European Business Organization Law Review
https://doi.org/10.1007/s40804-025-00338-9

ARTICLE

Bail-in's Unfulfilled Promise

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Accepted: 7 January 2025
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Abstract

The adoption of bail-in by the EU and other jurisdictions as the core tool of their bank resolution regimes promised to ensure the effective financial restructuring of failed banks with the resources of their own stakeholders, thereby achieving the financial stability objectives of resolution while making taxpayer-funded bailouts a thing of the past. In retrospect, despite its many positive effects, it is questionable whether bail-in has fully lived up to its promise. The operationalisation of the bail-in tool is still ongoing, with several legal and practical issues yet to be fully resolved. Furthermore, the tool's actual use in resolution actions has so far been sporadic and uneven, undermining its credibility; in any event, significant doubts remain as to the appropriateness of bail-in in situations of system-wide distress.

Keywords Bank resolution · Bail-in · Bailout · BRRD · FSB · Key Attributes

1 Introduction

The Global Financial Crisis of 2008–09 (GFC) triggered a profound transformation of the laws and policies governing the resolution of failed banks in countries around the world. Among the many changes, one clearly stands out: the introduction of the bail-in tool, whose sudden appearance in 2010 is widely seen as having ushered in a new era of banking crisis management (Sect. 2).

Bail-in involves the mandatory restructuring of the liability side of a failing bank's balance sheet by administrative decision of the bank's resolution authority. The aim is to impose the financial burden of resolution on the bank's existing shareholders and creditors. Specifically, past losses are absorbed by writing down the bank's equity and, if necessary, some of its liabilities, while the viable part of

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Published online: 30 January 2025

the bank is recapitalised to the level necessary for its continued operation by converting part of the remaining liabilities into new equity. Bail-in was conceived as an innovative solution to the problem of bank resolution financing.[1] At the same time, however, it was intended to strengthen market discipline by removing the benefit that the immediate stakeholders of failed banks traditionally expected to derive from state-funded rescue operations ('bailouts') (Sect. 3).

The bail-in approach to bank resolution has now been in place for several years. Has it worked as planned and achieved its stated objectives? As we shall see, not quite! The application of bail-in depends on many preconditions and has required significant reforms, with profound implications for banks' funding structures. Nevertheless, due to its many complexities, the operationalisation of the bail-in tool has been slow and is still incomplete (Sect. 4). Moreover, the bail-in tool has so far rarely been used to resolve failing banks, even in situations where it was clearly applicable, reducing its credibility and the predictability of resolution outcomes (Sect. 5). Finally, its suitability for many scenarios of bank distress is still a matter of debate (Sect. 6).

2 The Genesis of Bail-in

The term 'bail-in' is a neologism, coined by analogy and in contrast to the older colloquialism 'bailout', which has been used since the first half of the 20th century to describe the use of external financial resources to rescue a firm, financial institution, or country in financial distress. It first appeared in the context of IMF-led financial assistance programmes in support of countries experiencing balance of payments and/or sovereign debt difficulties.[2] During the Korean crisis of 1997–98, after a substantial IMF loan failed to stem a run by international banks on the short-term interbank liabilities of their Korean counterparts, the G-10 governments threatened to withhold further assistance to the Korean government (the *de facto* ultimate backer of these liabilities) until the banks agreed to participate in a coordinated rollover of their claims. Under this threat, some $22 billion of short-term bank liabilities were swapped for one- to three-year bonds fully guaranteed by the Korean government. The term 'bail-in' was almost certainly coined during this episode: contrary to their expectation that they would eventually be bailed out by the Korean state, the international banks were figuratively 'bailed *in*'.[3] The term gained some currency over the next few years, both among policymakers and in academic circles, and became more widely known when it was used in an Economist news article in 1999.[4]

[1] On bail-in as a means of optimising the bank insolvency process, see Hadjiemmanuil (2015), pp 231–236.

[2] In what is probably its first recorded appearance, the expression is used in both its verbal and noun forms in a speech on that incident given by the IMF's then First Deputy Managing Director Stanley Fisher in March 1998; Fischer (1998).

[3] See ibid.; Eichengreen (1998); and Roubini and Setser (2004), pp 148–160.

[4] The Economist (1999).

Thus, in its original usage, bail-in referred to pressuring international private bondholders and creditors to contribute to the resolution of a sovereign debt crisis. Although conceived in contrast to traditional bailouts, it was still assumed to require the formal consent of the parties concerned and to complement, rather than fully replace, the provision of official financing to the crisis-hit country. Indeed, in order to emphasise the optional and cooperative nature of the exercise, the term 'bail-in' was soon abandoned in favour of two more neutral expressions, first 'burden-sharing' and then 'private-sector involvement' (PSI).[5] No longer widely used in the context of sovereign debt crises, 'bail-in' was left as a term in search of a new concept! The redefinition of the term finally occurred in early 2010, with 'bail-in' now being used to describe a novel approach to bank crisis management and, at a technical level, a specific tool of bank resolution.

In the past, most countries, with the notable exception of the US, lacked fully developed systems of bank insolvency law and tended to respond to occasional banking crises with *ad hoc* public interventions. However, the experience of the GFC brought the issue of bank crisis management to the forefront of policy initiatives and led to a flurry of new standards and legal frameworks for bank resolution and deposit insurance. These were largely inspired by the US example.[6] In the US, the Federal Deposit Insurance Corporation (FDIC) (which, in addition to serving as a deposit insurer, also acts as receiver for failed banks) has for a long time used transfer-based tools for the orderly resolution of failed banks. These include so-called 'purchase and assumption' (P&A) transactions, whereby the failed bank's viable operations are sold as an operating whole to a willing and suitable acquirer, with the FDIC covering any difference in value between the liabilities and assets being transferred; and bridge banks, which are established by the FDIC to temporarily continue the viable part of the failed bank where a private acquirer cannot be found immediately. The FDIC is authorised to fund these transactions, provided that the least-cost condition is met, i.e., that the required financial assistance does not exceed what the FDIC would have to pay out to depositors if the failed banks were simply closed and liquidated on a piecemeal basis.[7] While the American bank resolution toolbox provided an exemplar for other countries' special resolution regimes,[8] it did not include the bail-in tool.

Bail-in as a resolution tool was a novel and untested idea, which suddenly burst into the public debate in January 2010, with the publication in The Economist of a guest article by Paul Calello, head of Credit Suisse's investment banking division, and Wilson Ervin, its former chief risk officer.[9] The two authors noted that, when

[5] Roubini (2000), p 3.

[6] Many technical aspects of post-crisis SRRs have their origins in earlier American resolution policy; Federal Deposit Insurance Corporation Improvement Act of 1991 (FDICIA), PL 102-242, 105 Stat 2236. However, this does not apply to the financing aspects of resolution and, more specifically, to bail-in, which constitute drastic policy innovations.

[7] 12 CFR § 360.1 - Least-cost resolution. The least-cost criterion is subject to a systemic risk exception; 12 USC § 1823(c)(4).

[8] Cf. BCBS (2002), esp. section 6.

[9] Calello and Ervin (2010). See also Ervin's interview to Tom Young: Young (2015).

faced with the potential failure of a large bank, policymakers were usually forced to choose between two evils, namely 'taxpayer bail-outs (bad) and systemic financial collapse (probably worse)'.[10] They suggested that, notwithstanding the introduction of some innovative post-GFC elements such as contingent convertible bonds ('CoCos') and resolution planning ('living wills'), the problem could only be clearly addressed through what they called a 'bail-in' process, whereby banking authorities would be empowered to force failing banks to recapitalise with internal resources (i.e., through the conversion of bondholder debt into fresh equity) and without public financial support. The proposed approach 'would be based on bankruptcy reorganisation principles, allocating value in accordance with investors' seniority and ensuring that each class of investors would be better off than in liquidation'.[11] To illustrate their point, the authors explained how the failure of Lehman Brothers, which triggered the GFC, could have been averted if existing shareholders had been wiped out, preferred shares and subordinated debt had been converted into equity representing 50% of the new shareholder rights, and 15% of senior unsecured debt had been converted into equity representing the other 50%. The authors argued that, despite the coercive and rough nature of the authorities' intervention, investors would tend to prefer this approach, as the alternative of liquidation would be likely to amplify losses and leave them worse off.[12]

At around the same time, a similar strategy for dealing with the failure of large banks was being independently developed by officials at the Bank of England.[13] Their ideas were first brought to public attention in March 2010, in the form of a speech by Paul Tucker, Deputy Governor for Financial Stability at the Bank of England and Chair of the FSB Working Group on Cross-Border Crisis Management, who noted that '[a] quite different, and rather more profound approach would be to deploy a super special resolution framework that permitted the authorities, on a rapid timetable, to haircut uninsured creditors in a going concern'.[14] From that point on, the idea of bail-in came to dominate the search for solutions to the problem of systemic bank failure.[15] In particular, it became a focus of the standard-setting

[10] Calello and Ervin (2010).

[11] Ibid.

[12] Ibid.

[13] Tucker (2018).

[14] Tucker (2010).

[15] In the US, a type of bail-in was enacted as early as 21 July 2010 in the form of the Dodd-Frank Act's Orderly Liquidation Authority (OLA); Dodd-Frank Act Wall Street Reform and Consumer Protection Act of 2010, PL 111-203, 124 Stat. 1376 (US) (Dodd-Frank Act), Title II (esp. sec. 204 and 210, 12 US Code §§ 5384 and 5390). However, this mainly concerns the allocation of losses to stakeholders in the context of the orderly liquidation of the failed bank's original legal entity (a type of resolution referred to as 'closed-bank resolution'), as opposed to its restructuring and continuation ('open-bank resolution'), as in the subsequent European versions of the tool. Until the publication of the Key Attributes, only Switzerland had legislated to authorise the mandatory conversion of debt into equity in the context of formal bank reorganisation proceedings, although others were taking preparatory steps in this direction, BCBS (2011), p 19. In the UK, provisions on bail-in powers were enacted in 2013, Banking Act 2009 (UK), ss 12A-12B, as inserted by the Financial Services (Banking Reform) Act 2013, Sch 2, para. 2.

work of the recently established Financial Stability Board (FSB),[16] which, without initially using the term, announced that it was

> examining viable mechanisms to convert debt into equity: some of these may be contractual with the conversion triggers and terms set out in the debt instrument; however they might need to be buttressed by statutory powers in the resolution regime.[17]

Full inclusion of bail-in in the resolution toolbox was achieved in November 2011, with the publication of the FSB's 'Key Attributes of Effective Resolution Regimes for Financial Institutions' (Key Attributes).[18] This document was immediately endorsed by the G20 leaders as the 'new international standard for resolution regimes' to which all global systemically important financial institutions (G-SIFIs) would be subject.[19] The G-SIFI category covers a small number of very large institutions of truly global significance that are included in a list maintained by the FSB and updated annually.[20] However, the Key Attributes have a broader scope as they set guidelines for the resolution of '[a]ny financial institution that could be systemically significant or critical if it fails', including at the regional or national level.[21] For all such institutions, jurisdictions should have in place a resolution regime operated by a designated resolution authority with a wide range of powers to manage their potential failure in a manner that ensures the continuity of their systemically important functions or, where the continuity of such functions is not an issue, their orderly winding-up in a manner that protects insured depositors and other retail customers.[22] The Key Attributes provided that resolution authorities should be empowered to implement transfer-based solutions inspired by the US resolution techniques, namely the transfer of assets and liabilities, including deposit liabilities, to third-party acquirers or bridge banks with the aim of preserving the critical functions and viable activities of the failed bank, as well as the transfer of non-performing loans or hard-to-value assets to dedicated asset management companies for the purpose of optimising their management and run-down.[23] However, the most notable and innovative recommendation, which came to define post-GFC resolution regimes more generally, concerned the granting to resolution authorities of powers to carry out

[16] The FSB was established under the auspices of the G20 in April 2009 as the successor to the Financial Stability Forum. As part of its mandate, the FSB has been tasked with 'support[ing] contingency planning for cross-border crisis management, particularly with respect to systemically important firms', FSB (2009), Art. 2(1)(g).

[17] FSB (2010a), p 3. See also FSB (2010b), pp 3–4, 6 (recommendations 7, 10, 14 and 25).

[18] FSB (2011b). See also FSB (2016b), establishing criteria for the assessment of particular jurisdictions' compliance with the main document.

[19] G20 (2011), para. 13.

[20] Since 2011, the FSB has published a list of globally systemically important banks (G-SIBs) annually (each November). See now FSB (2023b), identifying 29 banks as G-SIBs. The methodology for the identification of G-SIBs is defined by the BCBS, BCBS (2021).

[21] FSB (2011b), para. 1.1.

[22] Ibid., Preamble.

[23] Ibid., paras. 3.2(vi)–(viii), 3.3–3.4.

bail-in to recapitalise a non-viable institution or to capitalise a newly established entity (bridge institution) to which its essential functions are transferred.[24]

3 The Promise of Bail-in

What captured the public's attention and turned bail-in into the core element of modern bank resolution was not so much its technical ingenuity as the promise that it would mark the end of bank bailouts.

The justification for state-funded bailouts has always been that they are necessary to contain systemic risk and avoid contagion throughout the banking and financial system, to protect depositors and other stakeholders, and/or to ensure the continuity of payment and credit intermediation services. Such considerations take on added importance when, because of a bank's very large size or interconnectedness with other financial institutions, its disorderly failure is likely to have significant adverse spillover effects on the wider financial system and the real economy. In the past, banks with these characteristics were considered 'too big to fail' (TBTF), meaning that if they ever faced imminent collapse, their stabilisation and recapitalisation with public funds (often leading to their nationalisation) would be a foregone conclusion.[25] Nevertheless, a practice of repeated recourse to bailouts has serious implications.[26] *Ex ante*, a well-founded expectation among market participants that the government will bail out failing banks creates moral hazard. Being effectively protected by the state against the consequences of failure, holders of formally uninsured bank debt become indifferent to the riskiness of the debtor bank's behaviour. Since they no longer internalise the costs of potential failure, they have incentives to reduce their monitoring efforts and to misprice risk by charging risk premiums that do not fully reflect the bank's true probability of default. To the extent that not all banks are perceived as TBTF and/or benefit from an implicit state guarantee, bailouts also create significant competitive distortions, as TBTF banks face lower funding costs relative to their competitors. *Ex post*, bailouts externalise the costs of banks' risk-taking: while existing stakeholders (shareholders and bondholders) can reap the rewards of banking in good times, the losses are shifted to the general public (taxpayers) in the event of failure. In addition to the unfairness of this asymmetric distribution of the benefits and losses of banking activity, the financial costs of bailouts are potentially enormous and can place a disproportionate, even unsustainable, burden on public

[24] Ibid., paras. 3.2(ix)–(viii), 3.5–3.6. The text had been foreshadowed in the consultative document published by the FSB four months earlier, which also included an annex detailing how bail-in should be enshrined in legislation, FSB (2011a), pp 3, 11–13, 26, 35–40. Summarising the responses to the ensuing consultation, the FSB noted that '[i]ndustry's associations and a clear majority of global financial institutions' supported the introduction of statutory bail-in', FSB (2011c), p 2.

[25] For a review of the literature on TBTF, see Strahan (2013).

[26] See Stern and Feldman (2004).

finances.[27] The GFC showed conclusively how disastrous the fiscal consequences can be.[28]

From this perspective, bail-in was viewed not only as a promising solution to the problem of resolution financing, but also as a drastic response to moral hazard and TBTF. In particular, the mandatory nature of bail-in was expected to remove the incentive for stakeholders to avoid costly restructuring efforts in the run-up to their bank's failure, in the expectation that the government would step in to provide support. Limiting moral hazard, restoring market discipline and protecting fiscal interests were therefore key objectives, which explains why policymakers immediately and enthusiastically embraced the new resolution tool.

Nonetheless, despite the rhetorical emphasis on the end of bailouts and TBTF,[29] bail-in was never intended to completely exclude the use of external resources to finance bank resolutions. When the failure of a bank raises systemic concerns (as will often be the case for large banks, but occasionally for smaller institutions as well), the continuation of its critical operations may be necessary to protect the financial system and the wider economy. However, beyond a certain point, bail-in will not be sufficient for the necessary financial restructuring, as it can only use some, but not all, of a failed bank's liabilities. Precisely in order to achieve the public interest objective of systemic stability, broad classes of creditors, such as depositors, but also short-term counterparties in financial market transactions, need to be protected from losses or disruptions, and thus excluded from bail-in. This often leaves a funding gap that must be filled with external resources if the disorderly failure of the bank is to be avoided. Moreover, in many cases, restructuring the balance sheet may not be enough: the post-resolution entity may still face a liquidity crunch. Extraordinary liquidity support may then be needed to give it time to regain market confidence and stop the haemorrhaging of liabilities; and this can only come from a central bank or another public-sector backstop mechanism.[30]

Therefore, the actual promise of bail-in was not to abolish the external funding of bank resolution, but to entrench a policy combining the highest possible degree of burden-sharing by internal stakeholders (shareholders and creditors) with the prioritisation of non-fiscal, industry-based funding arrangements whenever this is not

[27] While the government may retain the legal right to recoup its investment, losses will be incurred unless everything goes perfectly, and the intervened bank is fully restored. And even if the amount used for the intervention is eventually recovered, the provision of liquidity in the meantime will not be cost-free. On the methodological problems involved in the estimation of the actual cost of bailouts, see Lucas (2019).

[28] In the EU, the potential costs of bank bailouts undermined the fiscal credibility of several Member States, exacerbating the euro area crisis of 2010–12. Most conspicuously, the so-called 'sovereign-bank diabolic loop' led to the Spanish debt crisis of 2012, see Hadjiemmanuil (2020), pp 1326–1333. On the other hand, Barucci et al. (2019), using a panel approach that covers all EU Member States, find that bank bailouts during the GFC had a positive effect on the real economy of the countries concerned and stabilised financial markets by restoring investors' confidence. For the cost of bailouts in the US during the GFC, see Lucas (2019). For the UK, see UK National Audit Office (2010); and UK National Audit Office (2016).

[29] E.g., Huertas (2013).

[30] See Zhou et al. (2012), pp 14, 23; FSB (2016a); FSB (2023c), pp 10, 17.

sufficient and external support becomes necessary. In this manner, the bail-in-based resolution strategy minimises, but does not totally eliminate, the role of public-sector funding, which should be available *in extremis* to restore solvency and remains essential in the area of liquidity support. It thus retains important residual elements of bailout.

The EU resolution framework is characteristic in this respect. Adopted in 2014 in the form of the Bank Recovery and Resolution Directive (BRRD)[31] and the Single Resolution Mechanism Regulation (SRMR),[32] it emphasises the use of bail-in through very detailed and rather inflexible rules,[33] and shows an exaggerated concern to prevent state-funded bailouts at the national level.[34] The effect is that it is extremely difficult to finance a resolution with fiscal resources. External support from a resolution fund pre-funded by the banking industry is available. But even this is only forthcoming after 8% of the failed bank's total liabilities (including own funds) have been bailed in, and it is, as a rule, capped at 5% of total liabilities.[35] The European resolution regime thus represents a particularly acute form of the anti-bailout bias.[36] However, it does not go so far as to completely exclude recourse to public interventions;[37] and a pan-European liquidity backstop is actually envisaged in the form of a European Stability Mechanism (ESM) facility to which the euro area's Single Resolution Fund (SRF) can have recourse if its own pre-funded resources are depleted.[38]

All this means that bail-in should not be seen as a simple and outright repudiation of bailouts. Conversely, all recent 'bailouts' have included strong elements of burden-sharing. This makes the opposition between the two categories somewhat artificial. In view of this mixed situation, the real question is not whether bail-in, in the loose sense of burden-sharing, and as opposed to bailout in the classic, but

[31] Directive 2014/59/EU of the European Parliament and of the Council of 15 May 2014 establishing a framework for the recovery and resolution of credit institutions and investment firms, OJ 2014 L 173/190 (Bank Recovery and Resolution Directive, or BRRD), as amended.

[32] Regulation (EU) No 806/2014 of the European Parliament and of the Council of 15 July 2014 establishing uniform rules and a uniform procedure for the resolution of credit institutions and certain investment firms in the framework of a Single Resolution Mechanism and a Single Resolution Fund and amending Regulation (EU) No 1093/2010, OJ L 225/1 (Single Resolution Mechanism Regulation, or SRMR), as amended.

[33] BRRD, Arts. 43-62, and SRMR, Art. 27.

[34] The regime is explicitly intended 'to obviate the need for [bailouts using taxpayers' money] to the greatest extent possible', BRRD, Recital 1.

[35] BRRD, Art. 44(4)-(8), and SRMR, Art. 27(6)-(10). For detailed commentary, see Hadjiemmanuil (2022), pp 828–844.

[36] See Hadjiemmanuil (2016).

[37] Specifically, the resolution regime permits the provision of extraordinary public financial support to weak but yet solvent banks 'in order to remedy a serious disturbance in the economy of a Member State and preserve financial stability', BRRD, Art. 32(4)(d), and SRMR, Art. 18(4)(d). More importantly, in the 'very extraordinary situation of a systemic crisis' and subject to strict conditions, the BRRD permits the recapitalisation of a failing bank with public funds and even its temporary nationalisation through the use of so-called 'government financial stabilisation tools', BRRD, Arts. 37(10) and 56-58.

[38] Agreement amending the Treaty Establishing the ESM, signed on 27 January and 8 February 2021, Art. 1(26), inserting a new Art. 18a into the existing text (awaiting ratification by Italy).

somewhat mythological, sense of a full taxpayer-funded rescue, is beneficial (it obviously is!) and has become standard practice (it has!). The real question is whether bail-in, understood as a technical resolution tool enshrined in international standards and national legislation, has been, or even can be, applied in the way envisioned by its proponents to yield the desired results.

4 Feasibility

The effective use of the bail-in tool depends on many preconditions.[39] At the most immediate level, the execution of bail-in raises a number of practical and legal issues, including the protection of the fundamental rights, both procedural (due process) and substantive (right to property), of those affected.[40] These are largely, but not entirely, addressed by ensuring that while creditors are not allowed to stand in the way of bail-in,[41] they are protected by the 'no-creditor-worse-off' (NCWO) safeguard.[42] This entitles them to receive *ex-post* compensation if the economic value retained by them after the write-down or conversion of their pre-resolution assets is less than what they would have received as a dividend had the bank been allowed to fail and liquidated on a piecemeal basis.However, the application of the NCWO criterion, either to determine the scope and extent of the bail-in intervention or to provide compensation to disgruntled creditors, depends crucially on valuations that are inherently fraught with uncertainty. This implies, if not an increased legal risk, at least a tendency for bail-in to be controversial.[43]

The legal certainty and credibility of the bail-in is a function of its predictable sequencing, with ownership instruments and different classes of liabilities being written down or converted in reverse order of seniority. Disregarding this order or violating the *pari passu* principle within the same class may undermine market expectations and the perceived legitimacy of the resolution process. At the same time, as noted above, excluding a large proportion of senior claims, including deposits, from bail-in is necessary to achieve resolution objectives. Therefore, in order to achieve transparency and predictability, the eligibility of certain categories for bail-in or, conversely, their exclusion should be clearly defined in advance.[44] Alternatively, the hierarchy of claims could become more granular, introducing distinctions

[39] See Zhou et al. (2012); Gardella (2020).

[40] See, e.g., Stancanelli and Menéndez Fernández (2024).

[41] In the EU, the General Court has held that the lack of an opportunity to be heard prior to the adoption of the resolution decision constitutes a justified and necessary limitation on the affected persons' right to be heard; General Court, Case T-628/17, *Aeris Invest v Commission and SRB*, judgment of 1 June 2022, ECLI:EU:T:2022:315, paras. 220-272, 493-518, and Case T-523/17 *Eleveté Invest Group, SL v Commission and SRB*, judgment of 1 June 2022, ECLI:EU:T: 2022:313, paras. 427-494.

[42] Wojcik (2015).

[43] See Binder (2016), pp 56–57, Binder (2020).

[44] Zhou et al. (2012), p 13.

where none existed before. In the EU, the resolution framework has created a variety of different classes of senior creditors of banks, with insured depositors at the top.[45]

However, the most important preconditions do not relate to the implementation of bail-in at the point of failure, but to the advance preparation for bail-in as part of banks' resolution planning in normal times. This has both organisational and financial parameters.

An organisational parameter concerns the suitability of banks' corporate structure for bail-in. For large banking groups (including all G-SIBs), the feasibility of bail-in largely depends on an appropriate group structure, consisting of non-operating holding companies and operating subsidiaries. In such a structure, bail-inable debt should only be issued by holding companies, which then disburse the proceeds downstream to operating subsidiaries. The structural subordination of the resulting intra-group claims makes bail-in operationally feasible in the event of failure, as it can be used to restructure the group's intra-group debt without disrupting the subsidiaries' operations, customer relationships and liabilities to third parties.[46] The reorganisation of individual banks and banking groups for the purpose of achieving resolvability in this way requires considerable effort. Importantly, it also implies that decisions on organisational structure cease to be internal business decisions of the bank itself and come under the regulatory purview of resolution authorities.

The financial parameter concerns the ability of banks' liability structures to support bail-in. More accurate *ex-ante* pricing of risk is a feature, not a bug, of bail-in-based resolution regimes, as it enhances market discipline. However, the resulting higher funding costs create an incentive for banks to rebalance their liabilities in favour of excluded short-term liabilities, such as deposits, which do not carry a bail-in premium.[47] This could lead to circumvention of the bail-in tool, but also exacerbate liquidity risks by widening the asset-liability maturity mismatch.[48] As a consequence, mandatory rules requiring at least the largest TBTF banks to maintain sufficient loss-absorbing capacity become necessary. To this end, the FSB has adopted the TLAC standard, which sets the minimum total external loss-absorbing capacity (own funds and external bail-inable debt) of G-SIBs at no less than 18% of their risk-weighted assets or 6.75% of their leverage ratio exposure.[49] The EU has adopted rules that apply minimum requirements for eligible (i.e., bail-inable) liabilities including own funds (MREL) to all banks,[50] although in practice the rules do not have a serious impact on small banks, which may not need to raise bail-inable debt beyond their own-funds requirements if their resolution plan earmarks them for normal liquidation rather than resolution in the event of failure.

Because of these and other complications, thirteen years after the publication of the Key Attributes, the uptake of bail-in has been limited, and even where it has

[45] BRRD, Art. 108, as amended.

[46] Zhou et al. (2012), pp 14–18, Sommer (2014), pp 217, 220, 227, Tucker (2018), pp 6–7.

[47] For empirical evidence, see Maddaloni and Scardozzi (2022), pp 17–32.

[48] Ibid., p 21.

[49] FSB (2015).

[50] BRRD, Arts. 45, 45a–45m.

been adopted, implementation gaps remain. The FSB's latest report on the state of implementation of the Key Attributes shows that, of all their main aspects, bail-in stands out as the one with the lowest level of adoption. Specifically, of the 25 leading jurisdictions surveyed, only eleven have adopted bail-in. Outside the EU and the UK (which adopted bail-in while still an EU Member State), its use is limited to the US, Canada, Switzerland, and Hong Kong. In contrast, bail-in remains the only aspect of the Key Attributes that has not yet been implemented by highly advanced jurisdictions such as Australia, Japan, Korea, and Singapore.[51]

In the EU, it took ten years from the adoption of the BRRD for banks to reach the prescribed level of MREL, a key precondition for the effectiveness of bail-in-based resolution strategies.[52] Other countries, including the US, have failed to build up similar loss-absorbing capacity except for their largest institutions, such as G-SIBs, and have even relaxed their bank capital standards, raising doubts about the ability of most banks' liability structure to effectively support bail-in.

At the same time, the practical steps for executing bail-in remain challenging, with a number of technical issues requiring clarification, preparation and international coordination. In 2018, the FSB published principles for the operationalisation of bail-in.[53] Nonetheless, the relevant arrangements are still incomplete, and further work is underway both in the FSB[54] and at EU level.[55] In the euro area, in 2020, the Single Resolution Board (SRB) required all banks earmarked for bail-in-based resolution to develop an operational document (playbook) addressing all internal and external actions they must carry out in the event of resolution to ensure the effective implementation of the tool.[56] Since 2021, banks also need to perform testing exercises. The practical complexity of executing bail-in also necessitates considerable preparation by the resolution authorities. To this effect, the European Banking Authority (EBA) has asked all EU national resolution authorities to publish their bail-in 'exchange mechanics', explaining how they intend to execute bail-in in coordination with all relevant external public authorities and private bodies, such as domestic and foreign securities market authorities, trading venues, and central securities depositories.[57] The need to comply with the securities market laws of non-European jurisdictions stands out as a main concern in this context.[58]

[51] FSB (2023c), pp 20–23 (Annex I).

[52] The deadline for reaching the final target was 1 January 2024.

[53] FSB (2018).

[54] FSB (2023c), pp 11–13, 16.

[55] Taos (2024).

[56] SRB (2020b), subsequently revised on two occasions. See now SRB (2022a, 2022b, 2022c). These documents are complemented by guidance on the steps required for the bail-in of international debt securities, SRB (2021).

[57] EBA (2023). For one NRA's approach, see Bank of Greece (2024).

[58] Silva (2024), p 77.

5 Credibility

The ability of the bail-in tool to shape expectations, and hence incentives, in the desired direction depends on its credibility – in other words, on the expectation that it will be regularly used in the prescribed form whenever the legal conditions for its activation are met.

Legislative and administrative reforms in response to the GFC have made a significant degree of burden-sharing almost inevitable, especially in the case of a European bank's failure. This has removed much of the subsidy that bank creditors, particularly unsecured bondholders, could expect to receive in a government-funded bailout. Nevertheless, the precise impact of bank resolution on different classes of creditors is still highly uncertain. In the EU, despite the highly structured nature of the resolution regime and the prominence given to bail-in, a significant degree of uncertainty about the exact size and distribution of losses persists. Outcomes may vary significantly depending on the procedural path selected *ex post* (pre-insolvency intervention, resolution, or liquidation under national law). Moreover, a variety of permissible discretionary interventions such as 'precautionary recapitalisation' with public funds, liquidity support from governments and central banks in the run-up to resolution, and discretionary exclusions from bail-in of liabilities not excluded in principle, create room for ambivalence, with evident implications for the regime's credibility.[59]

The empirical evidence provides partial support for the credibility hypothesis. For example, in the EU, the legislative adoption of the bail-in tool has led to a repricing of bail-inable financial instruments, with investors demanding higher yields to compensate for the higher risk they face as the expectation of being bailed out diminishes.[60] More generally, the adoption of legislation and, in particular, certain cases of actual use of bail-in have been found to reinforce market expectations about the future use of the tool, thereby promoting market discipline.[61]

However, inferring future policy from current public decisions works both ways: actual episodes of crisis management can validate but also undermine the credibility

[59] See, e.g., Philippon and Salord (2017), p 52, Tröger (2018). The same may apply to the discretionary aspects of individual bank's MREL requirements, Tröger (2020).

[60] In particular, there was an appreciable risk premium for unsecured bonds potentially subject to bail-in, while holdings were reallocated from retail investors to more financially sophisticated institutions, Cutura (2021), Maddaloni and Scardozzi (2022). But other studies have found more muted market responses to the legislative developments: Pancotto et al. (2019), Pablos Nuevo (2019), Cucinelli et al. (2021). Similarly, a subsequent amendment of BRRD, Art. 108, which subordinated a category of senior bonds, the so-called 'non-preferred senior bonds', and made them bail-inable by definition, did not appear to lead to a relative increase in bail-in expectations or to higher risk pricing by the holders of these instruments, Velliscig et al. (2024).

[61] Giuliana (2022). Nevertheless, the effects of a credible bail-in regime on bank resilience (as opposed to market discipline in the sense of more sophisticated risk pricing and allocation) are not all positive. For example, while bail-in expectations give banks an incentive to signal reduced riskiness (e.g., by increasing their capital ratios), they also lead to an increase in overall funding costs, ibid. See also Marques-Ibanez et al. (2024).

of bail-in in a way that legislative pronouncements alone cannot.[62] Accordingly, cases of crisis management where the instrument has not been used, or has been used only partially, despite being legally applicable, weaken its credibility.[63] As it turns out, two sets of events, the first concerning the handling of four failures of significant institutions in the euro area in 2017, and the second involving the international banking turmoil in 2023, both cast doubt on the willingness of public authorities to apply bail-in in the manner envisaged.

Specifically, Spain's Banco Popular was the first institution to be resolved by the SRB. The bank faced liquidity difficulties, which it was unable to address by accessing central bank refinancing due to a lack of sufficient eligible collateral. It was therefore placed under resolution on 7 June 2017. Although its resolution plan envisaged a stand-alone open-bank bail-in,[64] the actual resolution action involved using the sale of business tool[65] in combination with bail-in (or, technically, the exercise of the SRB's write-down powers) to transfer the entire business as a going concern (open bank) to another large Spanish bank. To this end, after a complete wipe-out of all CET1 and AT1 capital instruments, the T2 capital instruments (consisting of subordinated debt) were converted into new shares, which were transferred to the acquirer for the nominal amount of EUR 1.[66] This case thus confirmed the feasibility and appropriateness of the bail-in approach for a significant institution. It should be noted, however, that the application of bail-in was facilitated by the fact that the valuation of Banco Popular estimated the funding gap at a level equal to its total regulatory capital, thus avoiding the need to inflict losses on senior bondholders.[67] But this has not prevented extensive litigation by stakeholders affected by the bail-in.[68]

In contrast to this event, the finding on 23 June 2017 that two Italian banks, Veneto Banca and Banca Popolare di Vicenza, were 'failing or likely to fail' did not lead to their resolution by the SRB, because, in the latter's view, the cases did not meet the European 'public interest' condition.[69] The banks were thus put into liquidation ('special administration') under national rules that allowed the transfer of their assets and liabilities with public financial support (state aid). Senior bondholders and depositors were transferred without loss to a large Italian bank, while subordinated bondholders and equity holders were left behind in the piecemeal liquidation. As a result of this hybrid and rather unorthodox approach, the contribution

[62] Schäfer et al. (2016).

[63] Giuliana (2022), pp 11, 22, 28-29.

[64] SRB (2016), pp 23–25.

[65] I.e., the European equivalent of P&A transactions, BRRD, Art. 38, and SRMR, Art. 24.

[66] SRB (2017a).

[67] Deloitte (2017). The SRB has stood by that valuation, and subsequently refused affected shareholders and creditors *ex-post* compensation on NCWO grounds, SRB (2020a).

[68] More than a hundred cases have been brought before the CJEU by disgruntled shareholders and creditors, many of which are still pending. See Della Negra and Smits (2024), pp 60-87; Gortsos (2024), pp 45-50.

[69] SRB (2017b, 2017c).

of potentially bail-inable liabilities to loss absorption was less than if the bail-in tool had been formally implemented in resolution.

Finally, Monte dei Paschi di Siena (MPS), Italy's third largest bank, came under severe pressure following the publication in July 2016 of the results of a stress test conducted by the ECB. In response to the stress test, MPS announced a EUR 5 billion recapitalisation plan. Even though equity and some subordinated bonds were written down or converted, MPS was unable to raise sufficient funds in the market to meet its capital requirements and, in December 2016, was forced to ask the Italian government to grant it state aid in the form of precautionary recapitalisation with state funds.[70] This was eventually approved by the European Commission in July 2017. The bank was thus bailed out after a voluntary but ultimately unsuccessful attempt at financial restructuring.

Overall, the events of 2017 sent an ambivalent message: burden-sharing took place in all four cases, but in an uneven, sometimes informal (MPS), and generally confusing way; and while bail-in was applied in the first case, its harsher consequences were avoided in the remaining three cases by going outside the formal resolution process.[71]

The events of 2023 confirm the limited willingness of authorities to apply bail in, thus further undermining its credibility. They include the failure of three US regional (mid-sized) banks, Silicon Valley Bank (SVB), Signature Bank, and First Republic Bank (FRB), between 10 March and 1 May 2023, as well as the near failure of a Swiss G-SIB, Credit Suisse, which was averted only by its hastily arranged takeover by the other Swiss G-SIB, UBS, over the weekend of 19 March 2023.

The three US banks failed as a result of sudden liquidity runs. They had similar liability structures that relied heavily on large, uninsured deposits from technology companies (SVB), the crypto business (Signature Bank), or high-net-worth individuals (FRB), and asset sides that prioritised longer-term positions in bonds (SVB) or other assets.[72] Their large asset-liability maturity mismatches made the three banks vulnerable to exceptionally rapid runs by their sophisticated depositors, who were able to withdraw their deposits electronically with immediate effect. No attempt was made to activate the orderly liquidation powers of the Dodd-Frank Act, meaning that a closed bank bail-in could not be used to resolve the failures. Instead, the banks were placed into FDIC receivership. In the FRB case, the resolution took the form of a P&A transaction (immediate transfer to a willing and suitable private acquirer), in accordance with standard FDIC law and practice. In the cases of SVB and Signature Bank, the viable parts of their businesses were transferred to bridge banks in preparation for their eventual sale to private acquirers, which took place within weeks. At the same time, however, the US financial authorities decided to extend full protection to the deposits of the failed banks, including those above the deposit insurance

[70] BRRD, Art. 32(4).

[71] Unsurprisingly, the market reactions were also mixed, see Maddaloni and Scardozzi (2022), pp 54–62.

[72] BCBS (2023), pp 5–12, 16–17.

limit of USD 250,000.[73] As a result, the FDIC had to provide increased financial assistance for the resolution of SVB and Signature Bank, in derogation of the usual least-cost condition and on the basis of the systemic risk exception,[74] which allows a much broader use of public support in the resolution of failing banks. Since the FDIC's excess losses would be recovered from the banking industry through special assessments, the operation came at no cost to taxpayers;[75] and in all three cases, all shareholders and unsecured creditors other than depositors were left behind as claimants in the piecemeal liquidation of the original entities. It is therefore arguable that these were not bailouts in the normal sense of the word. Be that as it may, the US events reveal the ambivalent preferences of policymakers (and the public), whose aversion to bailouts of a clearly fiscal nature coincides with a reluctance to impose losses on all classes of creditors potentially subject to bail-in, making their reactions in specific cases partly unpredictable.

The Credit Suisse case is particularly instructive as it provides the first real test of the ability of post-GFC resolution regimes to deal with the failure of a G-SIB. The loss of market confidence, which led to a run on the bank, was the result of a long list of scandals that had plagued the bank in recent years, as well as chronic weaknesses in its business model and strategic direction that previous remediation efforts had failed to address decisively. As one of Switzerland's two G-SIBs, Credit Suisse was a natural candidate for resolution by open-bank bail-in in the event of failure. Theoretically, the bank was well-prepared for this eventuality and had sufficient loss-absorbing capacity. In the end, however, the Swiss authorities decided that it was safer not to go down this route, but to arrange a merger of Credit Suisse with UBS with public financial support (special liquidity and guarantees) provided on the basis of emergency legislation. This *ad hoc* solution has led to the creation of a banking behemoth with a balance sheet almost twice the size of Switzerland's GDP, which is both TBTF and too big to save.[76] On the other hand, it managed to stabilise the situation with immediate effect and at rather modest fiscal risk. As to why this was preferred to the bail-in strategy outlined in the bank's existing resolution plan, it appears that, as time ran out, the Swiss authorities became increasingly concerned about the ability of bail-in to provide a credible solution to Credit Suisse's predicament. Among the reasons of consternation, two are worth mentioning: first, the legal and regulatory risks associated with the bail-in of internationally traded instruments,[77] which cast doubt on the practicality of open-bank bail-in; and second, the potential ineffectiveness of the bail-in strategy, given that the plight

[73] See US Department of Treasury (2023). The apparent rationale was that the uninsured depositors of these banks included many start-up or early-stage technology companies, whose loss of access to their business payment accounts could seriously disrupt the technology sector.

[74] 12 USC § 1823(c)(4).

[75] FDCI final rule, 'Special Assessment Pursuant to Systemic Risk Determination' (16 November 2023), 88 FR 83329, 12 CFR § 327.13.

[76] Financial Times (2024).

[77] In particular, Credit Suisse's bail-inable instruments were also held by US investors and were therefore subject to US federal securities laws, compliance with which would be particularly difficult to ensure, FSB (2023a), p 30; Hüpkes (2024), p 82.

of Credit Suisse was not due to undercapitalisation, but to serious reputational and business problems, which bail-in alone could not credibly and immediately address. Thus, after also considering the option of nationalisation, they ultimately concluded that the merger solution was more focused, more proportionate, and more likely to restore confidence immediately than the other two alternatives.[78]

The FSB's review concludes that the Credit Suisse case demonstrates the essential soundness of the international resolution framework, which provided the Swiss authorities with an executable alternative. But it is worth noting the caveats. In particular, the FSB's review highlights the need to have in place an effective public-sector liquidity backstop (which was lacking in the Swiss case); to address the legal issues that may impede the execution of bail-in on a cross-border basis; to better plan for alternative resolution options (transfers), either as stand-alone solutions or in combination with bail-in; and to gain a better understanding of the impact of bail-in on financial markets.[79] What emerges is a rather pessimistic view of the practicality of bail-in in the absence of all the preconditions already mentioned, as well as an indirect recognition (through the reference to the impact on financial markets) that bail-in may not be able to mitigate a crisis of confidence and may even exacerbate it. In this sense, the FSB's conclusions essentially confirm the concerns of the Swiss authorities.

6 Suitability

Even if a bail-in is feasible, it may still be insufficient, inappropriate, or even counter-productive.

Financial restructuring through bail-in may not be sufficient in itself to restore confidence in a bank if losses are likely to continue. Accordingly, depositor and creditor defections will continue in the post-resolution phase unless the bank and the authorities can convincingly signal that the bank has been adequately recapitalised, based on an accurate and credible assessment of both past and expected future losses, and that a reorganisation addressing its underlying weaknesses is underway and likely to succeed.[80] This is a difficult task, and its success depends on the availability of liquidity support in resolution.

More generally, while liquidity runs tend to affect banks whose underlying solvency is in doubt, they may also hit solvent banks with significant asset-liability maturity mismatches or lacking sufficient collateral. It is unclear how bail-in can resolve liquidity-driven distress or restore the affected banks to viability. On the contrary, the prospect of bail-in can exacerbate a weak bank's refinancing problems and push it towards a liquidity-driven failure. This is because private investors will be more reluctant to refinance the bank during its recovery attempt if, on top of the usual default risk, they also face the risk of having their debt claims converted into

[78] FSB (2023a), p 1, and Hüpkes (2024), p 79.

[79] FSB (2023a), p 2.

[80] Zhou et al. (2012), pp 3, 7.

equity should the bank happen to activate the early (pre-insolvency) triggers for resolution.

These considerations suggest that bail-in cannot be used indiscriminately but must be applied selectively and flexibly. Nevertheless, there is broad consensus that bail-in is a useful tool for dealing with isolated bank failures with idiosyncratic causes. On the other hand, many commentators express strong reservations about its suitability in a context of wider financial distress.[81] In the latter case, far from restoring confidence, resolving an institution through bail-in may actually aggravate the situation by triggering runs on similarly situated banks.[82] Accordingly, in situations of systemic crisis, public interventions may be needed in order to avoid contagion, systemic crises, and even capital flight out of the jurisdiction.[83]

Advocates of bail-in underplay its inappropriateness for dealing with systemic problems. In particular, they argue that, because banks do not fail simultaneously but at intervals, a bail-in-based resolution of early failures could incentivise the remaining weak banks to actively pursue private-sector recovery strategies.[84] At the same time, by ensuring that the post-resolution entities are sufficiently capitalised, bail-in could facilitate the extension of public liquidity support to them, as the government would no longer be exposed to significant credit risk.[85]

These views underestimate the likelihood that bail-in will not be implemented optimally in every case. Indeed, an important recent contribution to the economic literature emphasises that the systemic implications of a bail-in depend on the various parameters of the bail-in mechanism.[86] Subjecting to stress-testing a multi-layered network model of the European financial system, in which the BRRD's rules apply, the authors find that the financial system's response to bail-in shocks varies substantially depending on essentially discretionary bank-specific parameters, such as the timing of the declaration of failure, the level of recapitalisation, and the conversion rates of debt into equity. Under 'good' parameters such as early triggering of bail-in, strong recapitalisation (which the authors set at levels well above those currently envisaged under the BRRD), and fair conversion rates, contagion effects are insignificant in the case of idiosyncratic failures of large, systemically important banks, and remain relatively limited even in the case of increasingly severe system-wide distress. By contrast, 'poor' bank-specific parameters trigger contagion in the case of idiosyncratic failures of large banks and exacerbate financial turmoil in the case of a systemic crisis. Importantly, contagion emerges non-linearly, meaning that it suddenly takes on very large proportions in the event of a sufficiently severe system-wide shock.[87] It will be observed that, in

[81] On the impossibility of drawing a clear legal line, see Hadjiemmanuil (2014), pp 223–228.

[82] Avgouleas and Goodhart (2015), pp 3–29; Binder (2016), pp 57–58.

[83] In view of the limitations and costs of bail-in-based resolution, Avgouleas and Goodhart conclude that 'developed societies might have to accept that granting some form of public insurance is an inevitable tax for having a well-functioning banking sector', Avgouleas and Goodhart (2015), p 29.

[84] Zhou et al. (2012), p 3; Tucker (2018), p 13; McNamara et al. (2024), pp 22, 29.

[85] Sommer (2014), p 222.

[86] Kleinnijenhuis et al. (2021).

[87] Ibid., pp 23–39.

practice, the 'poor' parameters dominate. Authorities lack incentives, and may not even have a clear evidentiary basis, to intervene at an early stage. They also tend to converge with the banks' stakeholders on making the bail-in as soft as possible and keeping the estimates of the required recapitalisation relatively low. While the bail-in regime could be redesigned on a less discretionary basis and along the lines of the 'good' parameters, it is questionable whether this is realistic, given the incentive structure of policymakers[88] – or even desirable, since systemic crises could be contained more easily and in a more predictable way by means of appropriate *ad hoc* public interventions.

7 Conclusion

To recapitulate, bail-in was conceived as an ingenious solution to the main dilemma in banking crisis management, i.e., whether to allow a failing bank to go into disorderly liquidation or to attempt a rescue with public funds, at potentially high cost to taxpayers. Ideally, it could ensure the successful implementation of an open-bank resolution strategy that restores the failing bank to viability, thereby safeguarding financial stability, without the need for public funding – an outcome that is particularly desirable in the case of large banks, including G-SIBs.

Despite its conceptual attractiveness, it is doubtful whether the emergence of bail-in as a resolution tool per se has fully justified the faith placed in it. Unquestionably, the attempt to operationalise bail-in has led to significant improvements in the overall policy mix, notably in the form of thorough resolution planning, the removal of many obstacles to banks' resolvability, and the imposition of much higher safety standards on large banks through the layering of TLAC/MREL requirements on top of their traditional capital (own-funds) requirements.

However, thirteen years after its endorsement by the FSB, the operationalisation of the bail-in resolution strategy is still characterised by significant gaps and uncertainties. Moreover, the assumption that bail-in would be used as a matter of course has been proven wrong. While burden-sharing in one form or another has become a standard feature of banking crisis management, bail-in as such has very rarely been used to resolve failing banks. In particular, it was not employed in the case of Credit Suisse, the first-ever failure of a G-SIB and the type of case for which it was primarily designed. As a result, bail-in has lost credibility and is now less likely to serve as the reference point that anchors market expectations. Last but not least, doubts remain about its suitability in all cases, with many experts insisting that its application in the most severe scenarios of bank distress can be seriously counterproductive. Accordingly, while the many positive effects of the introduction of bail-in should not be disregarded, its promise to provide a standard solution to the problem of bank crisis management and to consign bailouts to the ash heap of financial history appears, in retrospect, to have been exaggerated.

[88] Ibid., pp 39–47.

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