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Market discipline and UK bank bondholders

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Market discipline and UK bank bondholders

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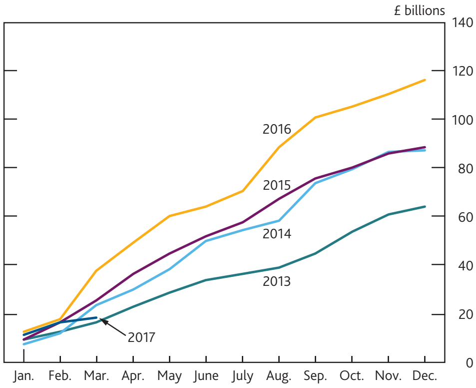
- Following the financial crisis, there is renewed interest in harnessing discipline from holders of bank debt in support of financial stability. Bondholders in theory have incentives to constrain risk-taking that align well with those of regulators.
- Initiatives have started to address some of the obstacles to effective discipline from bank bondholders. Greater transparency in public disclosures allows creditors to better assess the underlying risks of banks. Measures have also been put in train to remove expectations — or the materialisation — of government support for banks. These steps are likely to improve both the capacity and the motivation of bondholders to exert discipline on risk-taking.
- Creditors have limited formal say in the strategic decisions of companies. Reforms to redress weak incentives for creditors, together with a growing volume of deeply subordinated debt, may catalyse bondholders and bank issuers to re-evaluate how they engage with each other.

Overview

Many UK banks are regular issuers of debt securities (**summary chart**), which form an important part of their liability structure. Debt investors include long-term life insurers and pension funds which perform important roles in channelling savings. From the point of view of both financial stability and the real economy, it is desirable for bank bondholders to exert appropriate discipline on the risk-taking behaviour of the banks they lend to. This does not mean that banks would be prevented from taking risks — which is part and parcel of their business — but that investors are able to influence banks' decisions on the balance of risk and reward, either through the price at which they are prepared to lend or through other means.

Discipline from this source would be a useful complement to bank regulation, and the Bank of England has a strong interest in helping to foster conditions for it. Following a recommendation from the Parliamentary Commission on Banking Standards, the Bank has engaged in dialogue on this subject with market participants and others, alongside working on reforms which have a direct bearing on bondholder discipline. Since the financial crisis, steps have been taken to ensure that investors, rather than taxpayers, will bear the costs of bank failures. In addition, enhanced transparency introduced post-crisis improves the ability of creditors to assess the underlying riskiness of banks.

Summary chart Cumulative bond issuance by large UK banks(a)



Sources: Bloomberg and Bank calculations.

(a) Barclays, HSBC, Lloyds Banking Group, Nationwide, Royal Bank of Scotland, Santander and Standard Chartered.

These developments may in themselves prove sufficient to ensure that pricing in accordance with risk influences the behaviour of banks in an appropriate and timely way. Steps in the direction of extending the legal powers of creditors would be more controversial. However, initiatives are under way in the United Kingdom to improve the interaction of companies both with their shareholders and with the wider stakeholder community. It is possible that these developments may suggest some more transparent mechanisms for dialogue with creditors also.

(1) This article has drawn on the help of many experts inside and outside the Bank of England. Particular thanks go to John Budd, Matthew Chapman, Nigel Howell, Ali Moussavi, David Murphy, Tanguy Sene, Christos Tsigkas, Mark Walsh and Matthew Willison.

In a well-functioning market, the riskiness of a typical borrowing firm will be a major determinant[1] of the price at which it can fund itself. This relationship between risk profile and funding costs should produce appropriate constraints on risk-taking — what we mean by market discipline. Following the financial crisis of 2008, one aspect that has been recognised as contributing to the fragility of the banking system was the absence in practice of effective market discipline on bank risk-taking, from any quarter. There were various factors underlying this, of which perhaps the most fundamental was the lack of adequate incentives for stakeholders to scrutinise and influence bank management. This contributed to a more general culture of short-termism in investor and management attitudes, ie an excessive focus on profits over a short-term horizon at the expense of long-term sustainable returns.[2]

This article looks specifically at one category of stakeholder — bank bondholders — whose incentives to constrain risk-taking may, in theory, align well with the interests of regulators and wider society, so enhancing financial stability. It examines why bondholders may in theory be regarded as a promising source of market discipline; why this has not in practice always been the case; what developments there have been to date to encourage better engagement and discipline by bondholders; and what further avenues could yet be explored to strengthen bondholder influence.

While the debate over bondholder influence is by no means a new one, nor one that is likely to reach a definitive conclusion without further experience and research, revisiting the subject at this juncture is timely. Post-crisis reforms addressing the problem of distorted stakeholder incentives represent a step change in the conditions for bank bondholder discipline. The final elements to the suite of measures introduced are now being made concrete. These reforms may represent a catalyst for bondholders themselves to engage both with bank issuers of debt, and in the wider UK debate over corporate governance and stewardship.

Why are bank bondholders important?

As was widely recognised in the aftermath of the financial crisis,[3] banks' owners — shareholders — failed to constrain excessive risk-taking. A number of measures have since been initiated in the United Kingdom to address some of the reasons for this, including tackling 'short-termism' in investor attitudes through the Financial Reporting Council's (FRC's) Stewardship Code and through establishing a new platform for collective shareholder action.[4] However, there is a long-standing argument that equity holders will always have an incentive for firms to take significant risks. If the risk-taking pays off, the resulting returns will be captured by the shareholders, in the form of higher dividends and share prices. If, on the other hand, risk-taking causes the firm to fail, the loss for shareholders, under the limited liability legal structure, is confined to the loss of their stake in the business. Losses beyond their balance sheet equity fall on other parties. There is therefore an asymmetry in the risk/reward possibilities for equity investors.

In the case of UK banks, the costs of failure may fall on depositors and other creditors, on the Financial Services Compensation Scheme (FSCS),[5] and historically on occasion the taxpayer. In the words of the Parliamentary Commission on Banking Standards (PCBS), 'Institutional shareholders have unlimited upside to their investment, but a downside limited to their equity stake'.[6] The box on pages 28–29 sets out a stylised example of risk-shifting behaviour.

By contrast, unsecured creditors, including many bondholders, have incentives that are in principle more closely aligned with the objectives of prudential regulators and central banks and with the wider public interest in financial stability. Debtor returns come in the form of repayment of principal and payment of interest, with limited upside in terms of recompense if the issuer takes on extra risk. The holder of a bond therefore will in theory focus on the downside risk of not being paid the full interest and principal as set out in the bond contract. This relative risk aversion has long been recognised by academics and bank regulators as a potentially valuable reinforcement of regulatory discipline. Following the financial crisis, there has been a renewed international focus on the value of a framework where regulation and market discipline complement each other.

The influence of any group of creditors on management will be proportionate to (among other factors) how important a source of funding they represent. Banks are leveraged institutions, with most of their liabilities in the form of repayable debt in various forms. In the United Kingdom, larger banks in particular are regular issuers of bonds and other securities (**summary chart**). Debt securities in issue for the largest six UK banks, including subordinated liabilities, comprise a significant source of funding alongside shareholder equity (**Table A**).

A reliable supply of high-quality term debt securities is important for certain types of investor, in particular pension funds and insurers which need to match their long-term obligations to policyholders and pensioners. A paper from the European Systemic Risk Board (ESRB)[7] estimated that at least

(1) Other factors, notably liquidity risk, are also important.
(2) The problem of short-termism and recommended solutions were explored, in relation to the equity markets, in the Kay Review of July 2012.
(3) See for example the Parliamentary Commission on Banking Standards (PCBS): 'Changing Banking for Good', paragraph 660.
(4) www.investorforum.org.uk/, and www.frc.org.uk/Our-Work/Codes-Standards/Corporate-governance/UK-Stewardship-Code.aspx.
(5) The FSCS is the compensation fund of last resort for eligible customers of authorised financial services firms.
(6) PCBS *op cit* paragraph 666.
(7) 'Network analysis of the EU insurance sector', *ESRB Occasional Paper No. 7*, July 2015.

Stylised examples of risk-shifting

Agency conflicts can exist within firms if the interests of different stakeholders are not fully aligned. One potential conflict is between equity holders and debt holders over the riskiness of a firm's assets.

If equity holders enjoy limited liability then they stand to gain all of a firm's extra potential profits if the firm increases the variability of the return on its assets, but only incur the firm's extra potential losses from this action up to the value of their investment. Any remaining losses are passed onto the debt holders.

The asymmetric distribution of gains and losses between equity holders and debt holders implies that a firm that operates in the interests of the equity holders may make inefficient investments, preferring investments with a lower mean return but higher variance over other investments. This is referred to as risk-shifting behaviour.

Consider the following stylised example set out as **Example A** below. At date 0 a firm invests in £100 of assets, which it finances by issuing £10 of equity and £90 of debt. The assets will return £105 for certain after a year, at which point the firm is liquidated and equity and debt holders are paid off. The risk-free interest rate equals 1%. The firm can offer debt holders an interest rate of 1%, which given certainty debt holders will accept, and equity holders receive the difference of £14.10 (ie £105 – (1.01 × £90)).

Example A

Equity	£10
Debt	£90
Interest rate	1%
Expected one-year return	£105
Probability	*1*
Expected payouts	
To debt holders	£90.90
To equity holders	£14.10

Now suppose the firm can change its assets so that the return after a year is £120 with probability ½ or £80 with probability ½. If the firm makes this change it is inefficient because the expected return on assets is lower than before; the expected value of the firm's assets is £100 versus £105 if the firm stuck with its original assets. The difference of £5 represents a deadweight loss.

Will the firm choose to make this change? A firm run in the interests of equity holders will do so because, as set out in **Example B** below, the expected pay-off to equity holders will be £14.55, higher than the £14.10 they would receive if the firm did not increase risk. This expected return is comprised of the sum of the two probabilities: one in which the firm makes £120, and equity investors receive 0.5(£120 – £90.90) and one in which it is bankrupted and they lose their stake — 0.5 x £0. The corollary is that debt holders stand to lose; the expected amount they receive falls from £90.90 to £85.45. For scenarios where the upside and downside returns are yet more extreme, the mean return to shareholders gets better relative to **Example A**, because their downside is always capped at the loss of their stake.

Example B

Equity	£10
Debt	£90
Interest rate	1%
Expected one-year return	£100
Comprising probability	*0.5(120) + 0.5(80)*
Expected payouts	
To debt holders	£85.45
To equity holders	£14.55

The crucial features that give rise to this situation are that the firm is leveraged and that equity holders enjoy limited liability, which caps their losses at the value of their original stake. If the firm had less debt and more equity, it would not choose to make the change because more of the downside risk would fall onto the equity holders. As shown in **Examples C** and **D** below, an increase in equity, to £20 rather than £10, changes the balance such that equity holders at the firm earn more with no increase in risk as they would with increased risk.

Example C

Equity	£20
Debt	£80
Interest rate	1%
Expected one-year return	£105
Comprising probability	*1*
Expected payouts	
To debt holders	£80.80
To equity holders	£24.20

Example D

Equity	£20
Debt	£80
Interest rate	1%
Expected one-year return	£100
Comprising probability	*0.5(120) + 0.5(80)*
Expected payouts	
To debt holders	£80.40
To equity holders	£19.60

The other assumption in these stylised examples is that the debt holders are not sophisticated enough to understand the firm's risk profile and accept the same interest rate in both the low and high-risk scenarios. If debt holders are sophisticated enough to anticipate *ex ante* that the firm is going to risk-shift they could charge a higher interest rate. If debt holders could charge a high enough interest rate — 13% would be needed given the risk profile in **Example B** — they could get their expected pay-off equal to what they would get if the firm did not change its assets. Correspondingly of course, equity holders would get a much lower expected return, meaning that they would not choose to take on this degree of risk.

But market discipline via the interest rate that debt holders demand has an important shortcoming. Stiglitz and Weiss (1981) showed that the interest rate a lender demands *ex ante* affects a borrower's behaviour *ex post*. Given a high interest rate, the firm may still choose to risk-shift because the extra risk — if it pays off — may compensate the equity holder for higher payments on its debt with no corresponding increase in downside loss. A higher interest rate can reinforce incentives to risk-shift where firms can risk shift after debt has been sold, underlining the importance of ongoing constraints on risk-taking.

Table A Debt funding for big six UK banks, end-2015

£ billions

	Debt securities in issue	Subordinated liabilities	Total debt	Shareholders' equity[a]
Royal Bank of Scotland	31.2	19.8	51.0	53.4
Barclays	102.4	21.5	123.9	59.8
Lloyds Banking Group	90.0	23.3	113.3	46.6
HSBC	85.4	30.5	115.9	127.2
Santander UK	51.6	3.9	55.5	15.3
Nationwide[b]	36.1	1.8	37.9	10.9
Total	**396.7**	**100.8**	**497.5**	**313.2**

Sources: Annual report and accounts.

(a) Shareholders' equity may include AT1 accounted for as equity.
(b) 2016 *Annual Report*.

16% of insurers' assets are investments in bank bonds, not including indirect investments through funds. These types of investor are suppliers of critical services to the real economy, including the channelling and diversifying of funds from ordinary savers.

From the perspective of both financial stability and the real economy, therefore, holders of bank securities should play an important role in monitoring and constraining bank risk-taking. In the past, however, bondholders have not always in practice influenced bank behaviour in a way which theory might have suggested they would.

Bondholder discipline: evidence and issues

Empirical evidence

The disciplining role of creditors on banks has been the subject of extensive international research for over three decades.(1) Not all studies found consistent evidence that creditors can effectively monitor bank risk and price debt in a way which reflects underlying risk. In particular, earlier studies struggled to find a significant link between market pricing and risk measures. This early lack of evidence could reflect a combination of factors, but is often attributed to market expectations that some (or possibly most) banks were 'too big to fail' (TBTF) — so large or central to the financial system that their disorderly failure would cause widespread disruption, making rescue at the cost of public funds preferable. Such rescues 'bailed out' creditors — insulated them from losses — so removing the incentive for them to monitor and attempt to influence the risk-taking activities of banks.(2)

TBTF expectations were eroded to a limited extent from the late 1980s onwards, allowing researchers to control for this distortion. Flannery and Sorescu (1996) examined the period 1983–91 in the United States and found that bank-specific risk measures were correlated with yields over the period, most prominently towards the end when regulators retreated from protecting creditors of bank holding companies. Jagtiani, Kaufman and Lemieux (2002) used bond price data from 1992–97, after the passing of US legislation(3) which required bank creditors to bear more of the losses in some bank failures. They found that bonds were priced in relation to their underlying risk. Sironi (2003) looked at evidence from Europe over 1991–2000 and found results supportive of the hypothesis that subordinated debt investors are sensitive to bank risk, although less so in the case of public sector banks. Recently, and in the United Kingdom, Zhang *et al* (2014) analysed a sample of subordinated debt issued by UK banks over the period 1997–2009 and concluded that the banks' subordinated debt spreads at issuance co-vary with risk measures assigned by three large rating agencies, although not with some other measures of bank risk.

In other words, studies have often found what common sense would suggest, namely that if investor expectations of government bail-out or intervention are reduced, pricing becomes more sensitive to underlying risk. For market discipline to be effective, however, the differential in risk

(1) See the summary of the literature by the Board of Governors of the Federal Reserve System 1999 and in Zhang *et al* (2014).
(2) The history of and evidence for TBTF expectations are reviewed in Siegert, C and Willison, M (2015), 'Estimating the extent of the 'too big to fail' problem — a review of existing approaches', *Financial Stability Paper No. 32*; www.bankofengland.co.uk/financialstability/Documents/fpc/fspapers/fs_paper32.pdf.
(3) The Federal Deposit Insurance Corporation Improvement Act of 1991.

pricing has to be strong enough to influence banks towards more prudent strategies. Comparatively fewer studies have looked at the question of whether pricing discipline actually mitigates bank risk-taking.

Bliss and Flannery (2001) and Krishnan, Ritchken and Thomson (2005) found the evidence unsupportive on this question, but others (Nguyen (2013) and Ashcraft (2008)) were more positive. Ashcraft's findings suggested that debt investors are able to improve future outcomes for institutions, subject to some conditions related to the degree of control they have, while Nguyen, looking at subordinated debt over 2002–08, concluded that under certain conditions, subordinated debt has a mitigating effect on bank risk-taking. Again the effect was not present in firms deemed TBTF or with government ownership stakes. Belkhir (2013) is also relevant in finding that in certain circumstances more subordinated debt influences the extent of risk management at bank holding companies.

Broadly, therefore, the academic literature tends to be supportive of the thesis that pricing is responsive to risk, and there is some additional evidence of creditors exerting a disciplining effect, subject to certain conditions including, importantly, weak expectations of government support.

It will be important for researchers to continue applying their methodologies to more recent periods, both to take account of improved measures of banking risk (see the box on page 31) and to evaluate the impact of the shift that has taken place since the financial crisis to reduce the TBTF distortion. The crisis demonstrated how difficult it was for governments to avoid bailing out bondholders when faced with the absence of a clearly defined, legally robust, and well-understood *ex-ante* framework for requiring them to bear a share of losses. In Ireland, for example, the authorities explored over 2010/11 imposing losses on senior unsecured bondholders in failed Irish banks, in order to lessen the costs to the Irish taxpayer, but eventually a decision was taken at an international level not to 'bail-in' these bondholders. Concerns included possible legal challenges, the consequences for access to funding markets, and possible contagion creating financial instability in the eurozone.(1)

With a few exceptions, this was the general worldwide experience during the financial crisis. Inadequate legal powers, potential disruption to critical economic functions, and fear of political repercussions from bailing in retail investors all played their part in allowing bondholders to escape losses. Later sections in this article describe how progress has been made to establish credible bail-in regimes, ensuring that in the event of bank failure, the costs are borne by shareholders and unsecured creditors rather than taxpayers. Pricing and other forms of discipline should as a result better reflect the underlying riskiness of issuers.

Profile of bondholders

There may also be some other factors apart from inadequate incentives as to why discipline from bondholders has been patchy in the past. Holders of debt securities are a heterogeneous group. The securities have a wide variety of maturities and other payment terms, may be secured or unsecured via collateral or charges on a company's assets, may be senior or subordinated in terms of their ranking in a liquidation, may be in registered or bearer form, and may be sold by being privately placed with a key investor or by a public issue. Geographically, investors are widespread.

Moreover, while some types of investor — eg pension funds and insurance companies — have an interest in the long-term viability of the issuers, the motivation of others may differ. Some asset managers are incentivised to hold certain bank bonds if they form part of a bond index. Their incentive is to outperform the index by going long or short relative to the index in their holding of a particular bond — this is a trading motivation with less interest in holding the bond to maturity or in the underlying credit strength of the issuer. This heterogeneity may mean that banks do not always hear a unified message from bondholders.

Concerns over risk which result in higher premia charged to issuers or disposals of holdings send a message to issuers, although this can become blunted where a search for yield drives investor participation. Moreover, as was pointed out in the Kay Review,(2) communication only through exit may not always provide the basis for a balanced assessment by management of what is necessary to promote the long-run success of a company. This may be less true where frequent issuers of debt, such as banks, must take account of creditor viewpoints at regular rollover points, but nevertheless, improving outcomes through active engagement may be a useful supplementary form of discipline. In the United Kingdom, avenues for bond investors to make concerns felt other than by sale or pricing are, on a formal basis at least, limited. The following section outlines the legal position of bondholders in the United Kingdom and the mechanisms they have for dialogue with issuers.

Bondholders' legal standing and mechanics of communication

Under UK law applicable to companies, ultimate decision-making rights are vested in the owners of the company, namely the shareholders. The Companies Act of 2006 (Section 172) enshrined in statute the principle known as 'enlightened shareholder value' by imposing on directors a duty to act to promote the success of the company for the benefit of its members (shareholders) as a whole, having

(1) Houses of the Oireachtas (2013), 'Report of the Joint Committee of Inquiry into the Banking Crisis', Chapter 11.
(2) Paragraphs 1.30–1.31, Kay Review.

Regulatory and other reforms since the financial crisis

This article highlights certain reforms in the wake of the financial crisis which are particularly relevant to fostering bondholder discipline. These are just a part of the international and domestic overhaul of the framework for financial stability, but share an underlying purpose, namely to redress agency conflicts(1) between managers of regulated firms and other stakeholders. A brief summary of the key elements of the wider reform programme is given below.

With the crisis having revealed inadequate measurement and protections against bank risk, many reforms have been focused on revising the framework for bank regulation under the leadership of the Basel Committee on Banking Supervision (BCBS). The risk-based capital requirement has been updated and strengthened, and new layers of additional capital buffers have been introduced which will help ensure extra resilience. The sample of 91 largest banks monitored by the BCBS increased its common equity Tier 1 level by €1,383 billion over four years from mid-2011.(2) New metrics have also been introduced, including a simple leverage ratio, requirements for 'gone concern' capital (see the box on pages 34–35), and liquidity ratios. In the United Kingdom and elsewhere these requirements are further complemented by regular stress testing of the largest banks, the results of which inform capital and other supervisory requirements. These multiple metrics for the assessment of banking vulnerabilities are intended to provide a more robust basis for measuring and limiting risk.

More stringent capital requirements, in particular for those firms whose failure would pose the gravest risks to financial stability, are a key part of addressing the TBTF problem. Another key aspect, as explained in the article, is ensuring that problem firms of all sizes can be resolved without recourse to taxpayer funding. New frameworks for this in the United Kingdom and elsewhere have been shaped by the Financial Stability Board's (FSB's) twelve 'Key attributes of effective resolution regimes for financial institutions', encompassing resolution powers, cross-border co-operation, resolvability assessments and recovery and resolution planning.

In the United Kingdom, the resilience of large banks and the financial system in general is being further promoted by the introduction of 'ring-fencing' by the beginning of 2019. The largest UK banks will be required to separate core retail banking services from their investment and international banking activities, with the aim of protecting services on which customers rely from risks associated with activities outside the ring-fence. Ring-fencing also seeks to ensure that if a large bank were to fail, there would be minimal disruption to banking services used by individuals and small businesses in the United Kingdom.

A new emphasis on assessing risk in a forward-looking way is evidenced not just by the introduction of regular stress testing for banks and some other financial firms, but also by a new international model for accounting for loans and other assets with impaired credit quality. International Financial Reporting Standard (IFRS) 9 will require much earlier recognition of expected losses on balance sheets, with attention paid to a broad array of forward-looking indicators. It will replace the existing model from the beginning of 2018. The Bank of England's Prudential Regulation Authority (PRA) is working closely with other bodies and banks to ensure that this model is implemented effectively by banks.

In the United Kingdom, a new post-crisis architecture of regulation has helped to shape these reforms. The Financial Services Act of 2012 put prudential regulation (safety and soundness of banks and other firms) into the hands of the newly created PRA at the Bank of England, so ensuring that the Bank's wider financial stability objectives inform, and are informed by, supervisory operations. The Act also created an independent Financial Policy Committee (FPC) at the Bank of England charged with identifying, monitoring and taking action to remove or reduce systemic risks with a view to enhancing the resilience of the UK financial system. The FPC has key involvement and leadership in many of the reforms already mentioned, including the setting of capital buffers, ending TBTF, and stress testing.

Regulators and other authorities, however, recognise that ensuring the safety of the financial system is a task that must also involve the private sector. As is described in the main article, significant steps have been taken in the area of public transparency to broaden and deepen public disclosures. This will help ensure that stakeholders in general have the relevant information for assessing the risk of financial firms. Equally important, however, is encouraging the appropriate culture and attitudes at firms themselves. Following the crisis, there have been initiatives to improve corporate governance and incentives within firms both at the international level (via the work of the BCBS, the EU, and the FSB's ongoing work on governance and compensation) and domestically. In the United Kingdom, strengthening of the framework for corporate governance of financial firms in particular began, post-crisis, with the Walker Review of 2009. Further recommendations followed in 2013 from the Parliamentary Commission on Banking Standards. These recommendations, and experience gained from failures of culture and governance, have been reflected in new rules, codes and defined expectations from various authorities,(3) in the areas of conduct, accountability, suitability of staff, pay structure and risk governance.

(1) Agency conflicts arise where the managers of firms — agents — have different interests and priorities from other stakeholders, including shareholders, debt holders and government.
(2) BCBS Basel III monitoring report, September 2016, Table A.8.
(3) Including the PRA and the Financial Reporting Council.

regard to a widely drawn list of factors. The interests of creditors are not explicitly included on this list. The rights of creditors only acquire primacy once the company is in or near insolvency. This has been established in case law since the 1980s, reinforced by the Insolvency Act of 1986 (Section 214) which provides that liquidators may require funds from directors personally in insolvent windings up, where the directors ought to have recognised that the company had no reasonable prospect of avoiding insolvent liquidation and failed to take steps to minimise the loss to creditors.

Creditors, including bondholders, may bolster their relatively limited legal rights by taking security over the issuer's assets or negotiating contractual protection into their documentation such as financial covenants. Bond documentation typically includes an array of undertakings, ranging from procedural ones (for example over giving of notices, appointment of agents, and keeping of accounts), to cross-default clauses,(1) and to covenants which prohibit or restrict actions such as acquisitions, disposals or mergers, taking on additional debt or otherwise negatively impacting certain financial ratios (such as debt to equity ratios).

Bank bond documentation, however, tends to include a relatively limited set of covenants. This may reflect a view that restrictive financial covenants are redundant for banks, since they would at best just replicate regulatory constraints on capital and other ratios, but with inferior monitoring. Moreover, some types of clauses may be difficult to reconcile with eligibility of the debt for some regulatory ratios (capital, liquidity, or MREL). Such clauses include certain accelerated rights to repayment of debt as a remedy for breaches of covenant.

Formal opportunities to influence company strategy, unless a breach of covenant is at stake, are not generally available to bondholders given their contractual relationship with the company. Standard bond documentation does provide for the *ad hoc* calling of bondholder meetings or other electronic expression of votes, a process which can take a few weeks given practical considerations, but the focus of these consents is typically narrowly on the features of the relevant bond rather than any wider expression of views on the governance or risk strategy of the company.

The identity of bondholders is not known publicly, even with complete precision to issuers themselves, since they are not obliged to maintain a register of investors other than shareholders. Once traded, ownership of bonds becomes difficult to track as there is often extensive use of nominee accounts — registered owners such as brokers acting as custodians on behalf of the ultimate 'beneficial' owners. Transactions are settled through major clearing systems (such as Euroclear, Clearstream and DTC); details of nominee owners but not the ultimate 'beneficial' owners are available to these, meaning that the chain between the issuer and beneficial owner involves several stages.

Following a recommendation of the PCBS in 2013,(2) the Bank of England has undertaken some engagement with issuers, investor associations and other official bodies to explore the workings of bondholder discipline. This dialogue — which is ongoing — has tended to suggest that banks are aware of the identity of their principal bond investors. Banks make efforts to keep in contact with investors, reflecting the fact that as regular issuers of debt, it is in banks' interests to keep their investors abreast of developments and maintain their access to the market. In talking to investor representatives, we did not identify any significant concerns over a lack of opportunity for dialogue with issuers. Investor organisations moreover were generally satisfied with relying on the extensive public information produced by banks — receipt of significant additional private information carries the risk of putting them (like other investors) in the position of being an 'insider' with accompanying legal restrictions on trading activities.(3)

While there is no statutory mechanism for collective action by bondholders, on the lines of a shareholder general meeting, associations(4) exist which help to co-ordinate and represent investor views on relevant general and sometimes company-specific issues. In addition, many institutional investors and asset managers invest or manage both shares and bonds, can share information across the two departments, and see themselves in both roles as investing in the long-term sustainable future of companies.(5)

While the practical issues of communication or action *vis-à-vis* issuers have not so far emerged as a major concern, there may be scope for some incremental improvements. There have been a large number of initiatives in the wider corporate governance and stewardship field (see the box on page 31), and it is possible that aspects of emerging best practice for relations between firms and shareholders or other stakeholder groups may usefully be applied also to bondholder relations. It will be important for bondholders to engage in this wider corporate governance debate.

(1) A cross-default provision entitles bondholders to accelerate repayment in circumstances where the issuer has defaulted under a separate borrowing. They are often negotiated with a *de minimis* threshold.
(2) 'The PRA should examine the scope for extending bondholder influence of this type', paragraphs 118 and 674 of PCBS, *op cit*.
(3) Trading on the basis of inside information being a form of market abuse under English and EU law.
(4) These include, for example, the Investment Association and the Pensions and Lifetime Savings Association.
(5) PLSA stewardship survey 2016; www.plsa.co.uk/PolicyandResearch/DocumentLibrary/~/media/Policy/Documents/0562-Stewardship-Survey-2016.pdf.

Developments since the financial crisis

Lessons learned following the financial crisis have been reflected in a series of structural, regulatory and governance reforms. The main steps in this reform programme are summarised in the box on page 31. Certain aspects of the reforms are of particular relevance to the topic of bondholder discipline. Improvements to banks' public disclosure framework, enhancing the market's ability to assess their true condition, are one. Another is the establishment of frameworks for bank capital and resolution which remove any market expectations that bondholders will avoid losses in the event of bank failures.

Transparency and disclosure

The financial crisis prompted renewed attention on harnessing market discipline in general. A key pre-condition of this is adequate relevant information for all stakeholders. There have been extensive enhancements to the public disclosures required of banks, as a result of both international and domestic initiatives. Internationally, the 24-country Financial Stability Board (FSB) issued 32 recommendations to improve bank risk disclosures and has monitored progress against these. Adoption has been widespread and there has been steady progress on implementation, with the United Kingdom scoring 98% on implementation in the last monitoring report.(1)

The Basel Committee on Banking Supervision (BCBS) has also undertaken work to enhance bank disclosures as one of the Pillars of its regulatory regime. Domestically, the United Kingdom's Financial Reporting Council (FRC), which sets standards for corporate reporting generally, has continued and expanded its work to ensure the provision of clear and relevant information to investors. Government reforms to corporate narrative reporting, introduced in the wake of the Kay Review, have also refocused reporting towards the needs of investors with long-term objectives.(2)

All of these projects are aimed at ensuring that bond investors, along with others, have sufficient information for their decisions, though they have to be adequately motivated to use it.

Tackling TBTF

As was described above, the 2008 financial crisis demonstrated that significant reform was necessary to properly address the problem of TBTF, a problem which has not only led to major costs for the public purse but, through the implicit subsidy given to the largest financial institutions, to distortion and misallocation in the operation of banks and the wider economy. Ending TBTF has been a core element to the reform programme instituted since the crisis — in particular, ensuring that problems at even the largest institutions can be resolved without major systemic disruption and without exposing taxpayers to loss, while protecting vital economic functions. A need for effective resolution frameworks led to an FSB agreement on the 'Key attributes of effective resolution regimes for financial institutions'.(3) This is designed to make it possible for shareholders and unsecured and uninsured creditors (those not protected by an official deposit guarantee scheme) to absorb losses in a manner that is legally robust, including through respecting the hierarchy of claims in liquidation.(4)

Major progress has been made towards implementing these principles into national law. In the United Kingdom, the legal basis has been laid down. The Bank of England has the legal powers necessary to manage the failure of a bank, via a special resolution regime introduced in 2009,(5) and the EU Banking Recovery and Resolution Directive establishes legal powers to bail-in — impose losses on — uninsured, unsecured creditors.

The credibility of such a regime, however, depends crucially on specifying an adequate level of loss-absorbing instruments, of the right type including subordination and maturity, and in the right place within a banking group. The Bank of England, as the United Kingdom's resolution authority, has recently published the detail of this framework in a Statement of Policy on the 'minimum requirement for own funds and eligible liabilities' (MREL, broadly equivalent to the FSB's TLAC standard — total loss-absorbing capacity).(6) This requires banks, building societies and certain investment firms to maintain sufficient regulatory capital and in some cases further eligible liabilities which can credibly bear losses in the event that an institution fails. The Bank's Prudential Regulation Authority laid out at the same time how the MREL regime will interact with other regulatory requirements. This framework — one of the first internationally to be made concrete — is described further in the box on pages 34–35.

The MREL regime is likely to mean not just that investors in existing bank debt focus more acutely on banks' risk profiles, but also that markets have to be regularly tapped for a substantial volume of new debt to meet the requirements. The importance of subordinated bank bondholders to liability structures and to market discipline is likely to grow. It is too early to have concrete evidence that the problem of TBTF has been solved but it is noteworthy that the shift in public policy, and the moves towards credible resolution regimes have led to

(1) www.fsb.org/wp-content/uploads/2015-Progress-Report-on-Implementation-of-the-EDTF-Principles-and-Recommendations.pdf.
(2) Department for Business, Innovation and Skills report, October 2014.
(3) www.fsb.org/wp-content/uploads/r_141015.pdf.
(4) There is a hierarchy of claims in all bankruptcies. Senior or secured creditors are entitled to be paid before any money gets allocated to unsecured creditors. Subordinated creditors have a yet lower ranking, just above the owners of the firm.
(5) See www.bankofengland.co.uk/financialstability/Pages/role/risk_reduction/srr/legislation.aspx for the legislative background and *Quarterly Bulletin* article www.bankofengland.co.uk/publications/Documents/quarterlybulletin/2015/q302.pdf for a fuller description of the working of bail-in.
(6) www.bankofengland.co.uk/financialstability/Documents/resolution/mrelpolicy2016.pdf.

AT1 and MREL: going concern and gone concern resources

A key part of post-crisis reforms has been aimed at ensuring that banks have sufficient capital — equity and certain other narrowly defined instruments — to be resilient to periods of financial distress and remain as viable 'going concerns'. However, while the tests of resilience are much more stringent than previously, regulators do not aim for zero failures. The banking industry is therefore also required to be better prepared for future financial stress through credible resolution planning. Where firms are no longer viable, the aim is to ensure that resolution can be conducted in an orderly manner without causing systemic disruption, such as any cessation of the critical economic functions of the firm, and without recourse to the public purse. The regulatory framework therefore requires firms to maintain sufficient equity and in some cases other liabilities that are capable of credibly bearing losses in resolution. All MREL resources which do not include the firm's regulatory capital are known as gone concern resources.

Additional Tier 1 (AT1) notes are a form of contingent convertible bonds which are recognised as a part of a bank's going concern capital provided they are capable of absorbing losses before the point of insolvency — either by converting into equity (so making them a non-repayable liability) or by suffering a principal write-down. They will therefore boost a troubled bank's equity ratios at a time when it would be difficult for the firm to issue additional shares in the market. Last year's stress-testing exercise by the Bank of England demonstrated how AT1 instruments would convert into common equity Tier 1 (CET1) capital if a bank's CET1 ratio fell below a pre-defined trigger point. The conversion of AT1 instruments provides additional resilience against the impact of the stress on banks' capital ratios.

There are a number of criteria which an instrument must meet to be eligible for inclusion in regulatory capital as AT1. These include:

- They must be deeply subordinated.
- They must be perpetual, with no maturity date or incentives to redeem.
- The bank must have full discretion to cancel the coupons.
- Write-down or conversion happens automatically when a pre-specified capital ratio is breached (trigger).

EU law has specified this trigger to be at least 5.125% of CET1 capital, but in the United Kingdom, the PRA followed the recommendation of the Bank of England's Financial Policy Committee and decided that a minimum of 7% of CET1 was necessary for instruments counting towards the minimum leverage ratio. This gives a greater assurance that these instruments will convert to common equity while a firm is still a going concern.

While AT1 issuance has been primarily driven by its potential to satisfy regulatory demands for additional capital, volumes have grown rapidly since the inception of the market with EU banks issuing nearly €100 billion of AT1 by 2016 Q3. Early demand reportedly came from high net worth individuals, private banks and hedge funds, motivated by the extra yield. More recently, interest has grown from more mainstream institutional investors.

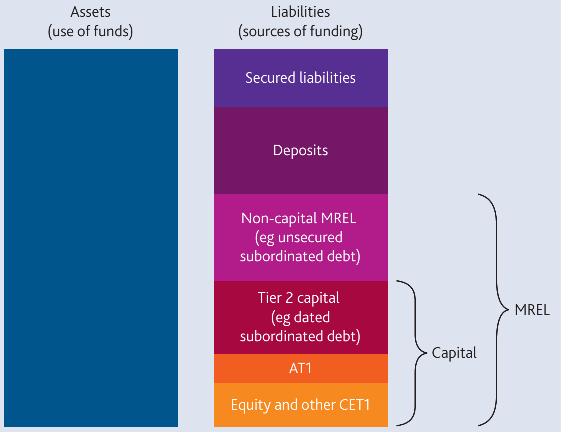
As noted in the main article, yields on AT1 are consistent with their place in the bank's capital structure, with the average yield-to-maturity at issuance greater than that of other debt instruments (Avdjiev, Kartasheva and Bogdanova (2013)) while AT1 shows a consistent premium on yields in the secondary market (**Charts 2a–c**). The premium on AT1 yields jumped sharply early in 2016, owing to both general concerns over global risk and some specific AT1 developments. An announcement by the EU-wide European Banking Authority in December 2015 caused investors to realise that coupon deferral on contingent convertible securities (CoCos) could happen earlier than expected owing to regulatory constraints on distributions to investors — 'Maximum Distributable Amount' or MDA — once capital buffers are breached. There was uncertainty in the market over the headroom individual banks had before they got close to these MDA triggers. In addition to uncertainty on this point, at the beginning of 2016, there were some particular market concerns over some banks' scope to meet certain other regulatory and accounting hurdles for maintaining coupon payments. The AT1 market has since recovered from this turbulence.

Figure 1 shows where AT1 would fit within the broader UK minimum requirement for own funds and eligible liabilities (MREL).

MREL will be set on a firm-by-firm basis and reflects evaluation of the amount of resources necessary to absorb losses in resolution and, if required by the firm's resolution strategy, to recapitalise the business to the level required for it to remain open and continue providing critical economic functions. This will help ensure that when firms fail but are of a size or nature that makes insolvency an unsuitable option, their failure can be managed in a way that minimises risks to financial stability.

MREL can be satisfied by a combination of regulatory capital, including equity and AT1, and certain long-term unsecured debt resources. These must not be preferred in insolvency, must be subordinated to senior operating liabilities (that are

Figure 1 Stylised balance sheet: MREL and regulatory capital



typically linked to a firm's critical economic functions), and must have a residual maturity of greater than one year.

Subordination aligns the order of loss absorption in resolution and insolvency. This is important, as the Bank when applying the bail-in tool must treat liabilities in the same creditor class equally so as to not breach the No Creditor Worse Off safeguard (which provides that liability holders are not left worse off in resolution than if the institution had entered insolvency instead). The subordination of MREL ensures that MREL resources can fulfil their purpose of providing gone-concern loss absorbency, without affecting the senior operating liabilities. This also provides clarity on creditors' relative positions in the creditor hierarchy in resolution.

changes in the way the major ratings agencies evaluate bank risk. Standard & Poor's, the rating agency, stated in June 2015 'We believe the prospect of extraordinary government support for UK banks is now uncertain in view of the country's well-advanced and effective resolution regime.'

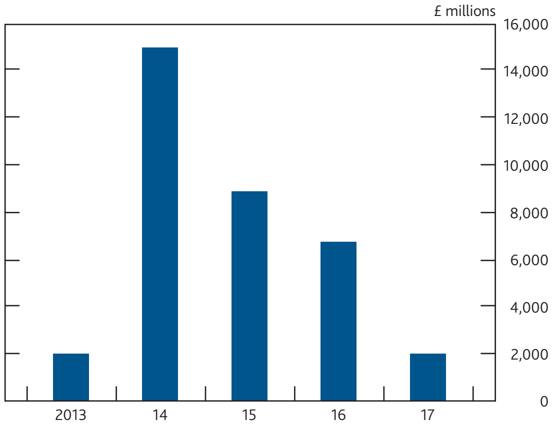
Capital reform

A further aspect of post financial crisis reform which is highly relevant to the issue of bondholder discipline is the changes to the regulatory requirements for the quantity and quality of capital — that is, the cushion that banks have between the value of their assets and repayable liabilities. The financial crisis demonstrated first that banks did not have enough capital, and second that items outside of shareholder equity that previously could be counted as regulatory capital were not, in the event, loss-absorbing. Banks have therefore been faced with a need to build up significant extra capital, in forms which will automatically absorb losses prior to the point of insolvency.

Alongside substantial new issuance of equity, which in itself reduces the incentives for firms to 'risk shift' (see the box on pages 28–29), the extra regulatory demand has resulted in the development of 'contingent convertible securities' (CoCos). These are hybrid securities that are issued in the legal form of debt but which, as described in the box on pages 34–35, absorb losses when the capital of the issuing bank falls below a certain level (the trigger). Sale of CoCos has grown rapidly in the past three years and UK banks have been among the most active issuers, with around £34 billion of securities qualifying as additional Tier 1 (AT1) capital issued since late 2013 (**Chart 1**). The main features of UK-issued AT1 are explained further in the box on pages 34–35.

The growth of the AT1 market is highly relevant to consideration of bondholder discipline since instruments recognised in regulatory capital satisfy conditions that are

Chart 1 AT1 issuance by UK banks[a]



Sources: Bloomberg and Bank calculations.

(a) Data cover thirteen issuers.

likely to be material to such discipline. They are deeply subordinated, with an automatic loss-absorbing capacity. They are perpetual (undated), meaning that the long-term viability of the issuer will be relevant to both primary and secondary market purchasers. The capital-related trigger for write-down or conversion (see the box on pages 34–35), is set at a level such that investor discipline on risk-taking should apply well in advance of problems threatening solvency. Banks must have full discretion to cancel payments including coupons, without triggering an event of default, and their ability to pay coupons has some constraints relating to their level of profits. Again, this will ensure ongoing investor attention to the issuer's financial condition.[1] Finally, in the United Kingdom, safeguards exist[2] to ensure that the instruments are sold only to relatively sophisticated investors, so focusing on those better placed to evaluate and price risk.

(1) Note that it was investor concern over some banks' scope to pay coupons which contributed to the sharp fall in the AT1 market in early 2016 — see the box on pages 34–35.
(2) www.fca.org.uk/publication/policy/ps15-14.pdf.

Against this, there is a range of possible behavioural effects from AT1 which will require further analysis when evidence is available.[1] The market is moreover still relatively small and illiquid, compared to the wider bond market, which may distort the evaluation of pricing signals and bondholder discipline. There is at the moment some limited evidence that CoCo bond spreads do reflect the extra risk associated with the instruments. For example, Avdjiev, Kartasheva and Bogdanova (2013)[2] found that the pricing of CoCos in primary markets is consistent with their position in banks' capital structures. In the secondary market, spreads of AT1 bonds versus comparable bonds from the same banks are consistently much higher (**Charts 2a–c**).

The risk sensitivity of these instruments was sharply demonstrated by the steep fall in the secondary market prices for AT1 debt, early in 2016 (see **Charts 2a–c** and the box on pages 34–35). However, this episode reflected not just some re-evaluation of credit risk — necessary for market discipline — but also uncertainty over some of the features of AT1 and possible supervisory interventions.

These steps since the crisis — enhanced disclosure, credible resolution regimes and resources which are genuinely loss absorbing — should lay foundations for improved market discipline in particular from certain classes of bondholder. They require further monitoring of experience, in particular as globally MREL frameworks are implemented, to assess how well they are achieving their purposes. It is possible that, in the event that the pricing of bonds more fully reflects underlying risks, this in itself constrains risk-taking. Alternatively, bondholders may re-examine whether they need additional mechanisms for influence, catalysed perhaps not just by the specific banking reforms discussed but also by the wider debate on corporate governance (see the box on page 31). The following section discusses what avenues might be possible for enhancing bondholder discipline further.

Further work and avenues for enhancing bondholder discipline

In discussions with market participants and others, a range of options was identified for strengthening the influence of bondholders, together with problems associated with some avenues.

Additional public disclosures

At one end of the spectrum, disclosures which allow creditors to understand bank risk and long-term viability generally, and the riskiness of their position specifically, are recognised to be in principle desirable. As noted above, there have already been major advances in corporate and bank reporting, but certain specific bank-related disclosures still require work. Filling in these remaining gaps in disclosures is a desirable step towards improved bondholder discipline.

Chart 2 Secondary market spreads for AT1 and other bonds[a]

Chart 2a Barclays

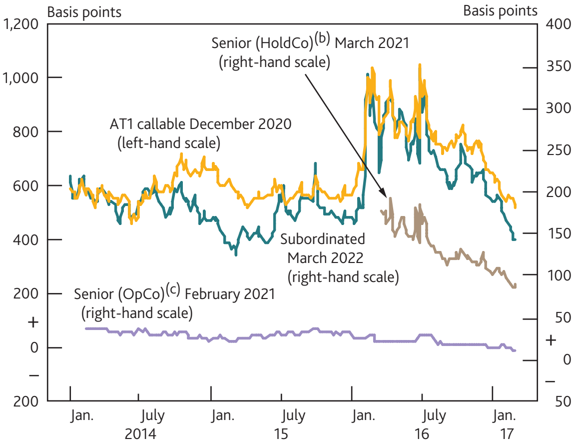


Chart 2b HSBC

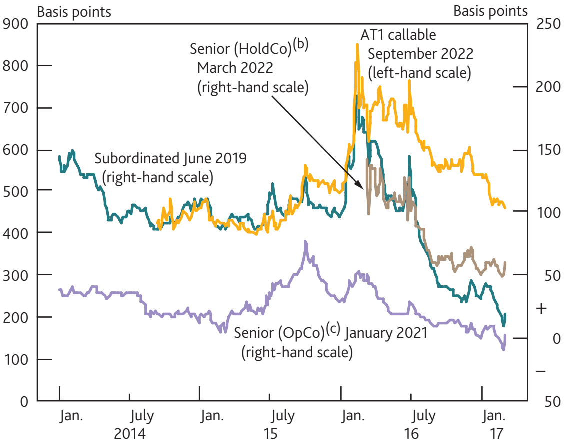
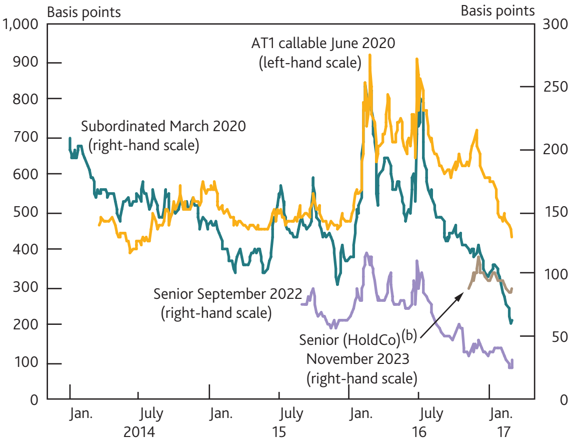


Chart 2c Lloyds



Sources: Bloomberg and Bank calculations.

(a) Bonds' constant spreads over the benchmark zero coupon swap curve.
(b) Holding company.
(c) Operating entity (bank).

(1) Some of the financial stability implications of AT1 were discussed in the Bank of England's *Financial Stability Report*, June 2014; www.bankofengland.co.uk/publications/Pages/fsr/2014/fsr35.aspx.
(2) In *BIS Quarterly Review*, September 2013.

It is crucial for bondholder discipline that investors understand their position in the creditor hierarchy, ie the order of priority they have for getting their investment repaid in the event of bank problems. The episode of volatility in AT1 in early 2016 reflected not just appreciation of risk (a desirable outcome) but less-desirable uncertainty about it, owing to the complex interaction of different regulatory and accounting triggers for deferral of coupons (see the box on pages 34–35).

Creditors also need to have enough information to give them confidence that sufficient MREL resources are positioned at the appropriate places within a group. The BCBS is close to finalising proposals for disclosures of TLAC resources, including information on creditor rankings and TLAC positions of relevant group entities. The Bank of England has set out in the MREL Statement of Policy that it intends to provide further details on its policy framework for disclosures in the light of international standards.

In addition to further disclosures in this area, the introduction of a new model for provisioning against credit impairment, as explained in the box on page 31, will require additional disclosures by banks. The rigour of the new model is likely to be improved if accompanied by new disclosures enabling users of financial information to understand the processes and assessments underlying banks' estimates of expected loss. The BCBS has set out some principles for disclosures in this area by banks.(1) Finally, potentially going yet further on transparency regarding risk profiles, the Bank of England has stated it plans to seek a public exchange of views regarding disclosure of regulatory data for banks and insurers.

Additional dialogue and communications

Greater regularity and formalisation of dialogue between creditors and issuers, possibly on a collective basis, is also a possible step. To date, lack of information or communication *vis-à-vis* bank bondholders has not emerged as a strong concern in part because of the volume of public information from banks and in part because large banks tend to be regular issuers of debt and as such maintain communication with their main creditors. This is not necessarily the experience of all firms' bondholders, or indeed stakeholders more widely. The FRC is currently consulting publicly on some aspects of its research agenda, including questions on communications with investors and reporting to other stakeholders. It is possible that this consultation will indicate gaps, if any, in communications.

Additional and better reporting by companies as to how Boards are giving consideration to different stakeholder interests is a suggestion in the Green Paper on Governance issued by the Department for Business, Energy and Industrial Strategy;(2) if this is adopted, it is likely that greater transparency may in itself lead to re-evaluation of avenues for dialogue. New mechanisms might include a commitment to a regular public meeting with creditors, the creation of wider stakeholder advisory panels within firms (as suggested in the Government's Green Paper), or establishment of a new Bondholder Forum along the lines of the new Investor Forum for shareholders.

Any development in the direction of more formalised dialogue would need to be supported by clear market demand but could be facilitated by the official sector — for instance, by elaborating existing guidance in codes.(3) As with the Investor Forum, the official sector would need to encourage a specific focus on companies' long-term sustainability for any new body.

Additional rights

More radical steps could be taken to strengthen not just the voice of bondholders but their actual power to influence company strategy. There have been some calls for new bondholder rights in some very specific contexts.(4) Such additional rights could be awarded in a number of ways — through additional covenants, through amendments to individual companies' Articles of Association (rules agreed by shareholders which outline the basis for the running of companies), or through amendment to statute such as company law.

All of these mechanisms would require careful consideration of their pros and cons. It would be undesirable — not least in view of the general legal danger of being found to be a 'shadow director'(5) — for creditors to have too much involvement in the day-to-day running of companies. Contractual arrangements could not readily be agreed between a company and bondholders if these were inconsistent with shareholders' legal rights, for example in relation to appointing directors, and similarly, Articles of Association could not be altered without the agreement of shareholders. Shareholders themselves would therefore have to be convinced that the overall success of the company depended on them ceding some of their rights to creditors. For any debt which is counted as capital or MREL by regulators, any additional covenants would have to be carefully scrutinised to ensure they did not undermine the ability of such debt to absorb losses in stress. Finally, incorporation of bespoke or non-standard terms into bond

(1) See Principle 8 in www.bis.org/bcbs/publ/d350.pdf.
(2) 'Corporate governance reform', November 2016.
(3) The FRC's Corporate Governance Code already states at paragraph 9: 'While … the relationship between the company and its shareholders is also the main focus of the Code, companies are encouraged to recognise the contribution made by other providers of capital and to confirm the board's interest in listening to the views of such providers…'.
(4) Standard Life and M&G, as cited in the *Financial Times* of 18 April 2016, called for rights for AT1 holders over board appointments and remuneration. The Dutch governance forum Eumedion has called for bondholder approval in certain bank mergers and acquisitions.
(5) Shadow directors are persons not formally appointed as directors but who give instructions that directors are accustomed to act upon. They are in law subject to the same liabilities as actual directors.

documentation may conflict with the general investor aim of holding debt that can be readily hedged and traded and which has legal certainty.

Balancing the rights of creditors and shareholders would also have to be a consideration when evaluating any amendments to statutes. This would be a complex task given the heterogeneous nature of bonds. At a time when government and other bodies are taking steps to foster a longer-term outlook among shareholders, it may be useful to establish whether these efforts are producing the desired results before more radical options are considered. In the meantime, however, as MREL frameworks are finalised, the Bank will monitor further trends in subordinated unsecured debt, to evaluate how far this behaves like equity rather than debt. This will provide some necessary background to further evaluation of the case for additional rights.

Conclusion

Developments since the financial crisis have strengthened both the motivation and ability of bondholders to monitor bank risk-taking. The weakening of implicit government guarantees, in particular, is a major step and has already been reflected in, for example, bank ratings. Further monitoring and research is merited into the effects of this on the pricing of bank-issued bonds and on bank risk appetites. Formal mechanisms for dialogue with bondholders, in particular collective dialogue on strategic issues, are lacking at the moment, and could perhaps be improved on the basis of experience with such dialogue in the shareholder arena, although a clear demand for this from the market would be a necessary basis. More radical steps to strengthen the rights of bondholders are possible, but may only be merited if short-termism remains a problem in investor outlooks, and would require careful consideration of the balance of rights, responsibilities and rewards for different classes of investor.

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