Ending Too-Big-to-Fail: How Best to Deal with Failed Large Banks

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Abstract

Since the crisis a vast amount of work has gone into ensuring that major cross-border banks are no longer too big to fail. This paper summarises that work, describing progress made in developing resolution regimes and resolvable bank structures in the major banking jurisdictions, in providing incentives to those jurisdictions to cooperate in resolving failed banks and in requiring banks to have enough loss absorbing capacity to ensure that the answer to the question of "who pays?" when a major bank fails is no longer the taxpayer. The paper illustrates these issues by reference to the UK's recently-published proposals on loss-absorbing capacity, which seek to link the quantum and quality of loss-absorbing capacity to the preferred resolution strategy for each bank. And the paper also emphasises that, notwithstanding the UK's pending withdrawal from the EU, the UK will continue to cooperate with partners in the EU and elsewhere to ensure that global standards on bank resolution are respected and to promote robust arrangements to deal with the failure of large cross-border banks.

1. Introduction

When a bank fails, the money has gone. But someone – be it the taxpayer, the bank's shareholders, its depositors, other creditors – has to bear the losses.

^{1.} Bank of England.

In the financial crisis the banks could not be allowed to fail so the taxpayers had to step in. The taxpayer was on the hook in the UK, to the tune of an estimated £1,162bn.²

Eight years on, public anger has unsurprisingly persisted at the outcomes for bank creditors and in some cases even shareholders – they got the upside when times were good and banks profitable but suffered no downside when times were bad and banks failing. The general taxpayer, by contrast, received no upside only the downside. Bank profits were privatised whereas bank losses were socialised.

Finding the right answer to the question of "who pays?" is particularly difficult in a global and internationally integrated financial system where large banks operate cross-border. The crisis also revealed that large cross-border banks were global in life and national in death.³ In dealing with them, authorities understandably sought to maintain financial stability in their own jurisdictions. But they adopted uncoordinated approaches, using public funds and hence imposing the losses on their own taxpayers.

This paper looks at what has been done since the crisis to provide a different – and better – answer to the "who pays" question.⁴

2. The question of who pays can be seen throughout history

A perusal of the first detailed European records, relating to banking in Barcelona in the early 14th century, indicates that the answer then to the "who pays?" question was the bankers themselves – in spades. In 1300, the Catalonian authorities decreed that bankers who went bankrupt would be publicly denounced by town criers and forced to live on bread and water until they repaid their creditors. A further decree in 1321 stipulated that any banker who did not repay his creditors within a year could be summarily beheaded

^{2.} This was estimated by the National Audit Office to be the peak support provided by the UK Government to UK banks. It includes both a direct cash injection of £133bn and total guarantees and other non-cash support of £1,029bn. The net direct cost to the UK taxpayer will depend on the proceeds received from the sale of the remaining Government stakes in RBS and LBG and the assets of those parts of failed banks still in public ownership (such as Northern Rock and Bradford and Bingley).

^{3.} This aphorism was first coined by Mervyn King. See, for example, King (2010).

^{4.} Many of the themes in this paper were first developed in Cunliffe (2016).

in front of his bank, a sentence actually carried out on one such unfortunate in 1360.⁵ This early approach certainly provided robust incentives to bankers to avoid failure in the first place but also to deal effectively with the fallout if failure nevertheless occurred.

More recently, the shareholders have been in the frame, albeit not quite to the extent of the bankers in $14^{\rm th}$ century Spain. In early Victorian Britain, for example, shareholders in failed banks faced unlimited liability. This was designed to protect depositors and other creditors, but was deemed by many to be unfair. When the City of Glasgow bank failed in 1878, a relief fund was established to help the shareholders, raising the equivalent of £35mn in today's money.⁶ It is perhaps less likely that support for such an approach would be forthcoming today.

Later in the 19th century, a degree of limited liability was introduced into UK banking. This was based on the UK's corporate insolvency law, where the liability of shareholders had been limited to their investment since the Limited Liability Act of 1855.⁷ It shifted more of the costs of a bank's failure onto its creditors, including depositors.

But US bank failures in the early 20th century demonstrated the risks of exposing depositors to losses. Bank runs became commonplace, destabilising the whole banking system as even strong banks suffered at the first hint of trouble. This eventually led to the establishment of deposit insurance and the creation of the FDIC in 1933.⁸ A specific FDIC-administered bank resolution regime was introduced separate from the corporate insolvency law.

At that point the answer in the US to the "who pays?" question was, first, the shareholders, then unsecured creditors and uninsured depositors, then the surviving banks – who funded the deposit insurance that protected insured depositors. And it was recognised that, for a number of reasons, banks were fundamentally different from companies and so needed to be dealt with separately in the event of their failure.

^{5.} Details in this paragraph are taken from Usher (1943).

^{6.} See Button et al. (2015).

^{7.} The concept of limited liability can be traced back to the 15th century in England and to the Roman Empire in continental Europe.

^{8.} The FDIC was established under the Banking Act of 1933, also known as the Glass-Steagall Act.

^{9.} This order changed slightly in 1993, when national depositor preference (NDP) was introduced in the US. Under NDP, all US depositors, including uninsured depositors, were elevated in the creditor hierarchy in insolvency to rank ahead of other senior unsecured creditors.

First, the banks' business of maturity transformation means that, unlike companies, they are vulnerable to losses of confidence, which can lead to runs, contagion and wider systemic consequences. Second, as banks have developed they have become the main providers of money in modern economies – 96% of money in the UK is in the form of claims issued by banks. Bank depositors are consequently unlike creditors of companies – they are much more numerous, not professional investors and their claims on banks, as money, have a major role in the wider functioning of the financial system and real economy. And third, related to that, banks – again unlike companies – supply "critical economic functions", like the provision of credit and payment services, which if summarily stopped or disrupted could have adverse effects on the financial system or real economy more broadly.

Perhaps surprisingly, it still took the UK another 50 years to introduce deposit insurance and over 75 years to adopt a separate bank resolution regime. This may reflect the UK's lack of major banking crises, compared with the US and many other countries perhaps due to the ability of the Bank of England to use suasion to persuade the rest of the sector to support banks in trouble. Idiosyncratic bank failures were dealt with under the general insolvency law – Barings, for example, was placed into administration in 1995. On the very rare occasions where several banks were threatened simultaneously, the authorities induced the banking industry to provide support (the best example being the "Lifeboat" of 1973¹⁰). It was not until after the Northern Rock failure in 2007 – the first run on a British bank for around 150 years – that the UK introduced a separate bank resolution regime. ¹¹

But the liberalisation of banking that took place in the late 20th century was producing larger, more complex, more interconnected and more global banks. It became increasingly unclear whether national deposit insurance and bank resolution regimes could deal with the failures of such banks. Following the taxpayer bail-out of Continental Illinois in 1984, which cost over \$1bn, the then Comptroller of the Currency coined the phrase "too-big-to-fail" to describe the largest 11 banks in the US.

^{10.} The "Lifeboat" was a committee of the Bank of England, chaired by the Deputy Governor and consisting of the English and Scottish clearing banks, which first met on 28 December 1973.

^{11.} The "special resolution regime" was the centrepiece of the Banking Act of 2009.

The markets concluded that the answer to the "who pays?" question for the largest and most complex banks was the taxpayer. And the markets were right – in the financial crisis most failed large banks were bailed out. Lehman was the exception, but its disorderly insolvency proved that even the oldest and most advanced bank resolution regime was unable to handle the failure of a very large financial institution.¹²

The bail-outs were necessary at the time. The risks of contagion, loss of confidence in the system and disruption to essential banking services were simply too great. But the costs had grown since Continental Illinois. The UK Government had to inject 13 times more money into RBS than had been used to bail out Continental Illinois.¹³

3. Is too big to fail inevitable?

The post-crisis period has seen a vast amount of work to develop better ways to deal with a failed bank and a better answer than 'the taxpayer' to the question "who pays?".

Some have argued that the effort has been misplaced. They have asserted that, if large cross-border banks really are too big to fail, the solution is to make them less large and cross-border – in other words, break them up. They can then be resolved more easily with less disruption to financial stability and the economy. Such banks would be national both in life and in death.

This, however, seems a second-best solution. As the Independent Commission on Banking (ICB) under Sir John Vickers noted, breaking up the large banks would risk reducing the diversification benefits they provide. It would be likely to hinder international trade and investment and impede global finance. That is because it would undermine the way large cross-border banks support global trade and investment through exploiting economies of

^{12.} This was essentially because the FDIC's regime covered only insured deposit-taking entities within large groups, but not other group financial companies, such as holding companies and investment bank affiliates. The adoption of the Dodd-Frank Act in 2010 changed this.

^{13.} The FDIC injected \$2.5bn as equity and subordinated debt into Continental Illinois (around \$5bn at 2009 prices). This compares with at least \$66.7bn (contingent) capital injections into RBS (using 2009 exchange rates).

^{14.} See Independent Commission on Banking (2011).

scale and scope and through use of their existing customer knowledge. By allowing information to flow freely across borders and products, this enables such banks to offer a wide range of customer services to multinational clients at lower cost to both customers and banks.

A better solution is to ensure that such banks can be global both in life and in death. Ensuring such banks are resilient in life is the objective of the greatly strengthened capital standards put in place for the largest and most systemic cross-border banks under Basel III. Ensuring that they do not fall back on the national taxpayer in death requires such banks to be "resolvable" on a cross-border basis. The good news is that there has been very substantial progress towards this goal. The Financial Stability Board (FSB) has led this work internationally, stipulating core features of resolvability. First, it must be possible to deal with the bank's failure in a manner that avoids severe systemic disruption and adequately mitigates the risks to global financial stability. Second, world-wide customers of the failed bank must have continued access to its critical economic functions. And third, the costs of the resolution must be imposed on the senior management, shareholders and unsecured creditors of the failed bank and not on public funds and taxpayers.

3.1 Resolution tools and powers

This requires that authorities have the necessary tools and powers to manage the resolution of all banks, no matter how large. Progress here has been significant since the crisis. In October 2011, the FSB's Key Attributes (KAs), the resolution global standard, was endorsed by the G20 Leaders. Among the resolution tools and powers deemed necessary were "bail-in", allowing shareholders and creditor claims to be written down and converted to equity; the ability to transfer part or all of a failed bank's business to a healthy bank (or temporary bridge bank pending sale to third parties); the ability to sack senior management culpable for the bank's failure; and the right to impose a stay on the immediate close-out and termination rights of counterparties of a failed bank.

Since 2011, an encouraging number of countries have acquired such powers by introducing or amending resolution regimes broadly in line with

^{15.} See FSB (2014).

the KAs, most notably nearly all of the eleven home jurisdictions of the 30 or so global systemically important banks (G-SIBs). One important milestone was reached with the adoption of the EU Bank Recovery and Resolution Directive (BRRD) in 2014, which has introduced harmonised bank resolution regimes along the lines of the KAs throughout the EU. All this has given many countries a capability to deal effectively with failed banks that was entirely lacking eight years ago.

3.2 Resolvable bank structures

The powers to resolve a bank are not enough. It must be possible to apply those powers to implement an agreed resolution strategy in an orderly manner. This requires identification of any barriers to resolvability and action to remove those barriers. Some barriers may be generic, applicable across a range of firms. These may need to be addressed through the agreement of new international standards by the FSB and then implemented by national authorities. Other barriers may be firm-specific. Their removal may require changes and simplifications to banks' structures. It is encouraging that more countries are now able to require firms to make changes to their legal and operational structures if that is necessary to ensure their resolvability. In the UK, moreover, implementation of the recommendations of the International Commission on Banking will simplify bank structures by separating retail commercial and wholesale investment banking businesses, thereby contributing to more resolvable banking groups.

3.3 Loss absorbency

But ultimately at the heart of changing the answer to the "who pays?" question is the need to ensure that banks are financed in a way that supports resolution: that there are creditors who can bear losses. An important milestone was reached on this front when the G20 Leaders endorsed the FSB's

^{16.} Examples would include contractual provisions to secure cross-border application of stays on termination rights; rules to ensure operational continuity in resolution and continued access of firms in resolution to payment and settlement facilities as long as the firm performs on its obligations in those facilities; and provisions to ensure adequate funding in resolution.

standard for total loss-absorbing capacity (or TLAC) in November 2015. This requires G-SIBs to issue sufficient equity and debt that can absorb losses and recapitalise a failed G-SIB in the event of failure in a manner that ensures it is fully resolvable. In the EU, this concept is known as MREL – the minimum requirement for own funds and eligible liabilities. In the crisis, it proved impossible to bail in a bank's creditors as their claims were entangled with other liabilities that were crucial to the bank's continued operations. Resolution requires that in future such creditors can be bailed in without forcing the closure of the bank.

TLAC and resolution tools such as bail-in provide an answer to the "who pays" question. TLAC includes equity as well as debt so clearly the shareholders stand first in line to pay losses. Then come the holders of non-CET1 capital instruments, such as AT1 and T2 instruments. Other junior debt holders stand next in line, then senior unsecured liability holders, followed by preferred depositors (such as in the EU households and SMEs in respect of their deposits above the deposit insurance limit). Last in line are the insured depositors – whose losses are fully covered by deposit insurance funded by the rest of the banking industry – and secured creditors.

A problem may arise, however, in the senior unsecured creditor layer. In many jurisdictions, this layer is very wide and heterogeneous, including the claims of uninsured depositors, corporates, interbank liability holders, derivatives counterparties (in respect of any uncollateralised portion of their claim), trade creditors, and holders of other bank liabilities such as pensions and tax. Often, these claims all rank *pari passu* with those of senior unsecured bondholders. As noted above, one lesson of the crisis was that it can be very difficult to bail in some of these claims without causing contagion or undermining the continued provision of critical economic functions.

That is why we need to single out unambiguously and in advance a typical type of creditor who can absorb loss if the bank fails. That is what the TLAC standard sets out to do. Of course, pre-positioning such creditors will have a cost, but that is the counterpart of the hidden subsidy given to large banks by an implicit taxpayer guarantee. Eliminating the subsidy also eliminates the unfair competitive advantage of large banks over smaller banks and encourages a more dynamic banking sector in which entry and exit is easier.

The BRRD requires resolution authorities to set MREL for each EU bank

rather than just the G-SIBs. It is therefore important for countries to set out clearly how they intend to implement the MREL.

Following consultation, the Bank of England published its final policy on MREL in November 2016¹⁷. The Bank's policy goes further than that so far published by most other authorities – which merely set out a generalised objective for the quantum of TLAC or MREL – by allowing that quantum to vary depending on the preferred resolution strategy.

The Bank's policy distinguishes three broad resolution approaches: bail-in to keep the bank open; partial transfer; and liquidation. It notes that bail-in will generally be required for the largest and most complex banks. That is because there is unlikely to be a buyer big enough or strong enough to acquire such a bank. And it is unlikely to be feasible to split up its business between its good and bad parts quickly, preparatory to seeking a buyer purely for the good part. But the Bank indicates that a partial transfer could be possible for smaller and medium-sized banks, if they supply critical functions in sufficient size. If they do not, liquidation would be the preferred strategy.

The policy requires most MREL resources to support a bail-in to keep the bank open, because that aims to recapitalise the entire balance sheet of the failed bank in the initial phase of the resolution, prior to a subsequent restructuring of the bank to address the causes of its failure. The Bank requires in this case a "doubling up" approach, setting MREL broadly at twice minimum capital requirements (including any firm-specific add-on). This is based on the presumption that all capital will turn out to have been lost following the resolution valuation of the failed bank.¹⁸ And the Bank also stipulates that these resources must be subordinated to senior operating liabilities given that it may be difficult to bail in all those liabilities while still achieving continuity of critical functions. Subordination reduces the extent to which a bail-in will need to extend to the senior creditor layer and then depart from *pari passu* treatment, with consequent legal risks.

In a partial transfer, by contrast, lower MREL resources will be required because only that part of the balance sheet to be transferred will need to be

^{17.} See Bank of England (2016)

^{18.} This assumption is enshrined in the EBA's RTS on MREL, based on the fact that the crisis demonstrated that the resolution valuation is likely to crystallise further losses that may not have been recognised in the run-up to resolution.

recapitalised. And subordination will not be necessary if all preferred deposits are included in the transfer and only uninsured deposits ranking equally with senior unsecured debt are left behind with the rump of the failed bank. These "left-behind" liabilities will not be needed to ensure continuity of critical functions and so can be treated on a *pari passu* basis when winding down the rump. If liquidation is the resolution strategy, by contrast, no recapitalisation takes place so no MREL resources above minimum capital requirements are needed.

Sufficient loss-absorbing capacity is clearly central to changing the answer to the "who pays?" question from taxpayers to shareholders and creditors. But two other things are also needed. First, everyone must be aware of the change and know where they stand in the creditor hierarchy if a bank fails. This will ensure that bank debt is accurately priced as creditors have incentives to monitor and control bank risk-taking. That was lacking in the too-big-to-fail world, which encouraged excessive risk-taking on the part of large banks. So the FSB standard requires full disclosure of TLAC on a legal entity basis. And second, it would not make sense to change the answer from taxpayers to creditors if those creditors were largely banks which could themselves fail when bailed in. To mitigate this potential "contagion" effect, the FSB standard suggests a "deductions" approach to holdings of TLAC, rather like that which applies in the Basel III capital regime to holdings of one bank's capital by other banks. Both these aspects are being developed by the Basel Committee on Banking Supervision (BCBS), which following consultation has recently issued a final standard on the deductions regime¹⁹ and will shortly do the same on disclosure.

4. Resolution of a cross-border bank can only succeed with international cooperation

The hardest challenge in ending too big to fail is dealing with the failure of systemically important banks that operate in a number of jurisdictions. The crisis proved beyond doubt that we did not have the international machinery

^{19.} See BCBS (2016)

to handle this. The most important element in resolving an international bank is that it is global in death as well as in life.

A number of reforms to promote cross-border resolution are in train. One is all about ensuring that resolution powers, such as bail-in and stays on termination rights, are effective across key jurisdictions. Another seeks to ensure that key contractual arrangements with a firm are "resolution-proof", ie continue to be applicable as long as a firm in resolution performs on its obligations under those contracts. But the key ultimately is international cooperation.

Since 2008, "crisis management groups" (CMGs) have been established for each G-SIB. These consist of the authorities of the home and key host jurisdictions in which the G-SIB has major operations. The UK, as an important home and host jurisdiction, serves on more of these CMGs than any other country – 4 as home authority and 14 as host.²⁰ The CMGs have now reached agreement on preferred resolution strategies for virtually all the G-SIBs. For most of them, the strategy involves application of the bail-in tool at a "single point of entry" (SPE). This would generally be the parent or holding company of the group and would serve to recapitalise either this entity or a successor entity to which the critical operations of the failed parent have been transferred.

But the recapitalisation merely restores solvency to the group to allow the bank to continue operating while it is resolved – it does not address the underlying causes of the firm's failure. So the bail-in must be followed by a longer-term restructuring of the group designed to restore its viability, for example by preserving the group's critical economic functions and winding down non-critical operations. Once a bank has been stabilised in resolution, sale of all or part of its operations become a more possible option. A group that emerges from this process should be smaller and less complex than the one that failed, with new senior management and a new less risky business plan – resolution is not resurrection.

The agreement of SPE bail-in in the CMGs as the preferred resolution strategy for most G-SIBs is a major achievement. It recognises that most large and complex cross-border banks are structured and managed in a

^{20.} Similar groups for smaller cross-border EU banks – known as "resolution colleges" – are also being established following adoption of the BRRD.

centralised and inter-dependent manner – major affiliates are dependent on other group entities for key services and facilities and closely interconnected with them. And it greatly reduces the complexities in cross-border resolution by focusing the action on a single "resolution entity" and ensuring that the major operating subsidiaries of this entity remain open for business throughout the resolution.

A few G-SIBs, however, operate in key jurisdictions through largely separately managed and financed subsidiaries. The CMGs for these banks have agreed resolution strategies based on a "multiple point of entry" (MPE) approach, in which the key separate parts of the group would each be resolved in a resolution coordinated by the home authority. This is a more complex procedure but it draws on aspects of the SPE approach, generally on a regional rather than global basis.

These agreed resolution strategies are also being underpinned by firm-specific co-operation agreements (CoAgs) negotiated in the CMGs. These set out the coordination and information-sharing necessary between the CMG members to implement the preferred resolution strategy. By securing ex ante commitment to that strategy, the CoAgs seek to address the "time-inconsistency" problem of resolution – the risk that, when a big cross-border bank fails, the home and host authorities will not in the event implement a co-operative resolution but each seek to save "their" parts of the bank. To avoid this, national authorities need to have the right incentives to cooperate in a crisis and stick to their ex ante agreements.

One such incentive is provided through so-called "internal TLAC", or internal MREL in the case of EU member states. Within G-SIB groups, TLAC has to be issued externally to the market by the "resolution entities", ie the entities to which resolution tools will be applied in implementing the agreed resolution strategy. However this leaves the loss absorbing debt or equity in the jurisdiction of the home supervisor creating an incentive for a host supervisor at times of stress to seek to 'ringfence' local loss absorbency. The solution to this problem in the TLAC standard is for major operating subsidiaries of such resolution entities in host jurisdictions to issue internal TLAC, ie equity and debt instruments to the resolution entities, so that losses at these subsidiaries may be passed up to the resolution entities without the operating subsidiaries needing to enter resolution.

The triggering of this internal TLAC will require the agreement of both home and host authorities. They have incentives to cooperate and reach agreement because the inter-dependence of most global banks means that cooperation is in the interests of both home and host. If the home refuses to cooperate, hosts are likely to seize local assets of the group for the benefit of local depositors and creditors, which will reduce the estate available to the home authorities in a separate home proceeding. And if the host refuses to cooperate, essential facilities and services provided by affiliates in the home country to the host subsidiary may be interrupted, undermining the provision of critical economic functions in the host.

So it is in the interests of both home and host authorities to allow internal TLAC to be triggered when a major host subsidiary fails, pushing up losses to the relevant resolution entity. That will ensure that the home authority will be able to coordinate the implementation of a resolution that has access to all the world-wide assets of the group and will maximise the chances of retaining value through the major operating parts of the bank remaining in business. Both home and hosts will be aware that failure to cooperate will be likely to destroy value through encouraging competing grab-races for assets. The trust and understanding built up in the CMGs will be fatally undermined if they do not adhere to the pre-agreed resolution strategy, because that will in turn make any future cooperation in a subsequent failure much less likely. There is now too much at stake for authorities not to cooperate in dealing with the failure of a major cross-border bank.

5. These reforms are reducing market perceptions that banks are still too big to fail

Since 2011, rating agencies have almost eliminated their "government support" uplifts for large banks, which peaked at on average three notches following the crisis. Market indicators, such as CDS spreads on bonds relative to equities or spreads on holding company debt relative to operating company debt, convey the same message – bail-in resolution strategies for cross-border banks are gaining credibility.

Some are concerned that this implies increased funding costs for banks, making them less able to lend to the real economy. But funding costs depend

not only on banks' loss-given-default (LGD) but also, and even more so, on their probability-of-default (PD). The resolution reforms are likely to lower PD by eliminating the incentives that perceptions of government bail-outs provided to banks to take excessive risks and by incentivising banks' creditors to exert discipline on banks' activities.²¹ The FSB's impact assessment study on TLAC found that the average reduction in PD for the G-SIBs could be as much as one-third. When combined with the effect of TLAC in reducing the impact of crises, it concluded that the benefits of TLAC far outweighed the costs.²² And those costs will be further limited by the fact that authorities around the world are implementing the reforms in a gradual and proportionate manner.

6. Brexit will not lead to any major dismantling of the UK's resolution regime.

In the more than seven years since the UK's own special resolution regime (SRR) was introduced, the UK can claim to have been something of a market leader on bank resolution. It has passed no fewer than four further major pieces of legislation that have expanded the scope and toolkit of the SRR and introduced other changes to align the UK framework closely with the global standard represented by the KAs. The last of these implemented the BRRD into UK law.

What effect will Brexit have on the UK's approach to resolution? We do not as yet know what the outcome of the forthcoming negotiations will mean for the UK's relationship with the EU. The Bank will remain committed to the implementation of robust prudential standards in the UK financial system, irrespective of the particular form of the UK's future relationship with the EU. This will require a level of resilience to be maintained that is at least as great as that currently planned, which itself exceeded that required by international baseline standards. The UK's approach to resolution follows international standards, was developed before the EU legislation and fits within the EU

^{21.} The economics literature provides considerable evidence of this – see, for example, Afonso et al (2014). The effect reflects much stronger incentives on creditors whose claims are within the scope of bail-in and other resolution tools to monitor, and if necessary constrain, the risks banks are taking.

^{22.} See FSB (2015).

framework. It is highly unlikely that Brexit will lead to any major changes in the UK's approach to bank resolution, either domestically or globally.

And globally, Brexit will not change the international resolution standards that have been agreed in recent years at G20 level, such as the KAs and TLAC. Both the UK and the EU will continue to wish to adhere to these standards. Banks will remain global and the UK is likely to remain a key home and host jurisdiction for cross-border banks. So the UK will need to continue to seek to foster cooperation and trust with international partners, including those in the EU, to ensure well-understood robust arrangements are in place to govern how to deal with the failure of large and complex banks. The UK will also continue to work with partners in the EU, other jurisdictions, and at global and FSB levels to refine our preferred resolution strategies for each global bank, to identify barriers to the implementation of those strategies and to ensure that action is taken appropriately to remove those barriers.

7. Conclusion

In the last crisis, the answer to the question of "who pays?" when a large bank fails was the taxpayer. Reflecting the ensuing understandable public anger at this outcome, policy makers have undertaken a huge amount of work post-crisis to change this answer. Many jurisdictions have adopted special resolution regimes which give them powers to deal with failed banks that were not available in the crisis. Authorities in the main jurisdictions have reached agreement on how those powers would be used to resolve each major bank in future, in a manner that imposes the costs on the shareholders and unsecured creditors of the bank. Following the publication of the FSB's TLAC standard, those jurisdictions are now making proposals to ensure sufficient loss-absorbing capacity is available at each bank to achieve that outcome. And authorities are identifying barriers to the implementation of the preferred resolution strategies and moving on to consider how best those barriers may be removed.

The biggest challenge is how best to ensure international cooperation in dealing with the failure of large cross-border banks. Here too impressive progress has been made since the crisis. Crisis management groups for each G-SIB have been established, resolution strategies based on SPE or MPE

negotiated, and cooperation agreements are now being agreed to ensure the necessary coordination takes place to implement these strategies in the event of failure. And incentives to cooperate have been hard-wired into the system to address the time-inconsistency problem of resolution. There is much greater awareness that it is in the interests of both home and host authorities to cooperate to effect an orderly resolution rather than engage in grab-races for assets that merely succeed in destroying value.

Brexit is unlikely to change the UK's approach to resolution. Regardless of its future relationship with the EU, the UK will seek to continue to cooperate with partners in the EU and in other jurisdictions to ensure that global standards on resolution are respected and to promote robust arrangements that govern how to deal with the failure of large and complex banks.

References

Afonso, G., Santos, J., and Traina, J. (2014). Do "Too-Big-To-Fail" Banks Take on More Risk?, Economic Policy Review

Bank of England (2016). The Bank of England's approach to setting a minimum requirement for own funds and eligible liabilities (MREL). Responses to Consultation and Statement of Policy, 8 November 2016

Basel Committee on Banking Supervision (2016). Standard on TLAC holdings: Amendments to the Basel III standard on the definition of capital. Available at: https://www.bis.org/bcbs/publ/d387.pdf

Button, R., Knott, S., Macmanus, C., and Willison, M. (2015). Desperate adventurers and men of straw: the failure of City of Glasgow Bank and its enduring impact on the UK banking system, Bank of England Quarterly Bulletin Q1.

Cunliffe, J. (2016). A $21^{\rm st}$ century approach to dealing with failed banks. Speech to $1^{\rm st}$ Single Resolution Board Annual Conference

Financial Stability Board (2014). Key Attributes of Effective Resolution Regimes for Financial Institutions. Available at: http://www.fsb.org/wp-content/uploads/r_141015.pdf

Financial Stability Board (2015). Assessing the economic costs and benefits of TLAC implementation. Available at: http://www.fsb.org/wp-content/uploads/Assessing-the-economic-costs-and-benefits-of-TLAC-implementation.pdf

Independent Commission on Banking (2011). Final Report Recommendations.

King, M.A. (2010). Banking: From Bagehot to Basel, and Back Again. The Second Bagehot Lecture, Buttonwood Gathering, New York City

Usher, A.P. (1943). The Early History of Deposit Banking in Mediterranean Europe. Harvard University Press.