FINANSTILSYNET

Discussion paper

Transparency and liquidity

Trade transparency and a well functioning market for mortgage-credit bonds

1. Introduction and summary

Trade transparency can contribute to wealth and welfare

Trade transparency is a crucial principle within market-regulation, and the degree of transparency can affect how well financial markets function.

The authorities' requirements for trade transparency can therefore affect the contribution from financial markets to our wealth and welfare. For example, the degree of transparency can have an impact on efficient provision of credit and thereby affect the Danish economy via corporate competitiveness or the options for families to finance their homes.

The optimal level of transparency depends on market characteristics

The optimal level of trade transparency with regard to securing well-functioning financial markets depends on several factors, and the authorities will often have to find a balance between conflicting aspects.

On the one hand, a high degree of transparency has a positive effect on markets through higher liquidity and more competition. Information about current buy and sell prices as well as market depth for both orders and transactions provides all investors with a more informed basis for making decisions. At the same time, transparency narrows differences between investors in their access to information. More transparency means that investors can assess prices offered on the market better and more easily. This contributes to low transaction costs and efficient price formation. It also strengthens investors' confidence that they are trading at fair prices, and this in turn can attract more investors and enhance turnover.

On the other hand, a high degree of transparency can have negative consequences for the market, particularly because transparency can reduce liquidity. In other words, it can become more difficult for market participants to execute larger transactions quickly, at low cost, and with a modest effect on prices.

The risk of lower liquidity arises because high trade transparency can make it harder to execute large transactions and it can make it less attractive to be a market maker. If, for example, a market maker wants to sell a large number of securities and if the market maker immediately has to publish detailed information about this, then other market participants can exploit this information and immediately reduce their own buy prices.

New requirements for trade transparency in the EU

The EU wants to promote trade transparency on European financial markets, but it is also aware that high transparency on some markets can have negative consequences for liquidity.

With this backdrop, new common European requirements are being introduced for both pre-trade and post-trade transparency for all financial instruments traded on organised trading platforms. This will be through the EU Regulation on markets in financial instruments (MiFIR), which enters into force on 3 January 2018.

The regulation contains requirements that an operator of a market place must publish the current buy and sell prices as well as information on market depth (pre-trade transparency). When a transaction has been executed, the market operators and investment firms must also publish price, amount, time and date of the transaction (post-trade transparency). This has to be as fast as is technically feasible, and up to January 2020 by no more than 15 minutes after execution of the transaction. After 2020, publication must be no later than five minutes after the transaction has been executed.

These information requirements correspond more or less to the requirements for equities traded on regulated markets that have been in place since 2007.[1] Hence, these requirements have been expanded to include mortgage-credit bonds, corporate bonds, government bonds, derivatives and structured products.

MiFIR enables national competent authorities (the Danish FSA in Denmark) to authorise market operators and investment firms in various financial instruments to provide certain waivers for pre-trade information and certain deferrals for post-trade information. The aim of these exemptions is to relax the publication requirements for large or illiquid orders and transactions in order to counteract any negative consequences for liquidity.

The Danish FSA is particularly aware of the degree of trade transparency on the mortgage-credit-bond market

The Danish market for mortgage-credit bonds will be covered by the trade-transparency requirements in MiFIR. This is an extremely important market for the Danish economy and financial system, and in several areas it differs from the other financial markets in the EU.

Therefore, the Danish FSA is particularly aware of how trade transparency can affect the Danish mortgage-credit-bond market. This also involves consideration on the extent to which the Danish FSA should utilise the possibilities in MiFIR to exempt transactions in mortgage-credit bonds from the trade-transparency requirements and, if so, what exemptions should be granted.

In this context, it should be noted that transparency in both the pre-trade and post-trade sides can have different implications for the various types of market participants. Large players, such as institutional investors or banks acting as market makers usually have a large trading volume, and it is to be expected that these will have deep knowledge of the market and will monitor price developments continuously. Therefore, they will already be aware of much of the information published as a result of the trade-transparency requirements. On the other hand, small investors and ordinary mortgage-credit customers rarely trade in the various series of bonds. Therefore, they are more dependent on the information published.

[1] See Directive 2004/39/EC of the European Parliament and of the Council of 21 April 2004 on markets in financial instruments.

All else being equal, increased transparency will therefore make it easier for small investors to determine the fair price and this will make it more attractive for them to trade on the market. Therefore, the Danish FSA would like to gather views and comments from all stakeholders about trade transparency on both the pre-trade and post-trade sides, as well as exemptions from this.

The Danish FSA has drawn up this discussion paper on the basis of the above. The paper introduces the consequences that trade transparency and the associated exemption options may have for the mortgage-credit-bond market[2]. With this start point, the paper goes on to describe briefly the various available exemptions and the characteristics on the market for mortgage-credit bonds that may have an impact on the consequences for trade transparency.

Furthermore, the Danish FSA held a seminar on 30 March 2017 on trade transparency and liquidity on the market for mortgage-credit bonds. Different types of market participant gave their views on trade transparency and the seminar provided an opportunity for public debate on the issue. This has strengthened the decision-making basis for the Danish FSA to assess whether available exemptions should be provided from the trade-transparency requirements.

2. Special considerations for the Danish mortgage-credit-bond market

The advantages and disadvantages of trade transparency on the market for mortgage-credit bonds have to be weighed against each other. The Danish FSA has to find the correct balance, and at the same time consider the exemptions introduced by other countries. One factor to be taken into account is that, in several aspects, the Danish market for mortgage-credit bonds differs from the other European financial markets.

The new EU regulations are to replace national regulations on trade transparency

Denmark currently has national regulations on post-trade transparency for mortgage-credit bonds[3], while there are no statutory requirements on pre-trade transparency.

The current requirements entail that trading in mortgage-credit bonds must be published as close to real-time as feasible and by no later than three minutes after the transaction has taken place. Publication of large transactions, i.e. more than DKK 100 mill. may, however, be deferred to the close of business on the day of the transaction.

[2] For more detailed information, see Directive 2014/65/EU of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments (MiFID II) and Regulation (EU) no. 600/2014 of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments (MiFIR), as well as associated regulatory standards.

[3] See Executive Order no. 1178 of 11 October 2007 on binding quotes for equities and transparency for securities trading (in Danish).

If the Danish FSA does not grant exemptions from the trade-transparency requirements, the new regulations will lead to a significantly higher level of transparency for trading in mortgage-credit bonds in Denmark, see table 1. This applies both after a transaction, and especially before a transaction.

On the other hand, if the Danish FSA grants all the exemptions, and market participants exploit these, there will be significantly less post-trade transparency. An example of this is the trading patterns in the second half of 2016, where it would have been possible to defer publication by more than 90% of the bond series due to illiquidity. These series account for more than one-half of the total issued amount.

However, for post-trade deferrals, the Danish FSA has certain possibilities to increase transparency. The Danish FSA may ask market operators and investment firms to publish a limited amount of information about trading in the period in which such information could otherwise be deferred.

Table 1: Change in trade transparency on the market for mortgage-credit bonds as a result of the publication obligations in MiFIR

	No exemptions	**All exemptions**
Pre-trade	More transparency	More transparency
Post-trade	More transparency	Less transparency

Note: The table shows the qualitative changes in trade transparency compared with the current situation.

Whether or not they exploit any exemptions is voluntary for market operators and investment firms. In other words, despite any exemptions available to them, they can choose to publish information on orders and/or transactions anyway. Thus, voluntary measures may contribute to more transparency than the minimum requirements consequential upon MiFIR and the available exemption options provided by the national authorities.

The risk of weaker liquidity on the mortgage-credit-bond market

Conditions on the Danish market for mortgage-credit bonds differ from the stock market in a number of ways. Therefore, the optimal level of trade transparency is not necessarily the same on the two markets.

There are few, but large transactions on the market for mortgage-credit bonds, see section 3. This implies a low probability of matching a buyer and a seller at a given time. Only 3% of mortgage-credit-bond transactions are on market places. Therefore, market makers play a central role in the current system as intermediaries for trading in mortgage-credit bonds.

If the trade-transparency requirements entail that it is harder and less attractive to make large transactions, liquidity in the bond market will potentially be impaired. This will be particularly relevant if market makers no longer want to act on the market, or only do so to a limited extent.

If market makers reduce their role, a more serious situation may arise, as market participants have indicated that market makers have already become less willing to absorb any imbalances between supply and demand in the market[4].

However, trade transparency can also be an advantage for a market maker, as the market maker will also have more information. If the market maker trades with agents with particular information on the trade in certain instruments, for example, the market maker will probably incur a loss on these transactions. If there is a high level of transparency, the market maker will quickly be able to see how the market is moving and use this information to set a price that does not give a loss. In this case, transparency will have a positive effect on the attractiveness of market making.

Exemptions in other countries can be significant for Denmark

The consequences of any Danish exemptions for trade in mortgage-credit bonds also depend on exemptions in other countries. This reflects the fact that the requirements for trade transparency for Danish mortgage-credit bonds depend on the requirements in the country in which the party with the publication obligations is registered.

The individual country can decide whether to grant exemptions, they merely have to be compatible with the relevant requirements in MiFIR. This means there can potentially be large differences in trade transparency across EU Member States.

The Danish FSA is mid-March not aware of reports from any other countries that they will provide for available exemptions from trade transparency, nor what such exemptions could cover. However, there are indications that the British Financial Services Authority will provide for possibilities to exploit all the exemptions. Moreover, most countries under the current regulations have not stipulated requirements for transparency either pre-trade or post-trade, and this may indicate that they will grant all the exemptions.

If the Danish FSA does not grant all the exemptions, this could mean that trading is primarily taking place with investment firms or on market places registered in a country with all the exemptions. However, this has not happened with the current regulations on post-trade transparency, even though these are more extensive than in other countries. This may reflect that other factors than trade transparency have had a greater influence on where investment firms place their trading, e.g. technical solutions, collaboration with other investment firms, etc. However, in combination with their derived effects, the new regulations in MiFID II/MiFIR could change this situation.

4 See Liquidity in the mortgage bond market, *Financial Stability*, 2nd half 2015, Danmarks Nationalbank.

3. Characteristics of the mortgage-credit-bond market

The consequences that trade transparency and the available exemptions from this could have for the Danish mortgage-credit-bond market depend on the various characteristics of the market.

The following contains a more detailed description of who is usually behind transactions, how transactions take place, how often they take place, and how large they are.

In general, the Danish market for mortgage-credit bonds deals with very few, but relatively large transactions, many series are small and (relatively) illiquid, and there is widespread use of market making. This presents some particular challenges for liquidity. However, there is also a relatively high degree of internal substitution between certain bond series, and this has a positive effect on the liquidity of the individual series.

Furthermore, the relatively low number of participants on the market means that there can be significant differences between the information held by the individual investors. For example, new and small investors can have relatively less information than the market makers, and therefore it can be more difficult for them to determine a 'fair' price for a bond. This can potentially restrict turnover and have harmful effects on the market.

The mortgage-credit-bond market is vital for the Danish financial system

The level of trade transparency for Danish mortgage bonds can be extremely important for the Danish economy and the financial system, as mortgage-credit bonds play a crucial role in Denmark. Mortgage-credit loans amount to almost 125% of GDP, see figure 1A. At the same time, they account for three-quarters of total lending from credit institutions to households and the corporate sector, see figure 1B.

Figure 1A: Mortgage-credit loans are high in relation to GDP

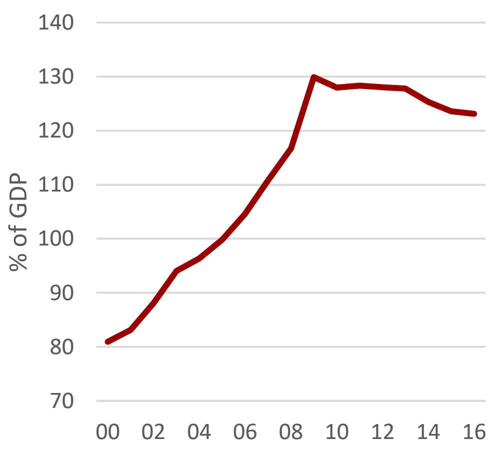
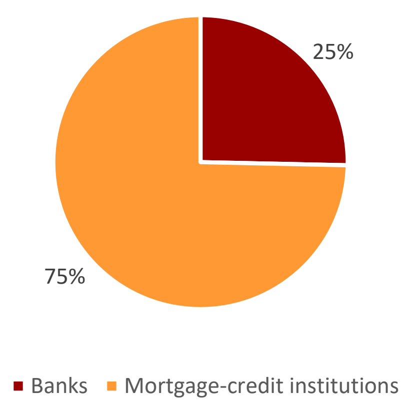


Figure 1B: ... and they make up most of the lending by credit institutions to households and the corporate sector



Note: Figure 1A shows domestic Danish mortgage-credit lending as share of GDP. Figure 1B is based on data from the end of 2016.

Source: Statistics Denmark and Danmarks Nationalbank.

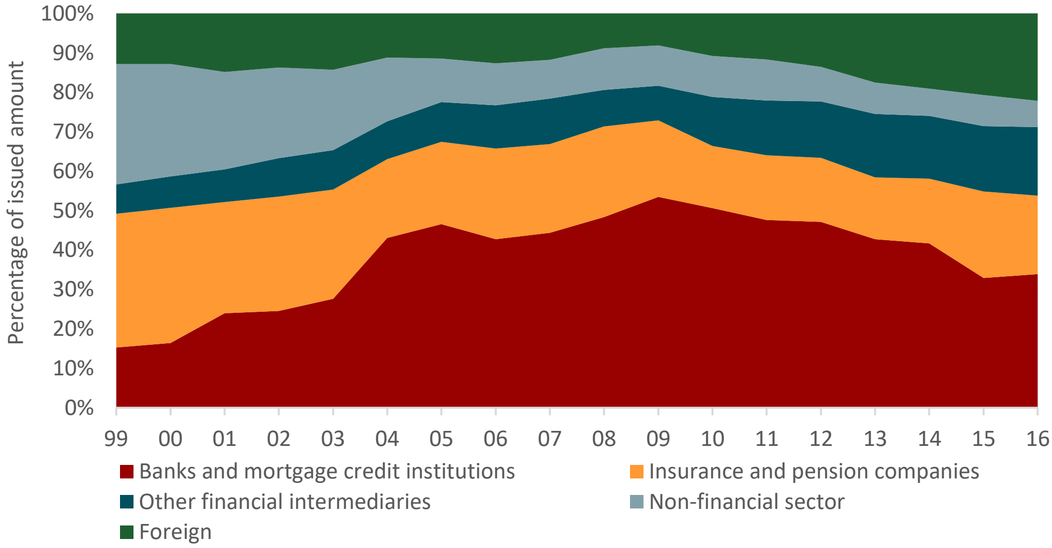
The mortgage-credit sector is also closely linked to the rest of the financial system, because the bonds are generally utilised as liquidity and assets instruments. Note that mortgage-credit bonds have a high credit rating and that the level of liquidity is also generally assessed as being high[5].5

Investors buy mortgage-credit bonds for different purposes

The Danish mortgage-credit sector is very concentrated. Six mortgage-credit institutions issue mortgage-credit bonds. Of these, the three largest: Nykredit incl. Totalkredit, Realkredit Danmark and Nordea Kredit, account for more than 83% of the issued amount, and 68% of the bond series.

Investors are primarily Danish. However the percentage owned by foreign investors has grown to more than 20% in recent years, see figure 2.

Figure 2: Percentage of mortgage-credit bonds owned by types of investor



Note: The ownership percentage at the end of the year has been calculated on the basis of the nominal value of the bonds. Unallocated bonds have not been included.

Source: Danmarks Nationalbank.

The size and frequency of transactions in mortgage-credit bonds is among other things determined by whether the bonds can help meet the different investment needs of investors. For example, the insurance and pension sector usually own long-maturity bonds to match their long-term liabilities, while banks often own bonds with shorter maturity temporarily, for example in connection with liquidity management. Furthermore, some banks also have mortgage-credit bonds for their market-making activities.

5 The high level of liquidity is shown in several analyses, e.g. European Banking Authority (2013); Report on appropriate uniform definitions of extremely high quality liquid assets (extremely HQLA) and high quality liquid assets (HQLA) and on operational requirements for liquid assets under Article 509(3) and (5) CRR, December 2013; Buchholst, B., J. Gyntelberg and T. Sangill, (2010), Liquidity of Danish Government and Covered Bonds – Before, During and After the Financial Crisis, Working paper no. 70, Danmarks Nationalbank and Dick-Nielsen, J., J. Gyntelberg and T. Sangill (2012); Liquidity in Government versus Covered Bond Markets, Working paper no. 83, Danmarks Nationalbank.

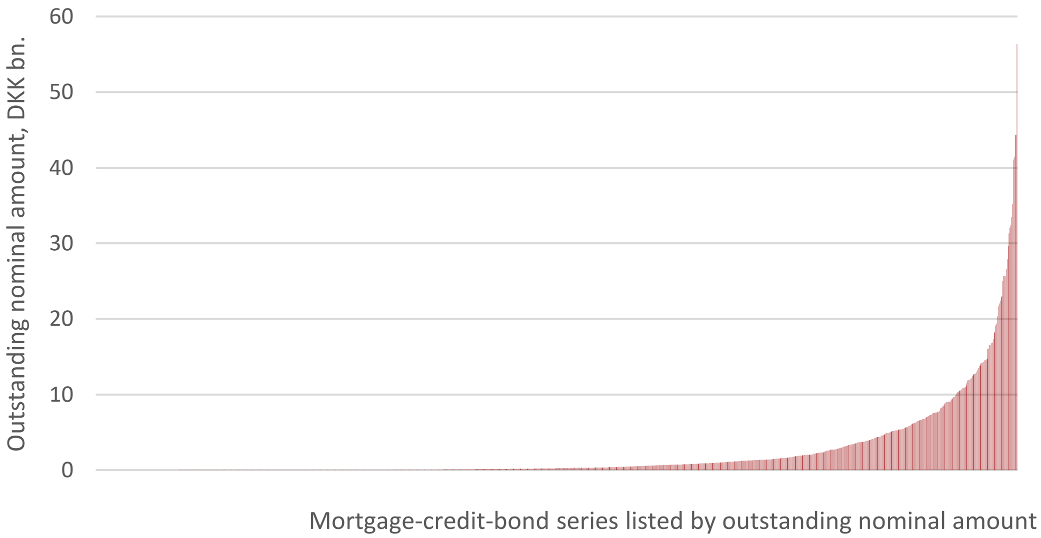
Uneven distribution of the size of bond series

At the end of 2016, outstanding Danish mortgage bonds amounted to DKK 2,675 bn., divided into 1,569 series.

The outstanding amount was concentrated in large series. Thus, 10% of the largest series accounted for two-thirds of the total outstanding, see figure 3. This also means there are many small series. For example, 37% of series had an outstanding amount of less than DKK 75 mill.

In general, a series is less liquid if there is less outstanding. With regard to illiquid series, publication of information on just a few orders and transactions can potentially have a great impact of price formation. However, in contrast to other securities (e.g. equities), mortgage-credit bonds are relatively similar and they lie around the same yield curve; i.e. bonds with more or less the same characteristics have about the same expected yield for a given term. This contributes to a high degree of substitution between the individual bond series, which in turn means greater liquidity than the size of the individual series would give in itself.

Figure 3: Outstanding amount is concentrated in few, large series



Note: Outstanding as at end January 2017.

Source: Bloomberg.

The high number of bond series reflects the fact that mortgage-credit institutions offer a wide range of loan types. For example, bonds with different maturities, fixed-interest periods and variable interest rates. Furthermore, refinancing auctions for the one-year adjustable rate loans are spread over several auction dates during the year. The large number of loan types means that there is a correspondingly large number of bond series. This is because of the balance principle by which there is a close link between the loans granted and the bonds issued.

Furthermore, a bond series cannot be closed while there are still borrowers repaying loans behind the series. Therefore, some series can have very a low outstanding amount if by far the majority, but not all, original borrowers have repaid their loans, for example in connection with conversion to another loan.

Few but large transactions in mortgage-credit bonds

Trading data for 2nd half year 2016 shows that there are few but relatively large transactions in mortgage-credit bonds. Thus, one-half of transactions are for more than DKK 1.1 mill, while in comparison the same figure for equities and investment certificates is DKK 25,000, see table 2. The majority of transactions take place when homeowners take out or repay a loan, while a smaller percentage is resale of bonds to investors.

A very large percentage of the mortgage-credit-bond series are traded extremely rarely. Ranking series according to frequency of trading, the series in the position where half of the series are traded more rarely (median) is traded on average 0.16 times a day, see table 2. In other words, on average there will be more than six trading days between transactions. In comparison, on the equities market, the share in the position where half of the shares and investment certificates are traded more rarely will on average be traded seven time a day.

Table 2: Few but large transactions in mortgage-credit bonds cp. with equities

	Size of transaction, DKK ´000		No. transactions per day	
Percentiles	*Mortgage-credit bonds*	*Shares and investment certificates*	*Mortgage-credit-bond series*	*Shares and inv. certificates*
25	345	10	0	2.6
50	1,100	25	0.16	7.0
75	3,074	51	3.8	22
90	25,000	93	16	115
95	68,000	143	51	915

Note: The figures in the same percentiles for ‘Size of transaction’ and ‘No. of transactions per day’ are not related to each other. The percentiles for ‘Size of transaction’ are determined on the basis of the size of all transactions across bond series and shares/investment certificates, respectively. ‘No. of transactions per day’ is the average daily number of transactions in the bond series or share/investment certificate that, ranked by the number of transactions, is in the percentile stated.

Source: TRS-data for 2nd half year 2016. TRS-data are reports from securities dealers to the Danish FSA on transactions in listed securities.

Market makers are vital to mediate trading in mortgage-credit bonds

Almost all trading in mortgage-credit bonds is through the banks, which act as market makers. This reflects the large number of series and that transactions are usually few but large, which means there is a low probability of matching a buyer and a seller at a given time.

Most transactions in mortgage-credit bonds are less than DKK 5 mill, as they are related to an individual homeowner taking out or repaying a loan. In parallel with this, investors want to purchase or sell large portions of bonds at a time, often ranging between DKK 25 mill. and DKK 500 mill.

This seemingly disproportionate situation is made possible by market makers mediating trade between homeowners, who trade in lower amounts, and investors who trade in large blocks.

Therefore, the market makers play an important role by mediating trading in mortgage-credit bonds or by acting as counterparties themselves. The market makers' business model consists in earning income on the spread between the buy and sell prices.

The market makers quote current prices on a number of bonds. This is through two market-maker schemes under the Danish Securities Dealers Association and Finance Denmark, and also for bonds that are not covered by these schemes[6].

If a market maker cannot mediate the transaction at the price set, it may decide to let the transaction find its own balance. This means the transaction will absorb any imbalances between supply and demand. At times when investors only want to sell bonds, the market maker can continue to buy bonds for its own portfolio until the investors have sold all they want to sell. And if investors only want to buy bonds, the market maker can sell bonds from its own portfolio until all the investors have satisfied their demand or until the market maker owns no more bonds.

In such a price-driven market, market participants can trade bonds through market makers at a price level stipulated by the market makers' current quotes.

However, in recent years there have been indications of general reductions in market-making activities and that they focus on fewer bonds. This should be seen in the context of falling turnover in the repo market and falls in the size of banks' holdings in mortgage-credit bonds.[7]

These trends pull the market towards being more order-driven. In an order-driven market, transactions are more dependent on market makers being able to match buyers and sellers directly. If a bond is traded relatively rarely, this can take a relatively long time.

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6 The two schemes are a price-quote scheme for mortgage-credit bonds, named 'Quote on request' in which it is possible to have bonds as well as mortgage-credit futures covered by the obligations in the scheme, and a market-maker scheme for mortgage-credit bonds with a term of up to 13 months. Participation in both schemes is voluntary, and seven banks participate in 'Quote on request', with six banks in the scheme for bonds with a term of up to 13 months. Both schemes are mutually binding for the participating banks, and only these banks can utilise the scheme.

7 See Liquidity in the mortgage bond market, Financial Stability, 2nd half 2015, Danmarks Nationalbank.

Trading in mortgage-credit bonds is over the counter

The Danish mortgage-credit-bond market is primarily an over-the-counter market (OTC). In other words, the two parties deal with each other direct and outside the market places. Almost 97% of turnover was OTC in the 2nd half year of 2016.

The widespread use of OTC trading is related to the relatively limited liquidity for many series of mortgage-credit bonds, and the fact that transactions are often considerably large. Bond trading in other countries is also generally OTC.

Bonds traded OTC are usually traded as request-for-quote transactions. In other words, investors ask for a price for a given bond. This is usually via a number of platforms such as chat fora, voice trading system or the market maker's own systems.

Small investors do not have access to the platforms on which OTC transactions take place. Instead, they have to go through their bank, and most banks offer trade in the most traded bond series through their online banking systems. However, this is at a higher price than on the market platforms, as banks take a margin for facilitating the transaction. There is also a possible commission rate and a brokerage fee that banks can calculate in connection with the transaction.

MiFIR introduces stricter regulations on publication requirements for OTC transactions

Requirements for trade transparency for OTC transactions will be stricter under MiFIR[8].

On the pre-trade side, this means that if a client rings and is provided a firm quote for a liquid paper, in contrast to the current situation, the quote will have to be published. The quote has to apply for at least as long as is necessary for the client to be able to trade at the quoted price. Publication of the quote must be as fast as is technically feasible after the quote has been provided, irrespective of whether or not there is a trade. The obligation to publish does not include indicative quotes, for example the quotes an investment firm provides to a client who does not want to trade at the moment, but who is trying to get an overall impression of price levels.

MiFIR does not specify where an investment firms is obligated to publish firm quotes for bonds, but an example could be through a market place. More generally, the stricter requirements for pre-trade transparency for trading via voice trading systems mean that there is a need for more utilisation of electronic systems to register and publish the firm quotes and to further process these quotes.

Small investors in particular can benefit from high trade transparency

Lack of trade transparency can mean that it can be particularly hard to determine the 'fair' price for some bonds.

8 In Denmark, however, there is currently a sector agreement to publish information about OTC transactions via NASDAQ Copenhagen, which voluntarily contributes to greater post-trade transparency.

This can be especially difficult because of the structures in the mortgage-credit-bond market. For example, many series are very rarely traded. Any information on any orders or transactions provides a relatively large amount of additional knowledge about the trade in these series. On the other hand, there is not much value in additional information about an order or transaction in a frequently traded bond which is already well known.

Higher trade transparency will mean more information. In summary, this makes it easier to determine the 'fair' price for bonds traded rarely.

This can particularly benefit smaller investors because their knowledge about the market is likely to be less than larger investors' knowledge. Among other things, this reflects that small investors, e.g. ordinary citizens and small institutional investors, trade more rarely. Moreover, they have fewer employees and/or contacts in the market to give them relevant knowledge. Therefore, they are more dependent on public information about orders and transactions.

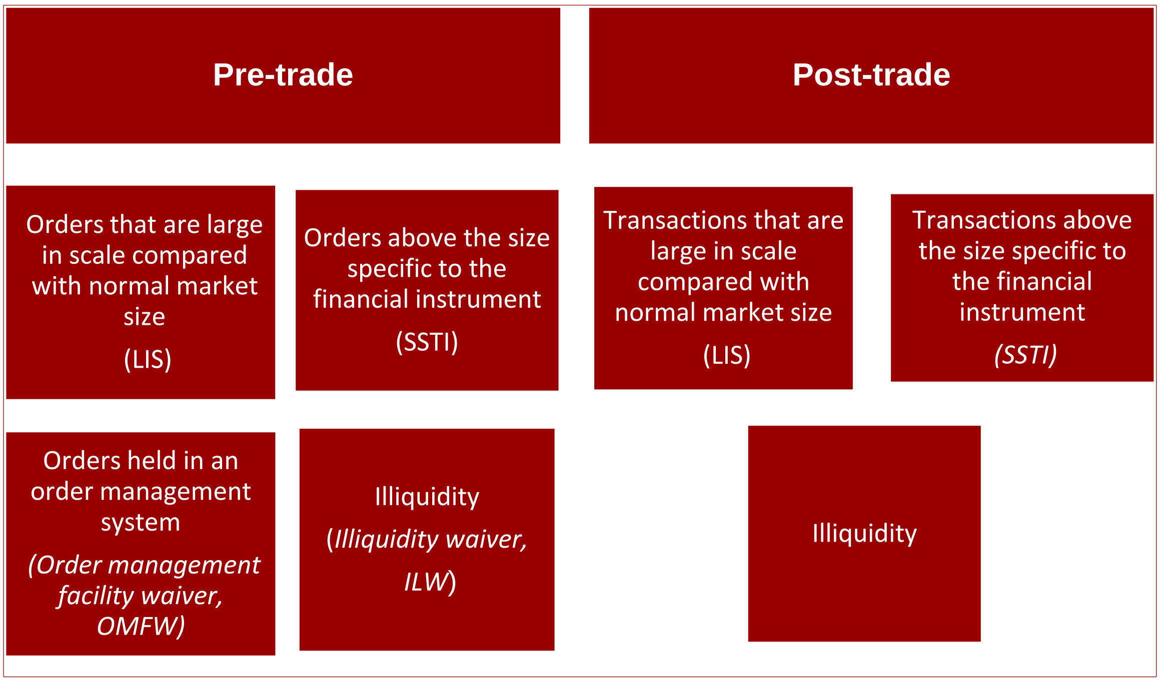
4. Description of available exemptions

MiFIR provides the competent authorities with options, under certain conditions, to exempt market operators and investment firms from the publication obligations to contribute to greater trade transparency.

On the pre-trade side, authorities can allow an waiver from the obligation to publish information about orders. On the post-trade side, they can allow publication about a transaction to be deferred until, as the standard, the second trading day after the transaction.

Figure 4 shows the specific conditions for orders and transactions that can allow availability of exemptions. They are described in more detail below, together with their objective.

Figure 4: Transactions and orders that may be exempted



The criteria enabling an authority to provide availability of exemption have been laid down in MiFIR. There is no possibility for national authorities to adapt these criteria to national conditions, e.g. by changing the thresholds for when an instrument can be defined as illiquid or when an order or transaction is large in scale compared with normal market size.

Similarly, MiFIR states the exact requirements for publication in situations with and without exemption. It is not possible for the authorities to adjust these requirements. Therefore, if an authority decides to provide an exemption, the authority cannot stipulate individual requirements for a specific market[9].9 Similarly, neither can the authority relax nor waiver some of the requirements, if full exemption has not been granted.

Orders and transactions that are large in scale compared with normal market size

Orders and transactions that are large in scale compared with the normal trading volume can be exempted from the requirements for trade transparency both pre and post trade.

The objective of the exemption is to make it possible to buy or sell large holdings of mortgage-credit bonds without the price being influenced as a consequence of the publication obligations in MiFIR.

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9 MiFIR does, however, provide for the possibility that, after the authorisation of deferred publication, the competent authorities may request the publication of limited details a transaction or details of several transactions in an aggregated form, or a combination of thereof, during the time period of deferral.

On the pre-trade side, an order for mortgage-credit bonds is defined as large in scale if, measured at nominal value, it is above EUR 300,000 and above the size of 70% of the transactions that took place for covered bonds on all EU trading platforms in the previous year[10]. The same applies correspondingly for the post-trade side; i.e. that a transaction must be above the 90th percentile to be defined as large in scale.

Orders and transactions above the size specific to the financial instrument

Danish mortgage-credit bonds are primarily traded through market makers and they are usually traded via chat fora or voice trading systems (i.e. a trading system in which the transaction is agreed verbally). Therefore more relaxed requirements for order size in order to have waivers available may be significant for Danish mortgage-credit bonds, if binding prices are quoted in a request-for-quote system (i.e. when an investor asks for a price, e.g. on a chat forum) or in a voice-trading system.

MiFIR provides the option to exempt such an order if, measured at nominal value, it is above EUR 300,000 and above 30% (40% after full phase-in) of the transactions that took place for covered bonds on all EU trading platforms in the previous year.

Similarly, on the post-trade side there is deferral for large transactions above the 80th percentile. In contrast to the pre-trade side, deferral is not restricted to the transactions taking place on specific trading systems. On the other hand, there is a condition that the transactions should be executed by an investment firm who deals on their own account with another counterparty and therefore it is exposed to market risk.

These orders and transactions are referred to as *size specific to the financial instrument.*

The threshold for the pre-trade side reflects a balance between two important factors:

On the one hand, it must be possible to exempt the market makers from the obligations to publish. These obligations can make it less attractive for market makers to mediate between investors who want to trade large amounts, and homeowners who need to trade smaller amounts.

On the other hand, mortgage-credit customers can benefit from being able to monitor bond prices that affect their loan transactions.

With this backdrop, the threshold on the pre-trade side has been set on the basis of the estimated average price of a dwelling. Thus, mortgage-credit customers with a home valued at an average price or less can, for example, monitor the order prices on the bonds relevant for financing their home. On the other hand, the market makers can still quote prices for orders larger than the average price for a dwelling and at the same time avoid being exposed to inappropriate risk as a consequence of the obligations to publish.

10 As it takes time to collect data, the European Securities and Markets Authority (ESMA) publishes the threshold on 30 April every year on the basis of trading in the previous calendar year.

Illiquidity

Illiquid instruments can be exempted from the publication obligations on both the pre-trade and post-trade sides.

A mortgage-credit bond is defined as illiquid in MiFIR if just one of the three criteria below were not met in the previous quarter:

- The average daily turnover was at least EUR 100,000.
- The average daily number of trades was at least two[11].
- The bond was traded on at least 80% of the trading days on the market place.

Finally, for new issues, a mortgage-credit bond is defined as illiquid if less that EUR 0.5 bn. were issued.[12] This illiquidity definition was introduced because there is not sufficient trading data for newly issued bonds.

At least one of the criteria above is not met by the majority of Danish mortgage-credit bonds, see section 5, and therefore they can be defined as illiquid.

The ground for exemption of illiquid instruments is that even small orders or transactions can have a relatively large influence on the price. By exempting these instruments from the disclosure obligations, the price effect will be delayed until a certain time period after the transaction, and possibly other transactions, has(ve) been executed. This could improve the possibilities of market participants to trade, and make owning these illiquid instruments more attractive.

Orders held in an order management facility

Orders held in an order management facility of the trading venue pending disclosure can be waived from the publication obligations. Waivers can apply for e.g. stop orders and iceberg orders.

Stop orders are orders held in the facility that will not be sent to the order book and thereby published until a predetermined price has been reached.

Iceberg orders are used when an investor wants to split a larger transaction into several smaller parts in order to achieve a better price. This is by the investor sending the full order to the trading system and the system only making part of the order visible as if it were a standalone order. The rest of the order is held in the facility. When the visible order has been traded, a new order is automatically made visible and so on.

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11 The threshold will be phased in over time. In the period 3 January 2018 to 15 May 2019 (phase 1) the threshold will be 15 transactions on average per day, after this the threshold will be 10 for the following year (phase 2), 7 for the following year (phase 3) and 2 from 16 May 2021 (phase 4). The threshold will then have been fully phased in.

12 The threshold will be phased in so that from January 2018 to the end of 2019 it is EUR 1 bn., after which it will be EUR 0.5 bn.

Trading systems can automatically manage stop and iceberg orders in a storage system. This means that the market place can facilitate and organise order management uniformly and cost-effectively. Alternatively, investors would have to actively make a new order every time the previous orders had been executed (iceberg orders) or when the price reached the predetermined level (stop orders).

Special exemptions for investment firms who quote binding prices

MiFIR contains a special option for exemption of investment firms who are obligated to make public quotes for bonds admitted to trading on a market place. These investment firms are called systematic internalisers in the financial instrument when, on fixed criteria on an organised, frequent, systematic and substantial basis they deal on own account when executing client orders outside the organised trading platforms.

Systematic internalisors are not subject to any type of obligation to make public on the pre-trade side when they trade in illiquid instruments or in scales that meet the criteria for size specific to the financial instrument. This will apply, irrespective of whether or not the Danish FSA grants an exemption.

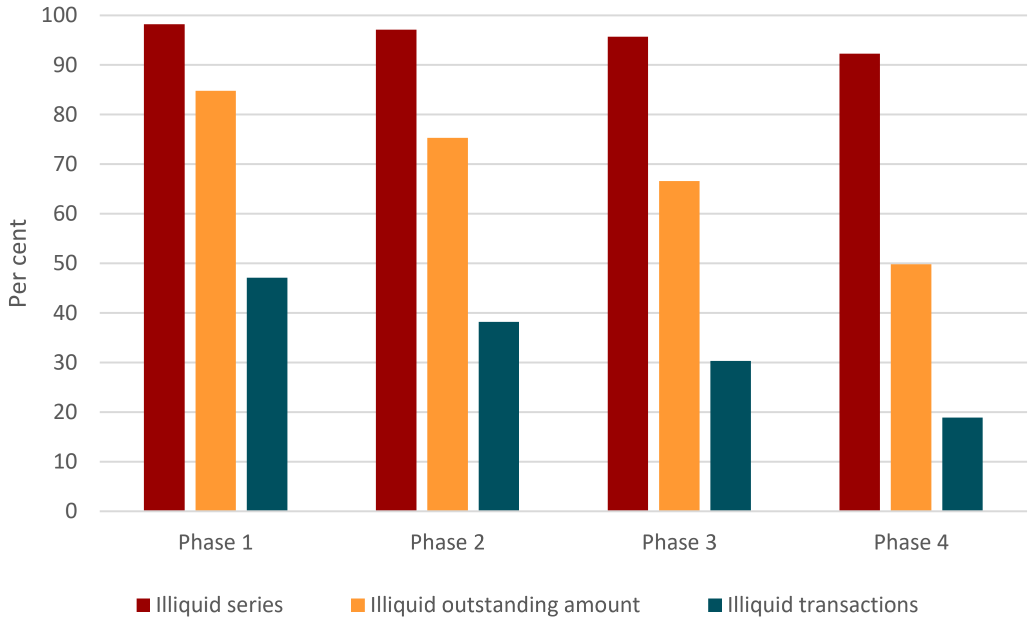
5. Trading in mortgage-credit bonds and criteria for exemptions

If the Danish FSA decides to provide exemptions on the basis of illiquidity and the market participants choose to utilise this option, there will be a large reduction in post-trade transparency. This is because it will be possible to exempt more bonds than with the current regulations.

In the 2nd half of 2016, 92% of the bond series (excluding new issues) would have fallen under at least one of the criteria for illiquidity and therefore would be open for exemption, cf. ‘Phase 4’ in figure 5. However, these are relatively small series, so they accounted for just one-half of the outstanding amount. The series are not traded very often and they represented 19% of the total number of transactions.

These figures are based on the criterion of an average of two daily transactions, i.e. full phase in. If the criterion is 15 daily transactions on average instead, i.e. the threshold from January 2018 to mid-May 2019, 98% of the bond series could be defined as illiquid, see ‘Phase 1’ in figure 5.

Figure 5: Most mortgage-credit-bond series can be defined as illiquid



Note: The phases refer to phasing in the number of daily transactions. The threshold for the average number of daily transactions is 15 in 'Phase 1', 10 in 'Phase 2', 7 in 'Phase 3' and 2 in 'Phase 4'.

Source: TRS-data from 2nd half year 2016.

The criterion that the bond series is to be traded on at least 80% of trading days in particular, means that the bond series will be defined as illiquid. During the phasing in of the threshold for the daily average number of transactions from 15 to 2, this criterion will also often mean that a bond series can be defined as illiquid.

It should be noted that the calculations have been made in a period before the new regulations under MiFID II/MiFIR are to be applied. Together with other factors, the new regulations may contribute to changing behaviour patterns, which in turn may influence transactions and issues, for example. If this happens, it will also affect the number of bond series that can be defined as illiquid.

On the background of the trading data from the 2nd half of 2016, the following describes how the transactions in the mortgage-credit-bond market relate to the criteria for illiquidity and large in scale, see section 4.

Low average daily turnover for many bond series

The size of average daily turnover can make it possible for a bond series to be defined as illiquid under MiFIR and therefore available to exempt from publication obligations.

Daily average turnover is modest for the majority of Danish mortgage-credit-bond series, see figure 6A. Only one-third of the series had an average daily turnover of more than EUR 100,000 in the 2nd half year 2016. On the other hand, these are relatively large series and they accounted for 93% of the total outstanding amount, see figure 6B.

Figure 6A: High average daily turnover for only a few bond series…

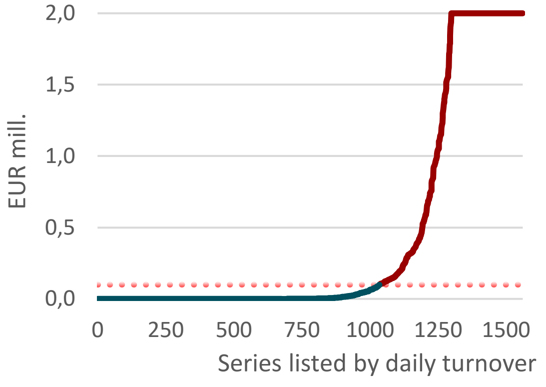
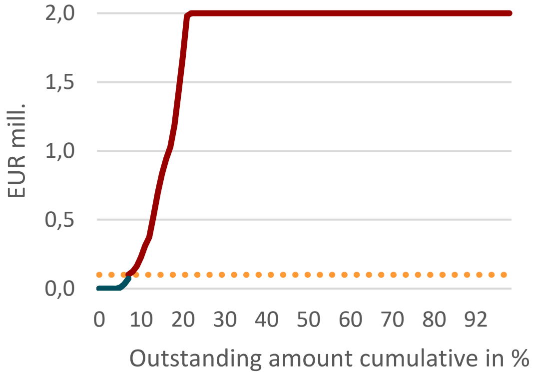


Figure 6B: … but they had large outstanding amounts



Note: Turnover is measured at the nominal value of the bonds. Turnover is shown in the figures as EUR 2 mill. for bond series with an average daily turnover of at least EUR 2 mill.

Source: TRS-data for 2nd half year 2016

Neither the number of series nor the outstanding amount is particularly sensitive to a change in the threshold for average daily turnover. E.g. 29% of the series account for 90% of the outstanding and have a daily turnover of more than EUR 200,000.

Daily number of transactions is generally low

The majority of Danish mortgage-credit bonds are traded rarely. Thus, only 12% of bond series were traded on average more than twice a day in the 2nd half of 2016, see figure 7A. However, these were large series and they accounted for 65% of the total outstanding amount, see figure 7B.

Figure 7A: Only few bond series traded several times a day…

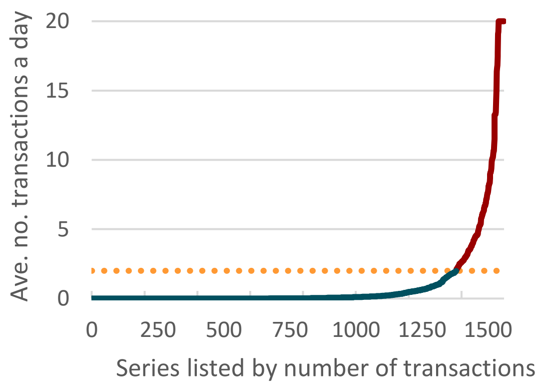
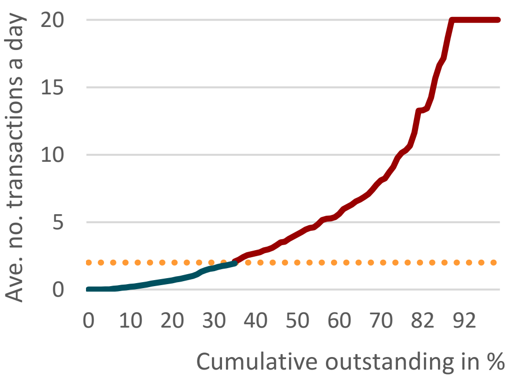


Figure 7B: … but they have high outstanding amounts



Note: The figures show the average number of daily transactions as 20 for series traded on average at least 20 times a day.

Source: TRS-data for 2nd half year 2016.

If, instead, the point of departure is taken as the 3 January 2018 to 15 May 2019 threshold value, i.e. at least 15 transactions on average per day, these bond series accounted for just 15% of the total outstanding and only 2% of the total number of series.

Many bond series are traded rarely

The low number of transactions in mortgage-credit bonds, and the high number of series, mean that there are several days when some series are not traded at all.

If the criterion is that a series must be traded on at least 80% of the trading days on the market place, only about 8% of the series will meet this in the 2nd half year 2016, see figure 8A. However, these series accounted for 52% of the total outstanding amount, see figure 8B. Neither the number of series nor the outstanding amount is particularly sensitive to changes in this threshold.

Figure 8A: Frequent trading in just a few series…

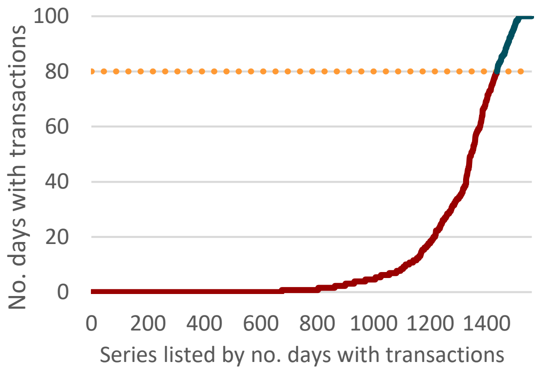
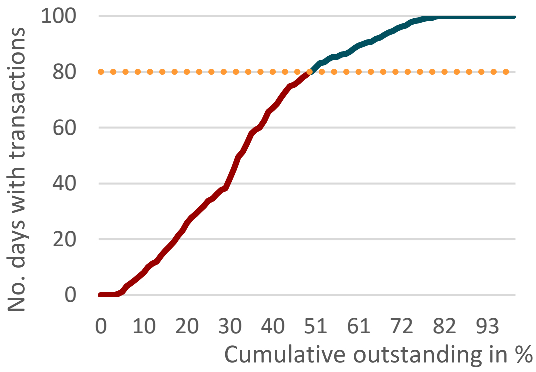


Figure 8B: … but they have large outstanding amounts



Source: TRS-data for 2nd half year 2016.

Outstanding amounts in newly issued mortgage-credit bonds are relatively low

Only a few series with newly issued Danish mortgage-credit bonds have an outstanding amount of more than EUR 1 bn. At the end of January 2017, this only applied for 8%. However, these series accounted for 73% of the outstanding amounts in new issues.

Looking, instead, at newly issued series with an outstanding amount of more than DKK 0.5 bn., these accounted for 98% of the outstanding amount of new issues, corresponding to 42% of the series.

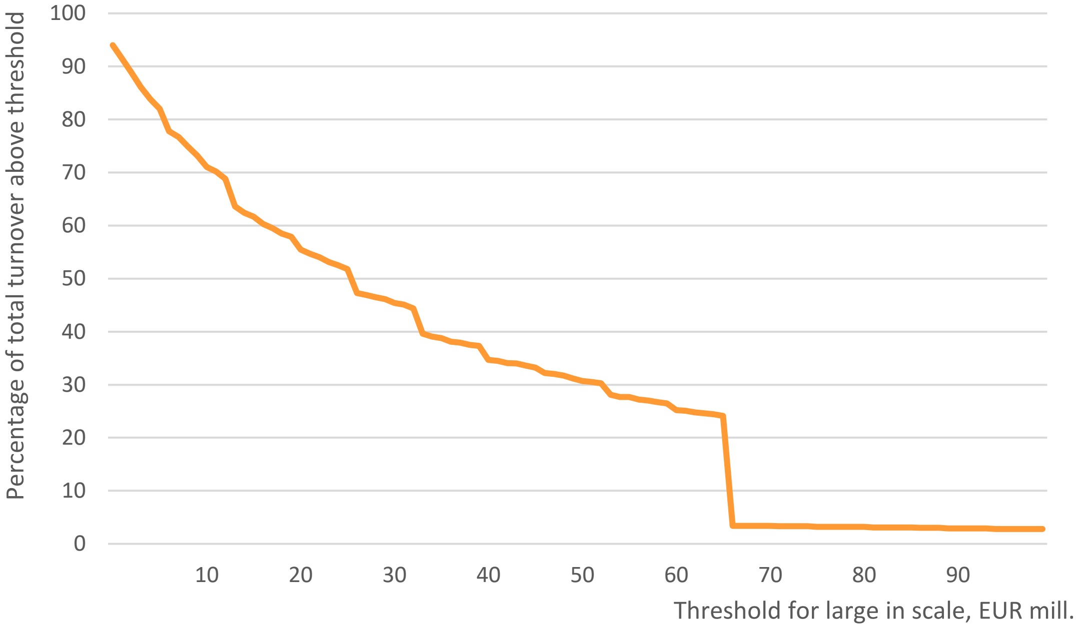
Large-in-scale criterion could cover a large percentage of the turnover

Transaction sizes in Danish mortgage-credit bonds are generally large. The large-in-scale criterion will therefore possibly cover a large percentage of the turnover, which could then be exempted if the Danish FSA provide waivers and deferrals as a consequence of this criterion.

It is not possible at present to determine exactly the share of turnover that could be defined as large in scale. This is because the threshold for when an order or transaction can be defined as large in scale changes over time.

However, on the basis of preliminary, pan-European data, ESMA has indicated that the large-in-scale threshold will probably be around EUR 5.5 bn. With this threshold, 83% of the turnover of Danish mortgage-credit bonds in the 2nd half-year 2016 would lie above the threshold, see figure 9.

Figure 9: Large percentage of the turnover could potentially be defined as large in scale



Note: The figure shows the percentage of the total turnover of Danish mortgage-credit bonds lying above the hypothetical threshold for large-in-scale transactions. The bend at EUR 65 mill. reflects that this is a common size of transaction.

Source: TRS-data from 2nd half year 2016.

6. Process for exemptions from the MiFIR publications requirements

During the first half of 2017, the Danish FSA will assess whether it will provide waivers on the pre-trade side and deferrals on the post-trade side, and if so what waivers and deferrals.

If an operator of a market place wishes to be authorised waivers from obligations to publish on the pre-trade side, in addition to meeting any waiver criteria, it should submit an application to the Danish FSA. NASDAQ is currently the only operator of a market place in Denmark.

In order to ensure that an available waiver has effect when MiFIR enters into force on 3 January 2018, the Danish FSA requests that applications for waivers on the pre-trade side be submitted by no later than 1 June 2017.

This will ensure that the Danish FSA has sufficient time to process the application and draw up a notification to ESMA and the other competent authorities, if the Danish FSA assesses that the application is to be approved.

After this, ESMA will run a process to check that the waiver is compatible with the relevant requirements in MiFIR. ESMA has stated that it will process notifications from the authorities from August to the end of November 2017. Notifications can be submitted before August, but they will not be processed until August.

On the post-trade side, ESMA will only monitor utilisation of approvals from the Danish FSA. Therefore, the Danish FSA expects to be able to establish a more flexible process on the post-trade side. Later this year, the Danish FSA will publish further information about the process for deferrals on the post-trade side.

7. The Danish FSA would like to hear stakeholders' views on trade transparency

The Danish FSA invites all stakeholders to submit their views on trade transparency and its effect on the markets, including the various options for exemption from publication.

The Danish FSA is particularly interested in views regarding mortgage-credit bonds, but is also interested in considerations regarding other financial instruments.

Please submit views and assessments by no later than 21 April 2017 to hg_svar@ftnet.dk.