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SEACEN POLICY ANALYSIS

BAIL-IN: A PRIMER

Glenn Tasky

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The South East Asian Central Banks (SEACEN)
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Level 5 Sasana Kijang, Bank Negara Malaysia,
2 Jalan Dato' Onn, 50480 Kuala Lumpur, Malaysia
Tel. No.: +603 9195 1888
Fax. No: +603 9195 1801
Email: enquiries@seacen.org

For enquiries, please contact:
Glenn Tasky
Director
Financial Stability and Supervision & Payment and Settlement Systems (FSS&PSS)
The SEACEN Centre
Email: glenn@seacen.org

Notes:

The SEACEN Centre recognizes "China" as People's Republic of China; "Hong Kong, SAR" as Hong Kong, China; and Korea as "Republic of Korea".

FOREWORD

This paper is the second in a series of publications titled SEACEN Policy Analysis. With this paper, SEACEN is renaming the series formerly known as SEACEN Staff Policy Analysis, to take into account that papers in this series may be authored by SEACEN staff, by SEACEN staff in cooperation with outside experts, or by outside experts only.

As before, the series is intended to provide in-depth analysis of topical policy issues in macroeconomics, monetary policy, financial stability, and payments systems, with a particular emphasis on contextualizing these issues to the SEACEN stakeholder space. The papers look at the contours of cutting-edge issues that arise with ever-changing macroeconomic environments and technological possibilities and focus more on policy options than on technical analysis such as econometric modeling.

The current paper, "Bail-in: a primer" attempts to provide answers to some complex and unresolved issues in dealing with problem banks. For decades, governments have often "bailed out" troubled banks, while their investors have not borne the brunt of the losses. During and after the Great Financial Crisis, however, the outlays by governments to shore up or clean up failing or failed banks were enormous and proved controversial, and even politically unacceptable, in many jurisdictions. By "bailing in", investors across the hierarchy of the liability structure of these failing banks can be forced to take losses, loweringthe demands on the public purse while addressing moral hazard.

However, bail-in as a resolution tool has not been used very often, and the conditions under which it has been used do not seem to follow a consistent pattern. As such, bail-in can be considered an emerging and experimental tool in the toolbox of regulatory authorities around the world, although it is yet to be proven as a reliable tool for resolution.

In this issue, Glenn Tasky, SEACEN's Director of Financial Stability and Supervision / Payment and Settlement Systems, suggests some solutions to the ambiguities and implementation issues surrounding the use of the bail-in tool. This paper may be particularly useful for those jurisdictions that are still developing their bank resolution frameworks, but it can also be a guide for those authorities who may already have the tool at their disposal and need some guidance on how to actually implement it. A future issue in this series will look at how bail-in has actually been used in the SEACEN stakeholder space, and possible obstacles to it being used more frequently.

I wish to emphasize that the views expressed in this and all issues of the SEACEN Policy Analysis series are those of the author and do not represent the views of SEACEN's member, associate member, and observer central banks and monetary authorities.

It is indeed a very difficult time as the world tackles this unprecedented health crisis and its toll on human lives along with its economic and financial consequences. At the SEACEN Centre, we are adopting a flexible strategy to adjust to the new realities by providing online learnings of the pandemic, while carrying out policy analysis of the responses on the macroeconomic, monetary, and financial front. We stand ready to provide assistance to members in building and strengthening their capacity as we adjust to the "new normal."

Mangal Goswami
Executive Director
The SEACEN Centre

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ABSTRACT

The paper explains the concept of "bail-in," the imposition of losses on creditors of a failing or failed bank. With bail-in, liabilities are either written off or converted into equity capital, thereby bolstering the capital position of the bank, making it more likely to survive financial distress and reducing losses imposed on the deposit insurance agency if the bank does end up failing. The paper explores the possibility of using bail-in as a recovery plan tool, explains why senior debt may need to be bailed in, and discusses some obstacles to the use of bail-in as a resolution tool.

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Executive summary and introduction

The Financial Stability Board (FSB) has included bail-in as one of the key attributes of effective resolution regimes. This policy analysis, the first part of a complete SEACEN analysis on the subject of "bail-in," is intended to give policymakers a clearer picture of the evolving practice. Bail-in is an administrative tool within the statutory power of resolution to force non-deposit liability holders of banks to bear a greater share of losses from bank failures or near-failures, and possibly even to stave off failure itself. Key takeaways from this brief are:

- **The general framework for bail-in, which has come mostly from Europe, continues to evolve and has many aspects that will require further clarity.**
- **A complete recovery and resolution framework will make clear that recovery plans could and should encompass the bailing in of liabilities that qualify as Additional Tier 1 and Tier 2 capital.**
- **A complete recovery and resolution framework will recognize that a bank's regulatory capital is there only to provide a cushion against unexpected losses while some additional sources of support will likely be necessary for recapitalization to the regulatory minimum.**
- **The design features of a complete recovery and resolution framework will clearly spell out when a bank is failing or likely to fail and specify the types of liabilities, including more senior liabilities, that can be bailed in at the trigger point.**
- **Liquidation is a form of resolution, and also should result ultimately, though not directly, in bailing in shareholders and more senior creditors while minimizing the use of public funds. That said, recovering the value of the assets from liquidation can take time.**

Since the Great Financial Crisis (GFC) and related sovereign debt crisis of 2007-2017, the effects of which are still being felt today, regulatory, supervisory, fiscal, and deposit protection authorities (collectively, regulatory authorities or RAs) in many parts of the world have built up or reinforced their bank resolution regimes. The aim of these strengthened regimes is to be able to intervene early and quickly to resolve failed or failing banks, while preserving financial stability, preserving the provision of critical services, and minimizing costs to governments and deposit protection authorities.

To achieve these goals, "early intervention" in failed or failing banks is necessary. RAs need to take action well before the situation of negative net worth on a market value basis, or even on a book value basis, is reached. Resolution, the process of preserving the assets of a failed or failing bank, enduring continuity of critical functions (if any), and sorting out claims on those assets, for the general good of the shareholders, depositors, and other creditors, will always impose losses on some stakeholders, unless there are more assets than liabilities at the time intervention begins (and sometimes imposes losses even in that fortunate situation).

One of the resolution tools that is not quite new but has achieved prominence in resolution policy since the crisis is "bail-in," the practice of imposing losses arising from bank failures or near-failures on certain classes of liability holders. "Bail-in," more formally known as "creditor participation," is promoted as the counterpoint and substitute to "bail-out." In bail-out, which is not a precise legal term and which acquired a bad reputation during and after the GFC, the authorities save, at least temporarily, failing banks from resolution by buying shares in the banks, expanding the eligibility for emergency liquidity assistance, or taking other measures that keep the banks open and whole, and thereby preserve the value of creditors' interests in the banks.

However, as soon as bail-in was announced as official policy during and after the GFC, informed commenters from the regulatory, legal, economics, and finance professions began to criticize it, with objections ranging from "bail-in won't work" to "bail-in won't ever be used."

This brief, which will be supplemented by research from SEACEN on the applicability of the bail-in concept across the SEACEN stakeholder space and the existence of "bail-inable" liabilities, is an attempt to clarify some concepts about bail-in that may seem difficult to understand at a first reading. It is structured as a catechism; that is, a series of questions and answers. The brief will also highlight key unresolved issues in international practice that policymakers may wish to tackle right away, before developing frameworks for bail-in in their own countries or, having already done that, considering specific actions involving individual banks in their jurisdictions.

What is "bail-in"?

When Basel III was introduced in 2011, it redefined the calculation and categorization of regulatory capital. There are now three categories, "common equity Tier 1" (CET1), "additional Tier 1" (AT1), and "Tier 2" (T2). As in Basel II, each successive category includes instruments that are less like capital and more like liabilities.[1] And, as it has evolved practically, AT1 instruments seem to be primarily in the form of contingent convertible (so-called CoCo) bonds, while T2 instruments seem to be primarily plain-vanilla subordinated debt.[2]

The idea behind bail-in is that the investors in the bank's AT1 and T2 instruments (and even some instruments senior to these) should understand and accept that their claims on the bank's assets could be written off or converted to CET1 instruments in order to increase the amount of CET1 capital (and total regulatory capital, the sum of CET1, AT1, and T2) back up to acceptable levels when the bank's financial position is deteriorating.[3] These acceptable levels as a percentage of risk-weighted assets are, in the fully phased-in Basel III regime, CET1 > 4.5%, CET1+AT1 > 6%, and CET1+AT1+T2 > 8%[4]. Many jurisdictions have established even higher minimum capital requirements; however, for simplicity, this brief will use the standard requirements.

Beyond that, there is considerable confusion and variation across jurisdictions in the interpretation of this general idea. Even so, the rationale for bail-in seems to be consistent across jurisdictions:

- Bail-in helps to preserve financial stability by recapitalizing banks that might otherwise become insolvent.
- Bail-in decreases taxpayer expense of dealing with troubled banks.
- Bail-in improves market discipline, by putting certain creditors more at risk than before to mismanagement of the bank.

Is bail-in related to the concepts of "going-concern" and "gone-concern" capital?

One of the many sources of confusion on the subject of bail-in stems from an inconsistent (and unnecessary) use of the terms "going-concern" and "gone-concern" capital. The terms come from accounting, in which it is sometimes necessary to distinguish between firms that are operating (going concern) and firms that are in liquidation (gone concern) when valuing assets and liabilities.

1. There are also various adjustments to the final regulatory numbers for CET1, AT1, and T2, in addition to the instruments. CET1 instruments are always considered capital from an accounting perspective, and T2 instruments are always considered liabilities. There are differences in international practice, however, concerning the accounting treatment of AT1 instruments. Most jurisdictions allow for certain liabilities to meet the criteria for inclusion in AT1, but in the United States, only instruments that are considered capital from an accounting perspective are eligible for AT1 treatment.

2. There are other key definitional differences between AT1 and T2. For AT1, coupon payments can be delayed or cancelled without that action constituting a "credit event"; whereas T2 has fixed coupons that apparently cannot be delayed or cancelled without triggering a credit event. Another difference is that AT1 instruments must be perpetual, while T2 instruments may have a stated maturity.

3. Although writing off or converting an AT1 or T2 instrument has a similar effect on CET1, the mechanics are different. Writing off the instrument increases the bank's CET1 capital through an increase in the bank's income for that period; converting increases the bank's CET1 capital through a direct issuance of additional shares. The effect on the bank's ownership structure also differs across the two methods: conversion may introduce new shareholders to the bank, who will have to go through the usual "fitness and propriety" tests, and existing shareholders may suffer dilution.

4. There is also a "capital conservation buffer," required to be met with CET1, of 2.5% of risk-weighted assets. It is not strictly mandatory, but a bank with a buffer less than 2.5% faces restrictions on capital distributions. Accordingly, many banks operate as if their total capital requirement were 10.5% of risk-weighted assets.

In the context of banking, going concern has tended to mean "business as usual," while gone concern has been equated to "going into resolution." But even this distinction is not precise, because a bank could be undergoing an "open-bank resolution," and operating fairly normally; this situation, after all, is the whole objective of open-bank resolution.

A different dichotomy is observed in the treatment of bank regulatory capital. Most writers, including the BIS-housed organizations, regard Additional Tier 1 capital as "going-concern capital" and Tier 2 capital as "gone-concern capital.[5] However, some writers have referred to AT1 as gone-concern capital[6], and some writers have referred to T2 as going-concern capital.[7] This inconsistent application of terminology may stem from an imperfect updating of thought, particularly about T2, which for most banks consist of ordinary subordinated debt. In the past, in contrast to the present, most subordinated debt could not be bailed in without the bank essentially having failed already – hence, the use of "gone concern" to describe T2. In the present, however, bailing in T2 is envisioned as one of several mechanisms to keep a bank open and, indeed, even restore it to vitality – hence, "going-concern" capital.

To further muddy the distinction between AT1 and T2 instruments subject to bail-in, the Basel Committee, in its compendium of issuances, describes the bail-in terms and conditions of AT1 and T2 instruments in exactly the same way: "The terms and conditions must have a provision that requires, at the option of the relevant authority, the instrument to either be written off or converted into common equity upon the occurrence of a trigger event, unless the laws of the governing jurisdiction meet the criteria in CAP10.12 [essentially, that laws provide for blanket designation of AT1 and T2 instruments as subject to bail-in]."

5. See, for example, Financial Stability Institute [no date].

6. See, for example, F. Fiordelisi et al., 2018, who argue that investors seem to behave as if that AT1 instruments were gone-concern capital. Huertas, 2019, also denotes AT1 as gone-concern capital.

7. See, for example, TwentyFour Asset Management, 2017, and Buckingham, et al., 2019.

The Basel Committee leaves to the national authorities the question of what this "trigger event" might look like. The only guidance given is that the event is the earlier of a determination that a bail-in is necessary to preserve viability (a term which is not defined in any of the Basel Committee documents) or that a public-sector capital injection is necessary to preserve viability. This formulation is odd, because the whole rationale of bail-in is to obviate public-sector bailouts. Apparently, it is an awkward way of saying that if a bank is deemed to be non-viable, then bailing in all AT1 and T2 capital instruments must occur before any public-sector capital injection is made[8].

For all of these reasons, it seems that the distinction between "going-concern" and "gone-concern" capital is no longer a precise one, and probably unnecessary from an analytical, practical, or legal point of view.

How does the treatment of T2 capital differ today from before the GFC?

Investors in bank subordinated debt, the main instrument falling into the category of T2 capital, have been suffering losses in the event of bank failures for more than 30 years. However, subordinated debt itself seems to be treated differently now than in the past. In an "open-bank resolution" (to be defined later on) today, subordinated debt would be bailed in; whereas before the post-GFC reforms some subordinated debt holders could not suffer losses as long as the bank was not being liquidated.

Indeed, in the past, there was often explicit language in the securities' documentation prohibiting write-downs or conversion into shares without the bank going into liquidation. Put differently, before the GFC, subordinated debt in a non-liquidation resolution was "bailed out," and subordinated debt in a liquidation resolution was "bailed in."

8. As we shall see later in this Policy Analysis, AT1 and T2 instruments may already have been bailed in before the bank is considered to be non-viable.

Can bail-in be a feature of bank recovery plans?

After the GFC, many jurisdictions began requiring all banks, or a subset of banks deemed systemic, to prepare recovery plans, following guidelines issued by the regulatory authority and subject to approval by the regulatory authority. Recovery plans are a series of steps, drawn up in advance, to be taken by a bank if and when its financial condition deteriorates. The intent of the series of steps is to restore the bank to profitability, capital adequacy, and a sound liquidity position.

It's interesting to note that none of the guidelines issued by various jurisdictions seem to accept bail-in as a recovery strategy. The EBA, ECB, and other standard-setting bodies who have pronounced extensively on recovery plans mention "cancelling dividends or distributions on AT1/T2 instruments" as a possible step towards recovery, but do not endorse the extra measure of write-down or conversion to CET1 instruments.

Nevertheless, the EBA, in its 2017 "comparative report" on recovery plans that it has reviewed, does include in its Annex 1 "List of Recovery Options" – measures it has actually observed in plans -- "write-down of contingent capital," "conversion of contingent capital," and "conversion of T2 capital into T1 capital."[9] Accordingly, it seems as though bail-in has at least tacit, if not explicit, approval as a recovery plan step for some banks.

Moreover, an intriguing passage from a prospectus for issuance of notes by a €22.4 billion Dutch bank, in its summary of the risks to the noteholders, seems to indicate that bail-in (at least of T2 instruments) could take place as part of a recovery plan (emphasis added to original):

> Furthermore, the Relevant Resolution Authority could take **pre-resolution actions** when the Issuer or the group reaches the point of non-viability and write-down or convert capital instruments (including Subordinated Notes qualifying as Tier 2 instruments) into equity **before the conditions for resolution are met (the "Write-Down and Conversion Power").** Noteholders may have only very limited rights to challenge and/or seek a suspension of any decision of the relevant resolution authority to exercise its (pre-)resolution powers or to have that decision reviewed by a judicial or administrative process or otherwise.[10]

9. EBA, 2017.

What are reasonable trigger events, after which bail-in can take place?

Since trigger events are defined by national authorities, it's not surprising that there is no standard practice. Many trigger events are defined as CET1 capital falling below a certain percentage of risk-weighted assets; the bare minimum required by Basel of 4.5%, a slightly-higher threshold of 5.125%, and even 7.0% are observed.

In the European Union, there is a concept of bank distress called "failing or likely to fail" (FOLTF). The determination of FOLTF is made by the supervisory authority (the ECB for banks in the 19 euro-area countries, and the national authority in the remaining 8 EU countries), after which the resolution authority makes a decision on whether the bank enters into resolution or is handled through insolvency proceedings. Like other such declarations, including those written into banking laws, a bank is FOLTF if it meets at least one of the following criteria: 1) the bank is in breach of capital requirements; 2) the bank's assets are less than its liabilities[11]; 3) the bank is illiquid; or 4) the bank requires "extraordinary public support."[12] Ignoring the redundancies in some

10. NIBC, 2019.

11. See, for example, European Central Bank, 2019, for a discussion of the FOLTF declaration on the grounds that a bank has "assets less than liabilities."

12. Some documents attempt to spell out in more detail specific circumstances that could render a bank FOLTF; e.g., a significant, permanent increase in the cost of funds; problems with off-balance sheet items, macroeconomic developments adversely affecting the bank's business model; a deterioration of the market perception of the bank's prospects; spreads on the bank's traded securities or derivatives turning unfavorable; threats to the funding profile; cutoffs of access to long-term funding; cutoffs of liquidity lines; exceptional outflows of funds; increased haircuts and exceptional collateral demands placed on the bank; ratings downgrades; repeated misstatements of reporting or a qualified external audit opinion; management deadlock or an inability to make decisions; unexpected loss of senior management and/or key staff; reputational problems, including litigation; and non-compliance with remuneration rules.

of these criteria, one can see the FOLTF declaration as triggering bail-in.

Indeed, in a FOLTF situation, the legal positions and rights of the third parties (in this case, the holders of AT1 and T2 instruments) can be restricted by administrative decision.

The Basel Committee has expressed another concept of bank distress called "point of non-viability" (PONV). The difference between FOLTF and PONV has never been clearly spelled out; however, one commentator has suggested that PONV is FOLTF plus no possibility of a private-sector solution.

One might wonder how bail-in could restore to health a solvent bank that is FOLTF because of liquidity pressures. Recapitalization, of course, cannot be the only answer if a bank is facing a liquidity crisis. But recapitalization though bail-in can be part of a package that includes emergency liquidity assistance, and it may be effective in calming down depositors and other creditors who might otherwise continue to withdraw or refuse to roll over funds. It may also compensate for losses that the bank has undergone by having to dispose of assets quickly, at fire-sale prices.

What really is meant by resolution, insolvency proceedings, liquidation, etc.? They all seem relevant in the bail-in timeline

Surveys of publications issued by various jurisdictions show different interpretations of the aforementioned terms. In the EU, for example, "resolution" and "insolvency proceedings" are viewed as separate and distinct. The word "resolution" and the phrase "entry into resolution" seems to imply only a process in which the following four "resolution tools" are employed: the sale of business tool, the bridge institution tool, the asset separation tool, and the bail-in tool. After the use of one, some, or all of these tools on a FOLTF bank, the desired result seems to be a relatively intact organization resembling a bank, with loans on the asset side of the balance sheet and deposits on the liability side. The bank may have shed some subsidiaries or withdrawn from certain geographical markets, but its critical services have been preserved. And the capital of this intact organization, it seems, should be enough to allow it to be authorized as a bank. It may operate under its original name or under a different name, with the same group of shareholders, with some old and some new shareholders, or with new shareholders entirely.

"Open-bank resolution," in which the bank continues to operate even under its own name and original charter, with bail-in having taken place, is an explicit strategy only in a few jurisdictions (such as New Zealand and South Africa), but is implicitly a strategy in many other jurisdictions. The term originated in the 1984 rescue (with the U.S. government buying 80 percent of shares) of Continental Illinois National Bank and Trust Company of Chicago, then one of America's biggest banks.

"Insolvency proceedings" (which may also be called "bankruptcy proceedings") on the other hand, seem to signify something different entirely. This term, which is used throughout many official EU documents as well as writings about these documents, indicates a process that would end up with liquidation or "winding-up": the dismantling of the bank and its cessation as a corporate entity. Assets and liabilities are separated; assets, such as loans, may be bought by other banks or non-bank investors; depositors may be paid out or the deposit liabilities may be assumed by another bank; creditors wait for their share of the proceeds of asset disposition.[13]

This neat bifurcation falls apart, however, and is not observed by the FDIC, which considers every kind of dealing with a failed or failing bank as a resolution: everything from a forced merger or voluntary takeover, where substantially all of the assets and liabilities of the failing bank are acquired and assumed by another bank; to a purchase-and-assumption transaction (the most common form of FDIC resolution), with fewer assets acquired and liabilities assumed; to an outright liquidation and depositor payout.

What are "senior bail-in bonds," and when would they be bailed in?

To make matters even more complicated, in jurisdictions that require enhanced protection (beyond total regulatory capital) against taxpayer

13. It's interesting to note that liquidation, in spite of being presented as the counterpoint to resolution in the EU documentation, is hardly ever used in Europe. There is a practice called "administrative liquidation," but it's more similar to what is being stylized in Europe as "resolution," further adding to the confusion.

funds being used to resolve failing or failed banks, there are "senior bail-in bonds,"[14] which are debt securities issued by the bank that do not qualify for either AT1 or T2, but can still be bailed in. It is a relatively new asset class, but already a large market: G-SIBs had issued more than $1.2 trillion of these bonds by the end of 2018, compared with only about $300-$350 billion each of AT1 and T2 instruments. They are also issued by non-G-SIBs in the EU space, who are faced with similar requirements.[15]

The question arises, if AT1 and T2 instruments are available for bail-in, then what is the need for these senior bail-in bonds that are completely outside the definition of regulatory capital? It goes back to the purpose of bail-in. Bail-in is used not only to absorb losses, but also to raise the level of regulatory capital back up to regulatory minima. Consider the following simple example:

> Initial state: CET1 = 4.5%, AT1 = 1.5%, T2 = 2%, so Regulatory Capital = 8% Assume that 8% is the required minimum.

Now, the bank suffers a loss that reduces its CET1 by 2.5 percentage points. AT1 and T2 instruments are bailed in:

> New state: CET1 = (4.5% - 2.5%) + 1.5% + 2%, AT1 = 0%, T2 = 0%, so Regulatory Capital = 5.5%

As the above example shows, it's not possible to bail in holders of AT1 and T2 instruments while maintaining the same level of regulatory capital as before, unless an additional capital injection is made. This capital injection can come from bailing in the senior bail-in bonds.

In fact, the recent prospectus for issuance of notes by the Dutch bank, previously mentioned, describes the bail-in process succinctly, in its summary of the risks to the noteholders (emphasis added to original):

> In addition to the tools currently in the Dutch Intervention Act, BRRD and SRM…provide the Relevant Resolution Authority the power to ensure that capital instruments (such as Subordinated Notes qualifying as Tier 2 instruments) and certain liabilities (such as the Senior Preferred Notes and the Senior Non-Preferred Notes) absorb losses when the Issuer meets the conditions for resolution, through the write-down or conversion to equity of such instruments (the "Bail-In Tool"). These powers and tools are intended to be used **prior to the point at which any insolvency proceedings with respect to the Issuer could have been initiated.** Although the applicable legalisation provides for conditions to the exercise of any resolution powers and EBA guidelines set out the objective elements for determining whether an institution is failing or likely to fail, it is uncertain how the relevant resolution authority would assess such conditions in any particular **pre-insolvency** scenario affecting the Issuer and in deciding whether to exercise a resolution power.[16]

This paragraph, and the one cited above in the section on recovery plans, clearly indicates a chain of events as a bank hurtles toward insolvency: a bank's capital and/or liquidity are depleted; the recovery plan is activated; AT1 and possibly T2 instruments are bailed in; the recovery plan might not succeed in restoring the bank to health; the bank becomes FOLTF, but before formal insolvency; no private sector solution is found, so the bank is at the PONV; the bank enters either resolution (when SNP notes could be bailed in, if it is judged that the bank is worth saving) or liquidation.

Are there liabilities that should never be bailed in?

In some jurisdictions, particularly in the EU, some liabilities are excluded from bail-in, such as covered deposits (also known as insured deposits, or the insured portion of a large deposit), secured debt, liabilities arising from trustee operations, and

14. More formally, in prospectuses and analytics, they are called "senior non-preferred [bonds, debt, notes, etc.]". The ECB, in its supervision over major banks in the euro area, also includes "senior preferred" instruments in its inventory of liabilities that can be bailed in.

15. G-SIBs face a requirement called "Total Loss Absorbency Capital" (TLAC), and non-G-SIB EU banks have a similar requirement, "Minimum Requirement for Own Funds and Eligible Liabilities" (MREL). The determination of these enhanced protection buffers, beyond total regulatory capital, is complex and outside the scope of this brief. The EU requires these additional instruments to be bailed in before any capital injections with public money (called "precautionary recapitalizations in EU parlance) can be considered.

16. NIBC, 2019.

customer assets and funds to which segregation or other special rights apply.[17] This exclusion from bail-in does not mean that these liability holders will never suffer losses. Certainly, in extreme circumstances when a bank's assets have been misappropriated or collateral for borrowing has been sold off, a secured creditor could suffer a loss; and in a famous case in Cyprus in 2013, covered depositors were taxed to help pay for a cleanup of failed banks. But it is logical to exclude these liabilities from any possibility of bail-in at the time of resolution of the bank itself.

What are the controversies over bail-in?

Almost immediately after bail-in became a standard feature of recovery and resolution frameworks in many countries around the world, following the GFC, it began to be criticized by academics and practitioners.

One of the criticisms is that bail-in, or, more specifically "bail-in" debt, is just not a practical funding strategy for the vast majority of banks.[18] Retail banks, which gather the bulk of their funds in the form of deposits, with most of the accounts fully covered by deposit insurance, have neither the capacity nor the strategy to attract funds in the form of AT1, T2, or (even less likely for them) senior non-preferred notes. What is more, these instruments are not intended for, and should not be marketed to, retail customers.[19; 20]

17. See, for example, Bank Austria, 2019.

18. Asimakopoulos, 2019 (October) is the leading reference paper on this criticism.

19. The minimum denomination of any notes to be traded on a market within the European Economic Area or offered to the public in any member state of the European Economic Area is €100,000, which seems low for instruments that are not to be marketed to retail investors. See NIBC, 2019.

20. Well-known examples of the dangers of marketing bail-in debt to retail investors include the Lincoln Savings scandal in the United States in the late 1980s and the botched "Veneto Banks" resolution in Italy in 2016-17, in which retail investors in subordinated debt stood to be bailed in, until the Italian government danced around the prohibition against state aid by compensating these investors. The failure of the two Veneto Banks cost the Italian treasury €17 billion. See Donnelly, et al., 2019, for a description of the Veneto Banks controversy.

Indeed, banks throughout the EU, in particular, have made enormous strides since the GFC in replacing volatile wholesale funds with more stable, low-cost retail deposits. According to the critics of bail-in, encouraging or forcing all banks to issue bail-in debt would go against that trend, and will most likely raise the overall cost of funds for retail banks. These increases in their cost of funds might, in turn, push retail banks to seek higher-yielding, riskier assets.

Furthermore, even many of the most significant banking groups, in the EU or in other jurisdictions, may not be prepared to issue bail-in debt. Out of the 130 "significant" banking groups in the euro area whose resolution would be handled by the Single Resolution Board, 70 percent are not even publicly-traded, and 60 percent have never sold anything resembling AT1 instruments.[21] Smaller banks, which might have to change their business models in order to comply with MREL requirements, would face even more difficult challenges.

Another argument against bail-in is that it will seldom be used. Neel Kashkari, President of the Federal Reserve Bank of Minneapolis, has been making this argument ever since the Italian bank failures of 2016-17.[22] The rationale of this argument is that RAs will be reluctant to impose bail-in on any creditor of any bank, for fear of destabilizing the market for such debt held by all creditors of all banks. The "contagion effect" of seeing debt owed by Bank X bailed in may encourage holders of Bank Y's debt to sell their instruments, even if Bank Y is not having financial difficulties. This contagion effect seems to be more pronounced for senior debt than for AT1 or T2 instruments.

As a consequence, the natural instinct of RAs, perhaps influenced by political considerations in some jurisdictions, will be to "bail out" rather than "bail in" these liabilities by doing the kinds of open-bank resolutions, with capital injections by the state, and without imposing any losses on AT1, T2, or senior bondholders, that have been the norm for large-bank near-failures from the 1980s, until the post-GFC reforms supposedly put an end to this practice.

21. Asimakopoulos, 2019.

22. See Reuters (2017).

Kashkari and others argue that, instead of bail-in debt, TLAC and MREL requirements should be met with CET1 capital only. In other words, minimum CET1 capital should be set at a much higher percentage of risk-weighted assets than currently. This argument inevitably will get wrapped up into the larger argument of "what is the cost of capital" for banks, an argument that has never been resolved by academics or practitioners.[23]

Conclusion: what is a logical bail-in regime? How can the ambiguities of resolution/liquidation regimes in other jurisdictions be avoided?

Jurisdictions that are considering bail-in as a tool in their resolution regimes should consider the experience of the jurisdictions that have wrestled with this issue over the past 10 years and attempt to avoid some of the ambiguities and uncertainties plaguing these experienced jurisdictions. In particular, a recommended series of steps might be:

1. Make explicit that bail-in of AT1 and T2 instruments is an acceptable feature of recovery plans, and make it clear that activating a recovery plan is not a resolution.

2. Avoid discussions of AT1, T2, and senior debt as "going-concern" or "gone-concern" capital, as this distinction is not helpful, can lead to confusion, and is probably not even valid.

3. Define "failing or likely to fail," or some equivalent term, precisely, and accept that guided judgment will have to be used in a FOLTF determination, in addition to objective data.

4. Place every FOLTF bank in resolution without delay.

5. Define "resolution" as a process that includes any regulatory intervention that changes the corporate structure and/or ownership of a bank, possibly including the disappearance of the bank as a corporate entity. Under the category of resolution actions, include forced merger; open-bank resolution (with or without government capital injections); purchase-and-assumption transactions; creation of a "bridge bank" preserving the critical functions of the bank, together with the "good" assets and non-bail-in liabilities (such as covered deposits), bail-in of senior debt (bail-in of AT1 and T2 instruments are presumed to have already been bailed in, in a failed recovery plan); and liquidation/depositor payout.

6. Consider adopting a public interest test[24] to guide the resolution authority as to whether a bank resolution should be a) some kind of action short of liquidation, such as open-bank resolution or b) liquidation and depositor payout.

7. Amend laws and regulations so that bail-in of AT1, T2, and senior debt that can be bailed in can be accomplished through regulatory action without the bank being declared "in default" or forced into bankruptcy or other "insolvency proceedings." Further amend laws and regulations, if necessary, so that regulatory action can suspend payment of dividends on AT1 instruments without the bank being declared "in default."

8. Set a target for a TLAC or MREL equivalent (regulatory capital plus senior debt that can be bailed in), in terms of a percentage of risk-weighted assets, which may differ from bank go bank, and make an affirmative determination of how much of that requirement must be satisfied by CET1.

There are other, more technical and logistical issues that need to be addressed in developing a bail-in regime, and different jurisdictions may consider different approaches or solutions, depending on institutional factors. These include:

- Rates of conversion between AT1, T2, or senior debt instruments to shares at the time of bail-in.

- Suitability of investors in AT1, T2, or senior debt subject to bail-in.

23. Although there are not many counter-examples to the argument that bail-in will seldom be used, it should be noted that Denmark resolved two small banks in the last few years with bail-in, JAK Slagelse in January 2016 and Kobenhaven Andelskasse in September 2018.

24. Although these Danish banks were small, they met the EU's "public interest test" for resolution rather than liquidation, which is another controversy that will not be discussed in this brief. Essentially, a bank in the EU will be resolved, rather than liquidated (although the line is somewhat blurry) if resolution is necessary to ensure the continuity of critical functions provided by the bank *or* resolution is necessary to avoid adverse effects on the financial system. However, similar banks have been treated differently under this test in practice.

- Disclosure by banks to investors of risks in investing in AT1, T2, or senior debt subject to bail-in.
- A list of liabilities that are not subject to bail-in.
- The appropriate target percentage for a TLAC or MREL equivalent, which may differ from bank to bank.[25]
- The level or sub-entity of the banking group at which bail-in will occur. This determination is important in the case of banking groups that operate cross-border. The so-called "single point of entry" and "multiple point of entry" resolution approaches sometimes require the creation of a "holding company" and/or an "operating company" where bail-in-able debt may be located.
- Whether or not the jurisdiction wishes to adopt a "no creditor worse off" (NCWO) standard, which states that at the time any instrument is bailed in, the responsible RA must determine if the holder(s) of the instrument would be better off if the bank were simply liquidated with distribution of asset values to creditors, rather than resolution with bail-in.

If it turns out that the holder(s) would be better off in liquidation, then bail-in cannot occur. This determination is difficult to make at the time a decision to resolve with bail-in is made, because it involves a hypothetical estimation of how the creditors would fare in a liquidation. This determination is *ex ante,* and there is always the chance that the bailed-in creditors will come back *ex post* and argue, with their own data, that they ended up being worse off than in that hypothetical liquidation. Indeed, since bail-in is immediate, but asset sales to return value to creditors in a liquidation scenario takes place over a period of time, during which overall economic conditions or conditions in certain markets may improve, bailed-in creditors may well be able to demonstrate (at a later time) that they ended up being worse off in resolution.

25. As an example, the Single Resolution Board calculated a MREL requirement for one bank as 15.16% of "total liabilities and own funds." Some commentators have urged the SRB to express the MREL requirement as a percentage of risk-weighted assets instead.

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