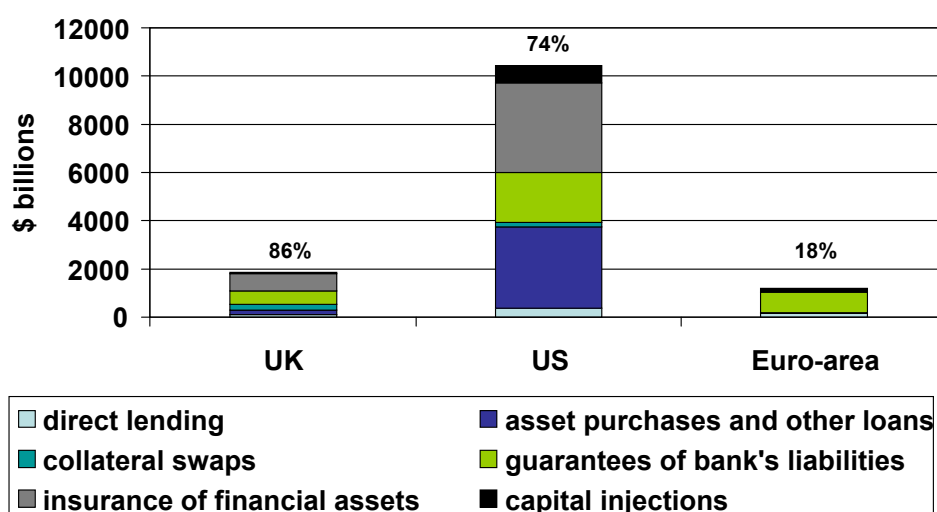


Too big to fail, too complex to contemplate: What to do about systemically important firms

Thomas F. Huertas^a

The acid test for a cure to what ails the financial system is whether it will work with respect to financial institutions that are considered “too big to fail” -- the large complex, cross border financial institutions (LCFIs) that are the principal players in financial markets, the principal users of payment, clearing and settlement systems and a major source of credit to consumers and corporations around the world.

A \$13 trillion cheque: Official support to the financial system, 2007 to 2009



Source: Bank of England, Financial Stability Report June 2009; figure in percent above the column represents total support relative to GDP

These institutions want to live by the market. They want to retain the profits that success can generate and pay their people for their role in generating that success. But society appears to have tentatively reached the conclusion that it cannot afford to let these institutions die by the market. Society tried this with Lehmans, and the financial system nearly went into meltdown. Only through massive monetary and fiscal stimulus were central banks and governments able to arrest the worst economic slide

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since the Great Depression. Total support to the financial system -- direct loans, asset purchases, collateral swaps, guarantees, asset insurance and direct equity injections -- amounted to over \$13 trillion. By anyone's reckoning that is a lot of money.

"Heads the firm wins, tails the taxpayer loses," is not a game the public should allow financial institutions to play. Society needs to find a way that financial institutions, especially the LCFIs that are at the centre of the financial system, can either avoid failure altogether or fail in a controlled manner so that the impact on the financial system and society as a whole is reduced to manageable proportions.

The measures outlined in statements of the Financial Stability Board and various national bodies calling for better regulation, better supervision (including macro-prudential supervision), better resolution, better deposit guarantee schemes are the foundations on which the prevention of future crises can be built (particularly if they are combined with better macroeconomic policy). But these measures do not present a solution to the problem caused by LCFIs.

Something extra is needed. Steps should be taken to assure that there is an extraordinarily low prospect that an LCFI will fail in the first place. Steps should also be taken to assure that, if an LCFI were to fail, it would fail in a controlled manner so that the damage to the rest of the financial system is reduced to manageable proportions.

The first step is to assure that LCFIs are well supervised wherever they operate in the world. Colleges of supervisors with the strong leadership by the home country supervisor, reinforced by cross-border stability groups, are the path to this end. But more will be needed to assure that LCFIs do not pose excessive risk to the financial system.

Who are LCFIs and why are special measures needed for LCFIs?

There is no commonly agreed definition of an LCFI, but the one that effectively lies behind the debate on moral hazard is that an LCFI is any institution that is likely to be resolved -- should resolution be required -- in a manner that would involve open-institution assistance. This would encompass institutions that are "too big to fail" as well as institutions whose failure would be "too complex to contemplate".

This is admittedly impractical and skirts the difficult issue of whether or how such a list might be designated, developed and maintained. Policymakers have been reluctant to develop explicit criteria in the absence of a clear mechanism to control and/or resolve such institutions. This paper focuses first on the mechanisms to deal with LCFIs.

If normal market measures cannot discipline LCFIs, what can? Some proposals are on the surface quite simple: if a bank is too big to fail, make it smaller; if a bank is too complex to fail, make it simpler. That way any financial institution could fail without overly adverse consequences for the system as a whole.

If by too big to fail, one means that a bank would have to be small enough that the deposit guarantee fund could pay out promptly the insured deposits of the bank, banks

will have to be very small indeed, until such time as the deposit guarantee funds are really in a position to pay out the deposits of any failed bank promptly. Even in the United States, where the FDIC has had decades of experience in dealing with failed banks, the deposit guarantee fund has trouble in resolving failed banks above a certain size. To resolve IndyMac, a bank with \$19 billion in insured deposits, the FDIC had to send in hundreds of staff months in advance of the actual failure of the bank to prepare the bank's systems for the point at which the bank would fail and payments be made to insured depositors. Although the UK is undertaking various measures to require banks to keep their data in a format that would strengthen the capability of the deposit guarantee fund to pay out insured deposits promptly in the event of the failure of a bank, these will take some time to implement, and even when they are in place it may not be practical to pay out promptly all the insured deposits of a very large bank that would fail.

Even if a concerted break-up campaign were to succeed in creating a system of small financial institutions, it can be seriously questioned as to whether such a system of institutions would necessarily be safer, sounder and more efficient. Small banks are not necessarily safer banks (as the failure of hundreds of small banks demonstrates), and large financial institutions would contend that small institutions lack the scale and scope necessary to make markets or provide financial services to the largest corporations. Global corporations need global banks (at least according to the global banks).

Similarly, those who contend that LCFIs are too complex have a simple solution: make them less complex. The favourite solution is to split investment (or "casino") banking from commercial (or "utility") banking, and the implied assertion is that utility banking is safe banking, and that casino banks could simply be allowed to fail.

This assertion is simply untrue. So-called utility banks have ample opportunity to take risks. Just as real utilities operate nuclear power plants that can go into meltdown, so can so-called utility banks generate losses through making loans – as Bradford & Bingley, HBOS and numerous other banks have amply demonstrated during this crisis and as the US S&Ls demonstrated so thoroughly in the 1980s. Utility banks can also run large liquidity risks, as Northern Rock demonstrated. And utility banks would presumably have the ability to make investments in highly rated securities, as IKB and Landesbank Sachsen did (in AAA-rated asset backed securities) prior to the onset of the crisis in 2007.

Moreover, complexity would not be cured simply by splitting investment and commercial banking. Lehmans was a stand-alone investment bank, so recommendations to split commercial and investment banking would also have to encompass some type of limit on the activities in which an investment bank could engage, so that the investment bank would be simple enough to resolve, if it were to get into trouble. That might entail pushing investment banks into becoming advisory boutiques or back to the strict originate and distribute model of the 1950s – no lending, no derivatives, no foreign exchange trading, but simply cash trading in spot securities markets, underwriting new issues and distributing them fully to end investors with stringent limits on the underwriting exposures that the bank could have at any one point in time. Unless one tackles the limits on what investment banks can do, and decides how a large complex, cross-border investment bank would be

resolved without damaging the financial system, simply splitting commercial and investment banking will solve neither the too-big-to-fail nor the too-complex-to-contemplate problems.

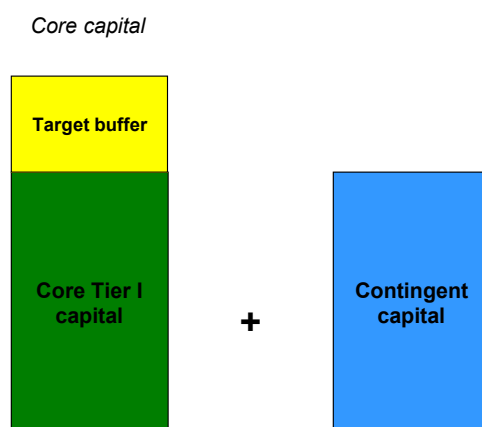
Universal banking is not necessarily unsafe banking. Some universal banks (e.g. Citigroup) made poor risk decisions and had to be rescued. Others (e.g. J.P.Morgan Chase) managed their risk more prudently, and were able to act as a source of strength to the financial system by acquiring institutions that had failed (Washington Mutual) or had to be rescued (Bear Stearns).

Reducing the probability of failure: Contingent capital, contingency funding plans and contagion control

If changing the structure of LCFIs won't work, what will? There has to be a mechanism that will reduce the probability that an LCFI will fail, and reduce the scale and scope of an LCFI to manageable proportions, so that if it were to fail, it would not bring down the financial system with it.

The simplest way to accomplish the former is to place more stringent capital and liquidity requirements on LCFIs. This reduces the probability of failure. In addition, each LCFI should be required to demonstrate that it could survive the failure of its largest counterparty (in all likelihood another LCFI). That will limit the risk of contagion that LCFIs could pose to the financial system.

**Contingent capital can limit
too big to fail and/or too complex to contemplate**



Stricter capital. Although all banks will need to maintain more capital and all banks will need higher quality capital, it is particularly important that LCFIs have at all times sufficient capital to avoid failure and the higher social costs that their failure

would entail. For this reason, LCFIs should have a supplemental capital requirement, an extra margin of safety.

This could take the form of a separate and distinct requirement that LCFIs hold contingent capital equal to some proportion of risk weighted assets. This capital would be convertible into core Tier 1 capital upon a finding by the regulator that the Core Tier 1 ratio of the bank fell below a certain threshold (e.g. the new and somewhat higher minimum capital ratio that would be set for all institutions). In all likelihood, such contingent capital would take the form of subordinated debt or preferred stock. Upon conversion into core Tier I capital, it would be fully loss absorbent. Prior to conversion such instruments would pay a coupon to investors, and this coupon would be linked to the risk of the instrument (i.e. to risk that conversion will occur and that the holder will subsequently suffer losses).

Such capital holds the promise of providing real market discipline. It introduces a class of investor in addition to the common shareholders who will monitor the bank's condition.¹ This is a vital reinforcement to the scrutiny that supervision provides. Absent such a class of investors, the predominant and perhaps only discipline for an LCFI could be the institution's own shareholders and the institution's supervisor. Given shareholders' asymmetric returns (unlimited upside, whilst limited liability constrains the downside), some doubt may be cast on the effectiveness of shareholders' disciplining risk taking. Therefore, absent the discipline that contingent capital could provide, discipline would fall predominantly, if not completely, on supervisors.

Contingent capital therefore amounts to a pre-pack recapitalisation from the private sector, not the taxpayer. Unlike Tier II capital and hybrid Tier I capital, contingent capital would be fully loss absorbent whilst the LCFI is a going concern. To the common shareholder contingent capital holds out the prospect of death by dilution, and it can be anticipated that shareholders would task management to undertake the necessary measures to avoid dilution. Pricing for the instrument should be in line with the risk that conversion will occur and the risk that subsequent losses would be incurred.

In effect, the imposition of such a separate and distinct contingent capital requirement would allow LCFIs to grow to whatever size the market is willing to recapitalise immediately even under adverse conditions. If a bank cannot find investors who are sufficiently confident that conversion is remote, or sufficiently confident that the LCFI would have a robust long term future even if it were to suffer a severe setback, the bank's size and/or activities would have to be scaled back to the point where investors would in fact have such confidence.

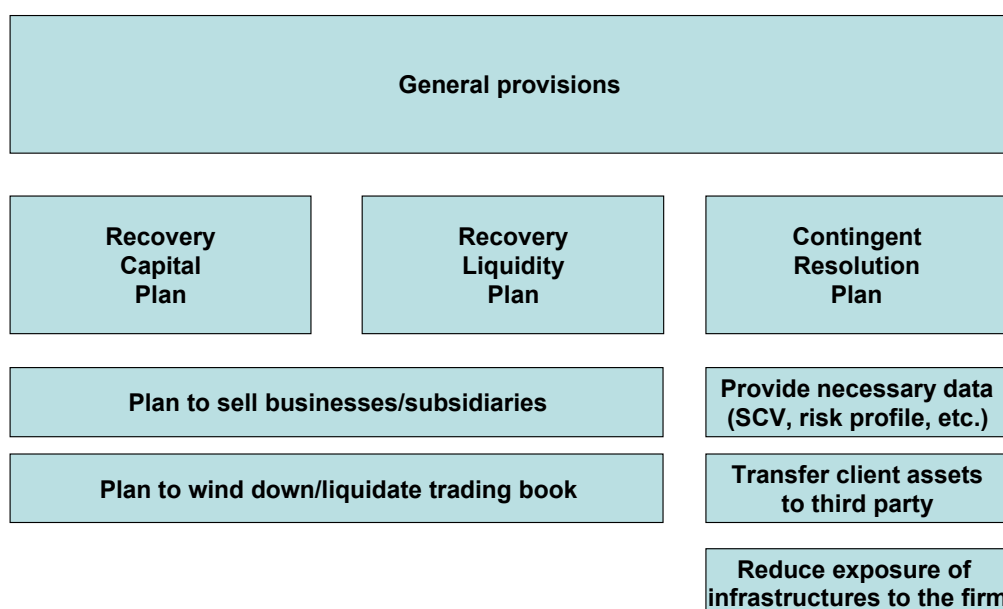
Stricter liquidity. In addition to stricter capital requirements, LCFIs should have stricter liquidity requirements. In particular, every LCFI should have in place a contingency funding plan that would be triggered, if its liquidity falls below the level of individual liquidity guidance that the supervisor sets for the LCFI. This will involve the LCFI's having established beforehand back-up sources of liquidity, such as long term repurchase facilities, as well as having in place the requisite collateral to furnish into such facilities.

As a back up to its market-based contingency funding plans a LCFI should take measures to assure that it could access central bank facilities such as discount window facilities. In particular, the LCFI should conclude the necessary legal and operational agreements with the relevant central bank(s) as well as taken steps to preposition collateral with such central bank(s) for ordinary and emergency liquidity facilities.

These precautions do not convey any right on the LCFI to borrow from the central bank, but they provide the central bank with the opportunity to provide liquidity assistance rapidly (as it would in fact need to do, if an emergency were to occur), should the central bank come to the conclusion that it is economically important to do so.

Contagion control. In addition to stricter capital and stricter liquidity requirements, LCFIs should be required to demonstrate more rigorous protection against large exposures. In particular, they should be required to demonstrate that they would be able to withstand the failure of the single largest counterparty (usually this will be another LCFI). This would include the ability to calculate on an ongoing basis the group-wide exposures to major counterparties as well as the operational ability to net and close out contracts, realise collateral, etc.

Living will



Living Wills

Severely ill patients draw up so-called “living wills” that allow another person to take decisions for the patient whilst the patient is incapacitated, pending the patient’s recovery (in which case the patient again resumes responsibility for his/her own affairs) or the patient’s death (in which case the patient’s last will and testament becomes effective).

Something similar is needed for LCFIs. The institution needs to draw up a plan of what it would do if it came under stress. Such plans should include the steps that it would take to recover from that stress as well as the steps that would have to be taken, if the institution failed to recover and resolution were required.

Thinking through these steps in advance is sensible and prudent. The time to think about emergency procedures is before the crisis strikes, not after. This enables the firm and its supervisors to consider calmly what is likely to work and what isn't as well as whether the scale of the proposed measures is commensurate with the stress to which the institution may be exposed. If this analysis reveals gaps, the institution can take corrective action before the stress materialises.

The living will should encompass three things: a recovery capital plan, a recovery liquidity plan and a contingent resolution plan. The recovery capital plan should comprise a detailed outline of the management actions that the institution would take in order to maintain or restore its capital ratios, should stress develop. Similarly, the recovery liquidity plan should comprise a detailed outline of the management actions that the institution would take in order to maintain or restore its liquidity, should stress develop.

An important underpinning to both the recovery capital and recovery liquidity plan would be a detailed plan of the businesses and/or subsidiaries that the institution might sell to third parties. This would include an assessment of whether such sales could be executed under stress and the impact that such a sale might have on both capital and liquidity. Should the institution not have units that are readily saleable at prices that would improve capital and/or liquidity, the institution may need to prepare itself to take other management actions to offset a possible stress and/or reduce its exposure to stress.

Another important underpinning to the recovery capital and recovery liquidity plan is an outline of how the institution could run down its trading book over a relatively short (30 to 60 day) period so as to reduce its overall risk as well as its capital and liquidity requirements. If such a risk reduction plan reveals that the institution could not in fact run down its trading book over such a period, then the firm will need to examine closely how to remove such obstacles (e.g. by removing illiquid assets from the trading book). If this cannot be done, the supervisor may need to alter the capital requirements for the firm's trading book so that they take the extended window to liquidation into account.

Finally, the living will should also include a contingent resolution plan. This akin to the plan the electric utilities must develop in order to disconnect a power plant from the grid without bring down the grid and with minimal disruption to end consumers. The contingent resolution plan for a financial institution would include assuring that the institution has the capability to provide the authorities at short notice with the information that the authorities would need in order to resolve the institution, should resolution be required. Such information would include the details of the bank's deposits and deposit guarantee coverage, in particular the single customer view (SCV) of the deposits held by an individual. Such information should also include details of the bank's risk profile and its legal vehicle structure, so that any administrator could

start with a good overview of the firm, including the degree of intra-affiliate funding within the firm.

The contingent resolution plan should also include deliberations on how client assets might be transferred to a third party so as to minimise the disruption to clients from the possible failure of the firm. Finally, the contingent resolution plan should include measures to “unplug” the firm from the payment, clearing and settlement infrastructures so that these infrastructures remain intact and continue to function for firms that do not require resolution. In practice, this would involve steps to limit the exposures that the payments, clearing and settlement infrastructures would have to the LCFI (e.g. run zero daylight overdrafts).

Conclusion

The crisis that started in 2007 challenges the very basis of our economic and financial system. It requires that we take steps to improve macroeconomic policy, resolution, deposit guarantees, regulation and supervision and to have them work in harmony with one another. Finally, we need a mechanism to handle LCFIs so that they can die by the market without killing the market. Stricter capital, stricter liquidity, contagion control and living wills are important steps in that direction.

These steps formalise the lessons that regulators and supervisors have been drawing from the crisis – that emphasis has to be placed on keeping banks as going concerns, that capital must be able to absorb loss whilst the bank remains a going concern and that banks must prepare in advance for economic and financial stress that might occur.

¹ In this respect the proposal for contingent or “top-up” capital requirement is a more effective version of earlier proposals that market discipline be imposed on banks via a requirement that they issue subordinated debt. Subordinated debt only absorbs loss in a gone concern scenario (as did other mechanisms such as double liability for shareholders). Tipping a bank into gone concern status is precisely what society seeks to avoid, if not eliminate entirely. This dictates that some method be found to force the shareholders to accept a recapitalisation well before the point at which it would become profitable for the shareholders to default and “put” the bank’s assets to the debt-holders (depositors). Contingent capital does this.