR is a far-reaching reform of EU derivatives markets
- New reporting obligation: since February 2014, all counterparties in the EU have to report the details of any derivative contract

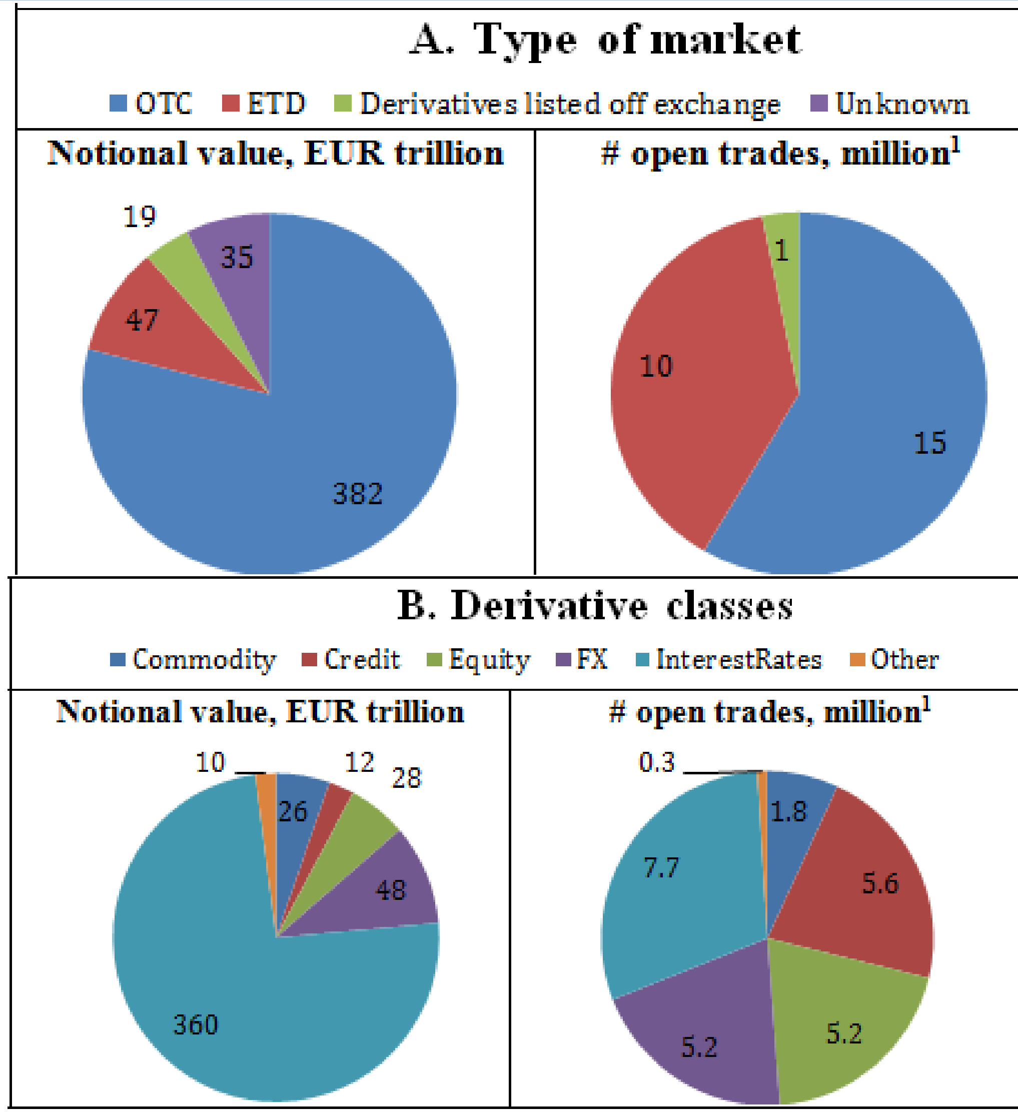
  → 85 fields, both OTC and exchange-traded derivatives, all asset classes
- Data reported to one of the 6 authorised trade repositories (TRs), which:

  (i) provide the confidential data to different authorities (incl. ECB)

  (ii) publish aggregated data
- Important role of European Securities and Markets Authority (ESMA): drafts regulatory standards and supervises TRs

1.2 Introduction – EMIR data volumes and public data

- → **Huge data volumes,** e.g. more than 10bn of records received by TRs over the first year
- → **Significant market size** (notional value of almost EUR 500 trillion and over 25 million outstanding trades on a given day)
- → **OTC trades** more important than exchange traded derivatives (ETD)
- → **Interest rates** are the most important class



Note: *To avoid double-counting and if available, the figures are calculated as sum of 100% of dual sided and 50% of single-sided trades in each TR.*
Source: *Public EMIR data from TRs' websites referring to end-March 2015.*

Challenges

- **EMIR framework is currently not sufficiently detailed and coherent to provide authorities in the EU with high quality data**

  → definition of derivative contract (what transactions should be reported?)

  → room for interpretation of the reported fields

  → concepts under development, e.g. Unique Trade Identifier (UTI), to reconcile trades due to ‘double-reporting obligation’

  → non-standardised data at the input point (TRs) and related data quality caveats

  → differences across the six TRs

The six TRs are different and provide different data

- **Currently no detailed guidance how TR should structure, treat and present the collected data**

  → Application (legal) procedures and technical connections differ

  → Number, structure, types and content of data files differ

  → Validations/tests run differ

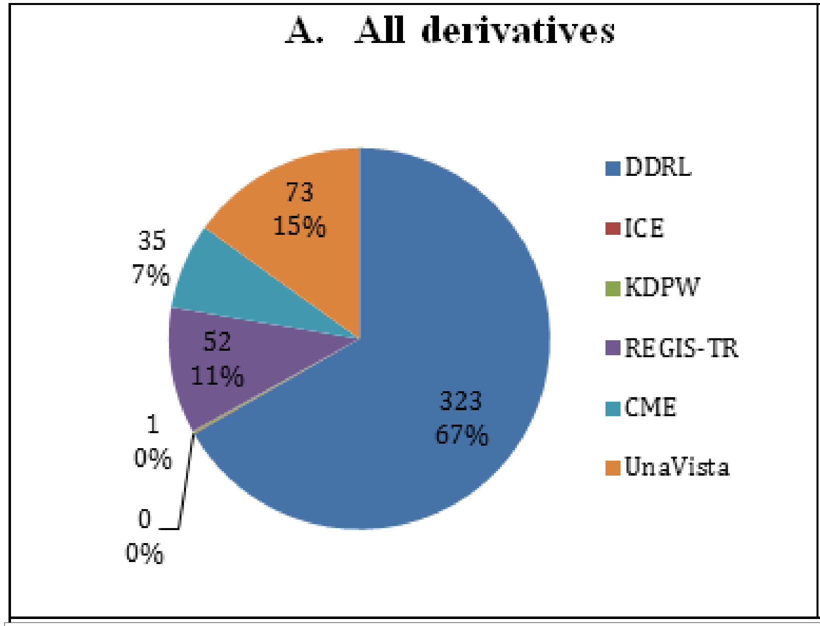
- **One trade can be reported to two different TRs** due to double-reporting obligation

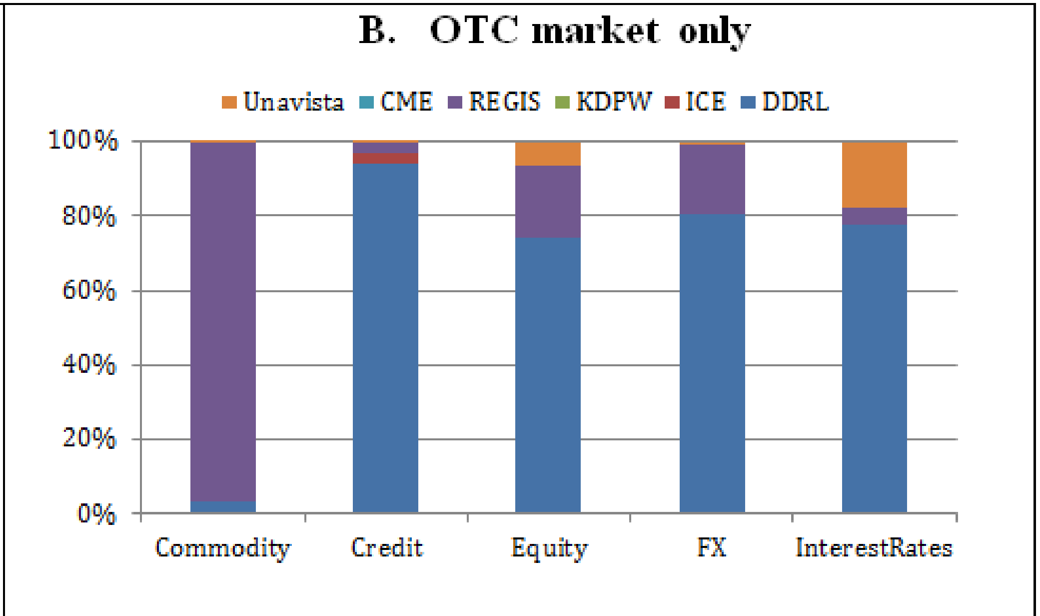
  → need to reconcile trades to aggregate the data, but our results show that the pairing rate is low

  → even if two legs are paired, information in other fields very often do not match

Importance of the six TRs in Europe

Notional values at end-March 2015, EUR trillion and % of total





***Note**: To avoid double-counting and if available, the figures are calculated as sum of 100% of dual sided and 50% of single-sided trades in each TR. Source: Public EMIR data from TRs' websites.*

→ Regarding OTC trades, they are largely covered by DTCC/DDRL with the exception of commodity derivatives

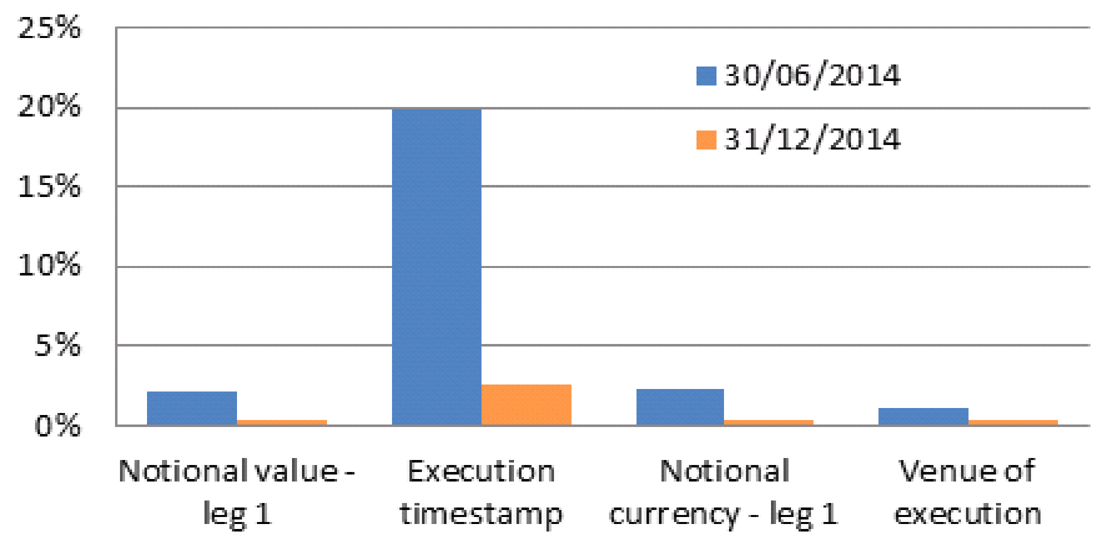
→ Concentration in reporting may help trade reconciliation and aggregation

3. Data quality caveats

- Several checks on the micro-data accessible to the ECB such as on missing values and the use of key indicators (LEI, UTI)
- Findings: currently low data quality, but situation is improving (ESMA's on-going efforts to improve data quality!)

Data quality checks

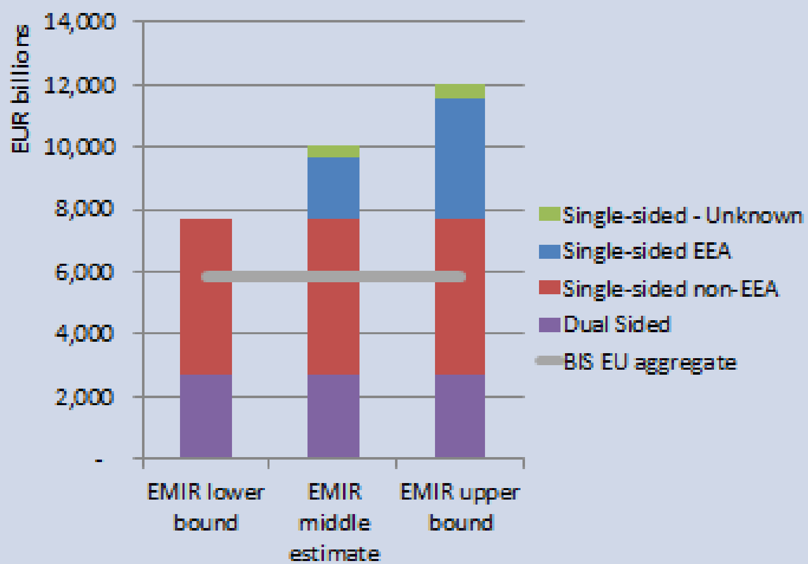
Number of missing values



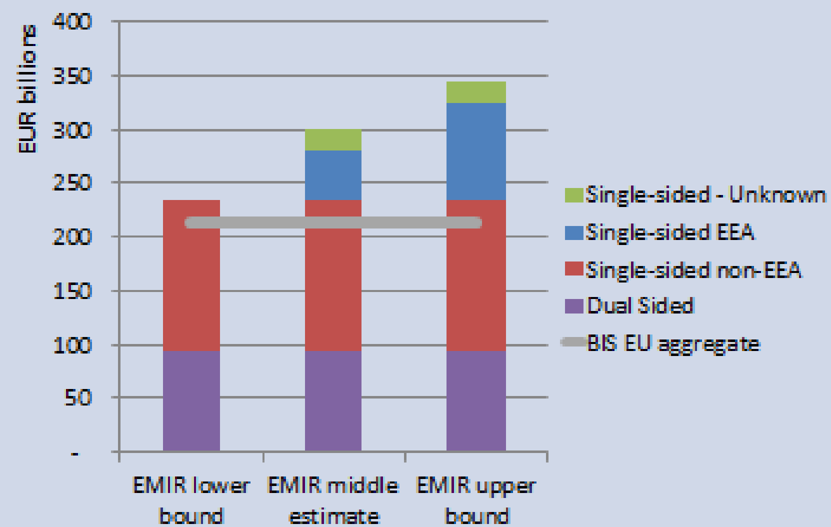
Source: EMIR transaction-level data as available to the ECB at end-2014.

Comparison of EMIR OTC credit data with CDS data from BIS survey on OTC derivatives

Notional value, EUR billions



Market value, EUR billions



Source: BIS and public EMIR data from TRs' websites.

→ Relatively reasonable match despite various differences (collection, coverage, time period, group reporting, etc.)

→ Data quality seems to vary across asset classes, e.g. credit data of higher quality than other EMIR data and concentrated in one TR

Global initiatives

- EMIR is a part of a global **G20 regulatory reform of OTC derivatives** market, triggered by the recent financial crisis
- Similar data are collected through trade repositories in many jurisdictions (e.g. US Dodd-Frank Act) with the aim to improve transparency
- **FSB** published in Sep 2014 **Feasibility Study on Approaches to Aggregate OTC Derivatives Data** (here)

→ **Key steps** to be undertaken before any global aggregation can take place:

(i) Standardisation and harmonisation of key data elements

(ii) Legal and regulatory changes

→ Further work on point (i) is being undertaken by **CPMI-IOSCO Working group for harmonisation of key OTC derivatives data elements**

6. Conclusions and way forward

- → Similar challenges with derivatives reporting to TRs are experienced across the globe
- → Clear reporting rules and standardised data validations at input point (TRs) can enormously improve consistency and quality
- → In Europe, ESMA's on-going efforts are steps in right direction but more is needed such as detailed guidance regarding TR's output
- → Moreover, to aggregate the data globally, derivatives data have to be standardised and/or harmonized across jurisdictions
- → CPMI-IOSCO working group to develop global harmonization guidance is a step in the right direction
- → European experience with double-reporting obligation highlights the crucial importance of a globally applicable UTI and clear rules for its generation

THANK YOU FOR YOUR ATTENTION!