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The current state and future evolution of the European investment grade corporate bond secondary market: perspectives from the market

An initiative of the ICMA Secondary Market Practices Committee

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Participants included relevant experts from a number of firms playing an active role in the European corporate bond markets:

Algomi; Allianz Global Investors; Anglo American; Axa Investment Management; BAT; BlackRock; Bloomberg; BNP Paribas; Bondcube; BP; BSI Bank; Citibank; Credit Suisse Asset Management; Deutsche Bank; European Bank for Recovery and Development; General Electric; Goldman Sachs; HSBC; ING Bank; KBC; Kepler Cheuvreux; Lloyds Banking; Morgan Stanley; National Grid; Natixis; Pimco; Robeco; Royal Bank of Scotland; Tradeweb; UBS; UBS Global Asset Management; Vodafone; Vontobel

The ICMA Secondary Market Practices Committee

The ICMA Secondary Market Practices Committee comprises market practitioners in the secondary debt market, including sell-side and buy-side members. Its overall focus is to ensure the efficient functioning of this market by continuous review of ICMA's rules and market practice, as well as supporting practical market initiatives to improve market efficiency.

Executive Summary

- The study on which this report is based is the result of increasing concern that the secondary markets for European credit bonds have become critically impaired and are no longer able to function effectively or efficiently. This impairment is largely attributed to the unintended consequences of banking regulation and extraordinary monetary policy, and raises further concerns about increased market volatility, frozen capital markets, risks to economic growth, and the prospect of another financial crisis. The study focuses primarily on the European investment grade non-financial and financial corporate bond secondary market.
- While liquidity has clearly eroded post-crisis, mainly as a result of stricter capital requirements for market-makers and unusually benign market conditions, the story is more nuanced than simply the end of liquidity. There are arguments to suggest that the levels of market depth and liquidity experienced between 2002 and 2007 were largely the result of banks mispricing balance sheet and risk, and overtrading in cash bonds being driven by the Credit Default Swap (CDS) and structured product markets.
- Bank broker-dealers are responding to the impacts of regulation by changing their models. As a result of more discerning capital allocation within the banks, there is a shift to running smaller inventory, but increasing turnover. Firms are attempting to become more client-focused, particularly through the use of technology, while working client orders on an agency basis rather than making markets. Smaller players are becoming more involved in the space, focusing on niche sectors, and again leveraging technology to reach a broader client base.
- The electronification of the credit market is making an impact in Europe, and most, if not all, expect this trend to continue. However, while the general view is that technology has an important role to play, not least in enhancing data management in terms of identifying potential holders or buyers of bonds, as well as improving connectivity across the market, this is still not a substitute for liquidity.
- Corporate issuers are aware of the decrease in liquidity in secondary corporate bond markets, not least since this is key in pricing primary issuance. But the degree of concern is varied as to the likely impact this could have on their future issuance and capital structure, or their potential role in improving liquidity, and is largely dependent on their issuance profile.
- There is a high level of concern from both sell-side and buy-side regarding new regulation, not least MiFID II. While many see improved transparency as a good thing, there is a worry that too much transparency could cause market liquidity to deteriorate further. There is suspicion that regulation confuses transparency and liquidity, which is not the same thing.
- There is also concern about the regulatory process in Europe, which, compared to the US, is viewed as less consultative and less circumspect to the possibility of unintended consequences.
- A commonly held view is that a correction to the credit rally is inevitable and is likely to be severe. Some see the lack of liquidity in the secondary markets as exacerbating any correction, while others are more concerned about how a non-functional secondary market could impede any return to normality.
- A number of market-led solutions to the potential liquidity crisis are discussed as a result of the various interviews, including greater utilization of e-commerce and e-trading, more developed cross-market connectivity, and changes in issuance practice. However, it is widely accepted that these initiatives cannot replace the role of market-making nor compensate for inimical regulation.
- If the challenges facing the corporate bond secondary markets are to be addressed and solutions found, this will require the constructive and coordinated effort of all stakeholders: market-makers, investment managers, trading platforms and intermediaries, the issuers, and the various regulatory bodies and authorities.

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Introduction

Why this report

1 The study on which this report is based is the result of increasing concern that the secondary markets for European credit bonds have become critically impaired and no longer able to function effectively or efficiently. This impairment is largely attributed to the unintended consequences of banking regulation and extraordinary monetary policy, and raises further concerns about increased market volatility, frozen capital markets, risks to economic growth, and the prospect of another financial crisis.

2 This study sets out to explore these concerns and to present a picture of the current state of the European investment grade corporate bond secondary market from the perspective of the market participants: the investors, the traders, the intermediaries, and the issuers. As much as it looks to highlight the risks and challenges, it also focuses on the extent to which participants are meeting those challenges and adapting to a new landscape. In this respect, it is an attempt to deepen the discourse around credit secondary markets, and to raise awareness and stimulate discussion among not only market participants, but also policy makers and regulators.

Scope and methodology of the study

3 While the threats to secondary market liquidity impact a whole range of asset classes and markets, the particular focus for this study was kept to European[1] investment grade corporate bonds (financial and non-financial). However, it is difficult to isolate the interrelationships with other asset classes and markets, and so much of the discussion is equally pertinent to high yield, emerging markets, asset backed securities (ABS), and even sovereigns, as well as to the US and other non-European markets.

4 The ideal study would be based around quantitative analysis that would describe the true liquidity conditions in the secondary markets. However, very little publically available data exists, at least in the European credit markets, and firms, understandably, are not overly willing to share numbers related to their flow, spreads, or inventories. Hence, the decision to take a qualitative approach and to ask active market participants what was their experience of the market and the changing landscape, and how were they adapting. What were their concerns, the challenges, and opportunities? And how does this relate back to the real economy?

5 Between July and October 2014, 38 interviews took place, engaging 34 different firms and including a total of 47 individual participants. The breakdown of participant types was: 14 broker-dealers or market-makers; 8 institutional investors or asset managers; 4 electronic intermediaries or e-platform providers; 2 private banks; 6 corporate Eurobond issuers; and 3 consultants or individual experts.

[1] Primarily euro and GBP denominated

Interviews were semi-structured, and were kept deliberately flexible to allow participants to focus on issues or topics that were of most concern or relevance to them. Interviews mostly lasted for around 45 minutes to one hour and as much as possible were conducted in person, although a number were conducted by phone. All participants were assured of anonymity to encourage openness and candour. With this in mind, it should also be remembered that the views represented in this report are those of individual experts, and not necessarily those of the firms they represent.

Corporate bond markets and the real economy

"…I believe we should complement the new European rules for banks with a Capital Markets Union. To improve the financing of our economy, we should further develop and integrate capital markets. This would cut the cost of raising capital, notably for SMEs, and help reduce our very high dependence on bank funding."

-Jean-Claude Juncker, President-elect of the European Commission, July 2014[2]

6 The bond markets are the principal mechanism for raising long-term public and private debt to fund public expenditure and to support economic activity and growth. The corporate bond (or 'credit') markets have been a particularly stable and reliable source of term finance for both non-financial and financial corporations, and have grown in size and importance, particularly since the crisis and a move away from reliance on traditional forms of bank funding that are becoming less viable under the new capital regimes. According to a recent IOSCO report[3]: "*Corporate bond markets can be considered an important ingredient in economic growth, financial stability and economic recovery, particularly in the wake of the crisis. They provide a key capital funding flow to firms allowing them to expand, innovate, offer employment, and provide the goods and services societies demand."*

7 In these times of low economic growth, and a stuttering banking sector, the corporate bond markets are becoming more important than ever, and can be seen as a vital source of capital for not only the major corporations, but also the smaller enterprises that are key sources of economic activity, innovation, and employment. So we have every right to be concerned if these markets are in any way inhibited[4].

Figures 1 and 2 illustrate the size, growth, and make-up of the global and European bond markets.

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[2] Juncker JC, 2014, 'A New Start for Europe: My Agenda for Jobs, Growth, Fairness and Democratic Change', Political Guidelines for the next European Commission, Opening Statement in the Parliament Plenary Session, Strasbourg, July 15th 2014

[3] Tendulkar R and Hancock G, 2014, 'Corporate Bond Markets: A Global Perspective: volume 1', Staff Working Paper [SWP4/2014], IOCV-IOSCO

[4] See also: ICMA, 2013, 'Economic Importance of the Corporate Bond Markets'

Figure 1: the growth of the global bond markets[5]

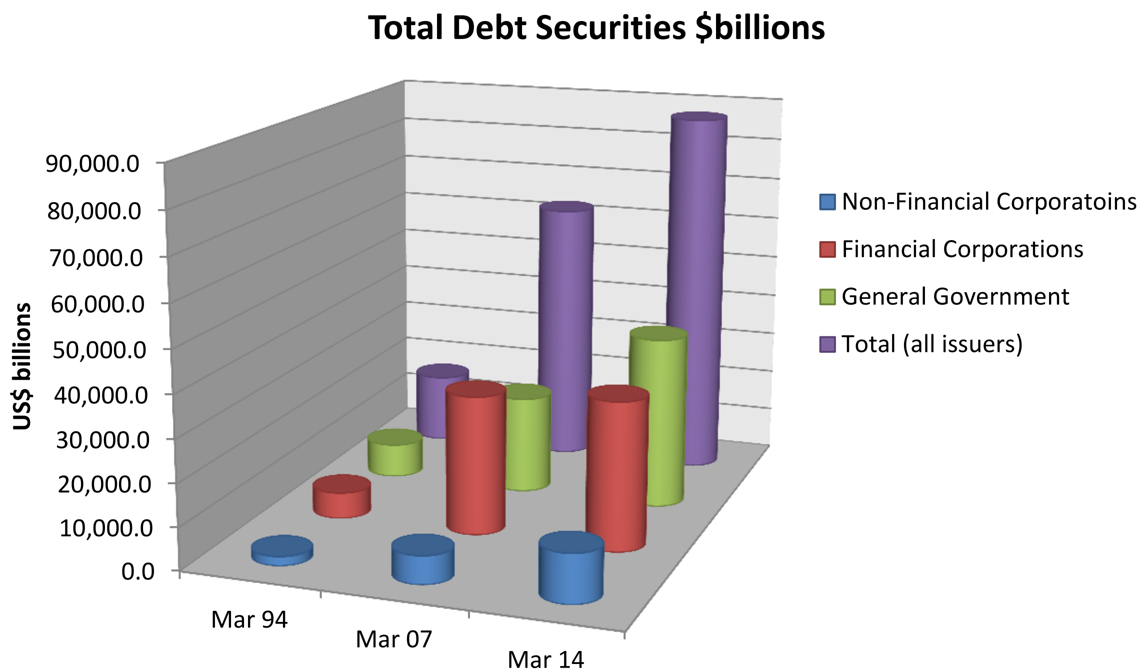
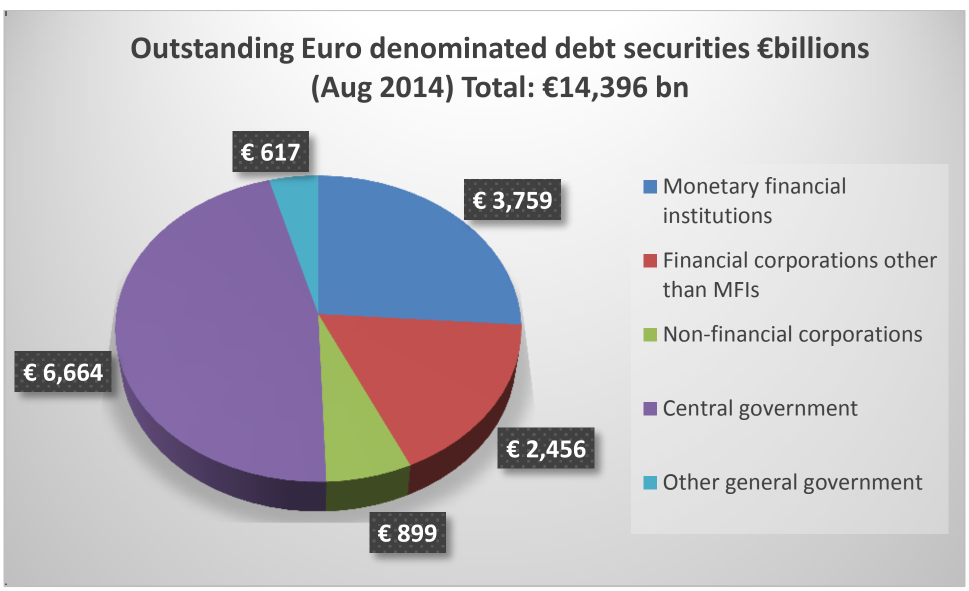


Figure 2: the size of the European bond markets[6]



[5] Source: BIS Quarterly Review, September 2014
[6] Source: European Central Bank

Primary markets, secondary markets, and market-makers

The **primary market** for corporate bonds is where the bond is created and initially sold to investors. Usually the corporate issuer will appoint a bank (or banks) as a lead manager, who will provide advice on the optimal timing, structure, and pricing of the issuance, as well as building a syndicate of other banks, all of whom will look to build client interest in purchasing the bonds (known as 'book building'). Banks may also provide an 'underwriting' service, where they agree to take any unsold bonds onto their own books to hold or subsequently trade in the secondary market. In the primary market, the sale proceeds, less fees paid to the arranging banks, will go directly to the corporate issuer.

The **secondary market** for corporate bonds is where investors can sell or buy bonds after their issuance any time up until their maturity or redemption. This allows investors the opportunity to exit their investments early, say in the event of a change in investment strategy or sudden liquidity requirements. Similarly, investors may wish to invest in securities with a particular credit or maturity profile that are not immediately available in the primary market, but which can be purchased in the secondary market. In secondary market transactions, the sale proceeds go directly to the selling counterparty. However, the prices at which secondary market trades are transacted will be significant to the issuer, as this provides an indication of market demand for their debt and will help to determine the market price for future primary issuance.

Given the heterogeneous profile and relative illiquidity of corporate debt securities, and the over-the-counter (OTC) nature of the market, the effective functioning of the secondary market has traditionally relied on **market-makers**. Market-makers are broker-dealers who provide two-way pricing to their clients in a range of corporate bonds, regardless of their ability to find an opposite seller or buyer at the same time, not least since this simultaneous 'coincidence of want' is highly improbable. Where clients are sellers of a bond, the market-maker will show a bid and take the bonds onto their own book, which they will hedge and look to sell, either to another client or another broker-dealer, at a later time. Where clients are buyers of bonds, the market-maker will show an offer and short-sell the securities, which they will cover via the repo market, hedge, and look to buy back in the market at a later time.

The ability of bank broker-dealers to provide this service depends on their ability to hold inventory, to short-sell securities, to access a liquid repo market, to hedge their positions efficiently and cost-effectively, and to generate revenues. The ability of the market-maker to profit from this service is dependent on the skill of the individual market-maker, the client base and relationships of the broker-dealer firm, and the relative differential between where the market-maker buys and sells bonds (the 'bid-ask spread').

The **repo market** plays a critical role in supporting secondary markets, since it is here that the market-maker will finance her long and short positions until they are covered. The deeper and more liquid the repo market, the better able the market-maker is to show competitive prices and to take positions. Generally, there is a direct correlation between repo market liquidity and secondary market liquidity.

Usually, market-makers in a particular bond are the same banks who are involved in the primary issuance of that bond, with secondary market-making being part of the 'pitch' to the corporate issuer to win the origination mandate, and as a component of the overall service package.

What do we mean by liquidity?

"Liquidity is the ability to get a price in any instrument, in reasonable size, at any time."

- *Fund manager*

8 Liquidity is a word that is used a lot, but rarely defined. As a concept, if not a metric, it is at the core of every interview for this study, not least from the perspective of its reported demise. It is therefore important to remember that liquidity means different things to different participants. It is also relative, and people's view of liquidity may vary depending on how long they have been in the market. As we will see, if one uses the mid-2000s as their point of reference for liquid markets, then this is likely to skew one's perspective compared to, say, somebody who has entered the markets in the last two years, or who has been involved since the late 1980s. In many respects, liquidity could be said to be in the eye of the beholder.

9 There have been a number of attempts to quantify secondary bond market liquidity[7]. Usually these are related to variables such as the average bid-ask spread, trading volumes, ticket sizes, or market-maker inventories. Some of these are illustrated in the below figures. However, perhaps the most salient definition of liquidity was from one interviewee who explained that in a functioning and efficient market, it should be possible to obtain a price (bid or offer) for any instrument, in reasonable size, at any time. One might not like the price, but there is still a level at which something can trade. When markets become illiquid, this no longer holds true. Effectively, liquidity is a state, not a measure.

10 Furthermore, liquidity is not a constant. What becomes clear is that market liquidity is cyclical and is directly influenced by both macro-economic and policy impacts. When considering bonds, individual securities have their own liquidity life cycles, relative to the recentness of issue, their on or off-the-run status, their relative value, credit events, and other factors that could influence secondary market demand and supply at a given time. In other words, not only is liquidity dynamic, but it is unique.

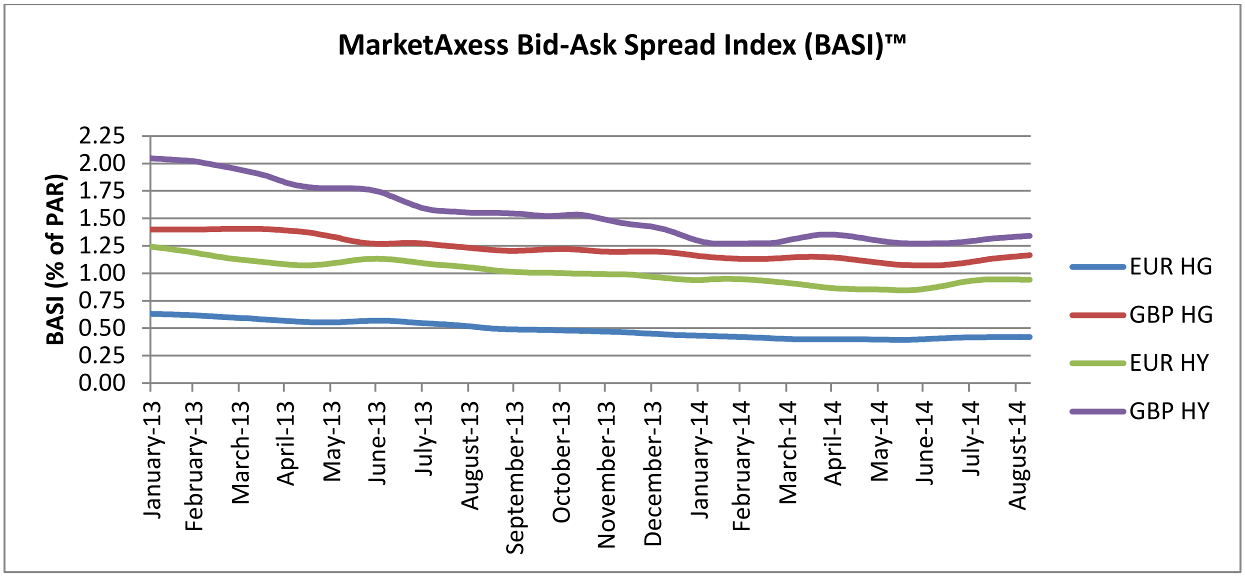
11 Discussions around liquidity, and how we define (or measure) it, are becoming more pertinent. Regulation such as MiFID II seeks to calibrate liquidity for different securities or asset classes as part of their regulatory framework, which some would argue is a preposterous notion. However, as this study highlights, the concept of liquidity is central to efficient and functioning secondary markets and helps to frame the discussion around market evolution.

Figures 3, 4, 5, and 6 provide a number of potential different measures for corporate bond market liquidity.

[7] For an interesting academic perspective, see Bushman RM et al., 2010, 'Implied Bond Liquidity'

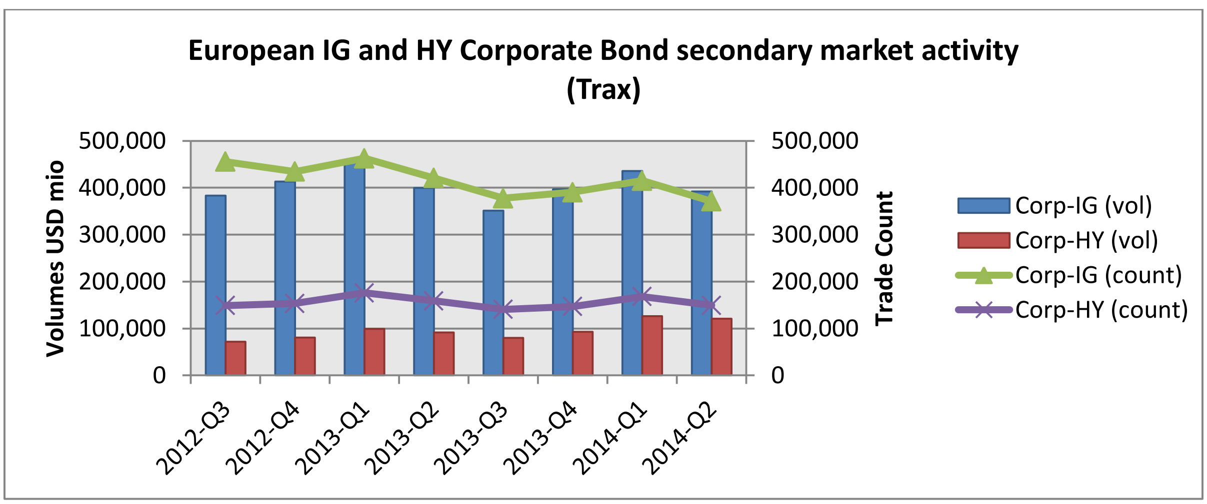
Figure 3: Measuring market liquidity (MarketAxess European Bid-Ask Spread Index)[8]

The index only dates back to the start of 2013 and shows a narrowing in spreads for both European high grade and high yield markets over this timeframe. However, this can be attributed to lower volatility and a greater concentration of liquidity into the most actively traded bonds.



Source: MarketAxess

Figure 4: European corporate bond secondary market volumes and trade count[9]



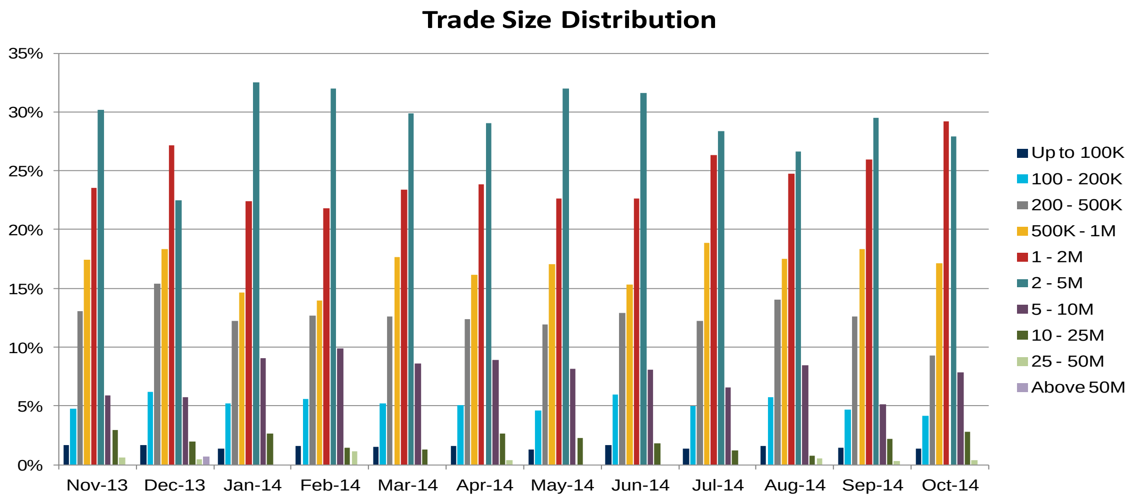
Source: Trax

[8] Developed by MarketAxess Research, the MarketAxess BASI demonstrates the relationship between overall market liquidity and transaction costs by tracking the spread differential between buy and sell trades of the most actively traded corporate bonds.

[9] NB: only includes corporate bond (financial and non-financial) secondary market trades in straights and FRNs; excludes intra-entity trades; matched and passive-matched trades are only counted once.

Figure 5: European corporate bond trade size distributions

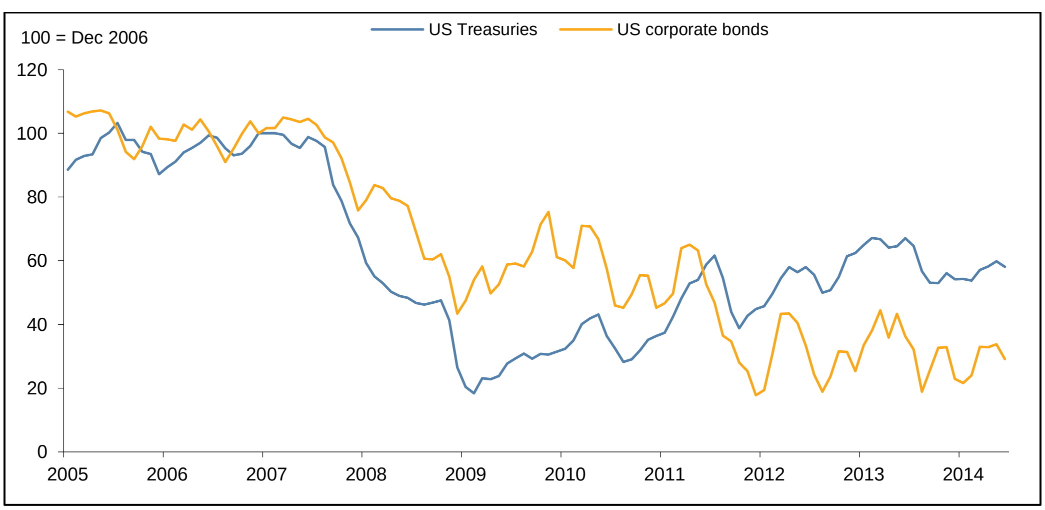
The data shows the distribution of ticket-sizes for transactions executed on Tradeweb in European (mainly euro and GBP denominated) financial and non-financial corporate bonds (mostly IG, but also some HY). It can be seen that most transactions are in clips of less than 5 million.



Source: Tradeweb

Figure 6: Measuring market liquidity (RBS Liquid-o-Meter)[10]

The RBS Liquid-o-Meter, which attempts to quantify US bond market liquidity, suggests that liquidity in the US credit markets has declined by 70% since the crisis, and continues to worsen. Anecdotal evidence suggests that this is equally applicable to the European cororpate bond martkets.



Source: Royal Bank of Scotland

[10] The RBS 'Liquid-o-Meter' attempts to quantify bond market liquidity by combining measures of market depth, trading volumes, and transaction costs. Currently it is only modeled for US markets.

Perspectives from the market

12 The following is a presentation of the key themes and discussions that came out of the various interviews. These can broadly be categorized under the topics of liquidity, changing business models, transparency, the electronification of the market, the perspective of issuers, regulatory impact, and new threats to the real economy.

The death of liquidity

"The main issue facing the investment grade Eurobond markets today is the lack of liquidity."

- ***Fund manager***

13 If there is one overarching and consistent theme from every discussion, it is decline in secondary market liquidity. The only variation seems to be in the degree to which it has reduced, ranging from 'significantly' to 'completely'. More in depth discussions on this theme, however, tend to be more nuanced, and can be summarized as three prominent perspectives: regulation and the ultra-low interest rate environment has eroded secondary market liquidity; the 'golden age of liquidity' is more imagined than real and that credit markets have always been illiquid; the liquidity that existed between 2002 and 2007 was not normal and largely artificial.

14 There is no question that regulation has weighed heavily on banks' ability to support secondary market trading books. Basel III capital requirements, leverage ratios, EMIR and the additional cost of hedging, Volcker and other trading restrictions, all add to the cost of holding a position. Diminishing liquidity in the repo market is also cited as a cause for concern by a number of dealers, who suggest that clients are becoming less willing to lend securities, because of either low interest rates or regulatory pressures. The low interest rate, low volatility environment also squeezes spreads and limits the scope to make profits. Accordingly, there is little incentive for banks to assign capital or risk to support secondary market trading.

15 Therefore, it is unsurprising that the popular complaint of the buy-side relates to the inability or unwillingness of banks to provide a genuine market-making service for corporate bonds. While many of the banks may still be able to provide two-way pricing in smaller size (less than €10 million), it is becoming almost impossible to get a ready price in larger size unless a particular bank is 'axed' (i.e. the bank or a client is holding a particular position which they are looking to sell or cover). One fund manager commented that this has perhaps improved over the past 12 to 18 months; however, this was only from the perspective of getting bids, and finding offers in wholesale size remained impossible. Thus, banks are more likely to work orders, taking on the role of 'broker' rather than 'trader'. This has meant that investors have had to broaden their list of dealer banks, since they are no longer able to rely on a preferred few. Another common frustration is that prices shown by banks on screen can no longer be treated as firm, which also has implications for portfolio valuation as well as transacting. As one fund manager explained, he could accept a wider bid-ask spread if he could at least rely on the prices being firm.

16 The counter argument from a number of banks is that investors contribute to the illiquidity paradigm by asking too many dealers for the same quote. In this instance, nobody wants the trade since the client will have provided too much information to the market, causing the price to move adversely. The dealer providing the best price and the most liquidity will effectively be penalized. Essentially, this is the 'winners curse' and deters market-makers from offering liquidity.

17 A common view, however, is that while dealers were, at least for a time, more willing and able to make markets in credit, corporate bonds, by their very nature, have never been particularly liquid. While there may be a flurry of activity shortly after issuance, often these bonds are locked away by buy-and-hold investors, such as pension funds, and only ever come back into play if prompted by a credit event, such as a downgrade, or when they reach a certain point on the maturity curve. In most instances, corporate bonds are rarely liquid, and even when they are, it is usually only at certain times in their life cycle. Furthermore, in the past, in times of market stress the willingness of market-makers to provide prices becomes challenged, more so than their ability.

18 Respondents with longer memories, including those on the sell-side, have been keen to point out that what occurred between 2002 and 2007 was in fact a liquidity bubble. Banks had been willing to commit significant, and in many cases mispriced, capital and risk to supporting their credit businesses and were happy to run large inventory, often for long periods. The extension of leverage to hedge funds also facilitated flows of 'fast money' in and out of issues, giving the impression of liquidity. Furthermore, the development of the structured product market, in particular Collateralized Debt Obligations (CDOs), and the parallel boom in the Credit Default Swaps (CDS) market (primarily indices, but also single-name) allowed for more hedging and arbitrage opportunities in the cash bond market, generating more two-way activity among banks, hedge funds, and real money investors. In this respect, what was perceived to be 'liquidity' was largely illusory.

"The golden age of liquidity was a very brief period, and driven by leverage."

- ***Credit trader***

19 There also appears to be a cyclical aspect to the decline in liquidity, which compounds the impact of higher cost of capital. As volumes and volatility fall, and credit spreads compress, so secondary market trading becomes less profitable, leading banks to allocate resources and capital to more profitable businesses. Similarly, at lower absolute yields, the bid-ask spread required by market-makers becomes a relatively larger cost to investors, and a further disincentive to trade in the secondary market. Thus in better, more volatile times, we may see this trend reversing as credit trading once again becomes more lucrative.

20 However, a contention from one prominent buy-side firm was that regulation has become an excuse as much as a reason for banks to change their models. The banks never felt comfortable providing two-way liquidity in corporate debt, but it was a requirement to win more lucrative lead manager deals for primary issuance. As soon as they had the opportunity to decouple their secondary trading obligations, they took it. A similar proposition was put forward by another

fund manager who felt that banks preferred an environment where they can earn risk-free fees from leading primary deals, without the onus of underwriting secondary market liquidity.

21 An interesting perspective put forward by one credit trader is the psychological aspect of market liquidity, and that illiquidity is largely a vicious circle that feeds on itself. The more market providers and users focus on how illiquid the markets are becoming, the less willing they are to provide liquidity. Thus, illiquidity becomes a self-fulfilling sentiment.

Changing business models

"The sell-side used to give liquidity away for free; now, if the buy-side wants it, they should pay for it"

\- ***Credit trader***

22 The sell-side perspective is surprisingly not as despondent as it could be. While there are grave concerns about ongoing and future regulation (see later section), largely they are looking to adapt their business models to the new environment. One upshot of Basel III, and the greater capitalization requirements, is that banks are more aware of the cost of balance sheet being allocated to certain businesses, and the risk-weighted return on capital, as opposed to gross revenues. This is no less true for credit trading. As one respondent suggested, if banks had been pricing their balance-sheet and risk correctly in the years leading up to 2008, the credit markets would have been a very different place.

23 The response of the banks to the new landscape seems to depend on their relative size. The larger, bulge bracket firms, are still prepared to commit balance sheet to credit trading, but are becoming more discerning about the inventory or positions they take, and the amount of time for which they will hold them. Thus while we may be seeing a reduction in dealer inventories, this may be misleading since it does not reflect the turnover of their positions. In other words, decreasing inventories may be, to some degree, offset by an increase in inventory velocity. This has meant more proactive client focus to push axes[11] (both in-house positions and client orders), rather than the more reactive pre-crisis approach to market-making. It also means smaller margins, but increased flow volume, maximizing return on balance-sheet, while minimizing both capital and risk. A number of sell and buy-side respondents, however, feel that the old market-making model is broken, and that banks will inevitably become agency brokers. Two banks suggested that the notion of the dealer bid-ask spread is becoming redundant, and that the market could move to more of a commission based model.

"Dealers used to make their money by monetizing the bid-ask spread; that is no longer possible"

\- ***Credit trader***

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[11] An 'axe' is a market term referring to a priority buy or sell interest that a firm may have, and which often relates directly to a particular long or short position held on their books

24 While the larger banks look to become more nimble, smaller dealers see the opportunity to consolidate their position as niche participants. Relying on a smaller trading and sales team, and utilizing electronic trading platforms to reach more investors, they are able to become specialists in certain sectors or segments within the credit markets, and are prepared to commit balance sheet and risk appetite to this. As one intermediary suggested, this is not very different to how the credit markets used to trade in the 1980s and 1990s, with relatively few dealers offering two-way markets in every bond, and far more specialists focused on market segments where they had a relative strength.

25 One criticism of this greater emphasis on client focus is that it favours larger clients, as banks take on a more holistic view of their service provision and retail flows. However, this does not seem to be borne out by the larger investment managers who feel that they are not getting any preferential treatment in terms of secondary-market pricing and liquidity. If anything, given the size of transactions these funds are required to execute, they feel more disadvantaged than smaller investors might.

26 A common observation of the buy-side participants, confirmed in a number of sell-side comments, is the ongoing downgrading of banks trading and sales staff, particularly with the attrition of more experienced senior staff, in many cases to the buy-side or to starting new electronic-trading and data initiatives. Not only are the trading and sales teams becoming smaller, but banks are relying more on younger, less experienced staff. One bank explained how many dealers were no longer able to make prices or manage positions, while one fund manager talked about the increase in execution errors they had experienced. Another fund manager lamented the loss of good sales people who could bring trade ideas, but also conceded that even where market analysts could provide relative value strategies, there was no longer the liquidity to execute the trade in the requisite size without moving the market.

27 The buy-side, too, is beginning to rethink their approach to investing. As it becomes more difficult to unwind larger positions in the secondary market, so they have become more willing to run 'buy-and-hold' strategies, which has also meant being prepared to take on more risk and less sensitivity to possible changes in ratings or spreads. This also requires that investors are more thorough in their due diligence before taking a position, while also being prepared to accept more lenient covenants. However, in a low volatility, low default, bull market, this has not been a problem. And as one investor pointed out, what is the point of selling a position if there is nothing to buy?

28 Buy-side firms also seem to be adapting to the execution risk that comes with thinner secondary markets. One fund manager explained how to build or unwind a position in the current market required working small €1-to-2 million orders over several days, or even weeks. And, as mentioned, as sell-side firms rationalize their trading desks, a number of investment managers have hired ex-traders to staff execution desks.

29 Meanwhile, as buy-side firms continue to consolidate and grow, many are beginning to focus on 'internal liquidity', and the ability to achieve efficiencies in terms of internal netting and intra-funding transacting, without the need to go the market.

30 Other strategies discussed by buy-side participants included a move away from individual cash bond exposure, and a focus on corporate bond exchange-traded funds (ETFs), which currently offer more liquidity, although these come with their own specific risks.

"Investment managers may become driven more by liquidity considerations, rather than by valuations or investment strategies"

- ***Fund manager***

31 A proposition put forward by a number of buy-side, participants, however, is that liquidity could become a determining factor in investment decisions, more so than factors such as relative value or maturity and credit profiles.

Market transparency

"Transparency is fine for retail trades, but it will kill the wholesale market"

- ***Credit analyst***

32 A cross-cutting theme of many discussions is the optimal level of transparency in market, particularly in light of MiFID II and greater use of trading platforms. The notion of transparency is largely paradoxical. While many, particularly on the buy-side, would like to see an increase in price transparency and trade reporting, there is uniform recognition that if the market becomes too transparent, this will have a counterproductive impact on liquidity. This is a reflection of the fact that the European credit market is not homogenous, remains largely OTC, and is inherently illiquid. Accordingly, it is imperative that both market-makers and investors are able to transact without alerting the market to their positions. This is also critical when considering the viability of buy-side-to-buy-side platforms, where again, investment funds do not wish to disclose their trades to competitors in the same way as banks do not want to the market to know their positions. As one respondent explained, liquidity and transparency is not the same thing, which they see as being potentially confused in regulation such as MiFID II.

33 In discussions around transparency, a number of buy-side and sell-side respondents referred to TRACE[12] (Trade Reporting and Compliance Engine), which was introduced to the US corporate bond market in 2002 in a bid to improve price transparency, including all OTC activity. The broad opinion was that something akin to TRACE in Europe would be welcomed; however some participants also pointed to the fact that the US corporate bond market is significantly deeper and far more liquid than in Europe.

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[12] TRACE was established by the SEC in 2001to create better transparency in the mostly OTC US corporate bond markets. It has two major aspects: rules that describe which bond transactions must be reported and when; and a technology platform that gathers transaction data and makes it publicly available.

Electronification of the market

"When liquidity does come back, there will be fewer people and more technology"

- ***E-platform founder***

34 A notable development in the European investment grade credit markets since 2009 has been the increased utilization of e-trading, particularly compared with the US, which remains largely an OTC market. This has provided both investors and banks greater access to each other, and a wider range of pricing and axes. Trading on the three main electronic platforms in the European credit markets (Bloomberg, MarketAxess, and Tradeweb) is estimated to account for more than 40% of total transactions in IG credit. However, as a percentage of total market value, this is almost certainly a lot less, and while the platforms continue to capture a bigger share of smaller trades, the bigger tickets remain very much voice-driven between banks and investors.

35 While most participants believe that e-trading in Europe will continue to flourish, they still see limitations in its ability to challenge the age-old model of direct trading between dealers and their clients, particularly for larger trades or less liquid bonds. Similarly, most see limited scope for new entrants to challenge the dominant three, and while there is much talk of 'all-to-all' or 'buy-side-to-buy-side' platforms becoming more interesting, very few market participants see this as something that could ever fully take off. Both sell and buy-side firms point to the fact that fund managers are not traders, and have no wish to make prices or provide liquidity to their competitors. This is what banks used to do, and have the expertise and franchises to support. Accordingly, the traditional 'RFQ' ('request for quote') model of trading is likely to remain, even as technology advances. As one MTF explained, electronic platforms are merely the oil that greases the engine. They do not provide liquidity. For that, you still need market-makers who can make prices and take risk.

36 Some participants, however, are more sanguine about the potential for electronic platforms to provide liquidity. This is essentially through the enhancement of 'big-data', and better cross-market (and participant) networking. As one e-platform founder explained, virtually every major client facing company harvests and utilizes customer data to drive their business decisions. Banks, however, have been slow to catch up, and in many cases are using the same business models as twenty years ago. The new platforms aim both to improve data management in terms of identifying potential holders or buyers of bonds, as well as improving connectivity across the market, including between buy-side firms. Essentially, these platforms seek to facilitate more intelligent broking. Analogies such as 'Facebook', 'e-bay', and 'Vayama' for bonds were all used in the various interviews. One platform founder even talked about 'virtual liquidity'.

37 A number of banks and fund managers see the potential for some of these new platforms to increase and flourish. The general view is that there will probably be an initial abundance (one participant suggested that there were over 30 e-platforms in European bond markets already). A few will find traction and survive, while most will inevitably fail. And while electronification of the credit market is not in itself a substitute for liquidity, it is very much the future.

The issuer perspective

"We have enjoyed good market conditions; there is a lot of cash around, it is difficult to be overly concerned"

- ***Corporate issuer***

38 While issuers are very aware of deteriorating liquidity conditions in the secondary credit markets, there seems to be varying levels of concern. Unsurprisingly, this seems to be driven by the current buoyancy of the primary corporate market, the size and frequency of projected issuance, and sensitivity to credit spreads. However, the secondary market curve for a corporate's debt is the key reference point for pricing new issuance, so any illiquidity premium in the secondary market could impact the cost of future issuance. Accordingly, some issuers are becoming increasingly involved in the debate around secondary market liquidity, as, in time, this could have serious implications for their financing and capital structure. There is concern that in current market conditions, investors are not demanding an illiquidity premium for holding IG corporate bonds, but with a return to normal markets, and a lack of secondary-market support, this additional risk to the holders of corporate bonds will result in wider spreads at issuance, and more difficulty in book-building. They also point to the fact that the squeeze on bank capital is not only impacting secondary market-making, but other critical areas of business, such as underwriting new issuance, as well as the ability to offer credit facilities to either the corporate or their suppliers. One issuer is already thinking about possible ways to mitigate these risks by means of non-bank solutions.

39 However, this concern does not run as deep with all issuers, and while there is a broad expectation that the current ebullience of the new issues market will eventually run out of steam, they do not see a major impact of illiquid secondary markets either on the ability to raise debt or on spreads. If anything, they are seeing a trend in placement to more buy-and-hold investors, rather than to shorter-term, fast money investors. Longer-term holdings of their paper is preferable, even if that means paying a few more basis-points of new issuance premium.

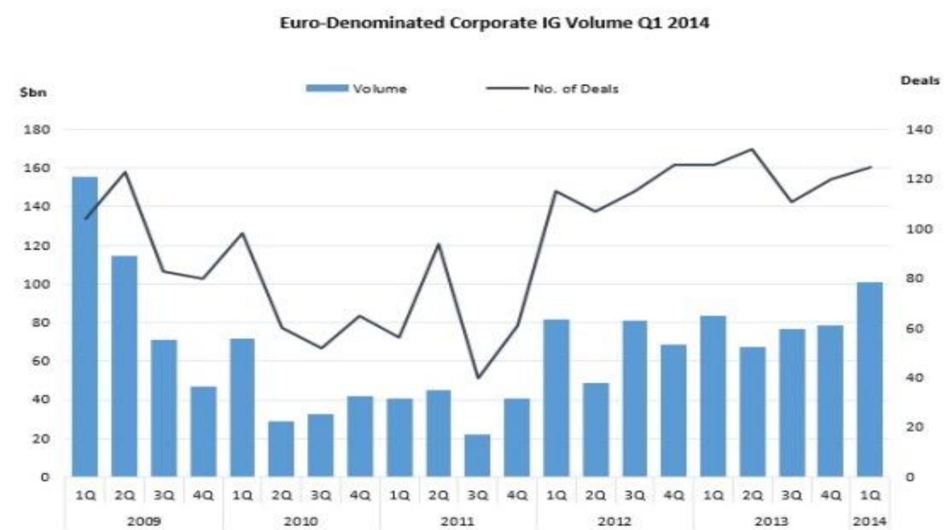
40 When asked what issuers could do to improve liquidity, the general reaction is that they are very much limited beyond the awarding of mandates to banks. However, this was not so straightforward, since mandates are awarded on a range of relationship considerations, not simply the bank's ability to provide secondary-market liquidity in their debt. The suggestion of more standardized issuance, as proposed in a recent BlackRock report[13], was discussed at large with issuers, as well as investors and market-makers. While some issuers felt that it was potentially a good idea, and all said that they often aimed to issue larger, benchmark type bonds, they still required the flexibility to issue 'as and when', including taking advantage of smaller issues or private placements, and based on their financing needs, rather than issuing and tapping a limited number of 'jumbo' lines. Concerns related to maturity concentration and the inherent roll-over risk was a common concern, even with provisions for early redemption

[13] 'Corporate Bond Market Structure: The Time For Reform Is Now', BlackRock, September 2014

calls (one issuer pointed out that an option to defer redemption would be more valuable). Even where this could reduce the potential cost of new issuance, most corporate treasurers are primarily interested in access to the capital markets, rather than saving a few basis-points. The cost of holding additional short-term cash balances was also cited by some as an unwanted inconvenience.

41 Similarly, while banks and investors could see the potential benefits from a liquidity perspective, they also recognized that this was not necessarily attractive to most corporate issuers. A further observation was that a more homogeneous corporate bond market would actually make portfolio management more difficult from the perspective of asset selection and identifying value, particularly for the smaller fund managers or brokers looking to add alpha.

Figure 7: Trends in euro-denominated corporate IG issuance



Source: Dealogic

The risks from future regulation

"Regulators are naturally restricted; their mandate is to prevent the last crisis, not the next one"

\- ***Fund manager***

42 While all participants see the need for tighter banking and capital market regulation, a more prudent pricing of balance sheet, and the imperative of avoiding the systemic leverage and

mispricing of risk that led to the crisis, there is unanimous alarm at the extent and direction of much of the regulation in the pipeline, with MiFID II and CSDR mandatory buy-ins being the main foci. MiFID II pre and post-trade transparency requirements, in particular, are repeatedly singled out as 'the elephant in the room' or as 'having the potential to kill-off European corporate bond markets for ever'. As discussed earlier in this report, even buy-side firms, who welcome greater pricing transparency, are worried that if MiFID goes too far it runs the risk of killing the patient, not curing her.

43 The potential impact of CSDR, in particular mandatory buy-ins, was not as universally considered as MiFID II. However, of those who were aware of the implications, and with the notable exception of one respondent who thought that mandatory buy-ins was a good thing, since it would prevent banks from deliberately failing to smaller clients, there is considerable alarm. A number of banks felt that this would bring about the effective end of market-making, since it would prevent short-selling. One dealer explained its significance by stating this would have a greater impact on liquidity than all the Basel regulations combined. One large buy-side firm also expressed concern, explaining that fund managers understand that to get prices in, and exposure to, less liquid assets requires a degree of tolerance as to when the trade settles.

"Mandatory buy-ins will be the final nail in the coffin of market liquidity"

- ***Credit trader***

44 While many expressed concern about the ambiguity and uncertainty of European regulation, one interesting observation by a large international firm was the difference in the consultation and engagement processes between the US and Europe. While some of the initial regulatory proposals from the US regulators were at first alarming, there is ongoing dialogue between the authorities and market participants to ensure that the regulation achieves its objectives and is not counterproductive, even if this means delaying implementation. This same willingness to engage and to ensure 'we get it right' does not seem to exist in Europe, where the formulation of regulation is 'murky', and identifying the accountable decision-makers is a challenge. Another bank echoed this concern, suggesting that regulation in Europe was non-negotiable, no matter how extreme or counterproductive.

45 One fund manager suggested that banks and regulators seem to be coming to the regulatory debate from the perspective of their own agendas, and were missing the point that regulation is not about winners and losers, but rather about providing a social good that supported real economic activity and growth. It is this consideration that should frame the regulatory debate.

"Regulators have not thought through the impact on corporate issuers"

- ***Corporate issuer***

46 Another popular suggestion was that regulators needed to get closer to the market, and to have a better understanding of how financial markets not only work, but how they impact the economy. Currently there seems to be a disconnect between the intended impact of regulation on markets and the unintended consequences for the real economy.

The next crisis?

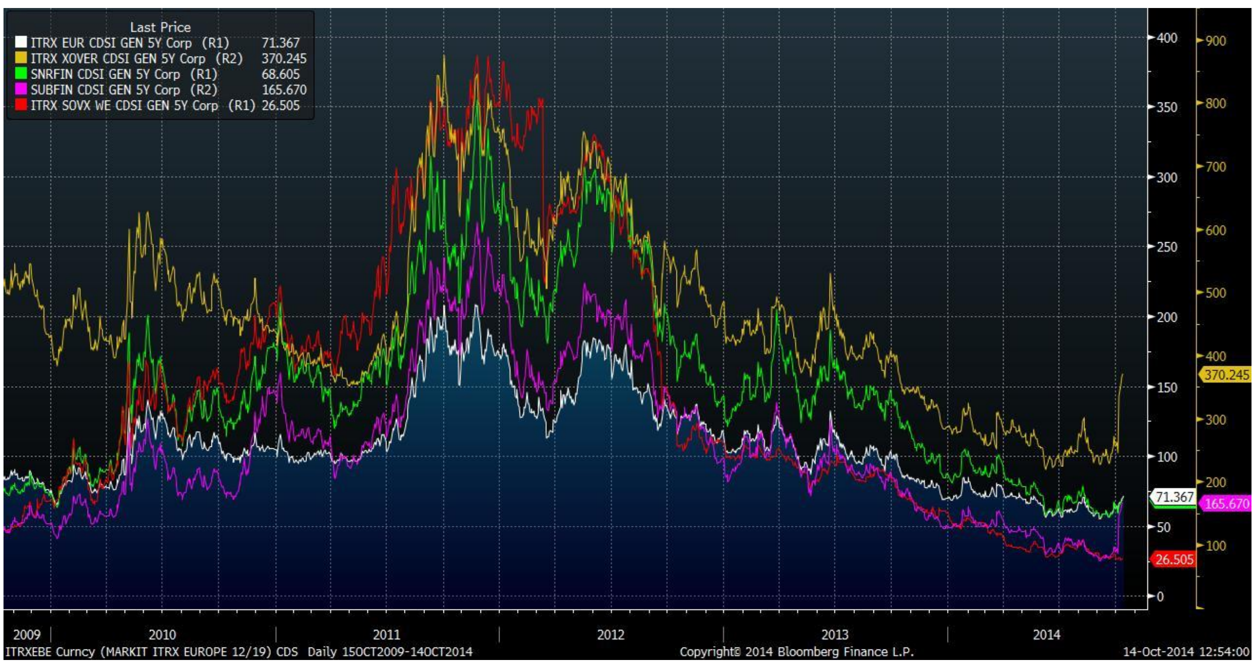
"This is a classic bull market; valuations have gone out the window"

- ***E-platform provider***

47 Another common thread in the various discussions with all participants is the inevitability of a meltdown in global credit markets. The only debate seems to be on the timing and the catalyst. Since 2009 we have seen a spectacular and unequalled rally in credit markets, largely fuelled by a tsunami of cheap central bank money and the unquenchable thirst for yield. Corporates have taken full advantage of cheaper funding, and issuance has soared in the past few years. Similarly, fund and money managers have become more diverse and less risk-averse in their investments, and in a bid to beat the indices have targeted less and less liquid debt products, such as perpetuals, Cocos, or infrastructure bonds. Effectively, a low-interest rate, low volatility environment has driven investors away from liquidity.

Figure 8: The European credit rally

Figure 8 clearly illustrates the tightening trend in spreads across a range of European credit products (high yield, IG non-financial corporates, senior and subordinated financials, and sovereign debt), as represented by CDS indices.



Source: Bloomberg

48 So how will this pan-out? Virtually every participant sees a correction lurking over the horizon. It may be triggered by unwinding of QE (although, in euro-area at least, it seems as if we are

still only at the start of QE), or by heightening geopolitical risks, or a combination. And while market cycles are nothing new, the common concern is that, largely because of regulation, financial markets have never been worse placed to deal with a sharp correction. A combination of larger bond markets, with fewer, larger investment firms, and a weakened capacity for bank intermediation, all make for the perfect storm.

49 A contributing factor to the risk of a crisis is the fact that the investor base has changed, with a number of acquisitions of smaller investment managers resulting in fewer, larger, dominant firms, and a more homogenous investor landscape. This heightens the risk of a disorderly exit from credit markets, not least if everybody looks to offload at the same time. This is a time when a more diversified investor base, including leveraged funds, could provide a degree of liquidity and order.

50 A more reflective view of one asset manager, however, suggests that this inevitable correction will not be caused by the lack of liquid secondary markets, and that in times of stress no market is liquid. Where we will only get to see the full ramifications of regulation will be after any sell-off, and a return to normal market conditions, with uncertainty, volatility, and risk. This is when secondary markets come into their own, providing market efficiency and stability. The fear is that the secondary markets will, at this point, no longer be able to function as they should.

51 A small minority of participants, however, felt that while a correction was likely, it might not be so severe for investment grade credit. They point to relatively low corporate default rates which makes IG credit attractive, and suggest that the markets at most risk are sub-investment grade and even less liquid asset classes.

Conclusion: the evolution of the European corporate bond market

52 The interviews for this study suggest that the European investment grade credit market is a dramatically changing landscape. Liquidity, by most definitions, is rapidly evaporating, primarily as a result of financial regulation and extraordinary monetary stimulus. To a large extent, it could be argued that credit markets are returning to their original illiquid and fragmented nature, and that the pre-crisis liquidity was effectively a bubble. However, the key difference seems to be that regulation, rather than reducing systemic risk, has simply transferred that risk from the banks to investors, and potentially to corporate capital raisers. Where banks could previously assign capital and resources to make markets, warehouse long and short positions, and manage risk, this is becoming increasingly unviable.

53 Banks and investors are adapting to the new environment, as are electronic intermediaries who are looking to provide possible solutions. While banks are changing their business models in different ways, there appears to be a shift towards more of a broking model, rather than providing a genuine market-making service. With this, there is the suggestion that they are also downsizing their trading and sales teams in terms of both size and experience. Meanwhile, the buy-side has to accept ever greater market and liquidity risk, compounded by the hunt for yield. Issuers, as yet, are relatively unaffected, but are becoming increasingly concerned.

54 While electronic trading platforms, in themselves, are not a source of liquidity, they offer the potential to improve market efficiency through better market intelligence and greater connectivity and reach. There is a general acceptance that the electronification of the European credit markets will continue apace, although this can only provide part of the solution. Meanwhile, as investors become ever larger and more concentrated, there is potential for these to provide liquidity, either externally through more all-to-all trading, or through more efficient internal netting and intra-fund transacting. Issuers, too, may have a role to play in improving liquidity, such as through the standardization of issuance, although for now this is not a priority.

55 At some stage, the impact of regulation on market liquidity and efficiency will need to be considered, not least as the role of capital markets in supporting economic growth comes ever more into focus. While the extent of banking and market regulation is largely viewed as inevitable following the 2007 crisis and a loss of confidence by investors, there is growing concern about the divergence from the original regulatory priorities and the unintended consequences of cumulative initiatives. In many ways, each new strand of banking or market regulation slices off another layer of liquidity: a trend that looks set to continue. If capital markets union is to become a catalyst for investment, growth, and jobs in Europe, then regulation that impedes this, whether in isolation or cumulatively, warrants review. However, a number of respondents feel that this will not happen until after the next (inevitable) credit market crisis.

56 Ultimately, the various discussions collectively suggest that if the challenges facing the corporate bond secondary markets are to be addressed and solutions found, this will require

the constructive and coordinated effort of all stakeholders: market-makers, investment managers, trading platforms and intermediaries, the issuers, and the various regulatory bodies and authorities. Functioning and efficient capital markets are a social good that support economic activity and growth. For those who provide, use, and oversee capital markets, this should be a collective responsibility.

Acronyms used in this report

ABS	Asset Backed Securities
BASI™	(MarketAxess) Bid-Ask Spread Index
BIS	Bank for International Settlements
Coco	Contingent Convertible (Bond)
CDO	Collateralized Debt Obligation
CRD/R	Capital Requirements Directive/Regulation
CSD	Credit Default Swap
CSDR	Central Securities Depositories Regulation
ETF	Exchange-Traded Fund
HY	High Yield
ICMA	International Capital Market Association
IG	Investment Grade
IOSCO	International Organization of Securities Commissions
MiFID/R	Markets in Financial Instruments Directive/Regulation
MTF	Multilateral Trading Facility
OTC	Over-the-counter
QE	Quantitative Easing
RFQ	Request For Quote
SME	Small and medium-size enterprise
TRACE	Trade Reporting and Compliance Engine

About the author

Andy Hill is a Director in ICMA's Market Practice and Regulatory Policy group. For seventeen years he has been a repo and money-market trader, and for ten years he was an Executive Director at Goldman Sachs. He has also worked as a consultant in the Aid and Development sector, primarily based in Cambodia, and previously served on the Board of the Cambodian NGO Education Partnership in Phnom Penh while under a Goldman Sachs Public Service Fellowship. He holds a BSc (Hons) in Business Studies from Cass Business School and an MSc in Poverty Reduction and Development Management from the University of Birmingham.

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