European Commission

IMPROVING EUROPEAN CORPORATE BOND MARKETS

Report from the Commission Expert Group on Corporate Bonds

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Banking and Finance

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INTRODUCTION

Integrated, efficient and resilient corporate bond markets are a vital and core pillar of a successful Capital Markets Union. Strong corporate bond markets will give businesses access to more diverse sources of funding and offer Europeans more investment opportunities.

Issuance of corporate bonds has significantly increased over the last few years, notably driven by low interest rates and the Corporate Sector Purchase Programme (CSPP) of the European Central Bank. However, questions remain about whether this trend is sustainable, including when the current favourable economic environment changes. In any case, there is underused potential: the value of European corporate bond markets represents less than one third of what it is in the US (10 % of GDP in 2017, compared with 31 %)[1].

Given their growing importance, the functioning of European corporate bond markets needs to be enhanced. Concerns have been raised, notably in the context of the Capital Market Union and the Call for Evidence,[2] about a perceived reduction of liquidity on secondary markets, the segmentation of corporate bond markets along national lines, and more generally on the functioning of corporate bond markets.

It is against this backdrop that this Expert Group comprising 17 practitioners of corporate bond markets was established. The group's mandate was to provide a cross-market analysis of corporate bond markets and recommendations on how to improve their functioning. The Expert Group has carried out an evidence-based, forward-looking, practical assessment on how corporate bond markets can be improved to enhance their efficiency and resilience. The Expert Group's recommendations should serve as a basis for national and European authorities to decide on follow-up actions. The experts have met nine times between November 2016 and October 2017.

The work conducted by the Expert Group has focussed on Non-Financial Corporations (NFC)'s corporate debt. Corporate bonds represent only 4.3 % of NFCs' total liabilities, far behind the 11 % registered in the US. It is therefore particularly important to reflect on which actions and frameworks can support its further development.

In designing frameworks and regulations for corporate bond markets, it is important to recall that bond markets are fundamentally different from stock markets. Equities and corporate bonds serve different purposes and undergo different valuation processes. They also represent fundamentally different investment propositions, which require different types of information to be properly priced. The sheer number of corporate bonds, their predominantly ' Over the Counter' (OTC) trading and their limited liquidity compared to equities largely explains the limited information easily available on corporate bond markets, as compared to stock markets. As a result, the Expert Group urges policy-makers to avoid attempts to reform bond markets drawing on analogies with the functioning and characteristics of stock markets. Such attempts risk leading to false and counterproductive conclusions.

[1] Source: SWD (2017) 224, Economic Analysis accompanying the CMU Mid Term Review

[2] Commission’s 2015 consultation on the EU regulatory framework for financial services

This "Headline Report" of the Expert Group on Corporate Bond market Liquidity is supported by a more extensive "Analytical Report". The Analytical Report is organised into four chapters analysing the EU corporate bond market from the perspectives of (i) issuers, (ii) investors and (iii) intermediation, and (iv) looking at the ecosystem of the corporate bond market.

Disclaimer

This report is a document prepared by the Expert Group on Corporate Bond Markets Liquidity set up by the European Commission. The views reflected in this Report are the views of the experts. They do not constitute the views of the Commission or its services, nor any indication as to the approach that the European Commission may take in the future.

EXECUTIVE SUMMARY

In the context of the Capital Markets Union initiative, the Expert Group on European Corporate Bonds has been mandated by the European Commission to analyse and propose recommendations to improve the functioning of the corporate bond markets in the EU. The Expert Group has analysed the functioning of corporate bond markets from the perspectives of issuers, investors and intermediaries. They formulated 22 recommendations pursuing six objectives:

1. making issuance easier for companies;
2. increasing access and options for investors;
3. ensuring the efficiency of intermediation and trading activities;
4. fostering the development of new forms of trading and improving the post-trade environment;
5. ensuring an appropriate level of information and transparency; and
6. improving the supervisory and policy framework.

I. Making issuance easier for companies (5 recommendations)

Corporate bonds are a tried and tested source of finance for NFCs. However, their potential to finance the economy is not fully exploited in Europe. The Expert Group recommends six actions which will make it easier for issuers to access corporate bond markets.

1. When a company seeks to raise debt on capital markets it often conducts, through its bank, a market sounding, which aims at testing the appetite of investors for the new issuance and at determining the optimal price, terms and conditions. The Market Abuse Regulation has significantly increased the obligations regarding market soundings. The risks and uncertainties linked to the implementation of these new rules and their interpretation by National Competent Authorities can deter intermediaries from carrying out market soundings. Therefore, the Expert Group recommends that **the Market Abuse Regulation be amended in order to alleviate the requirements regarding market soundings that could result in disproportionate burden for companies**.

2. For high quality, investment grade corporate issuers, allocation of bonds to investors is carried out in accordance with clear and transparent rules, and records are kept of the allocation process. National regulators regularly check that the allocation process has been transparent, abiding by the rules and duly documented. These efficient, transparent and monitored processes are not implemented to the same extent in the high yield segment of the corporate bond market, where the allocation process is typically left to the discretion of one or more lead bank(s) and is thus more opaque. This means that, even though in principle issuers can influence the allocation process, the extent to which high yield issuers do so varies greatly – particularly in the case of smaller, less frequent issuers. **Regulators should work with market professionals to support transparent and fair allocation methods in the high yield market**.

3. **National Promotional Banks should be given the necessary mandate to support SMEs to issue corporate bonds**. In addition, authorities in these Member States where corporate bond markets are particularly under-developed are invited to make use of **technical assistance from the Structural Reform Support Service**.

4. In order to give information to investors, a company issuing bonds has to publish a prospectus. To make it cheaper and simpler for small businesses to access corporate bond markets, the Expert Group requests **enhancing the alleviations of the Growth Prospectus foreseen by the recently agreed Prospectus Regulation**.

5. Because they are an efficient gateway, **private placements of corporate bonds should be further encouraged,** in particular for SMEs. The Expert Group therefore calls on the Commission to **expedite its long-promised Recommendation on private placements** in order to extend good practices from lead Member States to other Member States.

II. Increasing access and options for investors (6 recommendations)

Efficient corporate bond markets are beneficial to investors, as corporate bonds represent a useful asset class in a diversified investment strategy.

1. An efficient and straightforward insolvency framework is an important pre-condition for sustained investor interest in corporate bonds. The Expert Group strongly supports **the Commission's proposal on restructuring and second chance**. In addition, it recommends (i) **EU harmonisation of ranking of creditors and the definition of insolvency triggers**, and (ii) **national measures to increase transparency regarding the position of investors in creditors' rankings**.

2. When a new corporate bond is issued, the demand for bonds often largely exceeds the amount of bonds offered. This leads some investors to inflate their orders. This can be detrimental to other investors which, often constrained by strict internal rules, request only the amount which they ultimately seek to receive and end up being allocated a smaller portion of the issuance. Therefore, **coordinated action between regulators and market professionals should discourage any artificial inflation of primary orders from all investors** in a primary allocation process.

3. The Expert Group believes that the capital requirements associated with long term corporate bonds under Solvency II are excessively conservative. This deters investment by insurance companies in these assets. Therefore, it recommends a **recalibration or alleviation of capital requirements for corporate bonds with a long tenor in the forthcoming Solvency II review** (2020). It also recommends the review of eligibility criteria of Matching Adjustment to determine whether broadening their eligibility is appropriate.

4. Internal crossing of buy and sell orders in a fund can bring efficiency to fund managers and lower the cost for their investors. However, the interpretation of relevant UCITS and AIFMD provisions diverge across Member States. The rules are not applied in a clear and consistent manner to asset managers. Therefore, ESMA should **conduct a mapping of existing practices in Member States with regard to internal crossing of orders.**

Building on this, it should **promote convergence by setting out criteria with regard to how asset managers may internally cross buy and sell orders.**

5. Retail investors' exposure to corporate bond markets could be facilitated through attracting investment solutions targeted at the retail market. This includes structures such as the recently proposed pan-European Personal Pension Product (PEPP). **The PEPP should be swiftly adopted and implemented. Its take-up should be encouraged by national and EU authorities**, including through eligibility for special tax treatments. National authorities should determine which tax breaks would be best suited to their national context**.** To support the cross-border distribution of funds, **EU authorities should promote greater convergence in the interpretation by Member States of UCITS and AIFMD's marketing rules**. It looks forward to advanced Commission work in this area.

6. Exchange Traded Funds (ETFs) can be an effective way for retail investors to achieve exposure to different asset classes, including corporate bonds. **The Commission should review Member States' regulations and market practices to identify the obstacles that stand in the way of investors trading ETFs on exchange**.

III. Ensuring the efficiency of intermediation and trading activities (4 recommendations)

The Expert Group acknowledges the need to enhance the capacity of the financial system to withstand shocks after the financial crisis. However, the higher capital and liquidity requirements introduced since then have limited the capacity of market makers to hold inventories, reducing their intermediation capacity. The Expert Group supports the emphasis on safety and soundness of the financial system but also recognizes the need to ensure that market making is not dis-incentivised to the extent that the reduction in market liquidity raises the overall risk profile for the financial system and the economy as a whole. In particular, the treatment of corporate bonds in the calculation of some capital and liquidity requirements does not adequately reflect the true value of the bonds and their liquidity profile.

1. The Expert Group recommends that **EU authorities review the capital and liquidity requirements**, on the basis of a quantitative assessment of their impact on market-making and corporate bond liquidity. This review should notably:

   a. Adjust the haircuts and inclusion amounts applied to corporate bonds in the Basel **Liquidity Coverage Ratio (LCR),** and distinguish between assets held on the trading book for market-making purposes from those held in the banking book;
   b. Adjust the factors applied in the **Net Stable Funding Ratio (NSFR)** to corporate bonds and to inter-bank financing activities in repos and securities lending;
   c. Amend the **Leverage Ratio** for the additional treatment of written credit derivatives to apply to contracts with a remaining term of less than one year.

2. Currently, the regulation on settlement and central securities depositories (CSDR) requires market participants having failed to deliver a security to initiate a buy-in process. This creates risks for liquidity providers, investors and securities lenders, and has a negative impact on market efficiency and stability. Therefore, **the timing for the**

implementation of CSDR mandatory buy-ins should be carefully managed to cushion its impact and provide space to review the provisions before they have unintended and potentially irreversible consequences.

Moreover, the Fundamental Review of Trading Book (FRTB) rules, by increasing scrutiny on the delineation between banking book and trading book, will facilitate this approach. It will ensure that assets designated for the purposes of market-making are indeed held on the trading book.

IV. Fostering the development of new forms of trading and improve the post-trade environment (2 recommendations)

1. Electronic platforms offer new solutions to bring together buyers and sellers in timely and efficient manners. They also have the potential to attract more participants to bond markets and reduce transaction costs. To support the development of a strong e-trading system, **industry groups representing the buy side, the sell side and all trading venues, including Fintech firms, should issue guidance papers on good practices for electronic trading**. In addition, stakeholders should benefit from **some regulatory leniency** when testing new models (regulatory sand boxes).
2. No capital market is efficient without efficient **post trade** processes. This applies as much if not more to corporate bonds. However, the fixed income post-trade environment in Europe remains highly fragmented. In the area of settlement, most Central Securities Depositories (CSDs) and International Central Securities Depositories (ICSDs) lack interoperability. They should accelerate investment in inter-operability and provide an update on Target2-Securities (T2S) and CSDR implementation. As regards clearing, all Central Counterparty Clearing Houses (CCPs) should accelerate and provide an update on their compliance with MiFIR provisions on open access. Lastly, CCP services designed to simplify trade processing and settlement could be extended to more non-cleared fixed income trades. To encourage progress in this area, building on the European Post Trade Forum, **the European Commission should (i) report in 2018 on how barriers to greater fixed income clearing are being addressed, and (ii) identify best practices**.

V. Ensuring an appropriate level of information and transparency (4 recommendations)

At EU level, pre and post-trade transparency requirements are incorporated in MiFID II.

1. The lack of comparable data on European corporate bonds constrains participation and activities in corporate bond markets, and makes it more difficult for national and European authorities to effectively supervise and legislate. This significantly undermines the development and functioning of European corporate bond markets. The Expert Group supports the proposal by the Commission to centralise data collection at ESMA level. **A consolidated tape owned by ESMA should be created expeditiously** to collect data on

all eligible public and private corporate bonds. This should be accompanied by an "**easy to use" interface accessible to all EU bond markets stakeholders at reasonable cost**.

2. To avoid fragmented liquidity across jurisdictions and limit regulatory arbitrage, ESMA should actively **encourage NCAs to adopt similar deferral regimes across European jurisdictions in regard to post trade transparency requirements.** In addition, to reduce the risk that post trade transparency requirements dis-incentivises the provision of liquidity (by potentially putting at risk market makers executing trades), the **obligation for execution venues to publish details of trades of all sizes should be either narrowed in scope and in depth of details provided, or replaced by an obligation to report aggregated information**.

3. Ratings can help investors to assess the credit risk and therefore the price of an issuance. However, they are very expensive for small issuers. Therefore, the Commission needs to **explore different mechanisms that would enable smaller issuers to obtain reliable credit worthiness assessments.** This would greatly enhance small issuers' ability to reach a critical investor base and make bond issuance meaningful.

4. Research is another valuable source of information for market participants in European corporate bond markets. However, requiring the cost of research to be unbundled from the cost of execution may result in a reduction of the number of issuers covered by research, and/or the quality of this research, as well as the diversity of views from different research analysts. The European Commission should **monitor the impact of MiFID II rules on the availability of research in the corporate bond market.** It should **devote particular attention to small issuers, and take appropriate action swiftly** should this impact be found to be negative.

VI. Improving the supervisory and policy framework (1 recommendation)

1. Overlaps and inconsistencies between different EU capital market laws also hold back the development of European corporate bond markets. Therefore, the Expert Group recommends that the European Commission and ESMA: (i) **assess the differences between EU legislations having an impact on corporate bond markets**; (ii) **streamline and consolidate overlapping and inconsistent rules and reporting requirements** affecting corporate bond markets; (iii) **set up a specialist industry group which would advise regulators on how to adapt the framework for corporate bonds**, notably on a suitable methodology for ESMA's yearly assessment of corporate bond liquidity thresholds, and to support policymakers negotiating international standards at Basel; and (iv) upgrade capacity and knowledge of all competent authorities and ensure adequate **training of supervisors and regulators in relation to corporate bonds**.

Conclusion:

Successful corporate bond markets are important for the funding of investment and the creation of jobs. They are a tried and tested source of finance for Non-Financial Corporations and reduce their dependence on bank funding. Efficient corporate bond markets also broaden

investment opportunities for European investors, and represent a valuable asset class in a diversified investment strategy.

The recommendations put forward by the Expert Group should be seen as part of a comprehensive package which, if taken together, will make an important difference and ensure the continued success of corporate bonds in financing the European economy. The Expert Group calls on the Commission to engage with the recommendations and map out a clear way forward to bring about needed implementation. In this way, it will ensure that European corporate bond markets develop in line with the goals of the Capital Market Union.

1. SUCCESSFUL EUROPEAN CORPORATE BOND MARKETS: WHY IT MATTERS

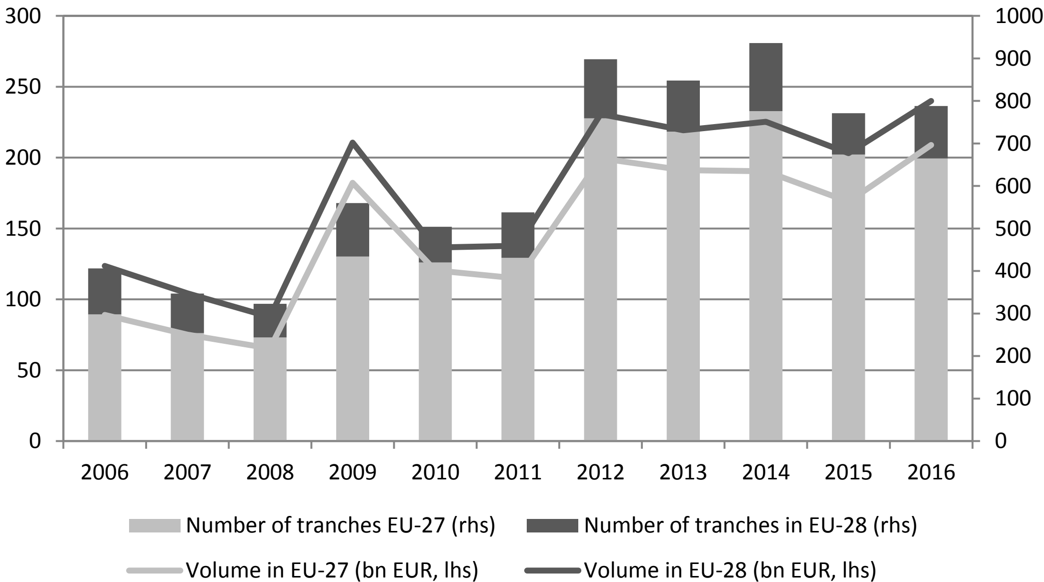
1.1. Why do we need efficient corporate bond markets?

1.1.1. How corporate bond markets serve issuers

Corporate bonds are a well-known and proven source of finance for Non-Financial Corporations (NFCs), which use the funds to finance on-going operations and capital investments. As bond proceeds support investment by European corporates, these financial instruments generate growth and jobs, to the benefit of the whole economy and European citizens.

Corporate bonds represent an alternative source of funding for NFCs, contributing to a reduction of dependency on bank financing. The prominence of corporate bonds as a means for companies to finance themselves has grown significantly over the last decade, as corporate bonds have been the main beneficiary of the reduction in bank funding after the financial crisis and the decrease in interest rates. In fact, NFCs substantially increased their net issuance of debt securities over the last few years. Compared to 2006, the number of corporate bond issuances by NFCs nearly doubled to 788 in 2016, representing a volume of EUR 240 billion (*see Figure 1*).

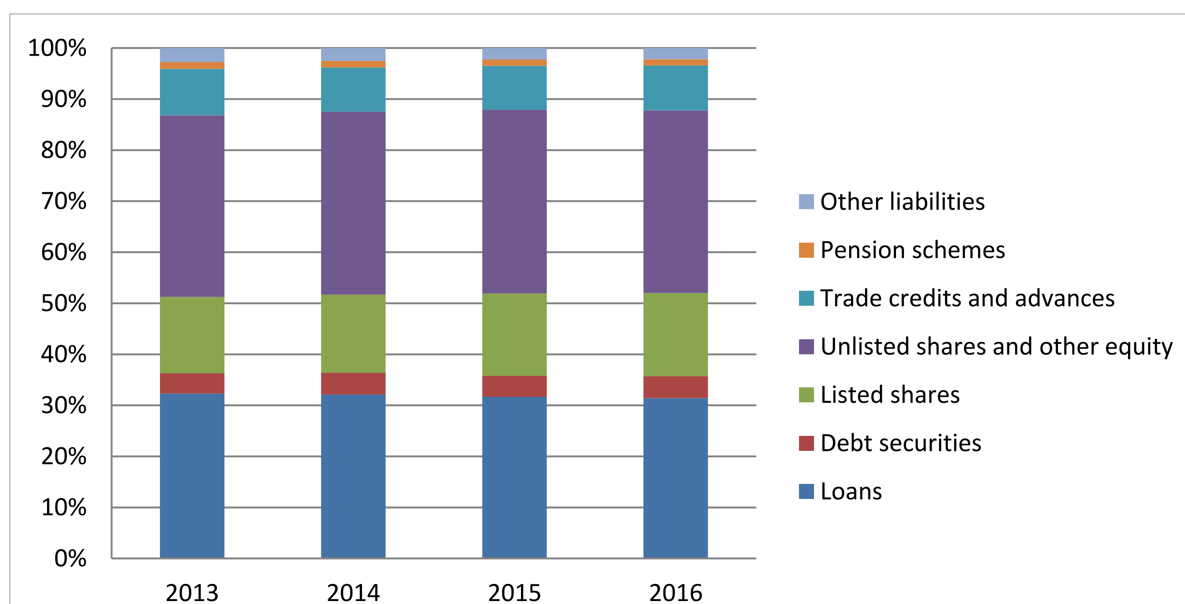
Figure 1. Corporate bond issuance by NFCs in EU-28



Source: Dealogic

However, bonds remain a marginal source of financing for NFCs in Europe, representing on average only 4.3 % of their total liabilities (*see Figure 2*). In the US, bonds represent 11 % of NFCs' total liabilities. This suggests that corporate bonds have the potential to represent a significantly larger source of financing for European companies.

Figure 2. Sources of funding of NFCs in the EU (% of total liabilities)



Source: ECB

Two other considerations suggest that corporate bond markets in Europe have the potential to become a significantly larger source of funding for NFCs:

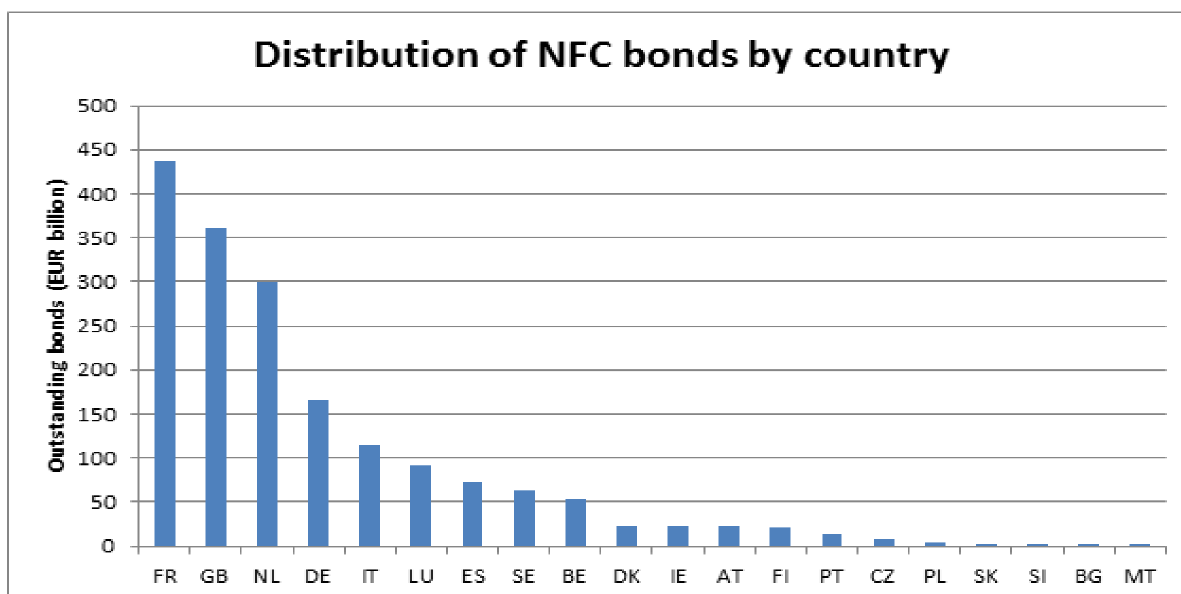
- Corporate bond markets are fragmented and bond issuances are concentrated in a few countries, whereas bond markets remain a marginal source of funding for NFCs in other Member States (*see Figure 3*);
- Large and medium-sized companies are the main issuers of corporate bonds, while corporate bond markets remain largely untapped by SMEs, despite them being the backbone of the European economy. For instance, 66 % of French issuers who filed a prospectus for the admission to trading of debt securities in 2016 and Q1 2017 had a market capitalisation above EUR 5 billion, and 24 % between EUR 1 billion and EUR 5 billion. Only 10 % had a market capitalisation below EUR 1 billion, including only two small-cap companies[3,4]. Moreover, the latest Survey on the Access to Finance of Enterprises in the euro area (SAFE) by the ECB highlighted that only 3 % of SMEs considered debt securities to be a potential source of finance (while 51 % considered bank loans to be of importance)[5].

[3] With market capitalisation below EUR 200 million

[4] Source: Prospectuses approved by the French Competent Authority (AMF) in 2016 and Q1 2017 – see analytical report, chapter 1 section 1.1.1.

[5] Source: ECB, Survey on the Access to Finance of Enterprises in the euro area (SAFE), October 2016 to March 2017

Figure 3 – Distribution of bonds by country, NFCs, EUR billion (as of 26 September 2017)



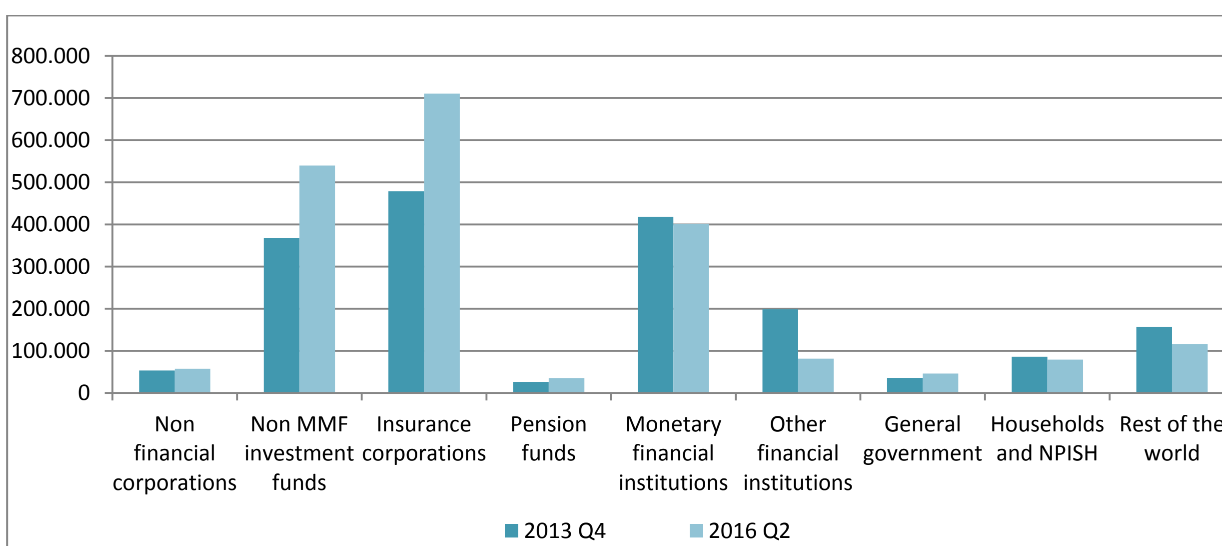
Source: Bloomberg

1.1.2. How investors benefit from corporate bond markets

An efficient corporate bond market is also beneficial to investors, as corporate bonds can be valuable investment opportunities. They enable a diversified investment strategy and an optimisation of the risk/return profile of a portfolio. They are an effective additional tool to mitigate some risks and match some liabilities.

The largest investors in NFCs' corporate bonds are insurance companies (holding 34.4 % of outstanding bonds as of Q2 2016), non-Money Market Funds (26.1 %), and monetary financial institutions (19.4 %). Households held directly only 3.8 % of outstanding corporate bonds (*see Figure 4*).

Figure 4 – Holders of Euro Area Corporate Bonds issued by NFCs (in million EUR)



Source: Risk Control study

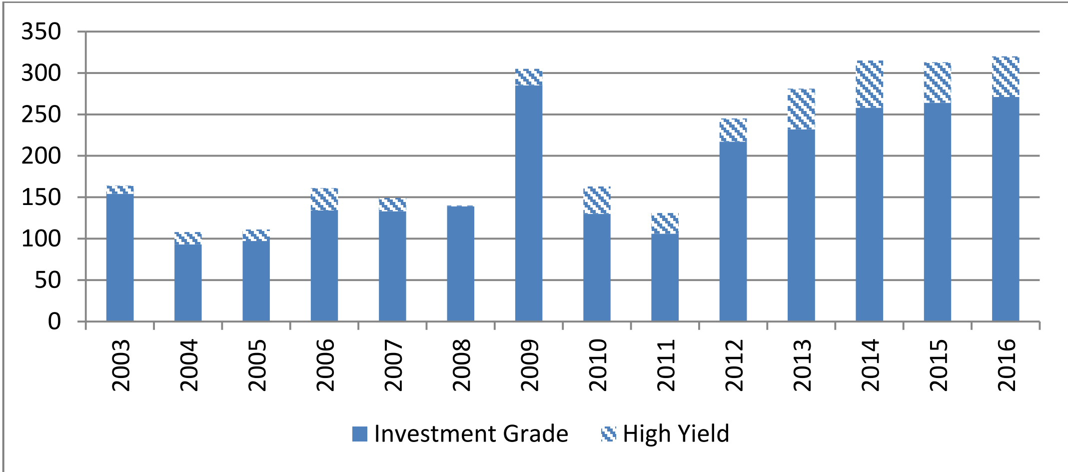
Institutional investors, such as banks, insurance companies, pension funds, and non-MMF investment funds engage directly in the corporate bond market by buying and selling bonds and accessing both the primary and secondary markets. Retail investors typically obtain their exposure to the corporate bond market through investments via one or more of these institutional players. Even though bond purchases by individual investors do occur, the majority of bonds are accessed via a pooled vehicle rather than by being purchased directly in the primary or secondary market. These collective investment schemes have opened up the European corporate bond market typically dominated by institutional players on behalf of institutional accounts to retail investors, creating the potential for significant new demand for underlying corporate bonds.

1.1.3. How efficient corporate bond markets enhance financial stability

Lastly, corporate bonds reduce the over-reliance of the financial system on credit institutions and hence the susceptibility of the wider economy to bank deleveraging. The availability of an alternative source of funding for productive investment in the EU supports the wider economy, enables greater risk sharing and a more sustainable and smoother credit supply throughout the cycle.

It is worth noting that in the crisis years, even though corporate bond spreads widened, NFCs and financial corporations continued to issue bonds in a sustained manner. Primary issuance even peaked in 2009. Starting in 2012, it resumed a sustainably upward trend (*see Figure 5*).

Figure 5 – Issuance in the euro-denominated corporate bond market (*EUR billion)*



Source: Dealogic

1.2. Main characteristics of European corporate bond markets

The volume of European corporate bond issuance nearly doubled between 2006 and 2016. This is notably due to **low interest rates**: companies are keen to issue bonds and lock-in low interest rates.

Financial corporations are the largest users of corporate bonds in Europe. As of 26 September 2017, the aggregate outstanding amount of corporate bonds issued by Financial Corporations

amounted to EUR 4.32 trillion, or 70.6 % of the total European corporate bond market. As regards corporate bonds issued by European NFCs, the outstanding amount tripled in size since 2007, representing EUR 1.8 trillion as of September 2017, or 29.4% of the total. Among NFCs, the sectors which were the largest users of corporate bond funding were utilities (20.4 % of the total), consumer sector (19.7 %), industrials (14.9 % and communication sector (12.8 %)[6].

The **large majority of corporate bonds issued by NFCs in Europe are investment grade**: they represented 64.1 % of the total notional amount of outstanding NFCs' bonds as of 26 September 2017. High yield and non rated bonds represented 14.5 % and 13.4 % of the total, respectively[7].

Compared to the equity market, the European corporate bond market is **hetergoneous**, as a result of multiple isuances by each issuer.

The European corporate bond marketplace is **fragmented along national lines**. The financial crisis reversed corporate bond markets' integration, impairing the funding ability of corporations in several countries. Frictions like tax, regulation and information asymmetries also hamper the integration of debt markets. International bond markets are also not accessible for all firms, with firms that issue debt abroad being much larger and also more leveraged than those that stick to domestic issues.

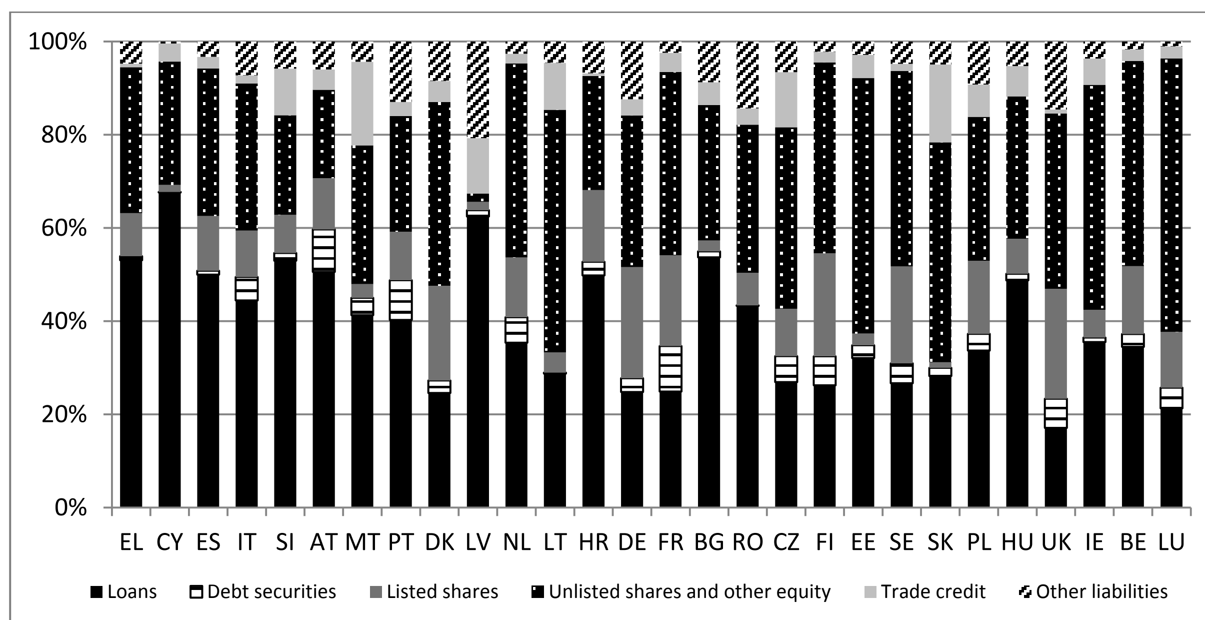
There are moreover wide differences among EU Member States: corporate bonds are more significant in France (about 11 % of NFCs' liabilities), Portugal and the United Kingdom (about 8 %), while bonds represent 1 % or less of companies' sources of funding in eight Member States (*see Figure 6*)[8].

[6] Source: Bloomberg

[7] Source: Bloomberg

[8] Luxembourg is the Member State where corporate bonds are highest relative to GDP (56 %), followed by France (25 %) and Sweden (21 %). At the other end of the range, the weight of corporate bonds in the economies of Latvia, Romania and Lithuania is less than 1 %

Figure 6: Sources of funding of NFCs in the EU (2010-2015, % of total)



Source: ECB and Eurostat. Note: Consolidated data.

1.3. Recent changes and their drivers

Corporate bond markets have **witnessed significant structural and policy changes**, stemming from several factors. These include: unconventional monetary policies; technological developments; the rise of the asset management industry; the retreat by some banks from their traditional role as market-makers; changing risk appetites of investors in response to the crisis; and tighter financial regulations. This section describes some of these changes.

1.3.1. Changing secondary market dynamics

Companies issue new bonds and sell them to investors on **primary markets** – i.e. markets where bonds are created and sold for the first time. Bonds bought in the primary market can subsequently be traded by investors on the **secondary market**.

Secondary markets are important for the functioning of primary bond markets and so the broader economy. In particular, they enable issuers to gauge the cost of funding and provide investors with information on investment opportunities. This is especially the case for frequent issuers. Liquidity[9] in secondary markets is critical for investors wanting to trade in or out of corporate bonds, even more so for less frequent issuers or smaller corporations. In addition, the liquidity provided by a healthy secondary market broadens the investor base, thus increasing the prospect of firms to finance themselves efficiently. Therefore, the efficiency and quality of secondary bond markets is equally important for investors and issuers.

[9] Market liquidity, in its broadest sense, refers to the ease with which financial assets can be bought or sold without having an undue impact on prices

A corporate bond has a **“natural liquidity lifecycle”** consisting of a decently active period directly after issuance, and thereafter a decline in activity (buying and selling interest becomes more and more scarce) until either the issuer of the bond experiences a credit related event, or the bond is refinanced or matures. Typically, the active period ranges between one to three weeks, after which liquidity diminishes. Investors therefore tend to hold these bonds for long time frames. Unlike equity and most sovereign debt, corporate debt is traded only rarely, with 90 % of all corporate bonds changing hands fewer than five times a year.
There has been a considerable amount of research on liquidity on corporate bonds recently, which paints a mixed picture.[10] Market participants on the other hand consistently raised **concerns about the functioning and limited liquidity of secondary markets**.[11] In particular, they report having experienced a reduction in liquidity over the last few years. They report difficulties in trading the desired amount of securities without materially impacting the price. Limited liquidity makes it difficult to trade in and out of corporate bonds and translates into higher costs for issuers and investors. In addition, it increases the risk of disorderly sell-offs in times of market stress, which may pose a risk to financial stability.

The secondary market for corporate bonds has historically been an over-the-counter (OTC) market, where dealers play a central role. It is estimated that over four-fifths of trading in European corporate bonds still takes place with a dealer.[12] An essential prerequisite for this market model to work effectively is that dealers are willing and able to play the role of intermediaries. They either fulfil client orders by finding matches in existing supply and demand (i.e. brokerage or agency trading) or step in as counterparty of their clients' trades by committing their own balance sheet capacity (i.e. market-making or principal trading). The latter option requires being able to deploy enough capital.

Following the crisis and subsequent regulatory overhaul, **dealer banks have responded by adjusting** their business portfolios, optimising balance sheets and trimming cost bases. This pressure, in combination with **alternative liquidity providers offering competing services**, has pushed many dealer banks to become more selective in their trading activities. Aggregate data on 13 major banks' securities' holdings point to a **steep decline in inventories** for European banks. This decline relates to both financial and non-financial corporate bond inventories.[13] This may be explained by these banks working these inventories harder, and therefore holding them for shorter periods of time. Some market-makers have reportedly focused their activities to use capital and balance sheet capacity more efficiently. This has in some instances translated into a greater proportion of riskless principal trading. Nevertheless, the vast majority of trading requires the management of risk.

The ability of intermediaries to offer liquidity and provide efficient and competitive pricing to their clients also relies on their ability to both hedge and finance the positions they take onto

[10] See, among others: (i) Risk Control study, (ii) IOSCO "Examination of Liquidity of the Secondary Corporate Bond Markets: Final report", February 2017, (iii) ESRB Market Liquidity and Market-making, October 2016; (iv) AMF "Study of liquidity in French corporate bond markets", November 2015: (v) FCA: "Liquidity in the UK corporate bond market: evidence from trade data", 2016

[11] See notably: (i) ECB survey on credit terms and conditions in euro-denominated securities financing and OTC derivatives markets (SESFOD) - March 2016 to March 2017 editions; and (ii) "Remaking the corporate bond market", ICMA, July 2016

[12] Source: "Drivers of Corporate Bond Market Liquidity in the EU" , Risk Control Ltd, November 2016

[13] Source: ESRB "Market Liquidity and Market-Making", October 2016

their trading books. To do so, they buy or short assets, use derivatives as well as securities lending and repo transactions – hence the need to have efficient and liquid markets to be able to hedge and finance positions at a limited cost.

The main reasons for the decrease in market-making activities are, in order of importance: (i) compliance with current or expected changes in regulation; (ii) availability of balance sheet or capital at their respective institutions; (iii) reduced profitability of market-making activities; (iv) internal treasury charges for funding market-making activities, as well as (v) a reduced willingness of the institutions acting as market makers to take on risks.

1.3.2. Alternative trading models and newcomers in corporate bond markets

Historically, dealers have been the primary providers of liquidity to buyers and sellers. A buy-side client looking to transact without necessarily a concurrent matching interest would trade with a dealer, generally after putting several dealers in competition through a Request For Quote ("RFQ") process. In the case of a client seeking to sell a corporate bond, the dealer with the highest price would buy the bond and hold it in its inventory until a buyer emerges. The dealer is compensated for providing this immediacy service (i.e. immediately offering liquidity by transacting with its client), as it is taking the liquidity risk instead of its client until it can close its position. Most **electronic platforms** have adopted this model and use the RFQ protocol.

It is estimated that around 60 % of European government bond are traded electronically.[14] Because of the heterogeneity of complexity of corporate bonds[15], electronic trading is less prominent in this asset class. It is estimated that 25% of European corporate bond trades are fully electronically traded.[16] However, these figures do not fully reflect the electronification of corporate bond markets, as bilateral trades relying upon voice confirmation often also benefit from some level of electronic communication – even though reported as bilateral. In any case, both partial and full electronic trading of corporate bonds are increasing.

All-to-all trading[17] is still a relatively new form of trading with the potential to change bond-market dynamics significantly. It allows any user of a network to trade with another directly, whether asset manager or dealer. Asset managers are therefore in direct competition with dealers. All-to-all trading makes it possible for asset managers to move from being price-takers (having to accept dealer quotes) to become price-makers (setting their own prices). On the positive side, a broader network connecting prospective buyers and sellers should facilitate price discovery and result in a more effective way to find concurrent opposite buy and sell interests, though such a platform would not in itself create liquidity. On the negative side, it could further dis-incentivise capital deployment for liquidity provision at all times, thereby making it difficult to trade in stress conditions.

[14] Sources: "Electronic trading in fixed income markets", Bank of International settlements, January 2016 – "2017 European fixed income market sizing", Celent

[15] e.g. different coupons, maturities, embedded options, covenants

[16] Source: "Drivers of Corporate bond markets Liquidity", Risk Control , November 2017

[17] All-to-all trading is a protocol which permits any participant on a platform to trade with any other participant, typically through a riskless intermediary (which preserves each party's anonymity)

Participants with a small but growing presence in the market are those pursuing a **passive investment strategy**[18], notably exchange-traded funds (ETFs). Shares in these funds track indices, giving investors access to a diversified basket of assets (such as, for example, corporate bonds) at a reasonable price. Even though growing fast, ETFs remain marginal players in the European corporate bond universe[19].

1.3.3. Monetary policy

On 8 June 2016 the Eurosystem started to purchase securities issued by non-bank corporations in both the primary and the secondary market under its new Corporate Sector Purchase Programme (CSPP). As of 6 October 2017, the CSPP held EUR 116.4 billion of non-bank corporate bonds.[20] The purchases are well diversified across corporations in many economic sectors and across the euro area.

The CSPP is believed to have a tangible impact on market conditions, notably by tightening corporate bonds' spreads and bringing stability to the primary market. However, the expectation is that the ECB will start tapering the programme in the near future. Unless carefully managed and well communicated, this could trigger adjustments and uncertainty. The Federal Reserve, which had also engaged in quantitative easing policies, started to reduce its balance sheet in October 2017.

1.3.4. Regulatory changes

Post-crisis changes in financial market regulations are frequently cited as one of the main **causes** of the **decrease in market liquidity**, notably (but not only) by making it increasingly capital-intensive for market-makers to hold inventory. However, **policy measures** in response to the crisis – such as stricter bank prudential rules, tighter limits on hedging requirements, and a push for greater transparency – were put in place to make the **financial system more resilient**. As a result the financial system is expected to be better able to deal with a potential adverse market liquidity shock than before the crisis.

As policy trade-offs are reviewed in light of the experience with the new rules, **re-calibrations** in the legislative framework for financial services should be **considered**.

[18] Investment strategies which follow a benchmark, i.e. trying to replicate this benchmark, without actively managing their investments

[19] See section II.2.5 for more details on ETFs

[20] ECB website: https://www.ecb.europa.eu/mopo/implement/omt/html/index.en.html

Box 1 – Legislation impacting the corporate bond markets and market-making activities

From January 2018, the Markets in Financial Instruments Directive (MiFID II[21]) will require market participants to report the prices and exact volumes of all completed bond transactions at an unprecedented level of detail. More trading is expected to move onto electronic platforms, which are busy embedding automatic reporting.
Definitions of "market-makers" and "market-making" can be found in MiFID II and the Short-Selling Regulation (SSR)[22].

The key regulatory capital and liquidity requirements are based on the global Basel standards, which includes the Leverage Ratio (LR), the Net Stable Funding Ratio (NSFR) and the Liquidity Coverage Ratio (LCR). These requirements which are stipulated in the Capital Requirements Regulation (CRR) and Directive (CRD), referred to as CRR/CRD IV, also include the regulatory capital requirements for market making activity. Post-crisis reforms have seen the capital, liquidity and leverage requirements for market making activity increase substantially for EU and international banks active in market making.

The OTC nature of the corporate bond secondary market places banks at the centre of this ecosystem. The successive implementation of post-crisis banking regulations, while contributing to a better overall resilience and stability in financial markets, are perceived as being particularly punitive for market-making activities.

As market-making in corporate bonds involves holding inventories of securities, it negatively impacts the calculation of the main capital and liquidity requirements ratios. Hence banks have adjusted by reducing their inventories. Understanding the rationale for these ratios, but with the benefit of having assessed the impact on market making capacity, there may be an opportunity to review the overall calibration of the framework in order to balance the imperative of banks' resilience with market liquidity and its impact on financial stability.

[21] Directive 2004/39/EC.
[22] Regulation (EU) No 236/2012.

2. POLICY RECOMMENDATIONS

The goal of the Expert Group is to optimise the functioning of corporate bond markets to the advantage of both issuers and investors who rely on corporate bond markets to secure funding and efficiently allocate their capital. As the role of intermediaries is essential to connect issuers and investors, and as the system functions as a whole, the Expert Group has looked at ways to make intermediation more efficient. The following recommendations therefore span issuers, investors as well as intermediaries.

The focus of the Expert Group has largely been on the functioning of the secondary market. This is due to the importance of the secondary market in itself, but also because an efficient secondary market is a pre-condition for successful issuances of corporate bonds in primary markets: when buying a new security at the outset, investors need to know that they will be able to sell it relatively easily and without triggering an adverse price movement if they so wish.

Lastly, while some recommendations from the Expert Group are specifically targeting corporate bonds, others have a broader reach, having an impact on other asset classes and/or financial instruments.

The recommendations start with making **issuance easier for companies** (section 1). This is followed by recommendations to promote a **diverse, experienced and interested range of investors** in corporate bonds (section 2). The next group of recommendations is targeted towards **intermediaries and trading**. They aim at supporting the traditional model of intermediation through market makers (section 3), but also take into account the growing importance of **alternative forms** of trading and of an **efficient post-trade environment** (section 4). Equally important is the role of **information and transparency** (section 5). Lastly, given its importance for the corporate bond markets, recommendations are tabled on the **supervisory and policy framework** (section 6).

2.1. Corporate bond markets at the service of issuers

Bond markets have the capacity to **cater for companies' needs as they grow** and graduate from local markets to seek other sources of funding in international markets. Corporate bond markets are attractive too because of their flexibility. The terms of a bond issuance can be fully customised to a company's needs, in terms of amount, tenor, currency, structure, conditions, covenants, and timing of issuance. Depending on market conditions, efficient pricing is another important reason for issuing bonds. Besides diversifying a company's funding, another advantage of bonds is that negotiating their terms and issuing them is faster than negotiating and securing bank loans. This translates into an accelerated access to funding.

For the period 2009-2016, the growth of the **European bond market has compensated for the decrease of bank loans to the Non-Financial Corporate sector**, in Euro area countries. According to ECB data, the stock of loans extended to corporates has decreased by EUR 536

billion, whereas the stock of long term debt securities increased by EUR 567 billion for the same period.

Large and mid-sized companies are the main **issuers** of corporate bonds. Although SMEs can access the market, they are much less frequent issuers due to the fact that issuances in this market are **normally undertaken in sizes larger than their needs**. One of the main characteristics of a liquid bond is its size and, for instance, a jumbo size bond will (generally) be more liquid than a sub-benchmark bond (below EUR 300-500 million).

The following recommendations are focussed on making the policy framework more sensitive to the situation of issuers in order to facilitate the raising of capital through bond markets.

2.1.1. Market sounding[23]

Banks managing the issuance of a bond on behalf of a company provide a number of services. One of them is market sounding. When a company decides to issue a bond, the bank will communicate with potential investor(s), before the announcement of a transaction, to determine whether there would be interest in that particular issue and ascertain an appropriate price. This is important as the issue is typically placed in a day or less. If there is no interest, the issuing company may not allocate the whole amount foreseen. Moreover, little information is given to the buyers. This offers advantages compared to the costly and time-consuming road shows and book-building that new stock issues require. In bond markets, the information of most interest concerns credit fundamentals, interest rates and prepayment risks.

The Market Abuse Regulation (MAR) imposes new and strict requirements regarding market soundings. These requirements[24] are considered burdensome[25]. Besides, the risks and uncertainties linked to the implementation of these new rules and their interpretation by National Competent Authorities can deter intermediaries from performing market soundings. The requirements of MAR regarding market sounding are aimed at large, relatively liquid markets and do not take into account the specifics of more local, less liquid markets such as corporate bond markets. In these markets, implementing these rules significantly restricts the willingness of potential issuers to carry out new issuances, in particular for entities that do not fall into the "frequent issuers" category.

The Expert Group recommends that the provisions of the Market Abuse Regulation regarding market soundings be amended in order to alleviate the requirements regarding market soundings that could result in disproportionate burden for companies.

[23] See analytical report, chapter 1 section 1.2.1 for more details on this recommendation

[24] Establishment of procedures, definition of standard information to be disclosed, obligation to keep records

[25] For instance, the person carrying out the sounding has to assess whether the sounding involves inside information; also, the investors being sounded will also have to assess for themselves whether they are in possession of inside information or when they cease to be in possession of such information.

2.1.2. High yield bonds' allocation process[26]

For high quality, investment grade corporate issuers, allocation of bonds to investors is carried out by all the banks which have been mandated to manage the primary issuance (also called the "lead managers") in accordance with clear and transparent rules, which have been agreed with the issuer. Records are also kept of the allocation process. National regulators regularly check that the allocation process has been transparent, abiding by the rules and duly documented. These efficient, transparent and monitored processes are not implemented to the same extent in the high yield segment of the corporate bond market, where the allocation process is typically left to the discretion of one or more lead banks (called the "lead left"), not systematically communicated to other banks and to the borrower, and is thus more opaque. This means that, even if in principle issuers can influence the allocation process, the extent to which high yield issuers do so varies greatly - particularly in the case of smaller, less frequent issuers.

Regulators should work with market professionals[27] to support the extension of transparent and fair allocation methods from the investment grade primary market to the high yield segment as appropriate. This will warrant a fairer access to primary liquidity for all borrowers and investors and a transparent and efficient price discovery process.

2.1.3. Support from public institutions

Corporate bond markets are fragmented and bond issuances are concentrated in a few countries whereas, in other Member States, bond markets are relatively small or less developed. Moreover, SMEs face more difficulties than large companies in accessing financial markets and favour easier channels to access capital markets such as private placements. Some Member States[28] have already put in place financial schemes aimed at supporting SMEs in financing the costs associated with an Initial Public Offering (IPO). National Promotional Banks could play a role in developing corporate bond markets by facilitating access to funding for SMEs, notably in the context of the Investment Plan for Europe launched in 2014.

Where national corporate bond markets have a catch-up potential, those Member States could involve and coordinate actions by local industry associations as well as request support from the Structural Reform Support Service (SRSS)[29] in the form of technical assistance to facilitate the growth of their corporate bond markets[30].

[26] See analytical report, chapter 4 section 4.1.2 for more details on this recommendation

[27] Notably with self-regulated bodies such as the International Primary Market Association (IPMA) and FICC Markets Standards Board (FMSB)

[28] Examples: (i) in Spain, the promotional bank ENISA provides participating loans to finance the listing on the *Mercado Alternativo Bursatil*, the SME-dedicated MTF; (ii) in Poland, the 4 Stocks Programme provides non-refundable grants to companies seeking a listing on the SME MTF NewConnect or on the regulated market.

[29] The SRSS is an EU service which allows the European Commission to coordinate and provide tailor-made assistance to EU countries, upon their request, to support them in the design and implementation of institutional, administrative and structural reforms

[30] Technical assistance can be provided to (i) identify reform needs, (ii) assist with the implementation of eth reforms, and (iii) evaluate outputs and outcomes

Member States should give their National Promotional Banks the necessary mandate to support SMEs to issue corporate bonds. Moreover, Member States which still lag behind in terms of development of their corporate bond markets should work with the local industry associations in order to facilitate the growth of their corporate bond market. National Authorities should also request the support from the SRSS.

2.1.4. Proportionate prospectus[31]

In order to provide information to investors, a company issuing bonds has to publish a prospectus containing information regarding the issuer (financial situation, prospects and risks) and the securities offered and/or admitted to trading. The Prospectus Regulation adopted on 30 June 2017[32] aims at facilitating access to financial markets for companies, particularly SMEs. It simplifies the rules and streamlines related administrative procedures. ESMA is preparing technical advice on the implementing measures of the new Regulation and the content of the future different prospectuses: a “standard” prospectus, a specific prospectus for non-listed SMEs ("Growth Prospectus") and a prospectus for secondary issuances of listed companies).

The Expert Group supports the objective of streamlining the Prospectus rules and reducing in particular the disclosure requirements for SMEs. While it sees great promise in the new "Growth Prospectus", it requests further enhancing the alleviations it foresees, notably in terms of calibrated disclosure, while maintaining the current flexibility and level of disclosure for wholesale debt issuances.

2.1.5. Private placement as gateway[33]

Private placement emerges as an attractive access point to debt markets, in particular for smaller, and in some instances lower-rated issuers. Private placements are an efficient alternative/complement to public corporate bond issuance. In Germany, Schuldscheindarlehen (SSD) loan notes have been an important component of corporate finance in capital markets for years. Schuldschein has slimmer documentation in terms of administrative requirements compared to corporate bond issuance. The Euro Private Placement market has also been developing quickly over the last few years, in particular in France, but also in Italy and Belgium. Private placement trading platforms and Multi-lateral Trading Facilities (MTFs) have also been emerging, facilitating access to and trading in this asset class by qualified investors[34]. Despite this success, the development of private placement markets remains very uneven, meaning that there is room for smaller, more standardised issuances, which could be a step towards corporate bond markets for smaller issuers in particular.

[31] See analytical report, chapter 1 section 1.2.1 for more details on this recommendation
[32] Regulation (EU) 2017/1129, 30 June 2017
[33] See analytical report, chapter 1 section 1.1.6 for more details on this recommendation
[34] Example: Mercado Alternativo de Renta Fija (MARF) in Spain – *see Analytical Report Chapter 1 section 7.3. for more details*

The Expert Group encourages the development of Private Placements, building on existing experience and markets. In particular, the development of private placements for SMEs should be stimulated. The Expert Group calls on the Commission to expedite its long-promised Recommendation on private placements in order to extend good practices from lead Member States to other Member States.

2.2. How to ensure sustained investor interest in corporate bonds

Successful corporate bond markets require sustained investor interest. Corporate bonds typically have a long tenor, which makes the asset class especially well-suited for long term investors such as insurers and pension funds. Direct retail investor engagement is more difficult given the wholesale and professional nature of the market. However, there are several instruments through which retail investors can achieve indirect exposure to the corporate bond market, and benefit from a more diversified investment portfolio and optimised risk/return profile (inter alia funds, Exchange Traded Products).

Two factors which impact EU investor appetite for a bond issue are the size of the issue and the issuer's domicile. The size of the issue impacts elements of liquidity, with larger bond issues perceived to be more liquid than smaller ones. The investor's domicile is also a factor because there is an implicit home bias between issuer and investor's domicile due to local knowledge and name recognition. Insurance companies and pension funds give some evidence of having a pure home bias among bond issuers. Insurance companies and households have a preference for long-term issues. Banks and households have an appetite for floating rate issues, while insurance companies prefer fixed rate issues.

2.2.1. Increase legal certainty on corporate insolvency for cross-border investors[35]

The legal framework associated with corporate insolvency is one of the drivers of the appetite of investors in the corporate bond market. The current fragmentation of national insolvency frameworks across the EU, by increasing uncertainty for investors, discourages cross-border investments in corporate bonds. Depending on the jurisdiction, creditors and debtors involved in insolvency proceedings may have a different level of protection and a very diverse set of rights and obligations (e.g. debtors' protection schemes may have a wide grade of differentiation). Moreover, the uncertainty about the length that an insolvency proceeding might take in some Member States has a negative impact on the appetite that investors may have for bonds issued under different legislation.

In short, un-harmonised pre-insolvency laws may have negative effects on the smooth functioning of the bond markets and reduce the appetite for cross-border investments. A harmonised restructuring framework will thus allow a more transparent environment for investments across the European Union that will help facilitate the rescue of viable companies by providing investors with necessary legal certainty, rights, and responsibilities.

[35] See analytical report, chapter 4 section 4.4.3 for more details on this recommendation

The Expert Group strongly support the European Commission's proposal on preventive restructuring, second chance and measures to increase the efficiency of restructuring, insolvency and discharge procedures[36]. Furthermore, as per insolvency law, the Expert Group recommends:
- the EU harmonisation of (i) ranking of creditors and (ii) the definition of what triggers an insolvency;
- national measures to increase the transparency of / sharing information about the position of investors in the ranking of creditors under their national law (and the possible maximum timing to recover value)[37].

2.2.2. Corporate bond allocation process – an investors' perspective[38]

When a new corporate bond is issued, one needs to gather a maximum number of investors and orders to reach a consensus price which is optimal for the borrower. This warrants the best level of transparency for both the borrower and the investors. However, as a result, the demand for bonds often largely exceeds the amount of bonds offered. This leads some investors to inflate their orders, with the objective of receiving a higher portion of the issuance. This can be detrimental to other investors which, often constrained by strict internal rules, request only the amount which they ultimately seek to receive and end up being allocated a smaller portion of the issuance.

Coordinated action between regulators and markets professionals should discourage and possibly penalize any artificial inflation of primary orders from all investors in a primary allocation process.

2.2.3. Longer term bonds for long term investors[39]

The very long term part of the bond market (maturities of 15 years and longer) both in European corporate primary and secondary markets should be developed. This part of the European corporate bond market is clearly lagging other markets such as the US and British corporate markets, as well as the EU sovereign market. Since 2010, corporate issuance of 30-year maturity or longer have amounted to 13 % in the US, 19 % on the GBP market and below 1 % on the EUR market – i.e. virtually no market in euro for such maturities.

Because of their long term liabilities, insurance companies are seen as natural buyers of very long term debt (15 years and beyond). However, they are not so active in very long maturities. Solvency capital requirements (SCR) under Solvency II increase as a function of the maturity of a security. This current escalation of Solvency II capital requirements for spread risk on corporate bonds is too demanding for bonds with a long tenor (especially 15 years or beyond) and too steep when increasing maturity (and decreasing rating) which shows disconnection with the longer term view of corporate bond defaults or downgrade risks. This makes

[36] Proposal for a Directive of the European Parliament and of the Council on preventive restructuring frameworks, second chance and measures to increase the efficiency of restructuring, insolvency and discharge procedures and amending Directive 2012/30/EU - COM/2016/0723 final
[37] As has already been done in the BRRD in case of banks failure/resolution.
[38] See analytical report, chapter 4 section 4.1.2 for more details on this recommendation
[39] See analytical report, chapter 2 section 2.1.3 for more details on this recommendation

investment in long term maturities economically inefficient as capital requirements under Solvency II increase more than the increase of market credit spreads of securities with the same ratings/maturities. Recalibrating the relationship between capital requirements and maturities would also moderate to some extent the current significant imbalance among corporate bonds and EU sovereign bonds. The latter do not have any capital requirement, regardless of the rating/tenor of the instrument.

In appropriate cases, Solvency II allows insurers to alleviate SCR by application of a Matching Adjustment[40] to a portfolio of eligible assets (notably used in the United Kingdom and to a lesser extent in Spain). But it is not applied in other Member States due to eligibility criteria and the low rates environment.

The Expert Group recommends a recalibration or alleviation of Solvency II capital requirements for corporate bonds with long tenor. There should be a specific decrease of requirements for maturities of 15 years and beyond avoiding extreme jumps in ratings. The analysis should be focused in big jumps or steps in the current SCR requirements, such as jumps on rating from A to BBB and from 5 years to 30 years. The issue should be looked at in the context of forthcoming reviews of Solvency II. In addition, it also recommends the review of eligibility criteria of Matching Adjustment to determine whether broadening the eligibility of matching criteria is appropriate.

2.2.4. Increase efficiency for buy-side firms by allowing internal crossing of buy and sell orders

In some instances, asset managers may want to cross buy and sell orders between funds managed by the same asset management firm, mainly to avoid paying transaction costs and to obtain the best price. Therefore, while the internal crossing of orders does not bring visible liquidity to the market, it can bring efficiency to fund managers and best execution to their clients. However, currently, fund managers lack clarity over whether or not they are allowed to internally cross-buy and sell orders. This is notably due to the fact that there are divergent interpretations of UCITS and AIFMD rules by Member States on the services which asset managers are allowed to provide in addition to fund management. In addition, MiFID/R II leaves room for interpretation as to whether asset management firms internally crossing orders may be considered as a trading venue or a systematic internaliser – which would trigger additional obligations. As a result, while in some Member States internal crossing is allowed, other Member States demand that this kind of service is provided by a third party. In the latter case, the goal is to ensure that the transaction is beneficial to both parties in the transaction, and in particular that the price is right - which is potentially more problematic in the case of illiquid securities.

[40] Solvency II's Matching Adjustment provisions give insurers relief for holding certain long-term assets which match the cash flows of a designated portfolio of life or annuity insurance and reinsurance obligations

The Expert Group recommends that ESMA conducts a mapping of existing practices in Member States in regards to internal crossing of orders and support convergence by setting out criteria with regard to how asset managers may internally cross buy and sell orders. In the interest of end investors, internal crossing of buy and sell orders should be allowed, as long as the best execution and fiduciary duties of asset managers – a requirement under UCITS and AIFMD - are met.

2.2.5. Encourage more retail investment into bond regulated investment funds[41]

Retail investors have typically played a minor role in corporate bond markets in the EU, holding only 3.8 % of euro area corporate bonds outstanding as of Q2 2016[42]. Currently, the market is dominated by institutional investors and monetary financial institutions. Broadening the investors' base to include more retail investors could deepen and diversify the demand for corporate bonds, which should ultimately translate into additional liquidity of corporate bond markets. For retail investors, holding corporate bonds facilitates a diversified investment strategy and an optimization of the risk/return profile of a portfolio.

However, direct purchases of bonds by retail investors are complex and costly in Europe. In addition, most individuals do not have sufficient investable assets to purchase a bond directly.

One way to improve retail participation is by making available financial instruments that provide easy access for retail investors. Regulated bond funds products can be a simple and cost-effective way for retail investors to gain exposure to a diversified portfolio of bonds.

However, cross-border differences adversely impact fund distribution in Europe. In particular, Member States' incentives and structures for retirement savings and fund marketing rules differ.

- *To encourage more retail investment into corporate bonds, along with other investable assets, the Expert Group recommends that EU policymakers adopt and implement the pan-European Personal Pension Product (PEPP). Its take-up should be promoted by national and EU authorities, and national authorities should determine which tax breaks would be best suited to their respective national contexts.*
- *To support improved cross-border distribution of funds, the Expert Group recommends that EU policy makers support the convergence of the interpretation by Member States of UCITS and AIFMD's marketing rules for regulated investment funds in Europe. The Expert Group encourages the Commission to be ambitious when preparing its forthcoming proposal on the cross-border distribution of investment funds.*

2.2.6. Encourage more corporate bond ETF trading activity on exchanges43

Passive investment strategies may be an effective way for retail investors to achieve exposure to different asset classes, including corporate bonds, at a reasonable price. ETFs, which are

[41] See analytical report, chapter 2 section 2.1.5 for more details on this recommendation
[42] Source: Risk Control
[43] See analytical report, chapter 2 section 2.4.2 for more details on this recommendation

generally passively managed, are one financial instrument enabling exposure to a diversified basket of corporate bonds at a reasonable cost.

The experience of the US, where bond ETFs held USD 366 billion in corporate bonds as of June 2017, representing 3 % of bonds issued by US corporations and foreign bonds held by US residents, demonstrates that ETFs can be an effective instrument to broaden the base of investors in corporate bonds.

European ETFs have also been developing at a fast pace over the last few years. UCITS bond ETFs' holdings of euro area corporate bonds reached EUR 31 billion as of 31 March 2017, more than twice the amount held at end 2013[44].

Their growing importance prompted concerns among some regulators and raised questions about their impact on market stability. Concerns focus on the functioning of ETFs. Given the still limited size of bond ETFs in Europe - UCITS bond ETFs' holdings of euro area corporate bonds represented only 0.4 % of outstanding euro area corporate bonds as of 31 March 2017 - the potential impact on the underlying securities and the risks to financial stability seem marginal at this stage. Nevertheless, it should be monitored.

The European ETF markets are predominately OTC and there have historically been hurdles to bringing trading on to exchanges. Fragmentation of trading and liquidity in Europe add to the cost and difficulty of buying/selling ETFs. This can make it difficult for retail investors to access this market, contributing to the situation where ETFs are principally an institutional product in Europe.

The Expert Group believes that it would benefit market transparency and resilience if more corporate bond ETF trading activity took place on exchange. To this end, the European Commission and ESMA should review Member States' regulations and market practices to identify the obstacles that stand in the way of trading ETFs on exchange.

The Expert Group recommends that the European Commission evaluates the contribution of ETFs to price discovery and liquidity of the underlying assets.

2.3. Market making

Historically, the providers of secondary market liquidity for corporate bonds have been the market-makers. Unlike more homogeneous or standardised markets, such as large-cap equities or financial futures, corporate bonds are intrinsically heterogeneous (a single issuer will typically have several issues of different bonds) and less liquid securities (after the initial few days following issuance, many corporate bonds may not trade again for weeks or even months). Thus, corporate bonds do not naturally lend themselves to exchange-based trading. For investors to be able to transact in corporate bonds, it is generally impractical to search for an investor with a matching interest and it can in some instances take a long period of time. Instead, investors rely on the services of market-makers to provide bids or offers upon request

[44] Source: Morningstar – See Analytical report, chapter 2 section 2.1.3, figure 13

– this is also referred to as immediacy. As a result, market-makers remain the primary source of market liquidity on corporate bond markets.

One of the two main factors[45] influencing the provision of liquidity is capital. Capital comes into play because, to fill immediately a client's buy or sell interest, a market maker takes a long or short position, meaning that it puts itself 'at risk' (i.e. exposed to potential adverse action by other market participants, which could affect its ability to manage and unwind the risk). Therefore, market makers are required to set aside capital to hold a position until the other side of a trade is found, and bear any potential losses arising from price fluctuations in between. The difference between the price at which a buyer buys a security and the price at which a seller sells a security is the compensation for the capital put at risk by the market maker to immediately fulfil a buy or sell order. As a result, a system deprived of capital to make markets is a system incapable of facilitating anything other than matched interests.

Since the financial crisis, regulatory reform efforts have aimed at making the financial system safer and more resilient. This has been done through the Basel III framework, which at EU level has been mainly implemented by the Capital Requirements Regulation / Directive (CRR/CRD IV). Capital and liquidity requirements have increased the cost for market makers to hold inventories, decreasing their intermediation capacity (i.e. their capacity to immediately fulfil a buy or sell order of a client) even during normal times. While the Expert Group acknowledges the need to enhance the capacity of the financial system to withstand shocks, it also recognizes the need to ensure that market making is not disincentivised, to the extent that the reduction in market liquidity raises the overall risk profile for the financial system and the economy as a whole. In addition, it argues that the treatment of corporate bonds in the calculation of some capital and liquidity requirements does not adequately reflect a valuation of bonds based on a more fundamental analysis.

Therefore, recommendations in this section mainly address capital and liquidity requirements.

The ability of market-makers to finance their long or short position (notably via the repo or securities lending market), as well as to hedge their interest rate risk and their credit risk (in particular through the Credit Default Swap (CDS) market), are also important considerations, and the related costs will also be reflected in the bid-ask spread.

2.3.1. Provision of liquidity services and prudential requirements[46]

Through Basel's Liquidity Coverage Ratio (LCR), the regulators aim at promoting the short-term resilience of a bank's liquidity risk profile under stressed conditions, ensuring that banks have sufficient liquid assets to cover net cash outflows over a 30-day stressed scenario.

The Expert Group appreciates that the rationale behind the adoption of the LCR is liquidity based and agrees that the fact that some assets will be more liquid than others must be reflected in the calculation of the LCR. However, it feels that the penalty associated with investment grade corporate bonds is both overly restrictive and not reflective of market reality with regard to any asset liquidity in times of stress. In particular, the haircuts applied to

[45] The other factor is information, which is dealt with in the next section

[46] See analytical report, chapter 3 section 3.3.1 for more details on this recommendation

corporate bonds are overly punitive and penalize sell-side firms from holding inventory which permits them to make markets efficiently. However, the Expert Group also recognizes that liquidity issues exist with regard to corporate bonds in a general sense. Thus in order to achieve a suitable balance, it is suggested that a recalibration of the LCR should take into greater account the value of the corporate bond inventory held by market makers. It should treat differently those assets held specifically for market-making (inventory) purposes. By segregating the assets held specifically for market making from the overall calculation at the bank-wide level of the LCR, some relief would be given in recognition of the market-wide benefit from the provision of liquidity services. Moreover, the Fundamental Review of Trading Book (FRTB) rules, by increasing scrutiny on the delineation between banking book and trading book, will facilitate this approach. It will ensure that assets designated for the purposes of market-making are indeed held on the trading book.

Box 2 – the Basel Liquidity Coverage Ratio (LCR)

The Basel Liquidity Coverage Ratio (LCR) is calculated as High Quality Liquid Assets (HQLA) divided by Total Net Cash Outflows, and is required to be 100 % or greater. Focusing on just the numerator, the HQLA, the Expert Group believes that the current haircuts and maximum applications do not adequately reflect the value and resilience of corporate bonds as an asset class. For the purposes of corporate bond, HQLA is divided into two categories: 2A HQLA (which permit, for Aa3/AA- equivalent securities, up to a maximum of 40 % inclusion and subject to a minimum haircut of 15 %) and 2B HQLA (which, for corporate bonds rated at least Baa3/BBB- equivalent, permits up to a maximum of only 15 % inclusion and subject to minimum haircuts varying between 25 % and 50 %).

A haircut of 50 % for a Baa3/BBB- asset is not reflective of the fundamental value of corporate bonds and their relative liquidity, including in stress times. Besides, the Expert Group argues that the treatment of corporate bonds is overly punitive when comparing with other assets which experienced very low liquidity during the crisis.

2.3.2. Liquidity requirements should not deter liquidity provision in corporate bond markets[47]

The Basel Accord introduced the Net Stable Funding Ratio (NSFR) to ensure that banks have an acceptable amount of stable funding to support their assets and off-balance sheet activities over a one-year period, including in stress periods[48].

While the Expert Group understands the need to reduce the likelihood that disruptions to a bank's regular sources of funding would erode its liquidity position and potentially cause failure, it argues that, in a similar manner as for the LCR, the NSFR treats corporate bonds in

[47] See analytical report, chapter 3 section 3.3.1 for more details on this recommendation

[48] The NSFR is defined as the amount of Available Stable Funding (ASF) relative to the amount of Required Stable Funding (RSF). The ASF is defined as the portion of capital and liabilities expected to be reliable over the time horizon considered by the NSFR, which extends to one year. To calculate the ASF and the RSF, one applies to the various on and off balance sheet assets held by financial institutions "factors" (also called haircuts) meant to reflect their liquidity characteristics and residual maturities. These factors are defined in the Basel standards. The NSFR must be equal or greater than 100 %.

an overly punitive manner which does not reflect the true liquidity of corporate bonds over a one-year period, even in stress times. Doing so, the NSFR discourages the provision of market-making services by the sell-side in this asset class. Again, similar to the position taken by the Expert Group on the LCR, we would recommend that at a minimum the corporate bond assets specifically designated as held for purposes of market-making be excluded from the calculation of the NSFR. To be clear, the Expert Group recognizes that assets held in the liquidity buffer pool would continue to be assessed with the rules associated with the NSFR and LCR as a matter of prudence.

Besides, the factors applied to repo and securities lending transactions between banks, instruments that are essential for the provision of market-making services, are asymmetric[49] and overly punitive. They should also be revised to reflect the true liquidity characteristics of these transactions.

Box 3 – the Basel Net Stable Funding Ratio (NSFR)

Two elements of the Basel NSFR are particularly problematic. First and foremost, the application of a 50 % risk factor to HQLA 2B level assets is overly punitive to the holding of positions in these asset classes. The Expert Group would suggest a measure that is more closely related to the presumed diminution in mark-to-market value of such a position over a reasonable period to liquidate. A 50 % factor would, anecdotally, imply a very stressed market, a sizeable position, and a short period of time to sell-down – when the NSFR is intended to ensure that banks have an acceptable amount of stable funding to support their assets and activities over a one year period.

Secondly, the impact on the liability side of the balance sheet (as a result of asymmetric and punitive factors applied to financing activities between banks, inclusive of repo transactions) fails to recognize the true liquidity characteristics of inter-bank activity in securities lending – also a critical component of the market-making activity.

2.3.3. Policy should encourage risk mitigation[50]

To be able to provide liquidity services upon request, market makers need an efficient and deep market in which to hedge their positions. The presence of a well-functioning Credit Default Swap market is essential to enable market makers to hedge their positions – i.e. insure themselves against the default of an issuer. However, the CDS market has been negatively impacted by post-crisis regulation on banks' capital, in particular the Basel III leverage ratio[51]. The current policy position increases materially the cost of CDS books by including the notional amount of written credit derivatives in the calculation of the exposure. This exposure amount may not be reduced by protection purchased, unless the remaining maturity of the protection purchased is equal or greater than the remaining maturity of the written credit derivative. This does not create a strong incentive for dealers to hedge their positions.

[49] i.e. the ASF and RSF factors applied to the same asset/liability are not the same
[50] See analytical report, chapter 3 section 3.3.1 for more details on this recommendation
[51] In Basel III, the leverage ratio is a non-risk-based leverage ratio calculated by dividing Tier 1 capital by the bank's average total consolidated assets (sum of the exposures of all assets and non-balance sheet items). The banks are expected to maintain a leverage ratio in excess of 3% under Basel III.

Moreover, such a measure fails to recognize the fact that default is a point-in-time occurrence and if protection is held at such point, then there is effective risk mitigation.

Box 4 – the Basel Leverage Ratio (LR)

When calculating the exposure amount for the Basel Leverage Ratio, a position in credit derivatives consisting of a sell 5yr protection and a buy 4.75yr protection is treated as an outright sell 5yr protection. No benefit is recognized for the fact that the position is hedged for 4.75yr or for the fact that the exposure can be managed over time. Moreover, the methodology for calculating the leverage ratio fails to recognize that default is a point in time occurrence. Thus, in the above example, if default of the credit had occurred during the period of the 4.75 year long protection position, it would offset the short position of 5.0 years. By definition, the only time that the two positions should not net to zero is when the long protection position expires, leaving the long risk exposure.

The Expert Group recommends that EU authorities review the Basel capital and liquidity requirements, on the basis of a quantitative assessment of their impact on market-making and corporate bond liquidity. This quantitative impact assessment should be conducted across international banks with a defined mandate to make markets.

The following issues should be part of this Basel review:

- *Adjusting both the haircuts and the inclusion amounts in the Basel Liquidity Coverage Ratio to reflect the minimal negative impact that corporate bonds had in the prior crisis; in particular, providing for a differentiated treatment in the calculation of the LCR for those assets designated as held on the trading book – i.e. adjusting both the haircuts and the inclusion amounts in the LCR calculation of those corporate bonds held on the trading book, which would take greater account of the higher expected turnover of such inventory*

- *In connection with the liability side of the balance sheet, adjusting the factors applied in the Basel Net Stable Funding Ratio to corporate bonds and to inter-bank financing activities in repos and securities lending, to appropriately reflect their liquidity profile over a one-year period and support the provision of liquidity to corporate bond markets*

- *With regard to the asset side of the balance sheet, either adjust the factors applied to the NSFR to more closely align the HQLA haircuts on corporate bonds with the price performance over the medium term (a one year period) used for such calculations or, in the alternative, remove corporate bonds designated as held on the trading book for market-making purposes from the calculation of the NSFR.*

- *Amending the Basel III Leverage Ratio for the additional treatment for written credit derivatives to apply to contracts with a remaining term of less than one year. In so doing, banks would still be incentivized to match the maturity of protection buy and sells. However, it would not penalize mismatches that could materialize in the distant future, that there is ample time to manage. This recommendation applies to all credit derivatives and not only to corporate bonds credit derivatives.*

- Setting up a specialist industry group to support policymakers negotiating international standards at Basel, and legislators when reviewing capital requirements for corporate bonds.

The Expert Group recommends that the realignment of the Liquidity Coverage Ratio, the Net Stable Funding Ratio and the Leverage Ratio be agreed at a global level by the Basel Committee for Banking Supervision (instead of being reflected at EU level in CRR/CRD). Otherwise, there is a risk that market making in European corporate bonds will be concentrated in a few firms that have regulatory advantages (regulatory arbitrage). This runs counter to the objective of boosting market liquidity. Failing action / reconsideration at Basel level, the EU should refrain from implementing these new measures in ways that impair liquidity and trading on EU markets ("first mover disadvantage").

2.3.4. CSDR mandatory buy-in regime[52]

Currently, the CSDR[53] requires market participants having failed to deliver a security to initiate a buy-in[54] process, within a mandated timeframe. Where the buy-in is unsuccessful, the original trade will be cancelled and cash compensation will be applied. This mechanism if applied bluntly can create additional and unnecessary risks for market participants. Market-makers and liquidity providers will face greater risks when providing liquidity, particularly in bonds with poor repo market liquidity. Purchasers of bonds (investors) will also face higher risks, as they will no longer have control over how they manage their settlement risk or select the best timing for initiating buy-ins, and, in many cases, they will be unwittingly forced out of their long positions in favour of a cash compensation. Meanwhile, lenders of securities will face the risk of buy-ins in the event that their loaned securities are not returned on time. This is likely to be a significant disincentive to securities lending and repo, particularly with respect to less liquid bonds, further impacting the ability of market-makers to provide liquidity.

Unconventional features of the framework, such as an asymmetric provision for the payment of the buy-in or cash compensation differential, and inflexibility in the buy-in timings, increase the potential for uncertainty of losses, multiple buy-ins, and disorderly markets. Furthermore, the policy objective of the mandatory buy-ins under CSDR can be achieved by leaving the option of buy-in and the timing of buy-in as a contractual remedy available to a failed-to counterparty. It should also be noted that long-established, functioning buy-in frameworks already exist in the European fixed income markets. The timing for implementation of CSDR mandatory buy-ins should therefore be carefully considered to allow for a review of the provisions, particularly with regard to the expected impacts to market efficiency and stability. It should acknowledge existing buy-in frameworks, as well as other, more market-friendly initiatives to improve settlement efficiency (see section II.4.2 on post trade).

[52] See analytical report, chapter 3 section 3.3.1 for more details on this recommendation

[53] Regulation on settlement and central securities depositories

[54] In case of default from one party in a trade, a buy-in is a market transaction designed to restore both trading parties to the economic position they would have been in had the original trade settled. It is not a penalty, but a market-based remedy that allows the non-defaulting purchasing party to enforce delivery of securities from the defaulting selling party.

The Expert Group recommends that the timing for the CSDR Mandatory buy-in regime, as foreseen in Article 7 of CSDR, be carefully managed to cushion its impact and provide space to review the provisions. Other less disruptive and more market-friendly initiatives should be investigated in order to improve and maintain settlement efficiency.

2.4. Efficient e-trading and post-trade environment

2.4.1. The role of e-trading platforms[55]

Against the backdrop of retrenchment of liquidity providers, the development of e-trading platforms which connect participants in the market and facilitate price discovery is proving beneficial. It is estimated that there are 32 electronic trading platforms in fixed income in Europe[56]. *This high number reflects the attractiveness and potential of electronic trading and suggests competition and innovation that ultimately should serve the users of these platforms.*

Electronic platforms have existed for more than a decade but have recently proliferated. They are, first and foremost, an efficiency tool permitting users to source liquidity from multiple dealers through Request For Quote (RFQ) or other trading protocols. They can also promote greater participation in the corporate bond market by giving access to small or new players at a low cost. Electronic trading can also reduce transaction costs and has the potential to make pre and post trade transparency simpler.

"All-to-all" networks, by allowing direct interaction between buyers and sellers, provide another means to source liquidity and result in lower costs. They also enable demand side participants to act as price makers when in the best interest of clients. Key factors for the success of "all-to-all" networks include: (i) *connectivity to a sufficient number of counterparties; (ii) ability of those counterparties, including buy-side firms, to price securities; (iii) the efficiency of the workflow for European buy-side firms (order from portfolio manager to execution desk); and (iv) the availability of streamed and actionable prices.* Although electronic trading platforms can bring many positive effects, such as efficiency, they are unlikely to fully replace liquidity provision by market-makers, in particular the ability to put capital at risk and provide immediacy. Still, by adding the capacity for all market participants (buy-side, sell-side and alternative players) to interact directly, liquidity could be improved.

The market for e-trading could gain in efficiency if it became less fragmented in the medium term. A diverse universe of buyers and sellers could then converge, search costs decrease and liquidity centralize and become cheaper. In addition, electronic platforms must evolve to better integrate trading systems with order management systems to increase efficiencies and reduce search costs. The continued electronification of e-trading and related services should therefore be encouraged as a mean to improve the efficiency of corporate bond markets.

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[55] See analytical report, chapter 2 section 2.4.1 and chapter 3 section 3.2.2 for more details on this recommendation

[56] Source: ICMA ETP Mapping Directory

Lastly, a new generation of e-solutions has appeared that are less focused on execution but more on providing information to market participants to facilitate the matching of potential buyers and sellers.

Several avenues should be taken to develop the potential of e-trading systems and encourage broader participation:

- *Further promote the development of electronic networks,*
- *Integrate trading and order-management systems*[57]
- *Provide industry supported training in technology and innovation to encourage faster adoption of technology*
- *Protect against information leakage, which could result in reduced risk taking*[58]

To support the development of a strong e-trading ecosystem, the Expert Group recommends that industry groups representing the buy side, the sell side and trading venues, including Fintech firms, issue guidance papers on good practices for electronic trading.

Market participants should benefit from some regulatory leniency when testing new models (regulatory sand boxes), in particular for best execution and transaction reporting.

2.4.2. *Post-trade environment*[59]

No capital market is efficient without efficient post trade processes. These services performed subsequent to the execution of a trade include clearing, settlement, asset servicing and post-trade reporting.

The fixed income post trade environment in Europe remains highly fragmented, denying market participants access to deeper pools of liquidity and efficient risk mutualisation. Closed business models also stifle innovation. In the settlement area, most Central Securities Depositories (CSDs) and International Central Securities Depositories (ICSDs) lack **interoperability**, limiting the efficiency of Target2-Securities (T2S).

As regards clearing, most European Central Counterparty Clearing Houses (CCPs) currently lack **open access**,[60] even though this is mandated by MiFIR from 2020 onwards. Currently, only a fraction of European corporate bonds are cleared. MiFID II transparency will improve the visibility of liquidity required to provide CCP services (moving towards US TRACE), but this will not be sufficient to enable reasonable margin schemes to support default management. Greater standardisation and fewer, larger issues would support access to clearing (e.g. selected AA corporates akin to supranational and sovereign issuers)**.**

Lastly, CCP services designed to simplify trade processing and settlement could be extended to more non-cleared fixed income trades, improving standardisation and efficiencies without

[57] Straight through processing to order management and portfolio management systems is necessary to limit operational risks

[58] Electronic platforms should protect against sharing of information about participants' trading interest. Information about a participant's trading interest, including orders and RFQs, should be available only to potential counterparties and those platform personnel and others that have a legitimate need for the information

[59] See analytical report, chapter 3 section 3.4 for more details on this recommendation

[60] Open access means non-discriminatory access to trading and clearing infrastructures

requiring legal novation. Non-cleared trades would then follow similar operational processes to cleared trades (centralised processing, settlement netting and optimisation services).

The post trade environment for corporate bonds should be improved:

- **CSD Interoperability**: To support T2S, CSDs and ICSDs should accelerate and provide an update on T2S and CSD-R cross border efficiencies and customer choice implementation;
- **CCP Open Access:** All CCPs should accelerate and provide an update on MiFIR open access compliance;
- **CCP non-cleared optimisation:** CCPs and trading venues should explore the transferability to fixed income trades of non-cleared optimisation services;
- **Fixed income clearing barriers:** Building on the European Post Trade Forum, the European Commission, working with Member States, should (i) report in 2018 on how barriers to greater fixed income clearing are being addressed, and (ii) identify best practices.

The Expert Group recommends that the European Commission (i) reports in 2018 on how barriers to greater fixed income clearing are being addressed, and (ii) identifies best practices.

2.5. Information and transparency

The characteristics of corporate bonds have consequences for the organisation of the markets. Corporate bonds are highly heterogeneous financial products. Firms issue new bonds intermittently as old bonds mature, new capital investment needs arise, or when they undertake changes in their capital structures. As a result, any firm may, at any given time, have a large number of bonds outstanding. This is particularly true for financial institutions. This is in contrast to equities which are more standardised instruments. The contrasting nature of equities and bonds affects how these instruments trade in secondary markets.

Transparency can be roughly divided into three areas: (i) **pre and post-trade transparency**, with disclosure prior to the execution of a transaction of its details (price, size) and post execution (executed price, size, counterparty); (ii) reporting on **best execution**; and (iii) **transaction reporting** to the relevant authorities. At EU level, these requirements are incorporated in the MiFID II legislative package.

The trade-off between capital and information is at the core of a well-functioning market. Too little public information dissemination hampers liquidity as participants do not have the tools to engage in the market with confidence. Too much public dissemination is detrimental to those who take market positions resulting in a gradual atrophy of capital deployment. It is an important calibration that policy makers should be aware of when considering market reforms.

2.5.1. *Consolidated tape for corporate bonds*[61]

Assessing the state of liquidity and the functioning of European corporate bond markets is difficult given the lack and fragmentation of data. The lack of comparable data on elements such as volumes, spreads, ratings and currencies (i) does not allow a proper analysis of the market, constraining participation and activities in corporate bond markets, and (ii) makes it more difficult for national and European authorities to effectively supervise and legislate. This is detrimental both to market participants and regulators, and hinders the development of European corporate bond markets and the creation of a Capital Market Union. A consolidated tape should be created to collect data on corporate bonds, together with an easy to use interface[62] that allows the extraction of data by markets participants. The creation of this instrument would also greatly facilitate the analysis, supervision and legislation of European corporate bond markets by the national and European authorities. To ensure the quality and comparability of the data, it should be collected by ESMA, who should be responsible for producing this consolidated tape. As the lack of comparable data significantly undermines the development and functioning of European corporate bond markets, the Expert Group recommend that this consolidated tape be created at a significantly faster pace than currently envisaged in MiFID II.

The Expert Group supports the proposal by the Commission to centralise data collection at ESMA level[63]*. A consolidated tape owned by ESMA should be created expeditiously to collect data on all eligible public and private corporate bonds. This should be accompanied by an easy to use interface accessible to all EU bond markets stakeholders at reasonable cost.*

2.5.2. *Transparency requirements and reporting on best execution*[64]

At the start of the implementation of MiFID II, because of the four-year phase-in, pre-trade transparency is not expected to have a material impact, as approximately 95 % of the corporate bond universe will initially be out of scope[65].

The views on the impact of post-trade transparency requirements are more diverse. While it is agreed that the use of post-trade information can support price formation and engage more participants in all-to-all trading, it is also generally agreed that the post-trade information dissemination can be a disincentive to capital deployment for liquidity provision. The extent and timing of dissemination of the information is critical, as a market-maker having executed a trade may be at risk until they are able to exit or hedge its position. Otherwise, this will have a negative effect on both price and willingness to provide liquidity.

Acknowledging the necessity to calibrate the timing of the post-trade information disclosure, in order not to dis-incentivise liquidity provision on the corporate bond markets, MiFID II gave National Competent Authorities some discretion in the implementation of post trade transparency regimes. In particular, they may apply deferrals for post-trade transparency of

[61] See analytical report, chapter 2 section 2.2.1 for more details on this recommendation
[62] The US TRACE system could be used as a model
[63] Commission proposal for a regulation on the review of the European Supervisory Authorities, COM(2017)536/948972
[64] See analytical report, chapter 4 section 4.3.2 for more details on this recommendation
[65] Source: Risk Control study

between two days and four weeks. Differences in the use of this flexibility could result in fragmented liquidity across jurisdictions and regulatory arbitrage, with trading activity concentrating in those jurisdictions with the most lenient post-trade transparency regimes, creating an uneven playing field.

In addition, MiFID II[66] requires trading venues, systematic internalisers and execution venues to publish data on the quality of their execution on a quarterly basis. Besides imposing burdensome reporting infrastructure, this may put some market participants "at risk" as it may be possible, when cross-referencing this data with other public information, to identify which market participant executed large transactions, deduce the remaining inventory and use this information against that participant.

- The Expert Group recommends that ESMA actively encourage NCAs to adopt similar deferral regimes across European jurisdictions in regard to post-trade transparency requirements. This would apply not only to corporate bonds but also to other financial instruments.

- Delegated Regulation 2017/575 should be amended so that the obligation for execution venues to publish details of trades of all sizes is either (i) narrowed in scope and in depth of details provided[67], or (ii) replaced by an obligation to report aggregated information. The Delegated Regulation could be amended to require the information to be reported at an aggregated level over three months, and to require the information to be published up to three months after the end of the quarter, instead of having to publish granular data for each individual trading day over a quarter. An alternative solution would be to keep the requirements as they are, but to require this information to be published only for instruments that are liquid and below a certain size[68].

2.5.3. *Specialist industry group to advise on methodology to assess liquidity for the purpose of transparency requirements[69]*

A corporate bond is subject to pre and/or post-trade transparency requirements under MiFID II if it is considered liquid. Requirements that determine if a corporate bond is qualified as liquid will be progressively tightened from 15 average daily trades a day in year 1 of MiFID II implementation to 2 trades a day in the 4th year. If a corporate bond is considered liquid, transparency requirements apply, potentially exposing market participants to risk. Each year, an assessment will be performed by ESMA to determine whether liquidity has been adversely impacted, and if a move to the next phase (i.e. stricter definition of liquidity and application of transparency threshold requirements) is warranted. A detailed methodology for the liquidity assessment needs careful consideration to ensure that all relevant factors are taken into account.

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[66] Through Delegated Regulation 2017/575

[67] Equal to or above LIS and SSTI thresholds, as well as illiquid instruments should be excluded from the scope

[68] The Delegated Regulation should be amended to (i) also exclude illiquid instruments from being subject to the obligation to publish point-in-time information; and (ii) exclude SSTI, LIS and illiquid instrument trades from being subject to the daily aggregated reporting requirements.

[69] See analytical report, chapter 4 section 4.3.2 for more details on this recommendation

The Expert Group recommends that ESMA establish a specialist industry working group or consultations with experts from both the buy and sell side to help formulate a suitable methodology for the yearly assessment of corporate bond liquidity.

2.5.4. Credit ratings for smaller issuers[70]

Ratings contain valuable information for participants in corporate bond markets, influencing profoundly investment decisions. Ratings can help investors to assess the credit risk and price in the probability of default. Therefore, most investors require bonds to be rated, preferably by a Credit Rating Agency (CRA) in order to invest. Moreover, many investors, notably funds, insurance companies and pension funds have concentration limits in their portfolios based on credit ratings. Lastly, many policy related transactions or requirements (ECB purchases as well as central banks' collateral or eligibility for the calculation of the Liquidity Coverage Ratio and the Net Stable Funding ratio) are heavily dependent on credit ratings.

The CRA Regulation[71] applies to credit ratings issued by CRAs registered in the EU and disclosed publicly or distributed by subscription. CRAs falling under the scope of the Regulation are supervised by ESMA. This notably means having ESMA assess that CRAs' rating methodologies are rigorous, systematic and continuous.

Currently, the rating market is largely dominated by Moody's, Standard & Poor's and Fitch. Getting an official credit rating from one of these three agencies is very expensive for small issuers. In addition, it represents an extensive information effort. Therefore, the Commission needs to explore different mechanisms that would enable smaller issuers that cannot afford expensive ratings to receive an independent and objective credit assessment from rating providers which would not fall under the CRA. Such ratings would not be used for reporting and regulatory purposes (in particular the calculation of banks' Basel capital and liquidity ratios). Their only purpose would be to provide an independent and objective credit assessment to potential investors.

Safeguards to address potential risks to financial stability could include, for example, limiting the distribution of ratings to a reduced set of investors, which should all be professional investors. This would also protect retail investors. An additional safeguard could be a disclaimer stating the difference between an official rating provided by a CRA and a credit assessment that does not fall in the scope of CRA.

The Expert Group recommends that the Commission explores different mechanisms that would enable smaller issuers that cannot afford expensive ratings to receive an independent and objective credit assessment. This would greatly enhance the ability of small and medium-sized issuers to reach a critical investor base and make bond issuance meaningful.

[70] See analytical report, chapter 4 section 4.2.2 for more details on this recommendation

[71] Regulation (EC) No 1060/2009 of the European Parliament and of the Council of 16 September 2009 on credit rating agencies (CRA Regulation)

2.5.5. *Research on corporate bonds*[72]

Research is another valuable source of information for market participants in European corporate bond markets, since corporate bond investors do not have access to corporate credit information, as compared to lending banks. In addition, investors, especially smaller ones, often lack the financial capacity to support extensive analysis on all potential holdings.

Currently, investors receive this research without being charged for it mostly from the sell-side. This is considered as a service provided in addition to trading or other financial services. However, as of 3 January 2018, MiFID II will require the cost of this research to be unbundled from the cost of execution, and investors will be able to accept broker research only if it is specifically charged. Therefore, portfolio managers will have to dedicate a specific budget to research. In addition, they will have to publish their research procurement, record all research usage, demonstrate that the research is used and qualitatively improves the investment process, and regularly assess whether research services are providing a fair value. It is feared that, in the current competitive environment, the budget dedicated to research will be limited. This is likely to result in a reduction in the number of SME issuers covered by research, and/or the quality of this research, as well as the diversity of views from different research analysts. This is likely to be most detrimental to smaller issuers, reducing further the liquidity in those markets.

Furthermore, compliance with the MiFID requirements raises significant issues related to conflicts with non-EU laws, in particular (but not only) US securities laws, for both non-EU brokers and global fund managers.

The Expert Group recommends that the European Commission closely monitors the impact of the MiFID II rules on the availability of research on the corporate bond market, in particular for small issuers: on the universe of corporate bonds covered by the research, the amount of research, the quality of the research, and the impact which potentially reduced/lower quality research could have on the interest by investor, the trading in these corporate bonds and on liquidity. Should this impact be found to be negative, the European Commission should take corrective action without delay.

2.6. Supervisory and policy framework

European corporate bond markets would be more efficient if fully integrated. The participation of a larger number of issuers and investors would notably translate into improved liquidity.

The development and integration of European corporate bond markets are mainly driven by market participants (notably issuers, investors and intermediaries). However, the legislative, regulatory and supervisory framework also plays an important role in enabling market development and integration. In particular, a harmonised, stable and consistent framework is necessary to remove national barriers and support cross-border transactions.

[72] See analytical report, chapter 4 section 4.2.1 for more details on this recommendation

Traditionally, Directives have been the main legal instrument used by the EU to harmonise the provision of cross-border services and investor rights related to financial instruments, including corporate bonds. Directives are not directly applicable in the Member States; they require transposition into national laws. This implementation process gives rise to divergences across Member States and fragments corporate bond markets along national lines, thus reducing choice and competition, and increasing costs. In particular, this happens in cases of 'gold plating', where national rules require stricter standards than those set out in EU legislation.

In recent years, and in particular in the aftermath of the financial crisis, some progress has been made towards a harmonised framework for European corporate bond markets. Generally, there has been a shift from minimum to maximum harmonisation in key pieces of capital market legislation.[73] In addition, new EU rules affecting market infrastructure for corporate bonds and ancillary markets (e.g. repurchased agreements (repo) and Credit Default Swaps (CDS)) entered into force in areas which were previously unregulated. These are the European Market Infrastructure Regulation (EMIR) and the Central Securities Depositories Regulation (CSDR). The preparation by the European Supervisory Authorities (in particular ESMA) of technical standards adopted by the Commission has also been an important contribution to building a unified set of capital market rules, including for corporate bond issuance and trading.

2.6.1. Harmonising rules and strengthening convergence of supervisory outcomes[74]

Despite these advances, the low degree or even lack of harmonisation in implementation of EU Directives remains a barrier to the integration of European corporate bond markets. Even EU Regulations, which are directly applicable in EU countries, sometimes contain important options and discretions. For example, MiFIR gives national authorities significant discretion on the implementation of post-trade transparency rules (i.e. deferrals) for non-equity instruments. Other examples of different national rules include disclosure and reporting, and access to research.

National discretion in the application of EU rules and wide divergences in supervisory outcomes across EU countries lead to regulatory arbitrage and fragmentation of corporate bond markets. The regulatory and supervisory treatment of assets of comparable credit worthiness in the same industry differs on the basis of where the investor is based, the issue is listed and the liquidity is sourced. Therefore, market players face higher compliance and operational risks if they want to operate in markets outside their home country.

In parallel, Member States' governments should also invest in the skills, capacity and know-how of national regulators, especially in the areas of legal structures, regulation of markets and enforcement. These national efforts could be coordinated and supported at the European level.

[73] Notably, the Markets in Financial Instrument Directive (MiFID I) has been replaced partly by a Regulation (MiFIR) and a new Directive (MiFID II). The Market Abuse Directive (MAD) was replaced by a Regulation (MAR) and an amended Directive on criminal sanctions for insider dealing and market manipulation.

[74] See analytical report, chapter 4 sections 4.4.1 and 4.4.2 for more details on this recommendation

2.6.2. Overlaps and inconsistencies[75]

Overlaps and inconsistencies between different EU capital market legislations are also holding back the development of European corporate bond markets. Many of these may be unintended, but they end up creating unnecessary costs and burdens for market participants, as they need to comply with overlapping requirements. Market participants also face a high degree of uncertainty when dealing with inconsistent requirements, which increase compliance risks. This situation has negative consequences for market makers in particular, as these unintended and very high compliance costs reduce their ability to provide liquidity to corporate bond markets.

These frictions, overlaps and other forms of unintended interactions between different pieces of legislation show the importance of considering and analysing the combined impact of rules. The European Commission has already addressed unintended consequences, inconsistencies and gaps in the regulatory framework through its Call for Evidence on the cumulative impact of the EU regulatory framework for financial services. However, the EU institutions and the ESAs should continue working in close cooperation with market participants to identify and address remaining overlaps and inconsistencies, thus clarifying the rules and streamlining reporting requirements for EU corporate bond markets. The ESAs' review could lead to the elimination of at least some overlaps and inconsistencies.

The Expert Group recommends:

- *Further harmonising rules affecting corporate bond markets and strengthening convergence of supervisory outcomes. The Commission should, together with ESMA, assess the state of transposition and implementation of relevant regulations and directives in all EU Member States. They should assess the difficulties that some Member States may encounter in implementing the rules, also in consultation with market players. In case of delayed implementation, the Commission should require Member States to justify such delays. In case of divergent implementation of the rules, ESMA should foster more convergence of national approaches, in close cooperation with national competent authorities (e.g. on reporting and transparency requirements, or other rules affecting corporate bond markets).*

- *Streamlining and consolidating overlapping and inconsistent rules and reporting requirements affecting corporate bond markets. Building on the results of the Call for Evidence, and in close consultation with market players, the Commission should continue working on addressing overlaps and inconsistencies one by one by. ESMA should explore, in cooperation with national competent authorities, how existing reporting requirements could be streamlined.*

- *Setting up a specialist industry group.*[76] *This forum would bring together industry practitioners and investors, and would provide input and advice to the national, European and international authorities on how to adapt the legislative, regulatory and supervisory*

[75] See analytical report, chapter 4 sections 4.4.1 and 4.4.2 for more details on this recommendation

[76] This specialist Expert Group would notably (i) advise ESMA on a suitable methodology for the yearly assessment of corporate bond liquidity (See Recommendation in section 2.5.3 of this report) and (ii) support policymakers negotiating international standards at Basel and legislators when reviewing capital requirements for corporate bonds

framework for the development and integration of European corporate bond markets on a continuous basis.

- *Ensuring adequate training of supervisors and regulators in regards to corporate bonds. Member States should invest appropriate resources in building capacity of national authorities to regulate and supervise corporate bond markets. Their efforts should be supported by the European Commission and ESMA through dialogue and technical assistance.*

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LIST OF ABBREVIATIONS

AIFMD	Alternative Investment Fund Managers Directive
AMF	Autorité des Marchés Financiers
ASF	Available Stable Funding
CDS	Credit Default Swap
CMU	Capital Markets Union
CPP	Central Counterparty Clearinghouse
CRA	Credit Rating Agency
CRAR	Credit Rating Agency Regulation
CRR/CRD	Capital Requirement Regulation/Directive
CSD	Central Securities Depository
CSDR	Central Securities Depositories Regulation
CSPP	Corporate Sector Purchase Programme
ECB	European Central Bank
EMIR	European Market Infrastructure Regulation
ESMA	European Securities and Markets Authority
ESA	European Supervisory Authority
ETF	Exchange Traded Fund
EU	European Union
EUR	Euro
FI	Fixed Income
FMSB	FICC Markets Standards Board
GBP	British Pound
HY	High Yield
IPMA	International Primary Market Association
IPO	Initial Public Offering
LCR	Liquidity Coverage Ratio
LIS	Large In Scale
LR	Leverage Ratio
MAR/MAD	Market Abuse Regulation/Directive
MiFID/MiFIR	Markets in Financial Instruments Directive/Regulation
MMF	Money-Market Fund
NCA	National Competent Authority

NFC	Non Financial Corporation
NPB	National Promotional Bank
NPISH	Non-Profit Institutions Serving Households
NSFR	Net Stable Funding Ratio
OTC	Over the Counter
PEPP	Pan-European Personal Pension Product
RFQ	Request For Quote
RSF	Required Stable Funding
SCR	Solvency Capital Requirements
SME	Small and Medium-sized Enterprise
SRSS	Structural Reform Support Service
SSTI	Size Specific To Instrument
T2S	Target 2 Securities
TRACE	Trade Reporting And Compliance Engine
UCITS	Undertakings for the Collective Investment of Transferable Securities
US	United States

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