

# Transparency and Liquidity in the European bond markets An ICMA Discussion Paper

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# Introduction

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The state of liquidity in the European bond markets has been hotly debated for a number of years, with the growing realization that due to a culmination of factors market liquidity has been in serial decline for more than a decade. There is an ongoing parallel discussion on the issue of transparency in the European bond markets. While it is broadly recognized that a degree of price transparency is fundamental for market efficiency and integrity, the intersection of transparency and liquidity is a far more complex consideration, yet an important one from the perspective of market development.

In recent years ICMA has been pivotal in highlighting the challenges to European [bond market liquidity](#), largely based on the guidance and input of its [Secondary Market Practices Committee](#) (SMPC). At the same time, mainly through the work undertaken by its [MiFID II/R Working Group](#) (MWG), ICMA has been a market leader in the discussions around [European bond market transparency](#). This paper attempts to pull those two workstreams together in order to explain how bond market structure and dynamics are very different to those of equity markets, that this is the basis for how liquidity is created in bond markets, and why this is central to any considerations around the framework for European bond market transparency, including any proposed future regulation related to the provision and design of a consolidated tape for bonds.



# What do we mean by liquidity and how is it created?

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The starting point for any discussion around market liquidity usually begins with the question of how to define it, followed by how then to measure it. However, this misses a critical step, which is to understand how liquidity in a particular market is created. It cannot be stated enough that the market structure for bonds is fundamentally different to that of equities and other non-bond markets.

According to data published by the Federation of European Stock Exchanges (FESE),<sup>1</sup> there were 7,214 European companies with listed shares on European Exchanges as of July 2020. Meanwhile, a search on Bloomberg suggests that as of September 2020 there were 118,541 outstanding corporate bonds issued by firms incorporated in the EEA (including Switzerland) and denominated in an EEA currency. Very few of these bonds will trade on a daily basis, and most will not trade at all in a month, or longer. Usually corporate bonds are active in the secondary market for the first few days after they are issued, before they find their way into the portfolios of long-term investors where they will remain. Subsequent secondary market activity tends to be episodic, and usually driven by credit events (such as a change in rating, and credit or sector specific news). Other factors that drive secondary market activity include managing investment fund inflows and redemptions, portfolio rebalancing, or relative value opportunities ('alpha generation').

Bonds, particularly corporate bonds, are therefore inherently illiquid and largely unsuitable for exchange trading. Since the probability of a seller being able to find a buyer at exactly the same time (the concept of 'immediacy') is likely to be low, for bond markets to function efficiently requires the service of market-makers. While market-makers do not necessarily run large inventories (less so in recent years),<sup>2</sup> and are unlikely to hold positions in every bond for which they are a liquidity provider, they nonetheless stand by ready to show clients prices (bids or offers) on request. This requires the market-maker being able to take the other side of the client trade,

taking the position, long or short, onto their own trading books, and running this position until a time when it can be offloaded; either with another client or in the wider market. The ability to provide this service, apart from a willingness to assume and manage market risk, requires balance sheet capacity, as well as access to funding and hedging markets, including repo, interest rate swaps, bond futures, and credit default swaps.

It is also worth noting that while there has been significant progress in the electrification of European bond markets and the adoption of e-trading in recent years, including the introduction of new platforms and protocols, the intrinsic structure of the market has not changed significantly (BIS 2016; ICMA 2020a). Liquidity is still largely created by market-makers, with technology making the process of finding quotes and transacting far more efficient. For bond markets, the predominant trading protocol remains 'request for quote' (RFQ). This became even more apparent during the COVID-19 related market turmoil in early 2020 (ICMA 2020d).

So now we know how liquidity is created, how do we define and measure it? In its 2016 report on the European corporate bond market, ICMA settled upon the following definition: *the ability to execute buy or sell orders, when you want, in the size you want, without causing a significant impact on the market price* (ICMA 2016). This essentially captures the three dimensions of liquidity outlined by Kyle (1985) and Harris (2003): cost, depth, and time.<sup>3</sup>

While depth and time are fundamental considerations for bond market liquidity, most measures tend to borrow from the equity market and focus on cost. For instance, the widely used equity market based Amihud measure, or variations of it, attempt to capture the 'round trip cost' of buying and selling a stock (Amihud 2002). In its adaptation for measuring bond market liquidity, this has been crudely translated into using bid-offer spreads as a proxy for liquidity. This is potentially misleading since it

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<sup>1</sup> <https://fese.eu/statistics/>

<sup>2</sup> While there are no official data for dealer inventories or balance sheet usage in Europe, by way of comparison, US dealer inventories for corporate bonds are estimated to have reduced by more than 50% from the pre-crisis highs (Dick-Nielsen and Rossi, 2018).

<sup>3</sup> Links to an extensive range of academic, market, and regulatory papers can be found in ICMA's online [Bond Market Liquidity Library](#)

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overlooks two critical considerations. Firstly, bond prices are generally not firm (i.e. executable). Due to the costs and risks associated with market-makers taking positions onto their books, quoted prices are invariably indicative at best. Secondly, bond-dealers' bid-offer spreads reflect a number of components: balance sheet costs, hedging costs, financing costs, and, most importantly, volatility. In a study undertaken by Risk Control, commissioned by the European Commission (European Commission 2017), the researchers suggest that previous regulatory studies had conflated a sharp decline in volatility with a perceived improvement in liquidity.

In recent years a number of data providers have begun to produce 'liquidity scoring' metrics for individual bonds. These generally take into account a range of dynamic and static variables, such as historical prints, observable quotes, price sensitivity, issue size, credit rating, maturity, age since issuance, index inclusion, and liquidity in similar bonds or related derivatives. Again, what these metrics attempt to map are the three dimensions of liquidity, estimating the time required to buy or sell a specified amount of bonds without a significant change in price, or the cost of executing the full size immediately.

We can safely conclude that measuring liquidity in bond markets is complex, possibly requiring the observation of multiple variables and data points. Furthermore, it is largely subjective. It is unlikely that any two observers would agree on the same methodology. Finally, liquidity is dynamic. What may appear liquid today could be illiquid tomorrow. It would seem that determining bond market liquidity is as much an art as a science.

# Does transparency help or hinder in bond markets?

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The regulatory promotion of trading transparency is one of the IOSCO principals of Securities Regulation (IOSCO 2017), with public transparency and accessibility to information viewed as key components of robust capital markets. Transparency can also support market efficiency: facilitating price discovery and market integrity, providing a level playing field for all market participants, and even underpinning liquidity by creating greater investor confidence.

However, in its recommendations for public transparency in secondary corporate bond markets, IOSCO also notes that while regulatory frameworks should be calibrated in a way that achieves a high level of post-trade transparency, they should also take into account the potential impact that post-trade transparency may have on market liquidity (IOSCO 2018). This is a recognition that, particularly in bond markets, too much information can be a bad thing. Again, this goes back to how bond market liquidity is created.

In illiquid markets, especially those that rely on market-makers as the principal source of liquidity, prices can be extremely sensitive to information, particularly in response to public knowledge that a trade is trying to be executed or has just been executed. Such information leakage creates risks for both the liquidity provider and the liquidity taker. In the case of the former, the liquidity provider will be taking a position onto their books that they will subsequently look to offlay. If during this period (which could range from hours to weeks) the details of the original transaction are publicly disseminated, the market will anticipate the offlaying trade and adjust the price of the securities accordingly, to the detriment of the liquidity provider. In the case of the liquidity taker, if it becomes market knowledge that somebody is looking to execute a particular trade, either before they are able to execute (pre-trade) or as they attempt to execute the transaction in increments (post-trade), the market will similarly adjust in response to this information. Here the liquidity dimension of depth (i.e. the ability for the market to absorb size) is also a fundamental consideration.

Accordingly, too much transparency can have an adverse effect on market efficiency and liquidity, either forcing liquidity providers to adjust their pricing (assuming that they do not withdraw liquidity completely) or amplifying market moves in response to any request for quote or partial execution. In both cases it is the investor who ultimately suffers. In its response to the consultation document for the IOSCO transparency recommendations, ICMA stressed that efficient and liquid markets are the most important considerations for investors, and which are valued far more than transparency in itself, since inefficient markets fail to serve both investors and issuers (ICMA 2017).

Thus, any public transparency framework needs to ride a fine line between improving market efficiency and undermining market liquidity.

# MiFID II/R and bond market transparency

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MiFID II and MiFIR introduced a pre- and post-trade transparency framework for EU bond markets which came into effect in January 2018. This follows a number of other jurisdictions, many with long-established transparency regimes for bonds, most notably the US.<sup>4</sup> In its deliberations over the design of the EU framework ESMA was clearly conscious of the interrelationship between bond market transparency and liquidity. The ESMA model would decide if a trade should be reported close to 'real time' or deferred to a later date based on a determination of whether the market for the underlying security is considered 'liquid'.

The inherent complexities in defining and measuring bond market liquidity became clear in the debate over whether to introduce a reporting deferral structure based on a simplified class of financial instrument approach ('COFIA'), or a more complicated instrument by instrument approach ('IBIA'). The former approach is based on issue size thresholds for different bond asset classes, while the latter measures the frequency with which an individual security trades on a daily basis against a benchmark threshold over a quarterly observation period. The thinking behind IBIA is that it would capture the effective liquidity time decay that is generally observed with bonds. While neither model was without its flaws, and critics, following extensive analysis and market guidance ESMA plumped for the more operationally complex, and market data dependent, IBIA approach (with COFIA applying in the case of new issues that fall in between the quarterly assessment periods). Erring on the side of caution, ESMA also decided that it would phase-in the calibration for the IBIA liquidity determination over a four-year period, increasing the threshold from an observation of fifteen trades per day to two trades per day, subject to ESMA's assessment of market impact.

Additionally, the ESMA model also applies deferral waivers for bonds deemed to have a liquid market based on the size of the order or transaction. In the case of pre-trade reporting, exemptions are provided for orders that are considered as large in size ('LIS') relative to normal market size, or RFQs that are above a size specific to the instrument ('SSTI'), with specified methodologies for calculating both thresholds. In the case of post-trade reporting, the LIS and SSTI thresholds provide for a deferral (a minimum of two business days, with the possibility of longer, up to a maximum four weeks, at the discretion of national regulators).

So almost three years on, does the EU bond market transparency regime work? From a liquidity perspective, the general assessment would seem to be that it has had relatively little impact to date, (ICMA 2020a).<sup>5</sup> On the contrary, market participants seem more concerned about an absence of meaningful transparency. ICMA's assessment of the second year following the implementation of MiFID II/R notes that one of the greatest shortcomings is the continued lack of post-trade transparency in fixed income markets: "survey results suggest that data quality, accessibility of data published through Approved Publication Arrangements (APAs) and usability of data published after deferral periods are key obstacles to creating greater transparency." (ICMA 2019)

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<sup>4</sup> An overview of various global bond market transparency regimes can be found on the ICMA [website](#).

<sup>5</sup> Looking to the future, market participants are far more concerned about the impacts on market liquidity of additional capital costs for market-makers and CSDR mandatory buy-ins than they are about increased pre- or post-trade transparency.

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This raises the question as to what changes to the EU transparency framework could be helpful? ICMA's MiFID II/R Working Group addressed some of the key issues in ICMA's response to the March 2020<sup>6</sup> ESMA [consultation](#) on the transparency regime for non-equity instruments (ICMA 2020b). With respect to ESMA's proposal to broaden MiFID II/R pre-trade transparency, ICMA's members pointed out that pre-trade transparency in bond markets is not particularly useful. Far more important to investors is knowing how their dealer banks are 'axed': that is, how they are positioned in a particular bond, or would like to be positioned (say in response to or in anticipation of a client order). This information, which is provided bilaterally (or through electronic hub-and-spoke networks or order management systems) on the basis of dealer-client confidentiality, helps investors know where to go with an RFQ (or where not to go), as well as giving them the ability to consider alternatives when seeking out a particular bond or credit. This is also reflective of a market that is as much axe-driven as price-driven. While pre-trade quotes can be helpful in terms of informing price discovery, good post-trade data can be just as useful, if not more so.

While to a large extent the ICMA response suggests maintaining the status quo for now, including keeping the LIS and SSTI thresholds for both pre- and post-trade, where it is more forward-thinking is in its proposal to create an industry advisory body (the Data Advisory Group, or 'DAG') to work with ESMA on both improving the quality of published post-trade data (which is broadly recognized as one of the major obstructions to the effectiveness of the regime) as well as in informing the design and calibration of any future framework. It further suggests that a simpler model than the current framework would be welcomed, with the possibility of deferral thresholds being based on whether or not the underlying bond carries an investment grade rating; although it states that any eventual changes, including the current phase-in of the existing liquidity thresholds, must be based on rigorous quantitative analysis and modelling, ideally in collaboration with the DAG. It also notes that improved data quality, along with a harmonized, and potentially simpler, deferral framework, would help to pave the way for the establishment of a consolidated tape.

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6 Extended to June 2020



# An EU consolidated tape for bonds

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IOSCO recommends that where there is transparency of post-trade data relating to corporate bonds, regulatory authorities should take steps to facilitate the consolidation of that data (IOSCO 2018). ICMA fully supports this recommendation, but in its response to IOSCO (ICMA 2017) it raised concerns with respect to the EU context, noting that MiFID II/R does not provide for a single consolidated source for post-trade data, whether through a public or private body. Rather it provides for the possibility of multiple, competing entities who are able to source data from regulated markets, trading venues, and APAs. While the data provided by these entities is expected to be reasonably priced, the fact that there is not a regulated, centralized, single source runs the risk of information fragmentation and the potential for an uneven playing field in favour of market participants that are better placed to aggregate multiple sources.

As it has become clear since the introduction of MiFID II/R that no commercial entities have been forthcoming as Consolidated Tape Providers (CTPs), ESMA and the European Commission have begun to review the regulatory framework for a European bond consolidated tape (CT). In April 2020, ICMA submitted its Report on an EU CT for bond markets in response to a request from the European Commission's DG-FISMA (ICMA 2020c). The report highlights the potential benefits of a CT, proposes principals that should underlay its data ownership and design, and discusses possible governance structures. It also provides an analysis of FINRA's Trade Reporting and Compliance Engine (TRACE) and draws on lessons learned from the US's journey.

While ICMA's members are broadly supportive of an EU CT for bonds, the report again highlights the importance of getting the design and calibration of a post-trade transparency regime right. In the case of a CT that is based on poor quality data, it will not be utilized;<sup>7</sup> while a CT that provides too much information will destroy market liquidity, so putting investors at risk. It is important to remind ourselves that a consolidated tape is not an end in itself, rather it is a means to improved market efficiency. While the challenge is clear, it would still seem to be a missed opportunity that a CT for bonds was not a recommendation of the European Commission's new [Capital Markets Union Action Plan](#) (European Commission 2020).

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<sup>7</sup> This is one of the key arguments against the suggestion of 'mandatory consumption' of a CT's data as a possible financing model, since this would remove any incentive by the CTP to ensure the integrity and comprehensiveness of the data.

# Conclusion

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Bond markets are very different to those for equities and other non-bonds. The way liquidity is created is driven by the structure of the market, which in turn is a result of the nature of the underlying instruments. In bond markets, where market-makers play a central role, this creates a complex and delicate interrelationship between transparency and liquidity. While transparency can be considered a public good, and essential for market efficiency and integrity, so too can liquidity. The challenge in designing any regulatory transparency framework is striking the optimal balance between the two.

So far, MiFID II/R has not had any discernible impact on European bond market liquidity, but nor has it delivered on the promise of meaningful public transparency. Data quality seems to be the most pressing challenge for the EU framework, rather than design. However, there remains the opportunity to enhance both, particularly through the MiFID II/R Review, expected to be in early 2021. ICMA, with its members, will continue to engage with ESMA and the European Commission to ensure that the EU has a transparency regime that is not only fit for purpose, but that supports the development of a healthy, efficient, and liquid pan-European bond market, attracting investors and capital raisers from across Europe and the globe. As Europe rebuilds its economy following the COVID-19 pandemic, this could be more important than the original architects of the regulation ever imagined.



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