2020

REVIEW OF BOND MARKET TRANSPARENCY UNDER MIFID II

Risks and Trends
INTRODUCTION

More than two years after MiFID II came into force, the AMF decided to conduct a review of the transparency measures introduced by the new legislation on bonds, and in particular the conditions for access and use of post-trade transparency data by market participants.

The analysis revealed that the transparency of transaction information is not currently accessible, reliable and relevant enough to enable investors to make effective use of it. This is because transparency is fragmented and data vendors currently do not consolidate the full range of available sources. Furthermore, access to data continues to be difficult for market participants, since some publication services have yet to meet all the criteria defined by ESMA. The AMF also notes that some of the data is of mixed quality and potentially incomplete.

The analyses conducted by the AMF are borne out by several surveys and studies of market participants conducted by professional organisations and national regulators. The interviews conducted with various stakeholders suggest that the main findings of this study are shared by bond market participants to a relatively large extent.

1. REMINDER: ORGANISATION OF BOND TRANSPARENCY UNDER MIFID II

Whereas MiFID I required the publication of transactions only for shares admitted to trading on a European regulated market, MiFID II extends this requirement to a broad range of instruments, including bonds admitted to trading on a European trading venue. The scope of assets covered by transparency requirements has therefore jumped from roughly 6,000 shares to several thousand instruments, including 519 bonds qualified as “liquid” by ESMA (at 1 February 2020).

The new bond market transparency requirements fall under two categories:

- **Pre-trade transparency**: this consists in publishing the firm conditions under which transactions may be conducted in terms of price and quantities. It applies to trading venues and Systematic Internalisers (SI). Order book trading venues (e.g. MTS France or Euronext) are subject to the standard pre-trade transparency procedures applicable to regulated equity markets. Conversely, Request-For-Quote (RFQ) trading venues (Tradeweb, Bloomberg, MarketAxess) and SIs that reply to RFQs are obliged to publish the prices quoted to the client who made the request. However, RFQ-type trading venues did not wait for MiFID II to provide their users with the quotes from market-makers. This service offering, which is widely used by bond market participants, has long been part of their business model.
However, waivers exempt certain orders from publication, in particular those on instruments considered illiquid, as well as all orders above certain size thresholds.

- **Post-trade transparency:** this applies to all types of transactions, both on trading venues and OTC (including SIs). For transactions conducted on trading venues, the trading venue ensures the publication directly. For OTC transactions, one of both counterparties must make the publication through an Approved Publication Arrangement (APA). The mandatory use of these approved entities is one of the new features of MiFID II, aimed at ensuring a high degree of quality and a certain level of concentration of publications.

By default, the details of this information must be made available to the public “as close to real-time as is technically possible” and must not exceed 15 minutes (maximum of 2 minutes as from 2021). However, there are waivers that authorise a deferral of the publication by as much as 5 weeks. Transactions on sovereign debt instruments that are illiquid and those that are above certain size thresholds may benefit from this deferral.

According to ESMA figures, nearly 80% (in notional amount trading volumes) of transactions on sovereign bonds are subject to an aggregated publication at ISIN level one week after the transaction and the full publication of each individual transaction four weeks after the aggregated publication. However, for non-sovereign bonds, most transactions are published two days after the transaction.

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1 MiFID II defines two thresholds applicable under specific circumstances: Large in Scale (LIS) and Size Specific to the Instruments (SSTI).
2 No transaction is however totally exempted from publication: for post-trade transparency, only waivers allow a deferral and, in the case of sovereign bonds, an aggregation published up to four weeks after the end of the observation week (i.e. potentially up to five weeks after the transaction).
3 Source: “MiFID II/MIFIR review report on the transparency regime for non-equity instruments and the trading obligation for derivatives” of 10 March 2020.
**Liquid bonds**

The number of liquid bonds has risen slowly since the first list published by ESMA. The upswing in Q1 2019, due to an increase in activity – quite typical at the beginning of the year - is an exception to a more moderate trend. Today, 519 bonds, 41 of which are French, are considered to be liquid within the meaning of MiFID II.

![Graph showing number of liquid bonds according to MiFID II legislation]

The data above corresponds to quarters over which liquid bonds are measured. The lists are published officially by ESMA one month after the end of the quarter, and the new list comes officially into force 15 days later.

Owing to the limited number of liquid bonds and the many other waivers (see Appendix 1), pre-trade transparency de facto concerns only a small share of bond transactions and is of only marginal relevance in the price formation process. Market-maker quotes provided by RFQ-type trading venues are more widely used in fixed income markets.

**This study will therefore focus on post-trade transparency.**
2. TRANSPARENCY PLAYERS: FRAGMENTED SOURCES

Given that transparency procedures depend on the venues where the transaction is executed, it is useful to determine the significance of these various venues prior to the analysis. The AMF has endeavoured to estimate this mapping for bonds under French supervision using the transaction reports it receives mostly from investment firms (RDT-TREM).

![Breakdown of volumes traded by execution venue](image)

**Breakdown of volumes traded by execution venue**
(on debt securities under French supervision, as a percentage of notional volumes traded)

According to RDT-TREM data, French bonds are traded mainly as “pure” OTC transactions (nearly 22% of volumes). Two MTFs come next with 12% and 9% of the total notional amounts traded: Tradeweb and Bloomberg. These platforms produce their own publications and constitute different sources of transparency, alongside 10 other platforms with an active market share of more than 1% of the French bond market.

The reliability of this breakdown depends on the quality of transaction reporting. In particular, it is not possible to isolate the venue where the transaction may have been pre-arranged from the trading venue where it has been ultimately reported and deemed executed in order to benefit from publication or settlement arrangement by the trading venue. Moreover, considering the overall market, aggregating government and credit bonds as illustrated in the chart above may lower the market share of certain platforms and SI s which specialise in a sub-asset class.

With 58% of notional amounts traded, publications of OTC transactions (either “pure” OTCs or through a systematic internaliser) must be made through an APA. There are currently 24 APAs on ESMA’s register. To study their

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4 The calculations were made after matching reports (double buy-sell reports) to recreate the actual nominal amounts. Scope: all debt instruments (DB and DT in the CFI code) under French supervision.

5 For example, appendix 2 shows a similar exercise for the credit market only.
respective significance, the AMF analysed the publications consolidated by Refinitiv (formerly Thomson Reuters) and Bloomberg.

The chart on the left below represents the market shares of the six major APAs, based on data from Refinitiv, on a representative selection of bonds under French supervision. The chart on the right consolidates all the publication venues and includes trading venues. The latter is based on multiple data sources which all present potential errors. Although these results should be treated with caution, they allow the main players to be highlighted.

### Breakdown of volumes by publication source
as a % of notional amounts published

#### Breakdown among APAs alone (OTC)

![Pie chart showing market shares among APAs](chart1.png)

#### Estimate of the combined market (TV+OTC)

![Pie chart showing market shares among APAs](chart2.png)

Source: RDT-TREM/Data aggregator

The use of two data vendors gives two significantly different outcomes.\(^6\) It would nonetheless appear that the APA landscape seems to be dominated by three entities: Tradeweb, followed by Bloomberg and MarketAxess. These three entities also operate the bond market’s most popular MTFs. The three groups have leveraged their well-established business relationships with their market members to position themselves as key players in the new APA market.

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\(^6\) One explanation for this divergence is the fact that there are different offerings from the sources available, since Refinitiv and Bloomberg do not consolidate exactly the same MTFs, OTFs or APAs. The use of separate securities samples can also explain this divergence. The results obtained from the Bloomberg extractions show that Tradeweb APA has a significantly larger market share.
Comparison with the equity market and challenges for participants

In comparison, the French equity market appears to be more concentrated in terms of transparency sources: Cboe, boosted by its dominant position as an APA (84% of APA volumes) in addition to that of its platforms, accounts for 56% of published volumes, well ahead of Euronext (28%) and the LSE with Tradecho (11%). Together, these three sources cover 95% of volumes published (in amount). On the bond market, the three main sources (Tradeweb, Bloomberg and MarketAxess) cover only 77% of volumes. Two other sources (Deutsche Boerse and Aurel+BGC) must be added to make up 95% of the market.

In terms of publication, the bond market thus appears to be more fragmented than the equity market. Moreover, the emergence of a data vendor offering that consolidates all sources of transparency data would seem a more difficult task for the bond market. While Bloomberg and Refinitiv both provide their clients with access to the most important sources of transparency data, there are a number of significant sources that are not currently included in their offerings.

3. PERSISTENT DIFFICULTIES IN ACCESSING DATA

The MiFIR Regulation requires platforms and APAs to publish transparency data free of charge within 15 minutes after the initial publication, which can be charged.

More specifically, the European regulation requires APAs “to be able to efficiently and consistently disseminate such information in a way that ensures fast access to the information, on a non-discriminatory basis and in a format that facilitates the consolidation of the information.” Despite this provision, in the wake of MiFID II, various stakeholders have publicly expressed their concerns about the difficulty of accessing data. For example, practices such as the publication of data in an “image” format that is then deleted immediately after being displayed cannot be considered as compliant with the obligation of a “machine readable” format that can be consolidated.

To meet these expectations, in November 2018, ESMA published a Questions & Answers (Q&A) that specified the publication requirements and non-compliant practices, for trading venues and APAs. More than one year after this Q&A, ESMA has carried out an assessment of these measures.

7 Trading venues and APA of the same group, such as Bloomberg MTF and Bloomberg APA or Aurel and BGC, are considered to be from a single source.
8 “MiFID data: hard to access, hard to use” Risk.Net of 03/05/2018
The AMF has also endeavoured to assess the level of accessibility of these data. The analysis covered ten entities:
- seven of the main transparency data suppliers in Europe (trading venues and APA),
- as well as the main French brokers’ trading venues.

Several criteria were used to assess the accessibility of transparency data. The AMF first adopted criteria as established by ESMA in its Q&A. Some of these turned out to be objective and measurable (for example the publication of transactions within 15 minutes, and keeping information available for at least 24 hours, etc.). Conversely, some of the other criteria are more subjective and qualitative (for example, complexity of data access, ease of reading). The AMF has added some additional criteria to this list. They are intended to assess the ease of use of data (e.g. whether it is possible to export the data in "csv" format, to display title labels in addition to the ISIN code).

More than a year after publication by ESMA, certain accessibility criteria are still falling short of specification requirements. Compliance plans require major developments given the stakes involved. Even for the major bond transparency players, there is still work to be done to meet the specifications set by the European regulator. Although all 10 entities studied provide data free of charge within 15 minutes of the first paid publication, other fundamental criteria are more difficult to meet.

With regard to ESMA’s criteria, five of these entities are still struggling to provide data that can be qualified as “machine readable”. Although gaining automatic access to data is not an impossible task, this often requires advanced IT skills. The “human readable” aspect is also a problem for three entities. For example, this sometimes comes in the form of simple "csv" files communicated every minute, with no visual interface available to the public. It would thus be necessary to download, open and reprocess more than 500 separate files to work on the session data. On the other hand, one of the 10 providers surveyed simply provides an ISIN-by-ISIN search bar to access the data, which is not allowed by ESMA (since this then requires all the ISINs in the bond universe to be entered in order to consolidate transactions).

In addition to the ESMA criteria, it should be noted that there is a general absence of security or issuer names that does not make it easy for the public to read the documents.

It should be noted that the technical publishing solutions for the three French brokers studied are in fact the same in-house solutions provided by their respective parent companies in the United Kingdom. These three groups make the transparency data of all their subsidiaries available through a shared solution on their website.

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5 These criteria, which are mostly subjective, exclusively reflect the opinion of the authors and not that of the AMF.
4. EXHAUSTIVENESS AND DATA QUALITY

Quality analysis

Over and above accessibility, the quality of data is another prerequisite for delivering the expected benefits of transparency to the market as a whole.

To measure the quality of transparency data, the AMF analysed the transactions published by the main APAs. The reports provided by APAs are indeed the most relevant sources to analyse since it is the market participants, not the venues, who are the originators of the reports. Since there are a large number of players, there is also a higher risk of error.

The quality of transparency data was analysed through the publications provided by Refinitiv (TRTH). The sample corresponds to a broad sample of 77,000 transactions made on nearly 2,500 bonds under French supervision traded between 1st January and 31 August 2019. A similar exercise, that was carried out on Bloomberg transactions, yielded comparable results.

The chart below summarises the results of an analysis aimed at identifying possible errors from among these published transactions according to several criteria.

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Occurrences</th>
<th>Share of transactions</th>
<th>Main cause</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal &lt; 100 000</td>
<td>18 044</td>
<td>23.2%</td>
<td>Nominal vs Quantity</td>
</tr>
<tr>
<td>Nominal &gt; 250 M€</td>
<td>570</td>
<td>0.7%</td>
<td>Volume multiplier</td>
</tr>
<tr>
<td>Price &lt; 10%</td>
<td>3 656</td>
<td>4.7%</td>
<td>Price vs Yield</td>
</tr>
<tr>
<td>Price &gt; 200%</td>
<td>1 148</td>
<td>1.5%</td>
<td>Unit Price Vs Total Price</td>
</tr>
<tr>
<td>Double transactions</td>
<td>919</td>
<td>1.2%</td>
<td>Two Reporting Entities</td>
</tr>
<tr>
<td>Total</td>
<td>24 337</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Several observations lead to the conclusion that the quality of the data is still somewhat mixed:

- Nominal vs Quantity: there would seem to be some confusion between the quantity of securities traded and the total nominal amount of these transactions.

  Conversely, and luckily, few reports suffer from a multiplier effect that results in extravagant nominal amounts (higher than €250 million).

- Price vs yield: transactions are either reported as ratios or declared as a percentage and not in basis points.

- Unit price vs total price: some counterparties seem to enter the total cost of their transaction rather than the unit price of each security.
• Double reports: the seller and the buyer report the same transaction. This requirement normally falls only on the seller, except if the buyer is acting in its capacity as SI or if the seller is not an investment company. However, this phenomenon remains marginal.

The absence of uniform data and the errors in the data published are obstacles to the use of post-transaction transparency by market players. It would therefore appear necessary to carry out work to make data more reliable before transparency can be fully used by the market and deliver its benefits.

Exhaustiveness of the analysis

In addition to the quality of data available, the AMF was also keen to check its completeness. The authority therefore compared the data from the main APAs with the RDT-TREM reporting available for Supervision.

In theory, all transactions carried out via “pure” OTCs and via SIs must be published on an APA. The OTC and SI volumes reported in RDT-TREM, after the partial matching of any double seller-buyer reports, should correspond more or less to the volumes published by the APA.10

However, the AMF’s analyses reveal a significant discrepancy between the two sources of data. Regardless of the aggregator taken into account, the overlap rate between transparency data and RDT-TREM reporting data varies, excluding outliers, between 25% and 45% of the volumes traded depending on the months studied.

The comparison between APA data and RDT-TREM data shows significant and highly variable differences over time. This can be explained by various non-exclusive factors:

• Data vendors do not consolidate all the APAs.
• Investment companies may have failed to report their transactions to their APA.
• The AMF was not able to match the two reports (from the buyer and the seller) that are liable to take part in the same transaction (for example, due to different rounded time-stamp, price or nominal amounts) and counted them as two separate items, thus doubling the RDT-TREM volumes.
• More generally, errors in reports in RDT-TREM or to APAs, which could result in increased volumes or multiple reports.

These observations encourage the AMF to reinforce its actions to improve the quality of reports, whether they concern the transparency of transactions or reports to the RDT-TREM regulator.

10 Only certain types of transactions can be exempted from RDT-TREM reporting, for example, transactions entered into by two entities that do not have investment firm status. This situation is an exceptional one.
5. THE OPINION OF MARKET PARTICIPANTS: THE NEED FOR A CONSOLIDATED TAPE

5.1. A CRITICAL VIEW SHARED BY PARTICIPANTS

The AMF’s findings, which conclude that data are still fragmented, incomplete and of mixed quality, may explain why the market makes little use of them.

These conclusions are widely shared by participants, as shown in two studies:

- The study published by the ICMA at the beginning of 2019 and conducted on the basis of an industry survey: in this study, respondents stated that post-trade transparency had not yet improved and attributed this result to difficulties in accessing data (see graph below) as well as data quality (73% of respondents considered that less than 10% of the data was usable).

![Graph showing post-trade transparency post MiFID II/R and access to APA data.](source: ICMA)

- A study published by the Swedish regulator comparing the status of Swedish bond market transparency before and after the introduction of MiFID II. Sweden previously had its own market transparency legislative framework. According to the participants interviewed, the changeover to MiFID II has had an adverse effect on transparency. The spectrum of published transactions has narrowed, data is now scattered among a multitude of providers, and there are doubts about the completeness of the available information.

During its study, the AMF also interviewed market participants. These interviews were conducted with major buy-side players, trading venues and APAs. Theoretically, the buy-side should be benefitting from transparency with the decrease in information asymmetry. However, the companies interviewed declared that they are not actively

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11 ICMA study: “MiFID II/R and the bond markets: the first year”, please see appendix 2
12 Finansinspektionen study: “New rules led to reduced transparency on the Swedish bond market” (17/10/2019)
using the transparency data from MiFID II, which they consider to be fragmented, difficult to access and of uncertain quality. Data providers also stated that there is still a long way to go to obtain uniform and quality data.

However, the buy-side participants mentioned that they regularly consult the US TRACE consolidated tape, whose publications include all the transactions conducted on US corporate bonds.

5.2. THE US CONSOLIDATED TAPE TRACE

TRACE (Trade Reporting And Compliance Engine) is a transaction reporting tool developed by FINRA in the United States. All markets-makers who are members of FINRA are obliged by the SEC to declare all corporate bond transactions to TRACE. FINRA thus has a de facto role of aggregator that is comparable to the role of consolidated tape.

This consolidated tape is cited as a benchmark to be followed because of its numerous advantages:

- **Centralisation:** unlike public data in Europe, which is scattered among many different agents, US transparency data is available on a single platform: http://finra-markets.morningstar.com,

- **Quality:** TRACE was launched in 2002, and this has given FINRA time to carry out quality actions with contributors, thus ensuring a high degree of reliability of data today,

- **Completeness:** all transactions on the corporate market are available within 15 minutes, and only transactions for large amounts (higher than €5 million for Investment Grade and €1 million for High Yield) may be displayed with an indicative amount rather than their exact nominal amount (for example “5 million+” or “1 million+” depending on the bond characteristics). The exact nominal amount is published after six months. In Europe, only transactions made on a limited list of bonds considered to be liquid may be published within 15 minutes provided they do not exceed easily reachable size thresholds (see below).

TRACE also makes available all the transactions carried out on bonds since it was created whereas the European model requires disclosure only for the last 24 hours.

- **High-performing business model:** TRACE is free of charge for the public via a web interface that makes it possible to manually query transactions on a specific ISIN code. For professionals who seek real-time automatic population, the service costs $7,500/month.

However, TRACE has one shortcoming compared with the European model: transaction reporting concerns only corporate and municipal bonds. Since 10 March 2020, FINRA has been publishing weekly aggregated volumes for treasury securities.13

5.3. **ONGOING WORK ON CONSOLIDATED TAPES IN EUROPE**

Over the last few months, the European Commission and ESMA have launched several consultations concerning transparency and consolidated tapes.

Participants confirmed, in particular, the need for a consolidated tape. A consolidated tape would appear all the more useful for this market which is relatively opaque (in particular for the less liquid segments).

Data vendor solutions could be an alternative, at least a temporary one, to a centralised consolidated tape. A European consolidated tape would, however, be more legitimate to harmonise, verify and correct multiple data sources, regardless of the competitive relationship between data providers.

5.4. **REASONS FOR THE ABSENCE OF AN OFFICIAL CONSOLIDATED TAPE**

To date, industry attempts to create a Consolidated Tape Provider (CTP) on equities (technically simpler) have failed and no consolidated tape has emerged. This situation can be explained by several factors. First, from a regulatory viewpoint, the obligations imposed on a CTP are particularly stringent. This is because, in addition to organisational constraints similar to those of an investment firm, MiFID II requires that CTPs exhaustively collect all transaction data, whether published on an RM, MTF, OTF or APA. At the same time, the use of the consolidated tape for execution purposes (price formation process) requires real-time data (pre-trade and post-trade) from the various execution venues. When these data are used for benchmarking purpose, such as transaction cost analysis or best execution obligations, this substantial work of completeness and aggregation also comes up against the difficulties of monetising data that is supposed to be made available to the public free of charge only 15 minutes after the first (paid) publication. There is no obstacle to waiting an additional 15 minutes to access the information free of charge when the vast majority of transactions are subject to a 4-week publication deferral.

Under these conditions, the economic viability of one or more CTPs is unlikely to be guaranteed, especially since data vendors have no restrictions in marketing the services they may wish to choose.

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14 See appendix 4 for the minutes sent to participants of the consultation organised by the European Commission (workshop of 28/06/2019).
CONCLUSION

Two years after the entry into force of MiFID II, the benefits of mandatory transparency are yet to materialise because market participants do not effectively use the data. This is because they are faced with several challenges:

- The fragmentation of data sources whether trading venues or APAs for OTC trading. Until a possible consolidated tape is created, the data vendor solutions could eventually be an alternative solution although these currently are not exhaustive.

- Market participants sometimes find it difficult to access the various publication sources used in generating transparency data (APAs and trading venues).

- The completeness and quality of data today seems unsatisfactory, especially for OTC transactions, because they come from many reporting entities that can omit or alter their reports.

Faced with these difficulties the regulator’s priorities will consist in:

- Striving to improve the quality of reports, both concerning the transparency of transactions and RDT and TREM reporting.

- Reinforced compliance by trading venues and APAs with the level 3 measures concerning access to data. With this in mind, the AMF is pushing for international coordination with the other European regulators.

- The AMF supports the emergence of a consolidated tape that is currently the measure/the next step awaited by the entire market. This new entity would catalyse fuller transaction transparency and spur the delivery of its benefits.
Appendix 1: Breakdown of volumes traded by execution venue on 985 credit bonds under French supervision

![Pie chart showing percentages of volumes traded by execution venue.]

Source: AMF (RDT-TREM).
Period between January 2020 and May 2020.

Some “voice” or “chat” transactions may be reported as executed on a platform, inflating those figures at the expense of pure OTC. Nevertheless it is noticeable that, in the credit market, pure OTC and SI transactions remain significant.

Appendix 2: extract of the ICMA study “MiFID II/R and the bond markets: the first year”

**Transparency**

While greater transparency is a key objective of the regulation, this very much seems to be work in progress as far as bond markets are concerned. Respondents suggest that, to date, post-trade transparency has not improved as a result of the regulation. This can partly be attributed to the challenge of accessing trade data (86% of respondents find it ‘difficult’ or ‘very difficult’) as well as to the quality of the data itself (73% of respondents believe that less than 10% of the available data is ‘usable’). However, there seems to be a degree of optimism that in time the pre- and post-trade data will become more reliable; although, even by 2022, the expectations for the extent of usability seem to be mixed at best. It is perhaps no surprise that most respondents feel that price discovery is either the same or worse (90% of respondents) than pre-MiFID II/R.

Consistent with previous ICMA member feedback, the majority of respondents (88%) feel that a consolidated tape, provided as a utility (similar to TRACE in the US), would help to provide the level playing field that the regulation is intended to deliver.