

stakeholders and the public policy interest in preserving financial stability. Debt restructuring ideally would not be subject to creditor consent, but a “no creditor worse off” test may be introduced to safeguard creditors’ and shareholders’ interests. The framework also needs to provide mechanisms for addressing issues associated with the bail-in of debt issued by an entity of a larger banking group and with the cross-border operations of that entity or banking group.

- The *contribution of new capital* will come from debt conversion and/or an issuance of new equity, with an elimination or significant dilution of the pre-bail in shareholders. Bail-in will need to be accompanied by mechanisms to ensure the suitability of new shareholders. Some measures (e.g., a floor price for debt/equity conversion) might be necessary to reduce the risk of a “death spiral” in share prices.
- It may be necessary to impose minimum requirements on banks for issuing unsecured debt or to set limits on the encumbrance of assets (which have been introduced by many advanced countries). This would help reassure the market that a bail-in would be sufficient to recapitalize the distressed institution, thus forestalling potential runs by short-term creditors and avert a downward share price spiral. The framework should also include measures to mitigate contagion risks to other systemic financial institutions, for example, by limiting their cross-holding of unsecured senior debt.

I. INTRODUCTION

The recent financial crisis demonstrated that the distress of a systemically important financial institution (SIFI) and its subsequent disorderly liquidation can create risks to overall financial stability. A failing SIFI can endanger financial stability in three ways:

- i. through direct *counterparty risks* when the failing institution fails to meet its financial obligations (Gorton and Metrick, 2010a) or high demand for collateral (or “margin”);
- ii. through *liquidity risks* and fire-sale effects in asset markets, when the distressed institution is forced into asset sales to obtain liquidity, which further depresses asset prices (and thus raises demand for higher “margin”) and causes credit crunches (Brunnermeier, 2009; Acharya, Shin, and Yorulmazer, 2011); and
- iii. through *contagion risks* when the panic caused by the failure of one institution spreads to other financial institutions (Duffie, 2010; and FDIC, 2011).

Government-funded rescues of SIFIs to preserve financial stability have been costly, and, as a result, the potential risks to financial stability posed by SIFIs have increased. In some countries, government bailout has contributed to unsustainable public finances that are threatening the solvency of the banks with heavy exposure to sovereign debt. The government-assisted mergers and acquisitions have resulted in further consolidation of financial institutions in the United States and across Europe. Consequently, the top financial institutions of today have become *larger* and the European and U.S. financial sectors have become even *more* concentrated than before, aggravating the too-big-to-fail problem. At the same time, the “shadow” banking system, which played a crucial role in generating and

spreading systemic risks, remains under-regulated, despite various reform efforts (Duffie, 2010; and Gorton and Metrick, 2010b).

An effective and *credible* resolution framework for distressed SIFIs is one important element of a comprehensive solution to minimize potential costs to taxpayers of future bank failures, and to break the adverse feedback loop between sovereign debt and bank debt.² In the absence of such a framework, policymakers will continue to face the dilemma of whether to let a financial institution fail with a potential risk to financial stability or to bail it out at taxpayer cost, and with serious moral hazard consequences. Any credible and effective resolution framework for SIFIs must therefore be able to

- i. reduce the likelihood of government bail-out by ensuring that shareholders and creditors bear losses, thereby limiting moral hazard risk and improving market discipline;
- ii. minimize systemic risks by quickly restoring confidence, thereby reducing the need for fire sales or disorderly liquidations of financial contracts, and preserving the going-concern value of the distressed institutions; and
- iii. achieve effective cross-border resolutions.

This paper studies the usefulness of statutory bail-in power as a resolution tool for SIFIs. While bail-in would be a useful tool with respect to a broad range of financial institutions, the discussion of the legal framework to support bail-in will focus on a special resolution regime for banks.³ The paper addresses the following issues:

- **Relative advantages and disadvantages.** Under what circumstances would bail-in be preferred to other resolution tools, including liquidation and powers to transfer assets and liabilities to other legal entities, such as bridge banks?
- **Design features.** What are the design features (triggers, scope, ability to remove management, creditor seniority, etc.) that ensure a credible, transparent, and effective bail-in regime while mitigating the risk that the power itself could trigger instability?
- **Cross-border effect.** What are the cross-border challenges and possible solutions to ensure the regime's effectiveness in all relevant jurisdictions?

²The elements of an adequate policy framework to deal with the too-big or too-important-to-fail problem should contain (i) more stringent capital and liquidity requirements to limit contribution to systemic risk; (ii) intensive supervision consistent with the complexity and riskiness of the institutions; (iii) enhanced transparency and disclosure requirements to capture emerging risks in the broader financial system; and (iv) effective resolution regimes at national and global levels to make orderly resolution a credible option, with resolution plans and tools that lead creditors to share losses (Otker and others, 2011).

³ Though this paper discusses the concept of bail-in as a resolution tool for systemically important banks and nonbanks alike, the structure and design details of resolution regimes for systemically important nonbanks can differ from those applicable to banks.

- **Market impact.** What will be the potential impact on banks' funding cost and funding structure? What are the implications for financial stability?

The rest of the paper is organized as follows. Section III sets out a conceptual framework for statutory bail-in and discusses the economic rationale. The legal framework for bail-in is laid out in Section IV, while Section V considers cross-border issues. Section VI compares bail-in with other resolution tools. Section VII discusses the potential market impact and the implication for financial stability. Section VIII concludes.

II. STATUTORY BAIL-IN: CONCEPT AND ECONOMIC RATIONALE

A. What Is Bail-in?

Bail-in is a statutory power to restructure the liabilities of a distressed SIFI by converting and/or writing down unsecured debt on a “going concern basis.” In bail-in, the concerned SIFI remains open and its existence as an ongoing legal entity is maintained. The idea is to eliminate insolvency risk by restoring a distressed financial institution to viability through the restructuring of its liabilities and without having to inject public funds (except for the provision of liquidity support as a backstop). This would require restoring capital to a level over and above regulatory requirements to ensure the institution's survival, including under stressed assumptions. It could be achieved either by converting existing debt to equity as part of the debt restructuring or by injecting capital brought in by new shareholders, or by a combination of the two. The aim is to have a private-sector solution as an alternative to government-funded rescues of SIFIs.

A statutory bail-in mechanism differs from contractual contingent capital instruments with write-off or conversion features (such as convertible bonds or CoCos).⁴ While both involve creditor-financed recapitalization, CoCos are *private financial contracts* with principal and scheduled coupon payments that can be automatically converted into equity or written down when a predetermined trigger event occurs, whereas bail-in is a *statutory power* that enables resolution authorities to eliminate or dilute existing shareholders, and to write down or convert, in the following order, any contractual contingent capital instruments that have not already been converted to equity, subordinated debt, and unsecured senior debt. As a general resolution tool, bail-in would be accompanied by the power of the resolution authority to change bank management. A statutory bail-in regime and contractual contingent convertibles (especially those with high capital ratios as triggers) could form a complementary approach, with contingent capital as the first line of defense and bail-in kicking in to deal with the SIFIs that remain distressed after the conversion of contingent capital.⁵

⁴ In some proposals, bail-in was more broadly defined to also include a contractual approach to write down and convert non-equity liabilities; for examples, contingent capital instruments or a broader set of contractual “bail-inable” debt instruments.

⁵ For a detailed discussion on contingent capital, see Pazarbasioglu and others (2011).

The following example is a simple illustration of how bail-in might work and what its effect on a bank's balance sheet might be. Suppose there is a bank with total assets of \$100 billion, financed by deposits (\$50 billion), repos and other short-term funding (\$20 billion), and long-term unsecured senior debt (\$20 billion). Hence, the bank's equity position is \$10 billion. Assume that its capital is eliminated due to a large loss (\$10 billion) in its long-term assets. A mandatory recapitalization under a bail-in power would restore the equity position to \$10 billion by converting 50 percent of unsecured senior debt into equity, without the bank having to resort to asset sales. In this example, pre-restructuring shares are completely written off, but deposits, repos, and other short-term funding are not affected by the bail-in power, while restructured senior debt holders are now shareholders (with downside as well as upside potential).

The bail-in capital could be seen as a form of insurance (provided by creditors) against bank insolvency and, hence, bank runs, especially runs on repos and other short-term funding. Consider the example given above and assume there is no bail-in power in place. Runs on repos and other short-term funding now become a high risk as the bank's capital is eroded by losses. But if a part of the bank's debt can be converted into equity under a bail-in power (the bail-in capital) to absorb losses, the risk of runs on short-term funding could be significantly lowered (though roll-over risk of long-term debt could increase as a result). The crucial point is that investors need to be convinced that a recapitalization under a bail-in will provide *sufficient* time to restore the bank's capital strength and hence, the bank's long-term viability. Otherwise, the triggering of the bail-in power could be seen as a bank's nonviability, causing a run instead of preventing it.

Table 1. Effects of Bail-in on Bank Balance Sheet: A Simple Example

Bank balance sheet at the starting point (in billions of U.S. dollars)			
Asset	100	Liability	90
Cash & other fixed assets	5	Deposits	50
Securities & short-term investment	45	Repos & other short-term borrowing	20
Loans & other long-term investment	50	Long-term unsecured debt	20
		Equity	10
Bank balance sheet after a write-down of \$10 billion in long-term assets			
Asset	90	Liability	90
Cash & other fixed assets	5	Deposits	50
Securities & short-term investment	45	Repos & other short-term borrowing	20
Loans & other long-term investment	40	Long-term unsecured debt	20
		Equity	0
Bank balance sheet after recapitalization under the bail-in power			
Asset	90	Liability	80
Cash & other fixed assets	5	Deposits	50
Securities & short-term investment	45	Repos & other short-term borrowing	20
Loans & other long-term investment	40	Long-term unsecured debt	10
		Equity	10

B. Why Do We Need Bail-in?

The crisis has demonstrated the need to expand resolution powers available for SIFIs. During the recent crisis, due to a lack of robust bank resolution tools many countries had to rescue failing SIFIs with bail-outs or rely on general corporate insolvency proceedings to deal with the failures, and this produced mixed results. For example, Commercial Investment Trust (CIT) Group was restructured successfully after filing for bankruptcy under Chapter 11 of the Bankruptcy Code in the United States.⁶ Lehman Brothers' filing for bankruptcy protection, however, resulted in a disorderly liquidation that destroyed asset value and destabilized financial markets (FDIC, 2011). This experience, as well as experience in other countries, clearly demonstrated the need to expand resolution tools, so that SIFIs could undergo resolution in a way that preserved asset values and systemic business functions and minimized contagion.

General corporate insolvency proceedings do not provide sufficient tools to manage the risks to financial stability that can arise from the failure of a SIFI.⁷ Many SIFIs are holding companies with a mix of retail banks, broker-dealers, asset management funds, money market funds, corporations, and insurance companies. The bankruptcy proceedings for these financial companies can be very complex, lengthy, and costly.⁸ Under highly volatile and uncertain market conditions, a lengthy and uncertain wind-down could undermine market confidence and risk destabilizing the financial system (Gorton and Metrick, 2010b; and Shleifer and Vishny, 2011).

Because SIFIs typically hold large positions in financial derivatives, insolvency can trigger a disorderly unwinding of these financial contracts, causing significant disruption to financial markets. For example, in the United States, financial contracts are not subject to the automatic stay that generally applies in bankruptcy, nor are they subject to a general stay in bank insolvencies. As some have argued, the disorderly liquidation of financial contracts was a key contributing factor to the recent financial crisis (FDIC, 2011; and Gorton and Metrick, 2010a). In the case of Lehman Brothers, the bankruptcy filing of its holding company constituted a default that terminated swaps and other derivative trades, activated emergency clearing-house rules that allowed the liquidation of all its positions, and led to serious disruption in its settlement and transfer operations.

In response to the crisis, some countries have adopted or extended special resolution regimes for the orderly resolution of ailing financial institutions on a closed (gone-

⁶ CIT Group filed for Chapter 11 bankruptcy protection on November 1, 2009, with \$71 billion in assets and support from its creditors. It emerged from its bankruptcy proceedings 38 days later, after its creditors reached an agreement on a voluntary debt restructuring plan.

⁷ The systemic nature of a financial institution would also depend on the market conditions. At a volatile time, the failure of a relatively small institution could also have a destabilizing impact on the financial system.

⁸ For example, Lehman's bankruptcy has involved five bodies of laws applicable to its various corporate entities, including over 80 jurisdictions' insolvency laws applied to its non-U.S. entities (Summe, 2011), with legal costs exceeding \$1 billion and still rising.

concern) basis. Under these frameworks, an institution may cease to exist as a legal entity, although parts or all of the institution’s businesses and operations may continue through another legal entity, such as a purchasing institution or a bridge bank. The objective is to ensure an orderly closing of the original legal entity while selling off the valuable parts. In the United States, the Orderly Liquidation Authority (OLA) under the Dodd-Frank Act grants the FDIC the powers and authority to resolve failed systemically important nonbank financial companies through receivership, mainly using the procedures and tools already available to resolve failed FDIC-insured banks (FDIC, 2011).⁹ In the United Kingdom, the Banking Act of 2009 introduced a special resolution regime (SRR) for deposit-taking financial institutions only.

Bail-in powers would offer an additional and complementary tool for the resolution of an ailing SIFI on an open (going-concern) basis. This tool involves recapitalization through relatively straightforward liability adjustments. Though the bank is not closed, the management responsible for the loss of capital would be removed as part of the resolution, and existing shareholders would be substantially diluted or fully eliminated. Unlike the gone-concern resolution tools discussed earlier, the objective of bail-in powers is to restore the viability of the distressed institution, allowing it to continue as an open and operating legal entity, thus mitigating the systemic risks associated with insolvency-induced disorderly liquidation. More importantly, by eliminating insolvency risks, the pressure on distressed financial institutions to post more collateral against their repo contracts could be significantly reduced, thereby minimizing liquidity risks and preventing runs on repos or other contracts. Equally important is that bail-in would reduce the need for assisted mergers and therefore, provide an alternative to even larger SIFIs.

The bail-in proposal and its variations have been included in reform agendas at both national and international levels. Prior to the crisis, some countries already had some form of debt restructuring mechanism applicable to banks. More recently, the Financial Stability Board (FSB) has included bail-in as one of the key attributes of effective resolution regimes (FSB, 2011a and 2011b).¹⁰ Most of the post-crisis reforms have not yet incorporated statutory powers to restructure bank debt as a means of resolving a bank without closure, but various bail-in proposals have been put forward at the national and international levels, including in the United Kingdom (Independent Commission on Banking, 2011) and at the European Commission (EC, 2011).

⁹ The FDIC has used three basic resolution methods for failing institutions: P&A transactions (most commonly used), deposit payoffs, and open bank assistance transactions (which are no longer commonly used). The OLA specifically focuses on mitigating the systemic risk of disorderly liquidation of financial positions by granting the FDIC the authority to suspend the termination rights in “qualified financial contracts” (QFCs) as defined in the Federal Deposit Insurance Act by one business day and allowing the FDIC a short period of time (up to three days if a resolution commences on a Friday) in which it may transfer QFCs to a solvent third party or to a bridge company. If a transfer occurs, the counterparties would continue to be prohibited from terminating their contracts and liquidating and netting out their positions solely on the basis of the appointment of a receiver.

¹⁰ Further work on the design of mandatory debt restructuring will be carried forward through the FSB, its Resolution Steering Group, and Legal Advisory Panel; the last is providing more detailed legal analysis and recommendations on implementing the recommendations of the FSB with respect to resolutions.

III. A PROPOSED FRAMEWORK FOR BAIL-IN

A well-designed and comprehensive framework is essential to ensure the effective implementation of a bail-in regime. First and most importantly, bail-in must be based on a robust legal framework, as with all resolution tools that affect the rights of stakeholders. As a resolution tool, bail-in would be one of an array of techniques available to the resolution authority under a well-designed special resolution regime. Such a regime would include a going-concern form for proceeding, such as “official administration,”¹¹ which would give the authorities extraordinary power to take control of a bank by virtue of its having crossed some legally defined threshold of financial weakness or other serious difficulty.¹² An administrator would be appointed and empowered by bank supervisory or resolution authorities to design and implement a restructuring plan for the bank and, if restructuring were not an option, to prepare the bank for orderly liquidation.¹³ Secondly, the design of a bail-in framework should take into consideration its potential impact on short-term creditors as well as on other financial institutions, and include mitigating measures, such as a government liquidity backstop and a limit on the encumbrance of assets.

The rest of this section discusses the key procedural and substantive elements of a framework that includes bail-in, while the discussion of risk-mitigating measures is present in Section VII.

A. Procedural Elements

A well-designed resolution regime will typically contain a number of different thresholds, both qualitative and quantitative, for triggering resolution proceedings. An overall goal of a well-designed resolution framework is to empower the resolution authority. This includes providing a flexible toolkit, leaving it to the authorities to determine when a bank meets the legal thresholds for initiating resolution proceedings and how best to resolve the bank, taking all of the facts and circumstances into account.

The triggers for bail-in power should be consistent with those used for other resolution tools. Moreover, the determination of what should trigger bail-in needs to strike a balance between legal certainty and early interventions to maximize the likelihood of restoring a distressed financial institution’s viability.

¹² One question raised was whether bail-in could form part of the general framework for enforcement measures and remedial actions, which would apply before reaching a stage of deterioration or difficulty requiring formal resolution (e.g., prompt corrective action or PCA). Our view is that the triggers for taking enforcement actions, usually along the lines of violations of law or regulations or unsafe or unsound practices, are not necessarily sufficient to justify the direct effect on third-party rights (both creditors and shareholders) that are entailed in statutory bail-ins.

¹³ Many jurisdictions have some form of such a regime, though it may be called by other names such as temporary administration, interim administration, statutory management, conservatorship, or other similar terms.

- ***Insolvency-related triggers***—Under this approach, bail-in power would be triggered at a stage when a financial institution is close to being either balance-sheet or cash-flow insolvent. The principal argument in support of this approach is that bail-in implies such a substantial interference with the rights of stakeholders that it should only be possible when the bank is insolvent and in danger of liquidation. However, a key disadvantage is that it may be too late for the bail-in to achieve its intended purpose of restoring the bank to viability.
- ***Pre-insolvency triggers***—Bail-in could be implemented at an earlier stage than that described above—for example, when the official administration may itself be initiated. Official administration is generally triggered by either qualitative (e.g., repeated breach of regulatory standards) or quantitative triggers, such as capital adequacy ratios falling below a certain level (e.g., below 50 percent or 75 percent of the norm). In some countries, a “public interest” finding may also be required.¹⁴ Pre-insolvency triggers would generally allow for a prompt and effective response to a bank’s difficulties. The disadvantage is that, in some legal systems, the pre-solvency triggers could raise legal questions as to the position of senior creditors relative to other stakeholders (including shareholders), official interference with contractual rights, and non-discrimination, which may, as with other resolution tools, require compensation to debt holders that are adversely affected.¹⁵

Weighing these issues, it may be appropriate for the trigger for the bail-in power to apply at a point that is close to but before the institution is balance-sheet insolvent. The trigger could be based on a combination of quantitative and qualitative assessments, such as a combination of a breach of regulatory minima (e.g., minimum capital adequacy ratio) and concerns about the distressed institution’s liquidity problems. The triggers, although discretionary, should not be seen as arbitrary, which means that the resolution authority should be able to decide to initiate the process of bail-in only when the trigger criteria are met.

It is important to minimize the uncertainty generated by discretionary use of bail-in power and to avoid surprising market participants by making the intervention criteria as transparent and predictable as possible. To the extent consistent with maintaining orderly market conditions, disclosure concerning remedial measures against a troubled institution (up until the point of intervention) may enhance certainty.

¹⁴ Such public-interest tests could include references to whether the intervention would likely maximize the value of the institution, minimize its losses to creditors and other stakeholders, preserve its going-concern value for the benefit of creditors and other stakeholders, and avoid or mitigate any severe disruption in the stability of the financial system.

¹⁵ Basically, pre-insolvency shareholders should not inappropriately benefit from haircuts on creditors. Therefore, in case of early pre-insolvency triggers where losses may not be large enough to eliminate shareholders completely, senior creditors should not be subject to outright haircuts but only to debt-to-equity conversion, so that the pre-insolvency shareholders are diluted.

The role of the judiciary is another important procedural design issue. While the resolution framework invariably depends on the specific legal tradition and constitutional framework in a country, there are compelling arguments in favor of an approach that minimizes the role of the courts. Given the need to act quickly and to vest restructuring decisions in the hands of officials with the necessary technical expertise, it would appear more appropriate for these decisions to be taken by the banking authorities. As an example, decisions could be made by the official administrator, subject to prior approval of the supervisory or resolution agencies and follow-up judicial review.¹⁶ Follow-up judicial review should not be able to reverse the resolution; rather, it should be limited to review of the legality of the action and the awarding of damages as a remedy.¹⁷

The need for quick and decisive action in the interest of financial stability pleads against incorporating a procedure for creditor approval in the bail-in framework, even though such approval is typical when debt restructurings are implemented in the context of corporate insolvency. However, care should be taken to ensure that eliminating creditor consent will survive legal challenge in the relevant jurisdiction and will not undermine the ability to achieve cross-border recognition of bail-in as an appropriate insolvency or reorganization proceeding.¹⁸

Another consideration is whether an additional test should be met before implementing a bail-in power. For example, the authorities might only be permitted to proceed with the bail-in if they (or another competent authority) were assured that bail-in was mostly likely to restore a distressed bank to viability.¹⁹ In addition, bail-in might also be subject to a “no creditor worse off” test. Where restructuring is not subject to creditor consent, the introduction of such a requirement would provide important safeguards for the interests of creditors and the protection of stakeholders’ rights, such that they would be made no worse off than in the counterfactual of insolvency.

Bail-in should be applied to existing debt as well as debt issued after the bail-in power is enacted. In general, amendments to insolvency laws apply to existing debt and other contracts, though the approach may differ from jurisdiction to jurisdiction. Because bail-in power would be a resolution tool that could be employed in proceedings analogous to bankruptcy reorganizations, the same principle should apply.

¹⁶ This is the case in Japan, where the FSA may apply to the court to open proceedings.

¹⁷ As suggested by the Japanese bank-debt-restructuring framework, the centralization of procedures in certain (specialized) courts may also be useful.

¹⁸ In Italy, the creditors do not have a say in the haircuts imposed upon banks.

¹⁹ If the pre-insolvency triggers were too early, for example, prior to a breach of regulatory minimum, the determination of the test for proceeding with the restructuring would be more complicated, since creditors could argue that alternative recovery action (recapitalization, asset disposals) might avoid imposing haircuts.

B. Substantive Design Elements

Determining the trigger for opening restructuring proceedings will raise the question of whether bail-in is legally considered an “insolvency proceeding” in the relevant jurisdictions. The characterization of bail-in by official administrations as an insolvency proceeding should help justify the interference with stakeholder rights and improve the ability to achieve cross-border effectiveness. However, some jurisdictions may experience tension between keeping banks open as a going concern and insolvency.²⁰ More specifically, the question arises whether various insolvency rules aimed at ensuring equality among creditors have a place in any form of going-concern resolution, such as bail-in. For example, most insolvency proceedings include “claw-back rules,” which authorize undoing certain transactions that occurred before the initiation of insolvency.

A related question would be whether termination and close-out netting rights against the bank should be enforceable. As will be discussed below, legislative amendments should limit the possibility for counterparties to *close out* (i.e., terminate) agreements on the grounds of debt restructuring.

The legal framework will need to clearly specify which bank liabilities may be restructured under the bail-in power. To improve transparency and avoid uncertainty, only subordinated and senior unsecured debt should be subject to bail-in. Insured/guaranteed deposits, secured debt (including covered bonds), and repurchase agreements should be excluded from restructuring. A different but related question is whether, with respect to senior unsecured debt, it may be appropriate to carve out some types of senior unsecured debt from the restructuring process, including inter-bank deposits, payments, clearing and securities settlement system obligations and, arguably, also some trade-finance obligations. These liabilities may be of systemic or strategic importance and might justify a differential treatment from other senior debt, even if they rank equally in a liquidation context.²¹ Any legal concerns might be addressed either by creating different classes for unsecured creditors or by providing compensation to creditors who are made worse off than they would have been by liquidation.²²

To avoid the possibility that pre-restructuring shareholders and junior creditors could benefit from haircuts imposed upon senior creditors, the debt restructuring under a bail-in should reflect the order of priority applicable to liquidation. Thus, before haircuts are imposed on creditors, a balance sheet offering a fair and true view of the financial situation of the bank should be established. Any losses should first be attributed to

²⁰ But this would not be the case for those jurisdictions whose insolvency framework includes forced debt restructuring mechanisms.

²¹ A further question that may affect the legal analysis would be whether the differential treatment should be automatic or discretionary for the resolution authorities.

²² On the creation of such different classes on the basis of different economic interests: see Hagan (1999), pp. 66–67.

pre-restructuring equity (including post-conversion contingent capital). Subordinated debt outstanding at the time of the debt restructuring should be the next in line to absorb the outstanding losses before imposing haircuts on unsecured senior creditors.

Given that the equity will be reduced before the debt is restructured, new capital will be needed to make the bank viable again. The contribution of new capital would come from converting part of the haircut-adjusted debt into equity and/or an issuance of new equity. In both instances, this would lead to significant dilution of the pre-restructuring shareholders, if they were not already written off. To make this effective, it will be imperative that company law rules do not prevent such recapitalization, for instance through excessively rigid preemption rights or procedural requirements related to authorizing and issuing any necessary additional shares. Furthermore, the legal framework will need to specify a process for determining when and how the bank is restored to private control once bail-in is completed and the bank's capital position is restored.

Bail-in needs to ensure that new shareholders pass the required supervisory scrutiny for suitability. This can be addressed by early regulatory action to write down the equity stake within a timeframe that avoids forced sales. Moreover, certain institutional investors (such as hedge funds) could be prohibited from owning equity stakes, and alternative ownership structures could be considered (for example, through trust funds). Addressing these issues after the fact is important for avoiding a fire sale of shares, especially when unsuitable investors are forced to sell in an illiquid market.

Bail-in, in and of itself, should not trigger a termination of the bank's transactions and agreements. More specifically, legislation should prohibit contractual counterparties of a bank from terminating or walking away from agreements for the sole reason that bail-in powers have been invoked against a bank. (The termination of contracts for actual default should, however, not be prohibited.) In designing rules for such prohibition, close attention should be paid to the issue of cross-default clauses in standard financial contracts to avoid situations where the debt restructuring of the bank triggers the close-out of contracts with other components of a banking group.

Bail-in may need to be coupled with adequate official liquidity assistance. Official guarantees for some debt may also be necessary to stem outflows. In this case, government financing provided during the debt restructuring should receive priority treatment if the bank were to subsequently fail.²³

IV. GROUP ISSUES AND CROSS-BORDER CHALLENGES

Given that most SIFIs have international operations, the effectiveness of a statutory bail-in will depend crucially on the extent to which all relevant jurisdictions will give effect to its terms. Otherwise, the balance sheet adjustment pursued by the debt restructuring will fail. A statutory bail-in framework needs to address:

²³ This would be similar to "debtor-in-possession" rules in the U.S. Chapter 11 framework.

- i. issues associated with the bail-in of debt issued by entities that form part of a larger banking group; and
- ii. issues associated with the bail-in of debt of a bank or banking group that operates in multiple jurisdictions.

This section will examine the principal group and cross-border issues that could arise in a statutory bail-in and offer some possible solutions.

The analysis outlined below assumes that a restructuring would be implemented on the basis of the following principles and applied on a legal-entity-specific basis:²⁴

- The *home-country authorities* would initiate, approve, and implement the restructuring process.²⁵
- The statutory bail-in powers could, in principle, apply to all liabilities of the ailing bank, including liabilities “held” abroad²⁶ and claims governed by foreign laws (foreign *lex contractus*).
- The process of debt restructuring would be governed by the law of the home country (*lex fori concursus*). However, as noted below, this process could be undermined by separate proceedings in third countries, including concurrent territorial insolvency procedures of jurisdictions hosting branches.

Generally, insolvency or reorganization proceedings for banks and other types of corporations are carried out on a legal-entity-specific basis, and the triggers and powers of resolution are entity-specific. In the context of bail-in, such an approach would mean that the authorities could only apply the bail-in power to the debt of a banking group member if that member itself had crossed the relevant threshold for bail-in. This approach would have a number of implications:

- If the relevant bank was a subsidiary, a bail-in of its debt could result in the “de-grouping” of the bank by wiping out the parent company’s equity in the bank. This could destabilize the parent and the group, although that may be unavoidable if the subsidiary was no longer viable and liquidation was the only other alternative.

²⁴ Some have raised the question of whether resolution frameworks in general and bail-in in particular could be applied on a group-wide basis. However, there is very little support among policy makers for collapsing the estates of the components of a banking group into one single insolvency estate.

²⁵ This assumption is made to streamline the discussion of cross-border issues rather than to take a specific position on what jurisdiction should take the lead in resolving a problem bank. What will be important is that there is agreement in advance regarding which jurisdiction should control the resolution process. This same jurisdiction will likely need to be the one that provides any necessary liquidity until the bank is stabilized.

²⁶ While some liabilities of a bank may be booked with a foreign branch, ultimately they represent claims on the entire legal entity and should be included in the overall balance sheet of the bank.

- If the relevant SIFI obtained its funding by borrowing from another entity in the group that itself issued debt in the market, an entity-specific bail-in regime would permit the restructuring of the debt of the SIFI held by the other entity, but not the debt that the entity had issued in the market to fund the SIFI. Such an approach might not address economic reality (whereby the other entity may have served as a conduit through which the relevant bank raised debt in the markets) and could destabilize the other entity to the point where it could not repay its own creditors. Additional difficulties might arise if the other entity were a nonbank that was not subject to a bank-specific bail-in or insolvency regime (e.g., a passive, off-balance-sheet vehicle) or if its debt were guaranteed by the relevant bank or by another entity within the group.

There is no clear consensus on solutions to these problems. As a conceptual matter, it would appear necessary to design the bail-in regime in a manner that allows the resolution authority to restructure not only the balance sheet of the entity subject to bail-in, but also the balance sheets of other entities within the group; for example:

- i. by allowing the resolution authority to convert claims held against the subsidiary subject to bail-in into the parent's equity in the subsidiary; or
- ii. by restructuring the debt of related entities that provide funding to a bank that is itself subject to bail-in.

However, any such approach would represent a significant departure from traditional entity-specific approaches and would raise a significant number of legal and policy issues.

Whether or not the statutory bail-in is applied directly to a single legal entity or to more than one member of the group, the effectiveness of the statutory bail-in will depend crucially on the extent to which all relevant jurisdictions will give effect to its terms. In practice, significant legal obstacles may prevent the debt restructuring from taking full cross-border effect. These obstacles may arise in two separate contexts, depending on whether the bank under restructuring has, or does not have, a branch in jurisdictions outside of its home country.

With respect to the debt restructuring for a single bank and its branches, there are legal mechanisms under which the restructuring might be giving effect in relevant jurisdictions other than the home jurisdiction of the bank, though their effectiveness in a given case is unpredictable. These mechanisms include choice-of-law rules, general principles of “comity,” which have been recognized by the courts of many countries, and specific statutory frameworks for recognition that countries have put in place in connection with international law instruments, such as the UNCITRAL model law on cross-border insolvency or the EU Winding-up Directive.²⁷ However, the exercise of statutory bail-in powers is more likely to be effective in other jurisdictions, if the resolution proceeding under

²⁷ Where the host jurisdiction is the jurisdiction of the choice-of-law provision in a debt contract, recognition of an insolvency proceeding will mean that the insolvency proceeding takes precedence over the terms of the debt contract.

which statutory bail-in is carried out is an insolvency or insolvency-related reorganization regime.²⁸ Moreover, a host jurisdiction may be less likely to recognize statutory bail-in actions taken by the home jurisdiction if insolvency proceedings have been initiated against a branch in the host jurisdiction where ring-fencing is applied.

Furthermore, cross-border effectiveness becomes far more complicated in the case of a restructuring of the debt within a banking group, where the intra-group issues identified above would have to be addressed across jurisdictions. For example, the balance sheet of an entity in one jurisdiction could be restructured as part of the bail-in of a related entity in another jurisdiction. The establishment of such a regime would require significant legislative change in the relevant jurisdictions that would abandon the traditional entity-specific approach to resolution, and resolution authorities would be given the power to take extraordinary action as part of a resolution that was initiated and applied to related entities in other jurisdictions.

There are essentially two approaches to increase the likelihood of the cross-border recognition of bail-in power:

- One approach would be for policy makers in each jurisdiction to ensure that debt instruments issued by banks in their jurisdictions include provisions that give effect to any restructuring the home authorities might impose. A strengthening element to this approach might be for the home jurisdiction specifically to identify those host jurisdictions whose laws could be chosen as the *lex contractus* based on whether that jurisdiction would give effect to the debt restructuring.²⁹ This approach would add a consensual element to an otherwise involuntary process—which could make it easier to give effect to the restructuring in some jurisdictions. However, by definition, such an approach could only be applied to newly issued debt instruments. Also, it may prove difficult to determine beforehand which debt would likely be subject to restructuring and would thus require the inclusion of provisions of this type (if at all possible).³⁰ Notwithstanding these difficulties, the addition of a contractual clause could be implemented relatively quickly and may be a particularly viable option for the short term.
- An alternative approach would be to ensure that relevant jurisdictions put in place legislation that recognizes bail-in powers that are implemented by the authorities in other jurisdictions. One way to do this would be through the direct recognition of orders made by the competent authority in the home jurisdiction (e.g., the home regulator) in other

²⁸ Whether the proceeding would be considered an insolvency or insolvency-related reorganization regime may depend on, among other things, the protections the regime provides for the various stakeholders. In the context of bank resolutions, what constitutes an acceptable level of protection will need to be balanced against the reality of the need to act quickly in the interest of preventing contagion and preserving financial stability.

²⁹ The identification of permissible jurisdictions could affirmatively identify acceptable jurisdictions or, in the alternative, the authorities may establish a list of unacceptable jurisdictions.

³⁰ For instance, loans from parent banks to subsidiaries would typically not be incorporated in debt securities, but could well be subject to restructuring.

relevant jurisdictions. An alternative would be for the competent authority in the host jurisdiction to issue parallel or protective measures consistent with those taken by the home jurisdiction. In either case, countries may prove to be reluctant to introduce such a framework, given the loss of national sovereignty that it would entail in some cases, unless they believed it would provide them with certain safeguards.

The IMF has proposed a framework for enhanced coordination for the resolution of cross-border banks (IMF, 2010). The IMF approach encourages countries to recognize bank-resolution measures implemented in another country, provided they are satisfied that the framework in that country meets certain “core coordination standards,” including a minimum level of harmonization of national resolution tools and sufficiently effective levels of prudential supervision. Where these coordination standards are met, jurisdictions could then be encouraged to enact any necessary legislation to clear the way for cross-border effectiveness of bank resolution measures, including bail-in.³¹

V. COMPARISONS WITH OTHER RESOLUTION TOOLS

Compared to other key resolution mechanisms, bail-in may offer a more appropriate resolution tool for distressed SIFIs, whose primary problem is inadequate capital. Hence, replenishing an institution’s capital account is likely to be sufficient to restore the viability of the institution. While the objective of gone-concern tools, such as purchase and assumption (P&A) transactions and bridge-bank powers, is to ensure an orderly closure of a failed financial institution (including selling off the parts with going-concern values), the objective of bail-in is primarily to restore the viability of a distressed financial institution and prevent insolvency-related runs on the institution. Both approaches share the goal of protecting financial stability by preserving systemic business functions while imposing losses on some creditors to reduce moral-hazard risks. Both have advantages and disadvantages in practice, and it is therefore important to view bail-in as complementary to other resolution tools and not as their substitute.

The key distinctions between bail-in, P&A, and bridge bank powers are set out below. Some arise from the nature of the proceedings within which the transactions occur (for example, receivership vs. official administration) and some arise from the nature of the transactions themselves. Bail-in does not involve finding purchasers for a distressed SIFI, which could be difficult due to its size or time constraints. This makes bail-in a potentially more useful tool to avoid the value destruction associated with a fire sale of assets. In addition, when P&A powers are used to transfer a business to multiple purchasers, as with a large firm, then intensive due diligence will be required to ensure that the associated transfer of assets and liabilities does not undermine creditors’ rights, such as set-off, netting, and rights to collateral. The alternative of a bridge-bank approach, while it does not immediately

³¹ Given that the assets of the most important global institutions may be clustered in a few jurisdictions, agreement among a few key financial centers could make forced bank-debt restructuring a viable resolution technique for financial institutions that are globally systemically significant.

involve purchasers, provides a temporary rather than permanent solution, since, ultimately, private sector purchasers or investors will need to be found.

Bail-in may entail lower execution risks. First, there are likely to be more contracts governed by foreign law that are transferred under a P&A than are treated to a haircut under a bail-in. As a result, the probability of defaults arising across borders could be higher under a P&A than under a bail-in. Second, because bail-in does not involve a transfer of business operations, it will not require the legal due diligence by the resolution authority prior to the resolution, which is necessary in a P&A to assess the practical and legal effects of the transfer on critical contracts and business functions. It will be especially important to consider whether a transfer creates problems with respect to contractual rights involving other entities in the same financial group of the failing institution or with respect to contractual provisions relating to off-balance-sheet vehicles. Finally, since issued debt will likely be governed by the laws of relatively few jurisdictions, it may be more straightforward to achieve cross-border effectiveness through the use of bail-in than through a P&A, because the latter would require achieving legal effect in all of the countries with jurisdiction over the tangible and intangible property of the failing SIFI.³²

However, bail-in by design does not directly address the issues related to problem assets and loss-making business lines. In a P&A transaction, problem assets can be left behind in the receivership. Bail-in may thus fall short in restoring investor confidence because of the unknown level of asset impairment on the balance sheet of a distressed bank. Therefore, to improve client and creditor confidence, it would be desirable to establish an expectation that a bail-in will over-capitalize the bank to ensure that hard-to-predict losses from impaired assets will be covered. Moreover, if the bank's operations are fundamentally unsound and need to be restructured, then bail-in capital could simply delay the inevitable failure. The resolution authority to change management and revise the business strategy would thus be necessary.

Finally, contingent liabilities, including off-balance-sheet liabilities and litigation, can also be left behind in the receivership in a P&A, and to the extent that they can be proven they are claims against the receivership estate. In a bail-in, because the entity remains open, these liabilities may need to be paid in the ordinary course of business. Transition arrangements are needed to allow for regulatory approval of the new shareholders (the haircut creditors or third-party new investors) and to allow for the orderly divestiture or placement into trust of shareholder interests for creditors who do not subsequently secure approval.

³² Though work is being done at the international level to develop mechanisms for efficient and effective cross-border recognition, under the current state of affairs achieving recognition may involve court-based processes that can take time. Furthermore, the complexity of various legal doctrines that may achieve recognition makes it difficult to predict the outcome in any given case.

VI. POTENTIAL MARKET RISKS AND MITIGATING MEASURES

Ultimately, the effectiveness of bail-in will depend on the ability of the resolution authority to exercise its power in a manner that enhances financial stability. Individual banks and the banking system are vulnerable to bank runs and banking panics, which can be caused by weak fundamentals or self-fulfilling shifts in market sentiment (Diamond and Dybvig, 1983).³³ If the market believes the viability of a distressed SIFI would be restored with the recapitalization under a bail-in power, investor confidence will be enhanced, and this will have a positive reinforcing effect on financial stability. However, if the use of a bail-in power is perceived negatively by the market as a sign of insolvency, bail-in could trigger a run by various creditors and lead to financial instability and contagion. This section discusses potential market risks and mitigating measures to safeguard financial stability, especially measures to reduce counterparty, liquidity, and contagion risks.

A. Potential Impact on Funding Costs

To the extent that bail-in reduces or even eliminates the implicit too-big-to-fail subsidy to SIFIs, it would, by design, have an impact on banks' funding costs. Banks' ratings have had a strong degree of public support built into them.³⁴ Banks' senior ratings are expected to be adjusted downwards to reflect the loss of government guarantees. The removal of the ratings' uplift may result in an average downgrade of senior, unsecured debt. For instance, in Europe, JP Morgan estimates the percentage of EU banks shifting to non-investment grade would increase from 2 percent to 33 percent (Henriques, 2011).

The removal of the too-big-to-fail premium will help restore market discipline by aligning bank funding costs more closely with risks. This will also help differentiate banks on the basis of their risk-taking activities and reintroduce a level playing field between SIFIs and non-SIFIs. Therefore, by bringing funding more in line with risks, the least viable parts of the banking systems may be ultimately consolidated or simply eliminated, with positive implications for financial stability. On the other hand, once bail-in succeeds in restoring the viability of a distressed financial institution, it could create value by providing creditors with higher returns, since the loss-given default under bail-in is likely to be smaller than under disorderly liquidation.

Moreover, bail-in could break the observed negative feedback loops between sovereign risks and bank funding costs. The current pressure on sovereigns has exacerbated pricing pressures on bank senior debt, since bail-out can be seen as a government put. Since bail-in

³³ This vulnerability arises from the inherent risk due to a fundamental mismatch between the long-term illiquidity of physical investments (bank assets), households'/creditors' desire for liquidity (bank liability), and banks' function as providers of intermediation between creditors and producers. With the financial innovations (for example, securitization), the intermediation chain has become longer and more unstable and bank runs have extended to wholesale funding, causing a systemic banking crisis. For example, some have seen the recent financial crisis as "a run on repos" (Gorton and Metrick, 2010a).

³⁴ In Europe, for instance, the support factor for the banking sector contributed up to five notches to the long-term ratings from Fitch for 31 out of the 58 EU banks rated by the credit rating agency at the end of 2010.

implies the termination of such a put option, the correlation between senior bank and government spreads would be reduced.

However, the introduction of bail-in needs to be carried out in such a way that it ensures financial institutions can adequately adjust to this new regime. The general trend of increased funding costs could weigh on banking systems currently under pressure. For instance, at the end of 2010, 10 out of 33 of the largest international banks were refinancing themselves as if they were rated at speculative levels.³⁵ Higher cost of funding over a long period of time could prompt bank managers to seek riskier assets or simply deleverage. A system-wide bank deleverage could hinder economic recovery.

B. Effects on Bank Liability Structure

Higher funding costs for unsecured debt could result in changes in banks' liability structures. Banks' capital structures tend to be determined by the tradeoff between the marginal costs of debt (e.g., bankruptcy costs) and the marginal benefits of debt (e.g., tax incentives, cash flow incentives). To the extent that bail-in increases the marginal cost of debt, its share in total liabilities could fall. Banks might just increase their total capital to lower the cost on senior debt—this is reflected in the renewed interest in contingent capital securities, and would be a desirable outcome. However, banks could also shift toward short-term and secured borrowing (e.g., covered bonds) to lower funding costs and possibly to circumvent bail-in. In the case of covered bonds, while they bring benefits to banks (lower costs) and investors (protection),³⁶ they have a potentially undesirable impact on issuer balance sheets and on the efficacy of bank resolution frameworks (including bail-in) and deposit insurance schemes.

Consideration could therefore be given to imposing minimum requirements upfront on banks for issuing unsecured debt (as percent of total liability) or setting limits on the encumbrance of assets. This would help reassure the market that bail-in would be sufficient to recapitalize the distressed institution and restore its viability. Independent of bail-in proposals, the increasing popularity of covered bonds has already raised questions as to whether there should be limits to protect against the structural subordination of unsecured creditors (ECBC, 2011). In a large number of countries, explicit issuance limits on covered bonds are already in force. Since 2009, many countries have updated or adopted covered bond laws and several advanced countries (Australia, Italy, Netherlands, United Kingdom, and the United States) have introduced asset encumbrance limits. For most banks, their current liability structure suggests that new issuance of unsecured debt may not be needed,

³⁵ Moody's has indicated that a seven-notch gap between an entity's credit rating and the corresponding CDS-based, market-implied rating results in the probability of the credit rating being downgraded, increasing by 40 percent over a one-year horizon.

³⁶ They are cheaper because investors are protected by collateral. A covered bond typically provides a preferential claim on segregated assets and entails a degree of over-collateralization to improve its credit rating, thus undermining the position of senior unsecured creditors by encumbering the highest quality assets.

although this could change with regulatory reforms.³⁷ A minimum requirement on unsecured senior debt might be more effective and easier to monitor and implement than a limit on asset encumbrance, because the market could work around encumbrance limits through securitization. The difference between those two benchmarks, though, might not be as significant as expected in the presence of liquidity requirements.

C. Potential Contagion Risks

Another design issue is to ensure that systemic risk is not simply being shifted to other parts of the financial sector. This would argue for regulating investment in unsecured senior debt issued by SIFIs. A large share of debt instruments, including senior debt, is purchased by other financial institutions, although their share has steadily declined from close to 20 percent (on average) in 2007 to 17 percent in 2010 for the Euro area banks and from 15 percent to 12.5 percent during the same interval for U.S. banks. Therefore, before applying the bail-in power, regulators should have a preliminary assessment of its potential effects on the balance sheets of other banks. Insurance companies are also major investors, with bank bonds accounting for 20 to 30 percent of their investment portfolios and up to three times their capital, although, with the introduction of Solvency II, they may shift their senior unsecured exposure to other long-term assets.

Bail-in is untested in a systemic crisis and should ideally be used if it is likely to restore a distressed financial institution to viability. As discussed above, the risk of contagion could be mitigated by a range of carefully designed measures, including restrictions or quantitative limits on the cross-holdings of bail-in instruments with timely monitoring by authorities, convergence of supervisory criteria, triggers for bail-in across jurisdictions, frequent and transparent disclosure, communication by SIFIs and authorities, and effective resolution planning. Statutory bail-in needs to be considered in the context of a comprehensive framework that includes effective supervision to prevent bank failure and an effective overall resolution framework. That framework must allow for an orderly resolution of a failing or failed institution with minimum market disruptions, facilitated by up-to-date recovery and resolution plans.

VII. CONCLUSIONS

Bail-in power needs to be considered as an additional and complementary tool for the resolution of SIFIs. Bail-in is a statutory power of a resolution authority, as opposed to contractual arrangements, such as contingent capital requirements. It involves recapitalization through relatively straightforward mandatory debt restructuring and could therefore avoid some of the operational and legal complexities that arise when using other tools (such as P&A transactions), which require transferring assets and liabilities between different legal entities and across borders. By restoring the viability of a distressed SIFI, the

³⁷ For example, under the Solvency II framework for European insurance companies, senior unsecured bonds are treated less favorably than covered bonds.

pressure on the institution to post more collateral, for example against their repo contracts, could be significantly reduced, thereby minimizing liquidity risks and preventing runs by short-term creditors.

The design and implementation of a bail-in power, however, need to take into careful consideration its potential market impact and its implications for financial stability. It is especially important that the triggering of a bail-in power is not perceived by the market as a sign of the concerned institution's non-viability, a perception that could trigger a run by short-term creditors and aggravate the institution's liquidity problem. An effective bail-in framework generally includes the following key design elements:

- The *scope* of the *statutory power* should be limited to (i) eliminating or diluting existing shareholders; and (ii) writing down or converting, in the following order, any contractual contingent capital instruments, subordinated debt, and unsecured senior debt, accompanied by the power of the resolution authority to change bank management.
- The *triggers* for bail-in power should be consistent with those used for other resolution tools and set at the point when an institution would have breached the regulatory minima but before it became balance-sheet insolvent, to allow for a prompt response to an SIFI's financial distress. The intervention criteria (a combination of quantitative and qualitative assessments) need to be as transparent and predictable as possible to avoid market uncertainty.
- It may be necessary to require banks or bank holding companies to maintain a minimum amount of unsecured liabilities (as a percentage of total liabilities) beforehand, which could be subject to bail-in afterwards. This would help reassure the market that bail-in is sufficient to recapitalize the distressed institution and restore its viability, thus reduce the risk of runs by short-term creditors.
- To fund potential liquidity outflows, and given the probable temporary loss of market access, bail-in may need to be coupled with adequate official liquidity assistance.
- Bail-in needs to be considered as one element of a comprehensive framework that includes effective supervision to reduce the likelihood of bank failures and an effective overall resolution framework that allows for an orderly resolution of a failed SIFI, facilitated by up-to-date recovery and resolution plans. In general, statutory bail-in should be used in instances where a capital infusion is likely to restore a distressed financial institution to viability, possibly because, other than a lack of capital, the institution is viable and has a decent business model and good risk-management systems. Otherwise, bail-in capital could simply delay the inevitable failure.