

# A Proposal to Resolve the Distress of Large and Complex Financial Institutions

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*Due to the difficulty in resolving bankruptcies of large multinational financial institutions, regulators and policymakers in the U.S. and abroad need to avoid such bankruptcy proceedings by not only instituting contingent capital and “bail-ins” but also automatic stabilizers built into each systemically significant part of the firm’s capital structure.*

As governments around the world rewrite financial sector regulation, a key issue that remains unresolved is whether the distress of large, complex financial institutions (LCFIs) will be managed better in the next crisis than in the last one. The LCFIs, also called, by the United States’ Dodd-Frank Act, “systemically important financial institutions” (SIFIs), operate across borders and in many businesses; they also have complex capital structures funded by multiple types of liabilities. In some cases, the size of individual LCFI’s or groups of them rival the nations where they are headquartered. Most of them operate traditional banks, making residential and commercial loans, but also engage in investment banking, market-making, and trading. On the liabilities side, these firms raise demand deposits— in both retail and wholesale markets— as well as take on leverage in the forms of sale and repurchase agreements (“repos”), secured and unsecured inter-bank borrowing, and derivatives positions.

If just one LCFI were to fail in isolation, it could have the potential to spread distress in many countries through the roiling of markets and the destabilization of financiers. If several of these firms fell together, the problem would be greatly compounded. We have seen this before. The failure, or near failure, of a number of these firms in 2007-08—notably UBS, Fortis, Bear Stearns, Citigroup, Lehman Brothers, A.I.G., and Royal Bank of Scotland, among others—created a trail of uncertainty and a prospect of ruin, the response to which was costly government bailouts. The episode entrenched the mantra of “too big to fail”, lending it a new dimension of “too interconnected to fail”. At the same time, these events created an urgent attention towards the need for markets and regulators to deal with future distress of these large, interconnected firms in an orderly manner without having the taxpayer foot the bill.

In the United States, the Dodd-Frank Act sets out a series of insolvency procedures, and internationally Basel III establishes some resolution principles. But neither offers a clear prescription for how to prevent the next systemic crisis or for how to manage one should it materialize. Furthermore, international coordination issues have not been satisfactorily addressed. While Chapter 15 of the US bankruptcy code

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in theory deals with international jurisdiction questions, in particular, allowing for cooperation between U.S. and foreign courts, the mere size of an LCFI bankruptcy suggests this approach may not work in practice. For example, when Lehman Brothers filed for Chapter 11 protection in September of 2008, this action triggered well over 60 insolvency proceedings worldwide. Some actions within these proceedings were particularly harmful to global financial stability. Take, for example, the re-hypothecation of hedge funds' assets held at Lehman's U.K. prime brokerage unit. Under U.K. law, these assets became part of the creditor's take. This led to runs on hedge funds and overall uncertainty about which assets at financial institutions were safe and which were not. No bankruptcy process, even if internationally coordinated, could have worked quickly enough to stem these effects.

Regulators and policymakers in the U.S. and abroad have also individually come up with rough sketches of proposals that would avoid bankruptcy proceedings for LCFIs. The main idea floating around is that there be provision of "contingent capital" or "co-co bonds", a (small) part of LCFI's liabilities that would convert to equity mechanically based on a firm-specific and/or system-specific trigger. Such conversion would provide the LCFI with some debt relief and thus some extra time to deal with its problems. A related idea is that of a "bail in," under which a LCFI's deterioration past a specified benchmark would trigger for some claims a pre-programmed haircut, or the elimination of some claims entirely, effectively writing down firm's liabilities to a predetermined extent.

We favor such proposals. Bail-ins in particular are attractive if they can be enacted as part of an integrated capital structure, wherein systemically significant liabilities (such as swap agreements) are placed in high-priority tranches while ordinary bonds and equity are left to suffer conversion or elimination in the event that the firm would be unable to pay all of its obligations. We imagine that such a capital structure, enacted perhaps as part of a LCFI's "living will"—a plan of resolution required for the U.S. firms by Dodd-Frank—could lend stability by providing certainty about where losses would rest in the event of a financial crisis.

However, such measures are *not* sufficient because they *cannot* prevent systemic financial collapse should a firm's insolvency overwhelm the limited firewalls that these techniques can provide. In other words, there is no guaranty that a firm's contingent capital or bail-in reduction in liabilities would be adequate to compensate for the size of a LCFI's losses, particularly in the event of an unexpected event such as the burst of a real estate bubble that ignited the most recent crisis. In such scenario, neither contingent capital nor bail-in would help preserve for a LCFI's creditor asset value at the level of that creditor's claim. In turn, the firm's systemically significant liabilities would be exposed. Overnight liabilities might come due and derivatives positions might entail margin calls. If the LCFI is international, a likely outcome would be haggling over how to proceed with the defaulting LCFI, with accompanying uncertainty of the type that, for example, surrounded Lehman's bankruptcy in 2008. A failure to address this risk would leave the system vulnerable to large aggregate shocks even in the presence of contingent capital and bail-ins.

Our recommendation therefore is that approaches such as contingent capital, bail-in, or living wills, be built on top of a "bottom up" approach—one that works at the level of the securities rather than the level of the firm that owns them. Under such an approach there would be an automatic stabilizer built

into *each* systemically significant part of an LCFI's capital structure. The automatic stabilizers could be in the form of government-provided but appropriately-charged deposit insurance, centrally cleared liabilities with initial and variation margins charged by a clearinghouse, and in extreme cases, lender-of-last-resort from the central bank against eligible assets (but to avoid moral hazard, only to firms that pay a market-rate fee). Indeed, we believe that the bottom-up approach we propose here may in some cases obviate the need for any contingent capital or bail-in requirement in the first place.

Consider for sake of illustration an LCFI that has retail deposits, repo financing, and positions in standardized derivatives. Each of these liabilities is potentially systemic: deposit runs could trigger contagious runs on similar LCFIs; default on repos could trigger counterparty defaults, for instance, on money market funds; and, inability to honor derivative payoffs could also spread contagion to other LCFIs, including corporations hedging with the failing LCFI. Now, suppose that retail deposits were insured with a well-capitalized reserve fund by deposit insurance authority of the LCFI's host country (as is currently the case for FDIC insured institutions in the United States), while the repo positions and standardized derivatives are all traded through respective clearinghouses.

In a case such as this, the resolution of the LCFI would be relatively straightforward. The repo clearinghouse would seize the underlying collateral and margins (if any) and use its clearing arrangement to honor payouts to counterparties. Likewise, the clearinghouse for the standardized derivatives would seize the margin accounts it maintained for the LCFI, net all of its positions, and use the margin balance to honor its positions. If necessary, the clearinghouse would use its stock of capital – posted by *other* clearing members also – to honor any shortfall in payouts. The remaining entity could be sold by the deposit insurance agency through an auction – as the FDIC does in the United States – to let well-capitalized institutions purchase the entity with its assets and deposits; or, assets could be liquidated piece-meal and any shortfall in payments to depositors met through the reserve fund, which again would also be contributed to by *other* firms availing of deposit insurance.

In each of these cases, the automatic stabilizers would deal with the systemically important liabilities by ensuring that there is upfront capital provided by the system as a whole to resolve each liability. A regulatory scheme of charging capital or margin contributions (or deposit insurance premiums) that provides appropriate ex-ante incentives would require that systemically riskier firms pay more. To the extent possible, these arrangements should be expanded to cover as many systemic liabilities and markets as possible.

There would, inevitably, remain some systemically important liabilities that are not covered by the bottom-up approach, for example, derivatives positions that remain over-the-counter. These positions should reside in firms subject to contingent capital or bail-in requirements. These positions would ideally not be too large given the automatic stabilizers of the system for other liabilities, but could in any case be resolved using the preprogrammed conversion of debt into equity and consequential reduction of liability in a firm's capital structure.

A particularly attractive feature of the bottom-up approach is that it requires no uniform firm-level insolvency process and thus might be the simplest way of achieving international agreement on

resolving the financial distress of global SIFI's. The international agreement could simply require that national deposit insurance agencies have well-capitalized reserve funds for stress-time losses to deposits, and that standardized liabilities, such as repos in the United States, are traded through clearinghouse arrangements under which all systemically important parties pre-arrange capital for resolution in case of LCFI failures. Such clearinghouses would need to meet internationally determined risk-management standards as well as initial and ongoing margin schemes. In worst cases, when a clearinghouse is itself in trouble from multiple firm failures and a consequent erosion of its capital, central banks could serve as a lender-of-last-resort against pre-determined eligible assets.

The final task of international resolution would then be to ensure that firms subject to liabilities outside of the deposit and clearing mechanisms have a clear bankruptcy jurisdiction and internationally agreed minimum contingent capital or bail-in arrangements. International agreement on these arrangements could perhaps be achieved through a living will process. If each LCFI were required to provide for a preplanned resolution of its distress—including a designation of which claims or interests would be paid and which reduced or eliminated—each firm's own plan (it's living will) could guide any court in any country toward a quick resolution of the firm's affairs. All international coordination would require is that each country approve the same set of standards for a living will, a potentially easier task than coordinating over the entire range of a large firm's insolvency procedure. But even if such coordination failed, the consequences could be relatively unimportant because the lion's share of any global financial crisis might have already been averted by the automatic stabilization mechanisms we propose here.