Bank failure and bail-in: an introduction

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- During the financial crisis, several governments bailed out failing financial institutions because letting the firms fail and enter insolvency would have caused excessive disruption to the critical services that these institutions provide and to the wider financial system.
- Following the crisis, the framework for managing the failure of financial firms was reformed and a new tool, known as bail-in, was developed. Bail-in allows the authorities to make sure that shareholders and creditors of a firm bear the costs of failure, without recourse to public funds.

Overview

During the financial crisis a number of governments intervened to support their largest banks, including by bailing them out, in order to allow the financial system to continue to function. This was necessary because households, businesses and governments rely on the services that banks provide and authorities did not have an effective means of dealing with their failure without the use of public funds.

Bailing out large banks is undesirable. It is costly and it is also likely to undermine the incentives for firms to be run in a prudent manner and for investors to monitor the activities of the firm to prevent excessive risk-taking from jeopardising their investment. The cost of funding the firm is artificially lowered, because the consequences of failure are at least partly borne by the public sector.

Following the financial crisis, the Financial Stability Board developed a set of principles for managing the failure of systemically important financial institutions. These 'Key Attributes' of effective resolution regimes sought to ensure that firms could fail without disrupting the financial system, without interrupting the critical services they provide and, importantly, without requiring public sector support. One of the tools included in the Key Attributes was bail-in.

In a bail-in, the claims of shareholders and unsecured creditors of the failed firm are written down and/or converted into equity in order to absorb the losses and recapitalise the firm or its successor. A bail-in is not negotiated — it is imposed upon the firm and its creditors by the authority responsible for resolution. It is designed to stabilise the firm, providing time to enable it to be restructured in order to address the underlying causes of its failure. The aim is that the firm, or its successor, is able to operate without public support.

The resolution of a large and complex firm is likely to involve bail-in. There are different approaches to bail-in and the mechanisms that would be used to achieve it in different jurisdictions vary. This article describes the mechanism that is likely to be used in the United Kingdom and sets out the other elements that need to be in place for a bail-in to be successful. These include an appropriate legal framework which ensures that the resolution authority has the necessary powers to act and, crucially, that firms have sufficient capacity — liabilities that can be bailed in — to absorb the losses and be recapitalised.

There are a number of misconceptions about bail-in. The article concludes by explaining how bail-in:

- **is not an alternative term for contingent capital instruments;**
- **does not interfere unduly with shareholder and creditor property rights;**
- **is unlikely to be a cause of contagion to the wider financial system; and**
- **is not, by itself, the silver bullet that ends 'too big to fail'.**

Although bail-in remains untested in the United Kingdom, its existence and credibility appears to have already reduced the implicit subsidy from the public sector to large banks. This is likely to correspond to a shift of risks from the government to private creditors and suggests that firms' funding costs have also — appropriately — become more risk-sensitive.

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During the recent financial crisis, it was necessary for the authorities to intervene to limit the disruption from failing banks and other financial firms. This included providing public funds to recapitalise some banks. Although this successfully stabilised the financial system, the cost of doing so was borne by the public. As part of the package of measures adopted in the aftermath of the crisis, a new tool — known as bail-in — was introduced to help ensure that shareholders and creditors bear the costs of firm failure.(1) Its development forms a key part of the efforts under way to remove the need for public funds to be used in this way again.

Bail-in is not a silver bullet. By itself it cannot guarantee that the resolution of a failed firm will be orderly. However it is an essential component of a wider framework that, taken together, will allow authorities to intervene to manage the failure of large, complex firms in an orderly way. This process is known as resolution. The Bank of England is the resolution authority in the United Kingdom.

This article provides an overview of bail-in. It sets out the background to the development of bail-in, as an additional resolution tool. It explains how bail-in can be used to stabilise the balance sheet of a failing firm until the firm can be restructured, and it describes some of the other elements that need to be in place, alongside the bail-in tool, in order to resolve a large complex firm successfully. The final section seeks to dispel some misconceptions relating to bail-in.

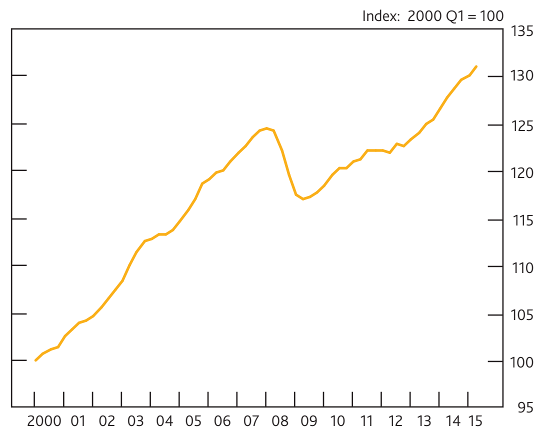
Setting the scene: the financial crisis, bailouts and the regulatory response

The global financial crisis that began in 2007 saw widespread and severe disruption to the financial system. The banking sector faced significant losses and in many cases banks' access to liquidity and funding was heavily restricted. This had a significant impact on the real economy because it constrained banks' ability to operate. For example, **Chart 1** shows the substantial fall in UK GDP following the crisis. Governments and central banks in several developed countries intervened to prevent their banking systems from collapsing. Since the crisis, a number of reforms have been adopted to reduce the risk that this type of intervention will be required in the future. This section explains the background to the development of the bail-in tool.

Interventions to support the banking system

The measures taken to allow the banking system to continue to function included both traditional and non-traditional measures: central banks provided emergency funding (liquidity injections) to financial markets and individual financial institutions to ensure that they could continue to meet their obligations as they fell due; and they bought certain types of assets, such as corporate bonds, from financial

Chart 1 UK GDP, 2000–15[a]



(a) Chained-volume measure, at market prices.

institutions (asset purchases) to improve the liquidity of credit markets. Public authorities also guaranteed some liabilities, such as deposits or new/existing debts (liability guarantees) to shore up confidence in the financial system.

In addition — and of particular relevance to this article — in some cases governments provided capital injections or 'bailouts' in exchange for full or partial ownership of individual firms. This was necessary because the losses experienced by these firms had reduced the amount of capital on their balance sheets to the point that they could no longer continue operating.(2) The bailouts recapitalised firms to allow them to continue to operate.

The interventions were designed to allow the financial system to continue to function, since the day-to-day activities of households, businesses and governments rely on the services of banks and other financial institutions. Banks in particular play a number of crucial roles in the economy. For example, they provide payment services to households and companies, so that they can make and receive payments; they extend credit, in the form of mortgages and loans; and they offer other services, such as savings accounts and financial insurance, that help households and companies manage the various risks that they face.(3) These services are sometimes known as critical economic functions.

Without these interventions it is highly likely that a number of firms would have failed. In the absence of resolution regimes that could credibly be applied to the largest banks and financial institutions, the only alternative to bailouts of these firms would have been to put them into a normal corporate insolvency process. This process involves handing over the management of the firm to an insolvency practitioner or administrator appointed by the court and, in all likelihood, the

(1) The term 'firm' is used as shorthand for financial firm.
(2) For an introduction to banks' balance sheets and the role of capital, see Farag, Harland and Nixon (2013).
(3) See Freixas and Rochet (2008) for a complete discussion of the role of banks.

day-to-day activities of the firm — including the critical functions and services that it provides — would be interrupted for a prolonged period or cease altogether.(1)

The interruption to the critical services that banks provide, and the likely loss of confidence in the system that would have followed, would have led to widespread disruption to the financial system. Government intervention prevented such disruption, but the scale and costs of these interventions were substantial. Between October 2008 and October 2011, the European Commission approved €4.5 trillion of state aid measures to financial institutions (equivalent to 37% of EU GDP) and the International Monetary Fund (IMF) estimates that the average increase in public debt associated with the crisis was around 18% of GDP.(2)(3)

Public sector support and 'moral hazard'

The capital support that firms received from governments — the public sector bailouts of private firms — represented a public subsidy to such firms. One of the adverse effects of the prospect of bailouts is the effect this has on the behaviour of the managers and owners because the cost of risk-taking is reduced for the firm. In particular, the expectation prior to the crisis that bailouts would occur, at least for a set of firms that were perceived to be 'too big to fail', effectively created an implicit subsidy that reduced the cost of funding for those firms.(4) Investors expected governments to step in and prevent large banks from defaulting on their debts even if they failed. So the price that they charged for lending to large banks (for example, when buying bonds issued by those banks) was lower than it would have been without this expectation of government support. This lower price of funding the firms' activities is likely to have encouraged the managers of those firms to take more risk than was ideal for society as a whole.(5)

The managers and owners received the benefits of profits earned from banking activities carried out in the run-up to the crisis. But when the firms got into difficulty, losses were shared with the public sector rather than being absorbed entirely by those who were, in theory, responsible for absorbing the losses, that is the owners and unsecured creditors of the firms. This lack of an appropriate incentive to protect against risk crystallising — because of being protected from some or all of the adverse consequences — is known as moral hazard.

Following the bailouts, the cost of funding increased substantially for some of those governments that provided them, particularly in the immediate aftermath of the crisis.(6) The public support provided by governments to financial institutions increased the impression that governments were 'on the hook', or responsible for, the losses of their financial sectors.

Post-crisis: the regulatory reform agenda

The financial crisis set in train a broad package of regulatory reforms.(7) The Financial Stability Board (FSB), an international body that monitors and makes recommendations about the global financial system, played a leading role in shaping the reform agenda. The FSB's work was complemented by that of the Basel Committee on Banking Supervision (BCBS), which sets international standards for the prudential regulation of banks. In response to the risks posed by having a set of global banks that are perceived to be 'too big to fail', G20 leaders endorsed a specific package of measures in November 2011.(8) Some of these measures are summarised in the box on page 231. The most important of these, from the perspective of this article, was a new international standard for resolution regimes in order to manage the failure of systemically important institutions effectively. Bail-in was included in the toolkit that should be available to resolution authorities.

Bail-in explained

The previous section introduced the background to the development of a framework for resolving failed financial firms. This section outlines the tools that are available to resolution authorities to ensure that firm failure is managed in an orderly fashion, focusing on bail-in. It explains how bail-in works, using a stylised example to describe how a failing bank's balance sheet would look before and after the bail-in. It also describes the other elements that are needed for a bail-in to be effective.

Resolution tools available to authorities

Once it has been determined that a firm is failing, or likely to fail, and that the other conditions for resolution have been met, the authorities responsible for resolution will try to manage the failure in an orderly fashion and with a view to meeting the objectives for resolution. These objectives include preserving financial stability, ensuring the continuity of critical economic functions, and protecting insured depositors and public funds.(9)

The first phase of a resolution is to stabilise the firm so that the critical functions that it provides can continue. Stabilisation is achieved either by transferring those critical

(1) For a more detailed discussion of the drawbacks of using ordinary corporate insolvency techniques for banks, see Brierley (2009).
(2) See European Commission (2012).
(3) See IMF (2014).
(4) For a comprehensive review of the cost of 'too big to fail', see Siegert and Willison (2015).
(5) See, for example, Acharya, Anginer and Warburton (2015), Afonso, Santos and Traina (2014) or Vazquez and Federico (2012).
(6) See, for example, Acharya, Drechsler and Schnabl (2014).
(7) See, for example, Davies (2012).
(8) See Financial Stability Board (2011).
(9) The Bank of England's approach to resolution is set out in Bank of England (2014a). This provides more details on the conditions for using resolution tools, the objectives of resolution that need to be taken into account and the tools themselves.

The regulatory reform package

The package of measures outlined by the FSB to address the risks posed by systemically important financial institutions had three main components. The first two of these are designed to reduce the probability that such firms fail. First, firms identified by the BCBS as global systemically important banks (G-SIBs) must have additional capital, beyond what is required for other firms, given the greater impact of the failure of these firms on the financial system.[1] Second, the FSB agreed a significant strengthening of the supervision of systemically important firms. This was intended to address the fact that some firms that had been assessed by supervisors and found to be well-capitalised and highly liquid with strong risk management systems in the run-up to the crisis subsequently needed support.[2] A more robust approach to supervision encourages supervisors to intervene early, to address problems in firms before they become insurmountable.

The third component of the reform agenda is designed to reduce the impact of firm failure. The FSB proposed a new international standard for resolution regimes, to address the fact that the authorities in many jurisdictions did not have a complete set of tools to allow them to intervene to manage the failure of financial institutions that could be systemically important. The resulting set of 'Key Attributes' of effective resolution regimes sought to make sure that firms could fail without disrupting the financial system, without interrupting the critical services provided by these firms, and without requiring public sector support.[3]

In the European Union and other jurisdictions, many aspects of these reforms also apply to institutions that are not considered to be globally systemic. As a result banks are, on the whole, required to have more capital and of a higher quality than was previously the case. Approaches to supervision have also been enhanced. And, crucially, credible alternatives to ordinary corporate insolvency — that is, bank resolution regimes — have been developed in jurisdictions where they did not previously exist.[4]

The shape of the new resolution regimes

The Key Attributes built on existing examples of international good practice in resolution.[5] They set out the arrangements that should be in place to handle the failure of financial institutions that are considered systemic. They cover the fundamental elements of resolution regimes, including the scope of firms to be covered, the objectives of resolution and the nature of the tools and powers that should be available. The Key Attributes include bail-in within the set of tools that should be available to authorities.

The Key Attributes also set out a framework for handling cross-border co-operation, where firms operate in several different jurisdictions. And they contain requirements for preparations that need to be undertaken before firms get into difficulties:

- preparation of 'recovery plans' by firms, which set out actions the management intend to take to return the firm to a stable footing, should it get into difficulties;

- regular assessments by the authorities of how straightforward (or otherwise) it would be to resolve the firms using the tools available (known as 'resolvability assessments'); and

- preparation of 'resolution plans' by the authorities, which detail the approach that the authorities are likely to take should the firm need to be resolved under the resolution regime.

In addition, the Key Attributes set out certain safeguards related to the use of resolution tools. These are necessary because use of the tools affects individual property rights. The safeguards are designed to achieve a balance between providing certainty to creditors about how they would be treated in resolution and giving the authorities sufficient flexibility to carry out an orderly resolution. One of the key safeguards is that where a shareholder or creditor of a firm that is put into resolution is left worse off than would have been the case had the whole firm been placed into insolvency, that creditor should be entitled to compensation.[6]

(1) See BCBS (2011).
(2) See FSB (2010).
(3) See FSB (2014a).
(4) In Europe the Bank Recovery and Resolution Directive established a European framework for the recovery and resolution of banks and investment firms. It also explicitly limits the use of bailouts and other forms of state support.
(5) For example, extensive revisions had been made to the existing US framework for intervening with failing banks by the 'Dodd-Frank' package adopted in Summer 2010. A permanent 'special resolution regime' for managing the failure of banks and building societies was enacted in the United Kingdom in February 2009 (the Banking Act 2009) to replace temporary arrangements adopted during 2008, and the European Union was in the process of developing a 'crisis management framework' for banks and investment banks. The latter became the Bank Recovery and Resolution Directive which was published in the Official Journal in June 2014.
(6) See Davies and Dobler (2011).

functions to another, financially sound institution, or through a bail-in that restores the capital position of the original firm. To carry out a transfer, resolution regimes include options to transfer all or parts of a firm's business to a private sector purchaser or, pending an onward sale or share issuance, to a temporary (or 'bridge') bank. The parts that do not need to be maintained permanently would be wound down in a measured way, for example in an asset management vehicle or as part of a special administration procedure.

The second phase is restructuring, when additional changes that need to be made to the structure of the firm and to its business model are carried out. If a transfer has taken place, it may be that no further restructuring is needed, but with a bail-in, restructuring will be required to address the causes of failure and restore confidence in the firm. The structure of the firm and its business model are modified including, where necessary, through disposals and winding down of business lines. Under the new resolution arrangements in the European Union, a resolution that involves a bail-in of an existing firm must be accompanied by a restructuring plan. The existing management of the firm may also be replaced as part of the process.

When the restructuring is complete, the firm exits resolution. The resolution authority's involvement in the firm (or in any entities that emerge from the resolution) comes to an end.

The key features of bail-in

In a bail-in, the claims of shareholders and unsecured creditors are written down and/or converted into equity to absorb the losses of the failed firm and recapitalise the firm or its successor. This is done in a manner that respects the hierarchy of claims prescribed in insolvency law. A bail-in allows the firm to continue to operate and to meet supervisory requirements so that the critical functions the firm provides can be maintained immediately after entry into resolution.

Unlike a debt-for-equity swap, where the terms of any exchange of debt for shares are negotiated by the relevant private parties, a bail-in would be imposed upon the firm and its creditors by the resolution authority. There would be no requirement to get the consent of shareholders, creditors or the existing management of the firm. And there is no requirement for court approval of the bail-in.

The concept of bail-in evolved in the aftermath of the failure of Lehman Brothers in 2008. Some of those who had been involved in the discussions on how to handle the fallout from the failure of a large, cross-border investment bank set out a method for using the firm's own resources, rather than public funds, to restore the balance sheet of the firm. Calello and Ervin (2010) proposed that the holders of the firm's bonds would have their investments in the firm written down and converted into shares. This would be an alternative to a public bailout or a disorderly insolvency and would provide the capital that the firm was required to hold in order to be allowed to operate by its regulator. This in turn would give the authorities, and the firm's new management, the time they needed to find a permanent solution to the problems of the failing firm, which would involve a major restructuring of its activities and the adoption of a new business plan.

Bail-in has the considerable advantage that it does not depend on the authorities finding a willing and able purchaser for all or part of the business in a short period of time. Nor does it require the firm to be broken up immediately. Bail-in is therefore the tool most likely to be used for the largest, most complex firms where the prospect of finding a willing private sector purchaser for significant parts of the business is low and where the complexities of effecting a full or partial transfer would be substantial. There is more than one way to carry out a bail-in (as set out in the box on page 234).

Bail-in can also be used on smaller firms. Accordingly, the Bank Recovery and Resolution Directive gives resolution authorities the power to use the bail-in tool in respect of any firm that meets the conditions for use of the stabilisation tools. Resolution authorities will choose the tool which best meets the resolution objectives in the circumstances.

How does a bail-in work?

In order to understand how bail-in works, it is helpful to consider the key components of a balance sheet.

Figure 1 Simplified bank balance sheet

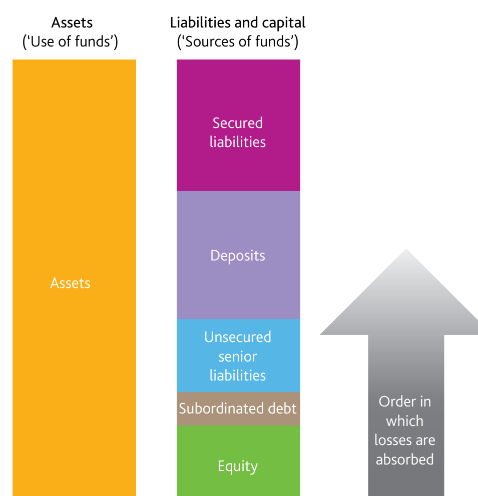
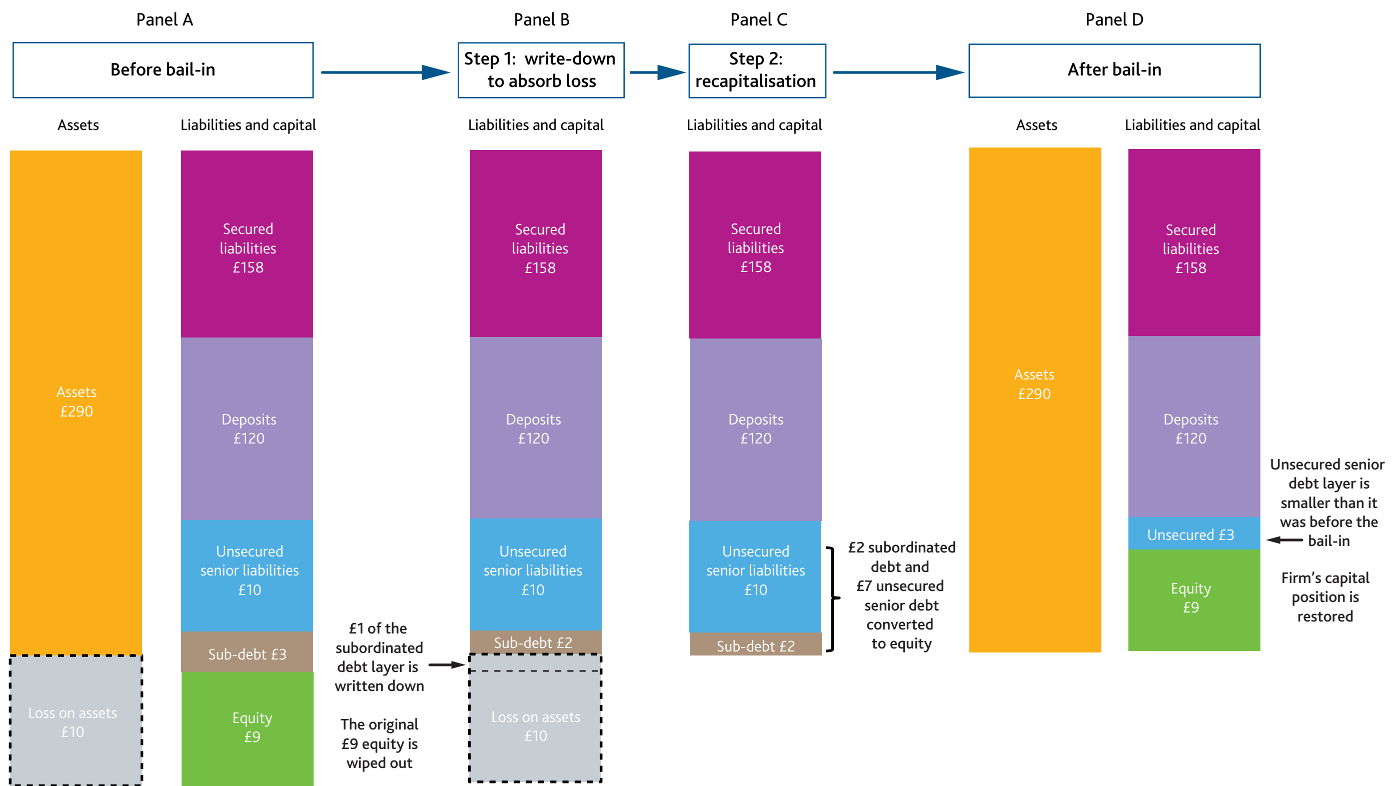


Figure 1 shows a stylised balance sheet of a bank. The bank's 'sources of funds' (its liabilities and capital) are shown on the right-hand side, and its 'use of funds' (its assets) are shown on the left-hand side. The bank's assets include loans that it has made to households and businesses; lending to other financial institutions; and holdings of securities such as government and corporate bonds, as well as its holdings of cash. The bank's liabilities are what the bank owes to others. They include deposits from households and firms as well as funds that the bank has borrowed, for example from institutional investors such as pension funds, by issuing debt in the form of bonds. Liabilities are shown in order of 'seniority' in the hierarchy of creditors, with the most senior liabilities at the top and the most junior, which are first to absorb losses, at the

Figure 2 Stylised example of loss absorption and recapitalisation in a bail-in



Note: Block sizes are not to scale.

bottom. Senior liabilities include, for example, liabilities that have been secured against assets on the other side of the balance sheet, cash deposits and high-quality debt (such as senior unsecured debt). Junior liabilities include lower-quality, or subordinated, debt. Equity, which is fully loss absorbing, is the firm's capital.

In common with the other resolution tools, bail-in allows a failing firm to be stabilised prior to a restructuring. There are two distinct steps to the stabilisation phase:

(i) Absorbing losses.

The first step is to estimate the outstanding losses of the firm, which is achieved through an initial valuation of its asset and liabilities. This is necessary prior to any resolution, in order to establish whether the firm is failing, or likely to fail. Losses which have not already been fully recognised are absorbed by writing down the value of assets. The losses may or may not wipe out the existing equity in the firm, but they are likely to push the firm's capital level below that which is required by the firm's prudential supervisor. If the losses exceed the existing equity, each layer of unsecured creditors in the creditor hierarchy will be written down, in the order of their ranking in insolvency,[1] until the amount necessary to recognise the outstanding losses is covered.

(ii) Recapitalising the balance sheet.

The second step is to restore the capital the firm needs to support its activities, to ensure that the market has confidence in the firm, and to meet the requirements of the prudential supervisor through the subsequent restructuring phase.[2] The bulk of the recapitalisation is likely to be achieved by converting the claims of creditors into equity.

Figure 2 illustrates how a bail-in can be used to absorb the losses of a failing bank and recapitalise it. In panel A the bank, which has a total balance sheet of £300, suffers a £10 loss. This could be because some of the loans it has made are not repaid. As a result of the loss, the bank will have insufficient capital to continue to operate, so it enters resolution. For simplicity, it is assumed that the bank will need to be recapitalised to the same amount as before the firm entered resolution. In this example, this means equity of £9.[3]

(1) Holders of regulatory capital instruments will bear losses before other creditors. The Bank Recovery and Resolution Directive introduced a mandatory write-down of regulatory capital instruments at the point of non-viability (PONV). This means that common equity (CET1), additional Tier 1 (AT1) and Tier 2 (T2) that qualify as regulatory capital instruments must absorb losses, up to the extent required to meet the resolution objectives, before or together with the use of any of the resolution tools. Although it is possible that a PONV write-down alone could restore a firm to viability, where the losses are limited and the business model remains sound, the expectation is that it would generally be applied at the same time as the relevant resolution tools.

(2) The capital requirement set by the supervisor will depend, among other things, on the expected nature of the business in the future, after any restructuring has taken place, and the costs of restructuring.

(3) In practice, the capital required is proportional to the size and complexity of the firm's balance sheet.

Open and closed bank bail-in

There is more than one way to carry out a bail-in. In particular it can be done either through the use of powers to write down and convert liabilities into forms of ownership in the restored firm, or using a bridge bank. The economic effect is largely the same in each case, although the legal processes followed are likely to differ. In each case the bail-in allows the resolution authority to stabilise a firm. It provides time that will allow for an orderly reorganisation of all or part of a failing firm, in order to address the underlying cause of the failure. And in each case losses are absorbed and the firm or a successor entity is recapitalised.

In an 'open bank' bail-in liabilities are written down or converted into equity in the existing firm. The firm remains open for business throughout the process. In a 'closed bank' bail-in, the liabilities that are to absorb losses remain in the original legal entity that is put into an insolvency process and/or bailed in while the activity that is to be continued is transferred to a newly created entity. Since the original firm is closed this is known as a closed bank bail-in. Both options are available to European resolution authorities under the Bank Recovery and Resolution Directive.

Open bank bail-in

In the United Kingdom, the most likely approach is to apply the open bank bail-in power, as described in this article. The practical mechanism expected to be used to carry out a bail-in is described in the annex.

Closed bank bail-in

By contrast, in the United States the economic equivalent of a closed bank bail-in would be carried out under Title II of the Dodd-Frank Act. The firm in question would be resolved by taking action on a non-operating holding company. Once it has been determined that an institution meets the conditions for resolution, it is likely that the Federal Deposit Insurance Corporation (FDIC) would be appointed as receiver (insolvency practitioner) to the parent holding company. The expectation is that the assets of the holding company, which are largely made up of equity and investments in operating subsidiaries, would be transferred to a bridge holding company controlled by the FDIC. The day-to-day operations of the bridge holding company would be carried out by newly appointed directors and officers. The operating entities that carry out critical services would remain open, preventing disruption to the wider economy; and the claims (equity interests) of the shareholders and the claims of the subordinated and unsecured debt holders would likely remain in the receivership where they would be effectively bailed in.

This means that the liabilities left in the bridge holding company would be materially less than the assets. The bridge holding company would therefore be well-capitalised. The parts of the firm that are not in receivership may be restructured to address the causes of failure and — potentially — split into one or more smaller firms that could be resolved through a bankruptcy proceeding (consistent with the requirements under Title I of the Dodd-Frank Act in the United States).

Finally, the ownership and control of the bridge holding company and surviving entities would be transferred to private hands. This may be done by converting the claims of creditors in the receivership into equity in the bridge holding company.

Panels B and C show the liability side of the balance sheet and break down the bail-in transaction into the two phases. Panel B shows how the loss is absorbed. All of the bank's equity (£9) is written down and some of the subordinated debt ('sub-debt') (£1) is written down to cover the loss of £10. The losses have been absorbed without reaching the senior debt layer.

Panel C shows how the firm is recapitalised. The remaining subordinated debt (£2) and some of the senior unsecured debt (£7) is converted into equity to restore the firm's capital position. The revised balance sheet of the firm, once the bail-in has taken place, is shown in Panel D. The unsecured senior debt layer is smaller than it was before the bail-in, but the firm now has enough capital to satisfy the regulator and to operate.

The resolution authority must generally respect the insolvency creditor hierarchy when applying the bail-in tool. But it will not always be necessary for existing shareholders' claims to be written down to zero ('wiped out') before creditors can have part of their claims converted into equity. This is because the losses may not completely wipe out the original equity and shareholders have a claim on the equity that remains once the losses have been absorbed. (For example, if the loss in the example had been £8, rather than £10.) Once these losses have been recognised on the balance sheet, additional capital will still be needed to replenish what has been lost, to restore market confidence in the firm and to meet the supervisor's prudential requirements. This is achieved by converting some or all of the claims of those next in line in the creditor hierarchy into equity (or other instruments) — holders of subordinated bonds and, if the scale of the bail-in requires it, also the holdings of unsecured senior bonds.

Despite the fact that the original shareholders may not have been wiped out completely, their interest in the firm will be

severely diluted, in recognition of their position at the front of the queue for absorbing losses. Furthermore, some liabilities (such as insured deposits and fully secured creditor claims) are exempt from bail-in and it may be necessary for certain other liabilities to be excluded from a particular bail-in, for example when bailing them in would be impractical, or inconsistent with the objective of ensuring continuity of critical functions, or would destroy overall value. Although some liabilities may be excluded from bail-in even if they rank alongside others that do bear loss, the outcome for those bearing loss must not be worse than would be the case if the whole firm were placed into insolvency. This respects the overall creditor hierarchy in insolvency.

In practice a bail-in will be more complex than this example suggests. The scale of the effect of a bail-in on shareholders, and for those creditors whose claims are converted into equity, will depend on a number of factors that will vary from case to case. These include the estimated scale of the losses that must be absorbed; the nature of the firm's liability structure (that is, how much loss-absorbing capacity there is and in what form); and the nature of the firm that is expected to emerge from the resolution and therefore the capital requirement that the supervisor imposes. The mechanism for carrying out a bail-in, and the valuation processes which underpin it, are described in the annex.

Bail-in is explicitly a prelude to the reorganisation of the business of a failing firm. Once the firm has been stabilised, the causes of the firm's failure must be addressed. This may involve restructuring, selling or winding down parts of the firm that are no longer viable. This should ensure that, following a bail-in, the firm can operate normally, including accessing market funding.

Additional requirements for a successful resolution

The FSB Key Attributes require resolution authorities to develop strategies for resolving firms within scope of the resolution regime. These 'resolution strategies' set out the authorities' preferred approach for resolving the failing firm in a way that protects the critical functions carried out by the firm, financial stability and public funds. Where necessary, resolution authorities may require firms to take steps to remove barriers to their resolvability. This ensures that most of the planning for a resolution happens before a firm gets into difficulties.

Irrespective of what the preferred resolution strategy may be, a number of elements must be in place in order for a resolution to be successful. These include:

(i) A broad set of resolution powers and a supporting legal framework.

Resolution authorities must have appropriate powers to support the use of resolution tools. These should include, for example, powers to transfer some or all of the shares, assets and liabilities of the failing firm to another firm or to a bridge bank; powers to carry out a bail-in; and powers to wind down any parts of the balance sheet that are not critical — either directly or by transferring them to an asset management vehicle. The resolution authority also needs to be able to require the firm itself, or any entity created from the resolution, to adopt a new business plan, to overhaul the internal governance of the firm and, in particular, to remove members of the senior management.

To be confident that the resolution of a complex, cross-border firm is enforceable, the statutory resolution framework in each affected jurisdiction must recognise — in a legal sense — the resolution actions of other jurisdictions. This includes both recognition of the resolution itself (the bail-in, for example) and recognition that the fact that a resolution has taken place does not give other parties the right to terminate any financial contracts that they have entered into with the failing firm or with other firms, particularly those in the same group.(1) In the absence of a statutory framework for recognising cross-border resolution, enforceability may be facilitated by contractual arrangements.(2)

(ii) Loss-absorbing capacity in the right amounts, right form and right place within the group.

The goal of stabilising the balance sheet of a firm, and recapitalising it, using bail-in can only be achieved if there is something for the resolution authority to bail in. In other words, there must be liabilities on the balance sheet that can be written down or converted into equity — or otherwise exposed to loss in resolution — without disrupting the day-to-day functioning of the firm or causing wider financial instability.(3) This is known as loss-absorbing capacity. The FSB proposal for a common international standard on 'total loss-absorbing capacity' (TLAC) is designed to set a minimum level of loss-absorbing capacity for G-SIBs.(4) Within the European Union, resolution authorities must set a minimum requirement for own funds and eligible liabilities (or MREL) for each firm covered by the Bank Recovery and Resolution Directive. Like TLAC, MREL is designed to ensure that all firms have enough loss-absorbing capacity, including liabilities that could be credibly exposed to loss in resolution.

These requirements will have two key effects. First, they may require certain firms to change the legal structure of their

(1) Contracts commonly contain provisions which enable a party to terminate the contract upon reorganisation or other changes impacting the counterparty or a member of the counterparty's group. If these termination rights are immediately invoked upon resolution this is likely to exacerbate the troubles facing the firm and frustrate the resolution.
(2) See FSB (2014b).
(3) These liabilities may also be exposed to loss if the bail-in tool is not used. For example they may be 'left behind' in an insolvency to capitalise a bridge bank or they may be used to facilitate the transfer of assets to a private sector purchaser.
(4) See FSB (2014c).

existing wholesale funding to make sure that, when imposing losses, following the creditor hierarchy does not undermine the objectives of resolution. This may involve making certain liabilities that are eligible to be bailed in subordinate to certain operating liabilities (for example, writing into their contracts that they are lower in the creditor hierarchy) or moving them to a holding company that does not carry out any of the normal activities of the firm. Second, they will ensure that firms are not motivated to change their existing funding structure in a way that makes it harder to impose losses on creditors in a bail-in, for example by replacing long-term wholesale funding with short-term corporate deposits.

(iii) Authorities in different jurisdictions must co-ordinate arrangements to resolve cross-border firms.

In order to prepare for, and facilitate the resolution of, complex cross-border firms, resolution strategies are discussed in crisis management groups (CMGs), made up of home and key host financial sector authorities. Within the European Union, 'resolution colleges' will facilitate co-operation between home and host resolution authorities for firms that operate in more than one Member State. International co-operation will also be facilitated by ensuring that all parts of a group have sufficient loss-absorbing capacity in place, to give host authorities confidence that material local subsidiaries can be recapitalised as necessary.

(iv) A clear method of providing temporary liquidity to the firm in resolution.

Bail-in is designed to ensure that a firm is recapitalised up to a level that restores market confidence, while the restructuring that follows a bail-in should ensure the firm's long-term viability. This should mean that the firm has access to market funding. However it may be the case that, in the short term, a firm requires liquidity as a temporary backstop if market participants are not immediately willing to lend to it. This liquidity could come from the central bank's published schemes, or be provided on a bilateral, individually tailored basis. Within the European Union, any liquidity provided from public sources would need to comply with the European Commission's state aid framework. And the firm would be expected to make a gradual return to using private sector sources of funding, as confidence in it returned.

Some misconceptions about bail-in

As might be expected following the development of a new and powerful tool, there are a number of misconceptions about bail-in. It is important to understand what bail-in adds to the toolkit for resolving failing banks and equally important to understand what bail-in is not. Some key misconceptions are discussed below and summarised in **Figure 3**.

'Bail-in is an alternative term for CoCos'

Bail-in has sometimes been used as if it were a term that is interchangeable with CoCos (contingent convertible capital instruments). These are a form of financial instrument that has features of debt, such as coupons paid at particular dates and in specified amounts, but which can be written down or converted into equity automatically when a particular trigger point is met, for example when the firm's core capital level has fallen to a particular point.(1) They are financial instruments issued by firms which may be used to meet regulatory capital requirements and typically constitute a small fraction of a firm's overall funding.

As this article explains, bail-in is not a form of financial instrument, but a resolution tool which can be used by authorities if that is the appropriate way to manage the failure of a firm. Bail-in is a statutory resolution tool, and can be applied to a range of different liabilities, including, but not limited to, subordinated debt and unsecured senior liabilities. It is not subject to any permission or consent from the management of the firm, its shareholders or creditors, or a court. Rather, it can be used by resolution authorities to pursue their resolution objectives when the trigger for resolution is met, and its use is constrained by certain safeguards. It is also accompanied by a wide-ranging restructuring of the firm, which would not be the case following the triggering of a CoCo.

'Bail-in unduly interferes with shareholder and creditor property rights'

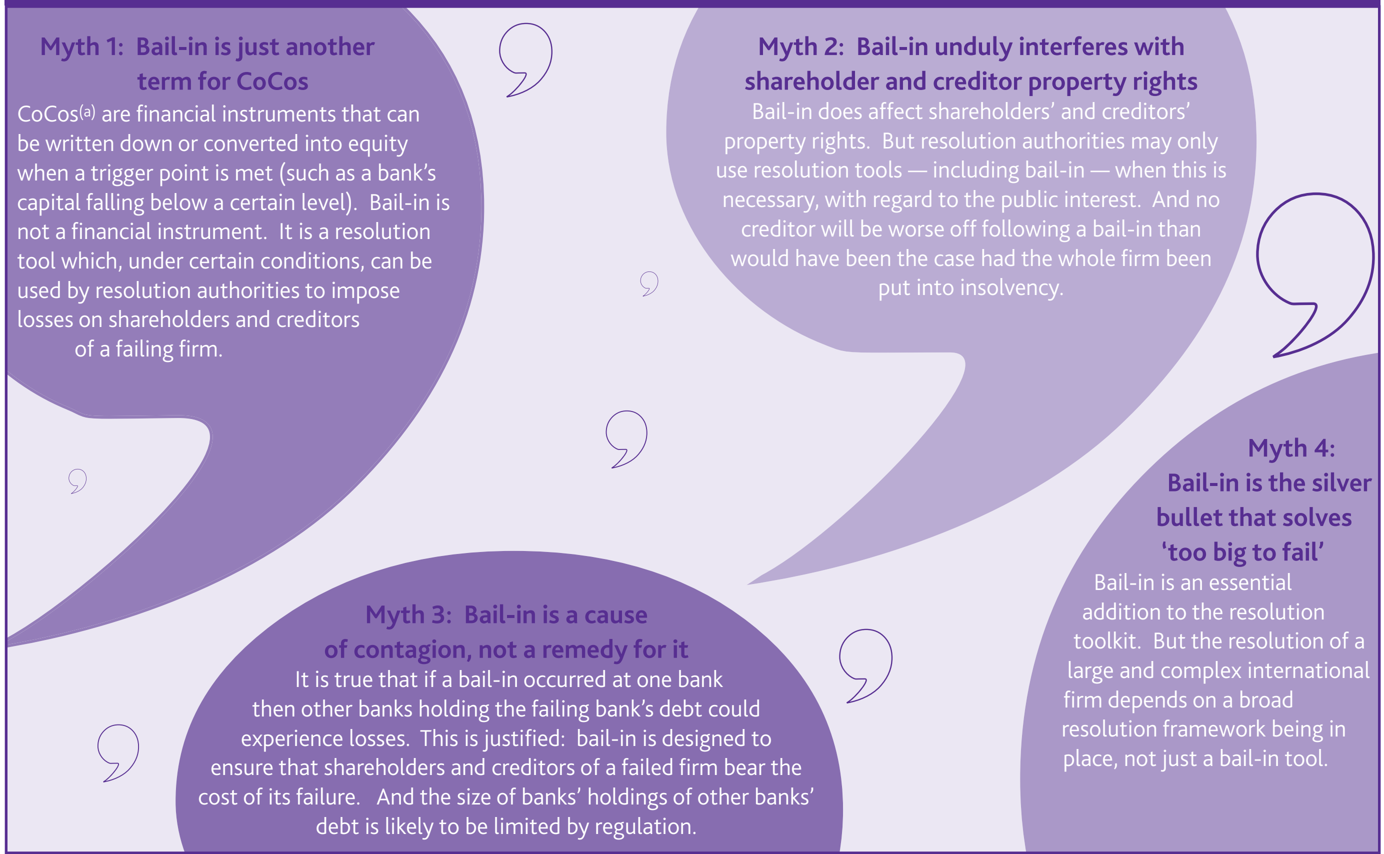
Bail-in has been criticised for being unduly invasive of shareholder and creditor property rights. Bail-in involves reducing and/or altering shareholder interests in and creditor claims on the firm without the consent of those shareholders and creditors. As with other stabilisation tools, bail-in can be used by resolution authorities without court approval.

This certainly affects the property rights of those concerned. But the legislative framework is very clear: action by the authorities to resolve a firm can only take place if this is necessary, having regard to the public interest in the objectives of resolution. So, in common with the other resolution tools, bail-in may only be used where it is in the public interest to do so.

And as already noted, the use of resolution tools is subject to certain safeguards. In particular, the legislation is explicit that no creditor will be worse off after the application of the bail-in than would have been the case had the whole firm been put into insolvency. If the resolution fails to respect this safeguard, creditors are entitled to financial compensation. It may be the case that property rights are better supported

(1) See Bank of England (2014b).

Figure 3 Dispelling some myths about bail-in



(a) Contingent convertible capital instruments.

through a bail-in which allows the firm to continue in some form than they would be if all or part of the firm were put into some form of insolvency. And, given the difficulty of splitting up large and complex firms so that their critical economic functions could be maintained while other activities are wound down, bail-in may be the only option which meets the resolution objectives.

'Bail-in is a cause of contagion, not a remedy for it'

Because financial institutions tend to hold each other's debt, bail-in has been described as a potential cause of contagion. For instance, if a bail-in occurred at Bank A, other firms holding debt or equity issued by Bank A would experience a loss, and possibly a change in the nature of their investment (from debt to equity).

The wealth shock that investors experience when firms fail is not a new risk — indeed it is the norm when a non-bank firm fails. What bail-in does change is the fact that, when a bank fails, investors in that bank incur the loss rather than transmit that wealth shock to the wider population of taxpayers through a government bailout. The BCBS is developing a regime that restricts banks' investments in the loss-absorbing capacity of systemically important banks, precisely so that a shock experienced by one G-SIB is not immediately transmitted to others.

It is less clear that other financial institutions, such as asset management firms and pension funds, should be prevented or restricted from investing in the loss-absorbing capacity of G-SIBs. These firms may not be exposed to the same set of risks as banks, and in a banking crisis they may be in a stronger position to absorb losses than other banks would be. Moreover they are typically less highly leveraged than banks.

Financial institutions invest in the equity and the debt of many different types of firm and some of these will fail. But providing that the usual measures that prevent investments from being concentrated in any single firm or sector are adhered to, it is not immediately obvious that any other restrictions should be imposed.

'Bail-in is the silver bullet that solves too big to fail'

Some commentators appear to believe that bail-in is the only change necessary to solve the problem of 'too big to fail', and that once the tool has been incorporated into resolution regimes, the job will be complete. By itself, the bail-in tool is not sufficient to solve the difficulties posed by the failure of a large complex international bank. Bail-in is a necessary addition to the authorities' resolution toolkit, but needs to be accompanied by a set of measures that ensure a bail-in can be carried out without causing unacceptable adverse consequences for the financial system and the wider economy.

As described above, these include measures such as ensuring that firms have enough loss-absorbing capacity, in the right parts of the firm and in the right form, that can be bailed in if that becomes necessary. And they include ensuring appropriate co-ordination between authorities in different jurisdictions.

Conclusion

A key lesson from the recent financial crisis was that authorities in many jurisdictions had insufficient tools to deal with the failure of their largest, most complex banks. As a result governments were forced to inject capital into, or bail out, some firms in order to prevent widespread disruption. This article has set out how the new resolution tool known as bail-in can help to prevent the need for bailouts in the future.

Practical mechanisms for carrying out a bail-in continue to evolve. However the legal framework to support it is now extensive, the planning and preparation for its use is robust and the market has begun to understand — and to price in — its effects.

This means that despite being untested, bail-in has greatly reduced rating agencies' expectations that government support will be provided. They have adjusted their methodologies for rating banks, substantially removing the former weight placed on the likelihood of systemic banks receiving public support, and as a consequence the ratings for many firms have been downgraded.[1] This appears to have reduced the funding cost advantages that large banks previously received due to expectations that they would be too big to fail.[2]

A reduced expectation that large, systemically important firms will be bailed out should not only reduce the comparative advantage that they enjoy — their cost of funding should reflect the cost of risk more accurately — it should also reduce their incentives to take excessive risks. Bail-in is therefore a vitally important piece in the jigsaw of measures that are being taken to remove the problem of 'too big to fail'.

(1) See Moody's (2015) and DBRS (2015).
(2) See, for example, Bank of England (2014c) or US Government Accountability Office (2014).

Annex
Mechanism for carrying out a bail-in — the UK example

Although the concept of a bail-in can be succinctly summarised — it is a two-step process to absorb losses and recapitalise a failing firm or its successor — in practice, it also requires a significant restructuring of liabilities and of the failing firm. Resolution authorities therefore need practical mechanisms and processes to carry out a bail-in. Although bail-in has not yet been used in the United Kingdom, and its mechanics continue to be developed, the approach currently envisaged is set out here.[1]

Prerequisites

In order for bail-in to work it must be possible to identify those liabilities that will potentially be within scope of the bail-in. Firms are therefore required to be able to provide accurate information to facilitate this, and firms' systems must be able to support the valuation exercises that underpin an orderly resolution process.

Immediately prior to bail-in

Prior to a resolution, the Bank will appoint an independent valuer who will need to conduct a number of 'pre-resolution' valuations. These help to inform the determination that a firm is failing or likely to fail, inform the choice of resolution tool, and may also support more detailed resolution planning. For example, pre-resolution valuations may be conducted to estimate the amount of liabilities that would be bailed in and determine a provisional rate of exchange for the liabilities that will be converted into equity. The pre-resolution valuations may also estimate the potential outcome for different types of creditor if the firm were placed into insolvency in order to assess the risk of 'no creditor worse off' compensation claims that may arise from the proposed resolution strategy.

'Resolution weekend'

In most complex cases, it will be advantageous for the authorities to have up to 48 hours outside normal market hours to conduct the initial transactions. This is known as a 'resolution weekend'. (It will not always be essential to have an actual weekend — the amount of time required will depend upon the amount of planning that has been carried out and the speed of the firm's failure.)

In the run-up to resolution the firm will be in private hands. During the 'resolution weekend', the resolution authority may instruct the settlement systems to block the trading of the securities subject to bail-in (if trading in the firm's securities has not already been suspended). A resolution administrator may be appointed. The administrator will control the voting rights of all shares in the firm. The shares will be transferred to a third-party depositary bank.

The Bank of England, as resolution authority, expects to provide holders of liabilities that may be bailed in with a proxy for the compensation that they may receive following the bail-in. This may be achieved through 'certificates of entitlement' that can be issued by the failing firm to holders of liabilities that are potentially within scope of the bail-in. These certificates would represent a potential right to compensation. For example, where the associated liability is converted into equity, the certificate represents a claim to a share of that equity. The precise terms or value of the exchange would be calculated during the resolution process.

Bail-in period

Following the resolution weekend, the independent valuer will conduct (or finalise) an asset and liability valuation to determine the scale of losses that must be absorbed, and to inform the firm's restructuring plan following the bail-in. An equity valuation is also conducted to estimate the value of the firm's equity following the resolution. This should include the expected costs of the proposed restructuring and the firm's new capital requirement after resolution. The equity valuation represents the value that is available to compensate the affected shareholders and creditors — that is holders of the liabilities that have been bailed in.

Once these valuations are completed and the restructuring plan has been drawn up the bail-in terms are set and announced. The bail-in terms determine the extent of the write-down to be applied and the ratio of shares (if any) that will be due to each class of creditor as compensation.

Once at least 51% of the equity has been transferred to the new holders, or after a set time period, voting rights in the firm are likely to be transferred from the resolution administrator to the new equity holders.

Post-resolution valuation

Following the resolution, an independent valuer is appointed to assess whether any additional compensation may be due to the shareholders and creditors affected by the bail-in. This valuation compares the estimated insolvency outcome for each class of creditor, based on a hypothetical insolvency of the firm on the date the decision to take resolution action was made. An assessment is made of the actual outcome of the resolution for each class of shareholder and creditor. If the independent valuer concludes that insolvency would have provided a better outcome, additional compensation may be due. This aims to ensure that the bail-in has not left any creditor worse off than would have been the case had the whole firm entered normal insolvency proceedings.

(1) The Bank of England retains the ability to exercise its discretion when deciding how best to resolve a firm in pursuit of the objectives of the resolution regime, based on the facts at the time.

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