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
1.1 Introduction

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.
1.3 Introduction – main challenges

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
2.2 Six trade repositories in Europe – some more important than others

Importance of the six TRs in Europe
Notional values at end-March 2015, EUR trillion and % of total

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<th>A. All derivatives</th>
<th>B. OTC market only</th>
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323 67%

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!)

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

- 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**
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!