



EUROPEAN CENTRAL BANK

EUROSYSTEM

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Money Market Statistical Reporting (MMSR)

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Overview

- 1 MMSR in a nutshell
- 2 The data in details: variables and attributes
- 3 Implementation and standardisation
- 4 Validation procedures
- 5 Progress with the data collection
- 6 What can the MMSR data tell us?
- 7 Conclusions

MMSR in a nutshell (1/4)

- **MMSR Business case**

- The euro money market changed following the crisis
 - *Modified market patterns* and *severe market fragmentation* within the euro area
 - *Financial innovations* leading to market participants' behaviour
 - *Regulatory changes*, affecting money markets activities
- Consequences
 - *Lack of information* to interpret on a timely basis the money market-related elements of the monetary policy transmission mechanism
- Solution
 - *Collect statistical information on euro money markets* to better conduct monetary policy and related market operations analysis

- **Legal act**

=> MMSR Regulation ECB/2014/48

adopted on *26.11.2014*
and enforced *as of 1.01.2015*

- **Coverage and scope of the data collection**
 - **Transaction-by-transaction** data on four euro money market segments
 - *Secured*
 - *Unsecured*
 - *FX Swaps*
 - *OIS*
 - **Daily frequency**
 - Reporting by 7 a.m. on the day following the trade date and covering all money market trades conducted during the previous day
 - **Timeline**
 - Full reporting as of 1 July 2016, following a 3 months interim period

- **Reporting population**

- The biggest 52 euro area MFIs with *a balance sheet larger than 0.35 %* compared to the total balance sheet of all euro area MFIs
 - The high correlation between the bank balance sheet and the money market activity ensured *achieving coverage of ca. 85% of the money market*
- Highest money market concentration (around 80%) for reporting agents located in Germany, France, Italy and Spain

- **Counterparty coverage**

- *MFIs* (interbank market)
- Central Banks and General Government
- OFIs, Pension Funds and Insurance Corporations
- “wholesale” NFCs classified as such by Basel 3 LCR framework

- **Documentation:** www.ecb.europa.eu/stats/money/mmsr
 - Reporting Instructions
 - Data Quality Checks
 - Q&A
 - XML-schemas

The screenshot shows the ECB website page for 'Euro money market'. The page features the ECB logo and 'EUROSYSTEM' branding at the top left. A search bar with 'Google Custom Search' is located at the top center. On the top right, there are links for 'Banking Supervision' and 'English', along with social media icons for 'Follow us' (G+, Twitter, YouTube, LinkedIn, Facebook). A navigation menu below the search bar includes 'About', 'Media', 'Explainers', 'Research & Publications', 'Statistics', 'The Euro', 'Monetary Policy', 'Payments & Markets', and 'Careers'. The breadcrumb trail reads: 'Home > Statistics > Monetary and financial statistics > Euro money market'. The main content area is titled 'Euro money market' and 'Money market statistical reporting'. It includes a paragraph explaining that the MMSR dataset is based on transaction-by-transaction data from a sample of EU reporting agents. Below this, the 'Objectives' section lists two points: 1. achieve a better understanding of how money markets work and evolve, their changing patterns and, in particular, banks' funding in different segments; 2. provide more relevant and timely information on the monetary policy transmission mechanism, as well as better information on market expectations about the future trajectory of policy rates. On the left side, there is a 'Statistics' sidebar with a tree view showing 'Key euro area indicators', 'Exchange rates', 'Monetary and financial statistics' (expanded), 'Monetary statistics', 'Financial vehicle corporations', 'Investment funds', 'Insurance corporations and pension funds', 'Surveys', 'Bank interest rates', and 'Long-term interest rates'. On the right side, there is a 'Related documents' sidebar listing: 'Regulation ECB/2014/48', 'Amending Regulation ECB/2015/30', 'Reporting instructions', 'IT appendix for reporting agents', 'XML Schemas', 'Web service description', 'Data quality checks', and 'Q&A'.

- **Main money market variables**

- *Valuation* Interest rates | Basis Point Spread | Price | Swap points
- *Turnover* Transaction Nominal Amount

- **Counterparty identification**

- *Legal Entity Identifier* (LEI, ISO 17442) ← MFIs, CCPs and IOs, or
- *Sector* (ESA 2010 code) + *Location* (ISO 3166 country code)

- **Maturity structure**

- *Trade Date* *Settlement Date* *Maturity Date*

- **Collateral identification**

- ISIN International Securities Identification Number (ISIN, ISO 6166), or
- *Asset Type* (CFI, ISO 10962) + *Issuer Sector* (ESA2010 code)

- **Documentation**

- Detailed *Reporting Instructions* explaining the conceptual and technical specificities of the MMSR framework
- An extensive *Q&A document* further elaborating on the reporting
- Clear and well-defined *XML-reporting-schemas*

=> *Ensuring common and correct understanding among reporting agents*

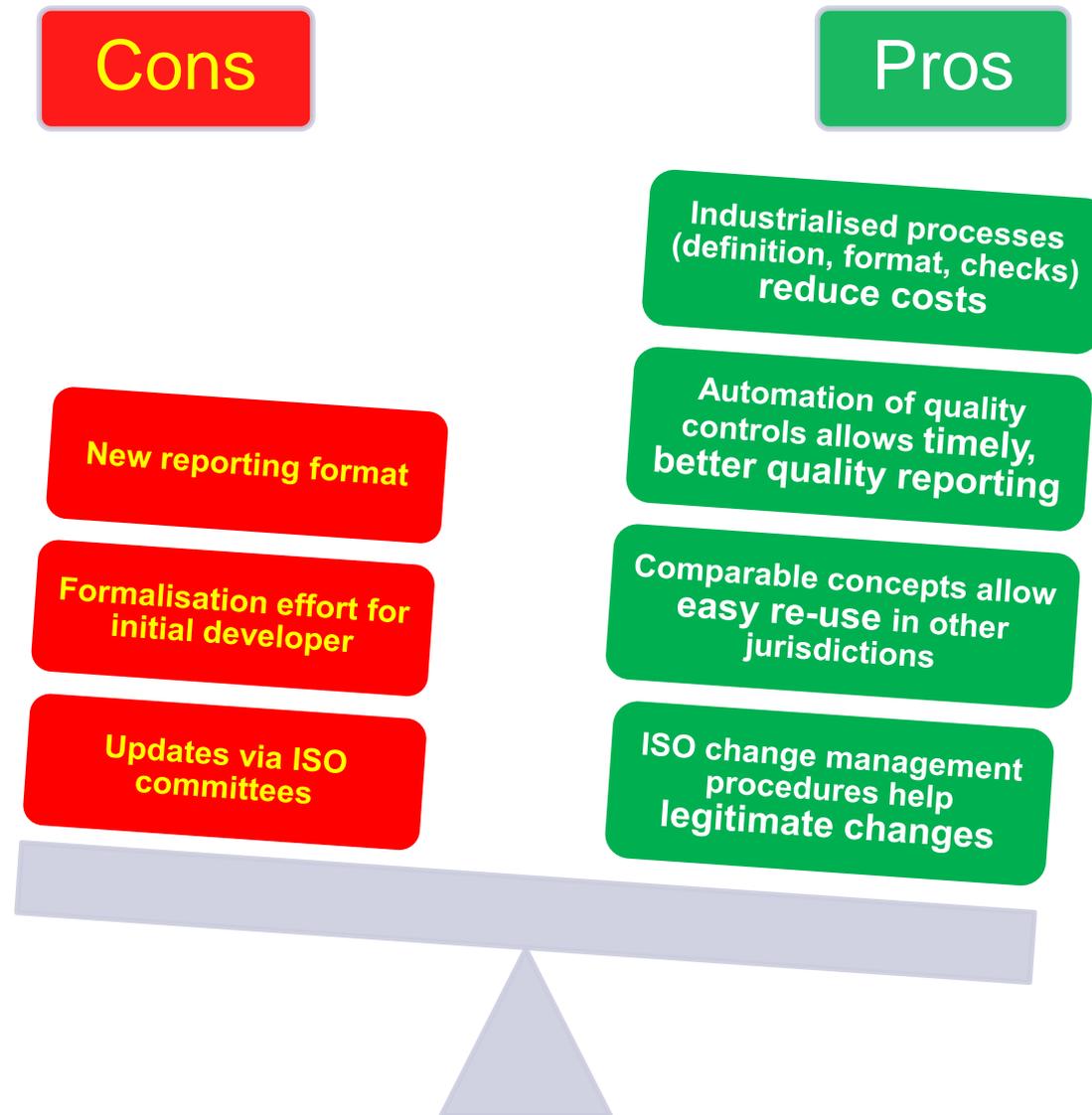
- **Strong interaction with the industry**

- *3 mock-up data exercises* conducted in 2015 to test the understanding of the reporting framework and readiness of the reporting agents
- *Several meetings with the banking industry*
Dec 2014, Feb 2015, Dec 2015, May 2016 and Nov 2016

Implementation and Standardisation (2/4)

- To achieve high timeliness and quality, the Reporting Instructions *follow ISO 20022 standards* *approved in January 2016*
 - *redeploying existing* standardised *financial messaging approach* (methodology, process, repository) used in payments, securities, etc.
 - establish *global unique library* for exchanging financial information between businesses and systems
 - *formalised in XML schemas*, reducing risk of errors
 - binding, ensures *full automation for reporting banks and for central banks*
 - complemented with illustrations/examples to further specify data to be sent
- MMSR web page on ECB website with ISO reporting instructions and XML schemas: <https://www.ecb.europa.eu/stats/money/mmss/html/index.en.html>

Implementation and Standardisation (3/4)



ISO standardisation has also been pursued by:

- **ESMA** in the context of the *Secured Financing Transactions*
Business justification *approved in October 2016*
- **Bank of England** for their *money market statistical reporting*
Public consultation *launched in July 2015*
- **European Money Market Institute** for the establishment of
a transaction-based calculation methodology for EURIBOR – in summer 2016

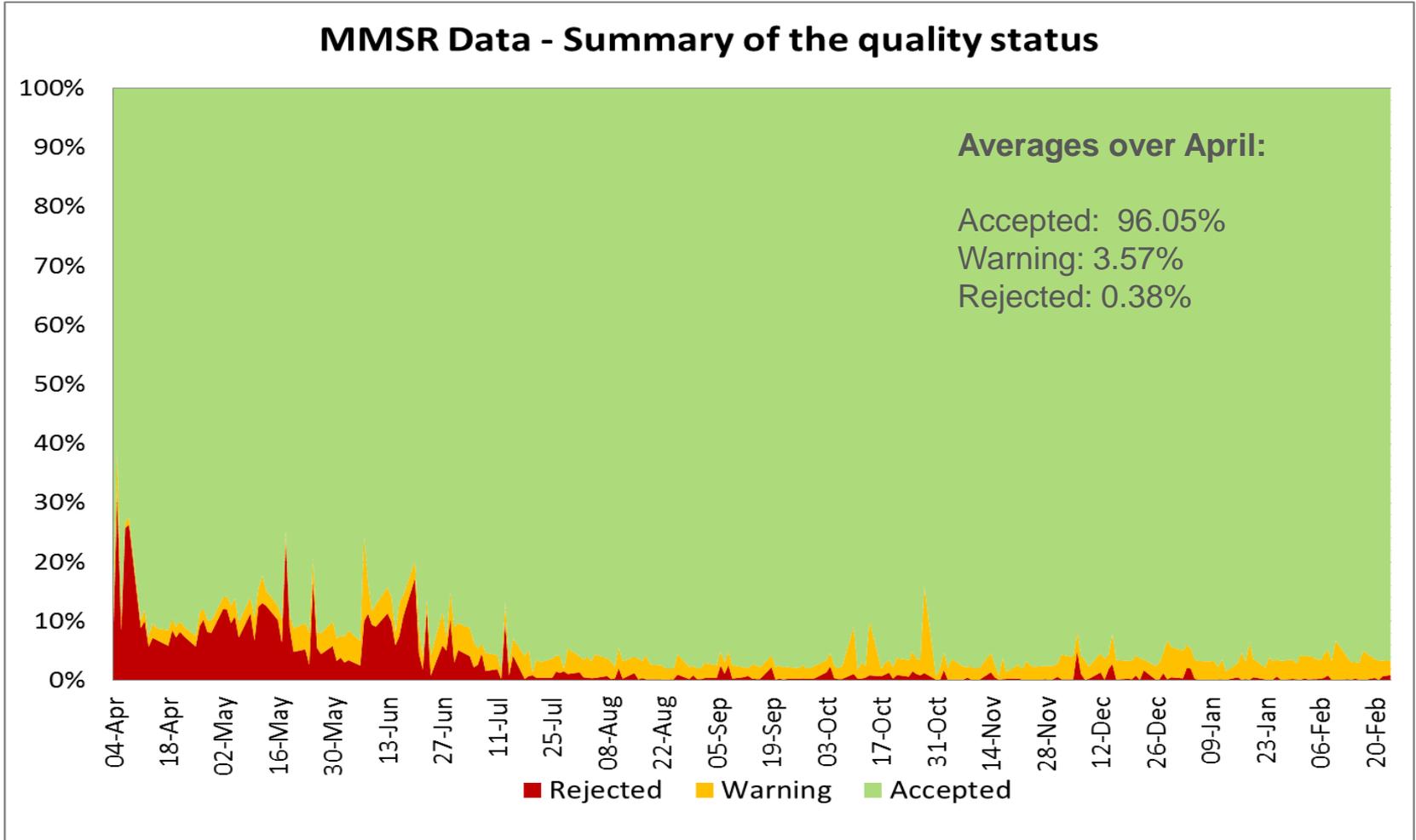
=> Encouragement to re-use standard for similar requirements

- **Data Quality Checks**

- *Provided as a detailed document to the reporting agents* to ensure transparency and easiness of the implementation on their side
- *Applied immediately* after data reception
- *Scope*
 - compliance with formats
 - consistency of the information
 - plausibility of the data
- *Follow-up*
 - *Automatic, system-generated message* to the reporting agent presenting a detailed explanation of the breached DQ Check(s)
 - The Eurosystem message requires *response and corrective measures by the reporting agent ASAP*, but not later than 10 days

- **Quality overview of the MMSR data collection**
 - Thus far *10 million transactional records* received since the go-live
on 1 April 2016
 - Currently
 - Approximately *42,000 transactional records* received *per day*
 - *99.75%* of the records *accepted* and *0.25% rejected*
 - Over *95% of the transactions are reported on time*
 - Reporting agents are still fine-tuning their reporting with a rate of *up to 6% amended/corrected transactions* in different days

- Evolution of percentage of *accepted*, accepted with *warnings* and *rejected transactional records*



- **How the interest rates in the money markets evolve**
 - The transmission of the monetary policy signal implemented through the Open Market Operations and non-standard policy measures
- **Developments on the traded volumes**
 - Assessing the demand and supply of money in the euro area
 - Liquidity position of the banking system and of a particular market player
- **What is the fragmentation of the market in the euro area**
 - Applied interest rates, prices and volumes by reporting agents in different countries and regions
 - Geographical representation of the counterparties universe
 - Usage and quality of collateral, for instance:
 - Domestic vs. non-resident
 - Applied haircuts
 - Ratings, etc.

What can the MMSR data tell us? (2/2)

Examples of ad hoc studies

Event type	Market data used	Findings
“Brexit”	FX swaps: UK counterparties	Temporary reduction in turnover with UK counterparties for a few days
“Brexit”	FX swaps: maturity selection	Borrowing of overnight and tom/next GBP vs EUR on Friday, covering the week-end
Pass-through of negative rates	Unsecured: call accounts vs deposits	Call accounts remain at rates above the Deposit Facility Rate
Repo market study	Collateral rates	Distribution of rates skewed to levels below Deposit Facility Rate: informed work on securities lending facility
Stress tests	Banks' borrowing rates, unsecured	Allowed to assess (limited) impact also on non-reporting banks
Quarter- and year end	Volumes and rates across segments	FX swaps: higher implied dollar borrowing rates, how (much) was year-end prepared? Secured: change from searching for cash to searching for securities

- **MMSR positive outcome**

- New data collection with the *highest frequency and granularity* ensuring the *maximum possible coverage* on money market statistics
- *Standardisation, data validation and preparation* guaranteed a *high quality dataset* and mitigated the reporting burden on the industry
- *Full automated system* aimed at improving effectiveness and lowering the costs
- *A rich source of information* serving many purposes among the Eurosystem, the industry and the public at large

- **Remaining challenges ahead**

- Further *improvement of the data quality*: outlier detection, clustering and multivariate analysis, monitoring of the wrong reporting
- External *dissemination* of the data
- *Enlargement of the reporting population*

Thank you!

Questions?

