Bank Resolution Regimes: Designing the Right Model?

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I. Introduction

The events of 2007-9 made frighteningly clear the fragility of even the largest financial institutions. In contrast to ordinary corporations, financial institutions have capital structures that are inherently unstable. They are also highly interconnected, such that the failure of one can trigger instability for others and unleash entropy in the financial system generally. And as the ongoing economic difficulty in many developed economies reminds us, malfunctions in the financial system in turn have disproportionately adverse consequences for the real economy. Firms are starved of capital and productive investment suffers.

The tools available to governments and regulators for cushioning the financial system from the consequences of an institution's failure were simply not up to the job. On the one hand, there was a widespread fear that 'ordinary' insolvency law regimes would not provide sufficient shock absorption for financial institution creditors, despite the special carve-outs they enjoy from many core insolvency doctrines. In the eyes of many commentators, these fears were given credence by the Lehman bankruptcy, which very nearly brought about a financial meltdown. On the other hand, the very reason the US authorities permitted Lehman to fail was the unpleasantness of the other alternative, namely the ad hoc provision of public funds to 'bail out' troubled financial institutions. Yet in the winter of 2008-9 governments saw themselves as having little alternative but to make such bailouts on a gargantuan scale. Whilst most citizens do not understand the complexities of the financial system, every voter can grasp the moral hazard problems and distributional inequity associated with government handouts for the financial sector. One of the most urgent policy questions emerging from the crisis was therefore how to improve upon these tools.

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The policy debate can crudely be characterised as about determining the lesser of two evils. In one camp stand those who are pessimistic as to ordinary bankruptcy law's performance, and who consequently advocate a special 'resolution' mechanism for financial firms.[1] These proposals take as their starting point an existing model: the Federal Deposit Insurance Corporation (FDIC) receivership regime for troubled banks in the US. The FDIC, which manages the insurance fund for consumer depositors in US banks, monitors the health of deposit-taking institutions subject to its regime, and steps in pre-emptively to take over a troubled bank.[2] There typically follows a rapidly-arranged sale of 'good' assets and a slower, but orderly, wind-down of 'bad' assets. Whilst the objective of this process is simply to preserve the position of depositors—or more accurately, of the FDIC fund which is subrogated to their claims—it is said to have the serendipitous consequence of minimising consequent shocks to the financial system. In the other camp are those who are pessimistic about the ability of a resolution mechanism to be able to scale up to deal with the largest financial institutions, and thereby avoid the peril of ad hoc bailouts. They are correspondingly optimistic that 'tweaking' ordinary bankruptcy laws can enable financial institution failure to be resolved more smoothly.[3]

The reforms that have been, or are being, introduced in many of the major economies affected by the crisis, perhaps unsurprisingly, reflect a mixture of these policy prescriptions. The UK, which did not have any sort of pre-existing resolution or special insolvency regime for banks, has pursued a twin-track reform strategy. For deposit-taking institutions, the Banking Act 2009 introduced a special resolution regime modelled on FDIC receivership in the US.[4] For non-deposit taking financial institutions, the reform strategy focuses on improvements to insolvency law. Revisions to the ordinary insolvency laws are to be introduced to streamline the treatment of failed investment banks,[5] and the already-

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[1] See eg, ER Morrison, 'Is the Bankruptcy Code an Adequate Mechanism for Resolving the Distress of Systemically Important Institutions?' (2010) 82 Temple L Rev ___.

[2] See generally, RR Bliss and GG Kaufman, 'US Corporate and Bank Insolvency Regimes: A Comparison and Evaluation' (2007) 2 *Virginia Law and Business Review* 143.

[3] K Ayotte and DA Skeel, Jr., 'Bankruptcy or Bailouts' (2010) 35 *Journal of Corporation Law* 469.

[4] See generally, P Brierley, 'The UK Special Resolution Regime for Failing Banks in an International Context' Bank of England Financial Stability Paper No 5, July 2009.

[5] HM Treasury, *Establishing Resolution Arrangements for Investment Banks*, December 2009.

existing (special) insolvency regime for insurance companies may be modified further.[6] In the UK, therefore, the choice between (modified) bankruptcy and special resolution will be determined *ex ante* by the type of business conducted by the firm. However, the government retains a wide power to supplement this with *ad hoc* financial support—bailouts—for troubled financial institutions where there is a threat to financial stability.

In the US, the recently-passed Dodd-Frank Act provides for the extension of the FDIC's receivership powers to any nonbank financial company whose failure is determined to pose a risk to systemic stability.[7] Such interventions are to be underwritten by a new 'Orderly Dissolution Fund'—paid for by other financial companies—and the use of general taxpayer funds for bailouts is specifically prohibited.[8] However, the application of the new resolution mechanisms requires regulators to make a specific assessment that, because of risks to systemic stability, ordinary bankruptcy rules are inappropriate to deal with the troubled financial company.[9] Hence the choice between bankruptcy and the new orderly liquidation regime will be one that is made *ex post* on the individual merits of the case.

Possible reforms to EU law, which have the potential to supersede the UK developments, are still at an earlier stage. The European Commission recently consulted over the introduction of EU-level resolution mechanisms.[10] There was strong support for proposals to require Member States to introduce a common toolkit of special resolution mechanisms, and that their applicability should extend to nonbank financial institutions.[11] However, in contrast to the US, there was no support for a limitation to "systemically important financial institutions" (SIFIs), with the determination of systemic importance being viewed as too arbitrary. In order to assuage hostility to bailouts, the Commission is also proposing that, as in the US, such resolution processes should be paid for by special

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[6] HM Treasury, *Strengthening the Administration Regime for Insurers: A Consultation*, March 2010.

[7] Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, HR 4173, Title II.

[8] *Ibid.*, §§ 210(n), 214.

[9] *Ibid.*, § 203(a)(2)(F).

[10] European Commission Communication, An EU Framework for Cross-Border Crisis Management in the Banking Sector, COM (2009) 561 final.

[11] European Commission, Overview of results of the public consultation on an EU framework for Cross-border crisis management in the banking sector, 11 March 2010.

resolution funds raised through a levy on financial institutions.[12] Unlike the US legislation, however, the Commission favours an *ex ante* levy. Moreover, the circumstances under which the new resolution tools would be used in preference to traditional insolvency procedures have yet to be resolved.

This paper describes and evaluates these developments, with a particular focus on policies in the UK. The rest of the paper is structured as follows. Section II examines the problems that must be faced in the resolution of financial institutions, and considers *desiderata* for resolution mechanisms. Section III then describes and evaluates the legislative developments in the UK to date. Section IV compares and contrasts the position in the US, which it is argued presents a more coherent set of policy choices which are likely to facilitate more effectively the management of the relevant problems. Section V concludes.

II. Effective Resolution Mechanisms

(a) Systemic Risk and Loss Multiplication

The case for 'special measures' for troubled financial institutions rests on the propensity of their failure to cause harm to the economy that is a multiple of the losses to investors in the individual firm. To understand this, it is helpful to begin by focusing solely on the case of banks. Banks differ from ordinary businesses in a number of important ways.[13] First, they are structurally very fragile. The basic business model of a banks involves raising money from depositors (paradigmatically, households) and then lending it to businesses at a higher interest rate. This 'maturity transformation' means that there is typically a liquidity mismatch: the depositors require liquidity, but the money is invested in illiquid loans.[14] This makes the bank vulnerable to the possibility that all depositors will seek repayment at once. Should this happen, the bank will be unable to pay its debts as they fall due, as it will be unable to liquidate its investments. Moreover, if a forced liquidation is required, it is likely

[12] European Commission Communication, Bank Resolution Funds, COM (2010) 254 final.

[13] See generally, FS Mishkin, *The Economics of Money, Banking, and Financial Markets*, 9th ed. (Pearson: Moston, MA, 2010), Ch 10.

[14] See FSA, *The Turner Review: A Regulatory Response to the Global Banking Crisis*, March 2009, 11-22.

that the value realised will be deeply discounted, such that the cash flow problem will morph into a balance sheet shortfall.

Second, banks collectively perform a function that is of pivotal importance to the functioning of the real economy. To see this, imagine an economy with just a single bank, through which all credit is channelled. If the bank suffers a shock that causes it to fail or simply reduces its liquidity, then borrowers' channel of access to credit will be impeded, and good business projects will go unfunded.[15] Of course, a restriction in the money supply might be eased simply by the central bank providing more funds, or even stepping in to lend directly to firms. Here, however, another crucial feature of financial institutions becomes relevant: they act as repositories of human capital for making effective lending decisions and monitoring the performance of debtors. If this is lost following bank failure, then simply providing easy access to government-sponsored credit will not replicate the effective channelling of funds to *good* projects and the monitoring of debtors.[16] In other words, the damage done to the real economy by the loss of the banking sector is a *multiple* of the funds provided by that sector.

In the real world, of course, there are many banks, and so the failure of a single one should not cause a contraction in the real economy. However, banks are typically very *interconnected*, such that the failure of one may trigger problems for others. This transmission could be through the interbank liabilities of the failing firm, non-payment of which can in turn trigger liquidity problems at fragile creditor institutions.[17] Or it could be through the asset side of the failing firm's balance sheet, if the same types of asset are held by other banks: fire-sale liquidation of assets to meet depositors' claims depresses the price of the assets and consequently affects other banks' balance sheets.[18] These

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[15] See generally, M Friedman and AJ Schwartz, *The Great Contraction 1929-1933* (Princeton, NJ: Princeton University Press, 2008).

[16] BS Bernanke, 'Nonmonetary Effects of the Financial Crisis in the Propagation of the Great Depression' (1983) 73 *American Economic Review* 257.

[17] See eg, SL Schwarcz, 'Systemic Risk' (2008) 97 *Georgetown Law Journal* 193, 247.

[18] V Acharya, 'A Theory of Systemic Risk and Design of Prudential Banking Regulation' (2009) 5 *Journal of Financial Stability* 224.

interconnections imply that the harm done to the financial system as a whole by the failure of one, or a few, financial firms may be also a multiple of the funds at stake for that firm.

The interaction of these three factors—interconnectedness, fragility, and importance to the real economy—means that bank failures can generate negative externalities for the real economy, the size of which are many multiples of the losses at stake for investors in an individual institution. This propensity is often referred to as 'systemic risk': that is, the risk that failures at one or more banks will cause sufficient damage to the financial system as a whole as to consequently damage the real economy.[19]

It is often said that very large banks are so systemically important that they are 'too big to [be permitted to] fail'; that is, that the systemic havoc wreaked by their failure would dwarf the costs of any bailout that would be needed to avert the individual institution's failure. However, the foregoing discussion elucidates that what matters for systemic risk is not the size of the failing institution *per se*, but the impact of its failure on other fragile financial institutions. For the channels of transmission identified above, this depends on the nature and distribution of interconnected claims and the correlation between banks' balance sheets. It also depends on the level of fragility of the affected institutions: the more brittle their financial position, the lesser the shock that will be needed to bring about their respective failure.[20]

Conversely, it should be apparent that systemic risk is not the sole preserve of banks, but extends to any financial institution that is fragile (because of leverage and maturity transformation) and interconnected. Investment banks, hedge funds, insurance companies, and money market mutual funds, at the least, can all share these

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[19] IMF, BIS and FSB, Guidance to Assess the Systemic Importance of Financial Institutions, Markets and Instruments: Initial Considerations, Briefing Paper for the G20 Finance Ministers and Central Bank Governors, October 2009, 5-6 (defining a 'systemic event' as, 'a risk of disruption to financial services that is (i) caused by an impairment of all or parts of the financial system and (ii) has the potential to have serious negative consequences for the real economy). However, the term is also often used to refer to just one or other of the two multiplier effects described in the text: compare F Mishkin, 'Comment on Systemic Risk', in G Kaufman (ed), *Banking, Financial Markets and Systemic Risk; Research in Financial Services, Private and Public Policy*, vol. 7 (Hampton: JAI Press, 1995), 31 (focusing on harm done to the real economy by financial sector failure) with Schwarcz, *supra* note 17 (focusing on interconnection).

[20] See VP Acharya and T Yorulmazer, 'Too Many to Fail—An Analysis of Time-Inconsistency in Bank Closure Policies' (2007) 16 *Journal of Financial Intermediation* 1.

characteristics.[21] Whilst banks are the paradigm case, policies aimed at mitigating systemic risk need to operate at the level of the financial system as a whole.

(b) Bailouts and Bankruptcy

When a financial firm is in difficulties, then if its failure would have systemic consequences, the multiplier effects described above make it rational for policymakers and regulators to want to step in to avert its failure. The anticipation of this sort of bailout, however, has very harmful consequences: firms that are 'too big to fail' have incentives to take excessive risks, and firms that are not too big to fail have incentives to become so.[22] Thus before and after crises, policymakers will foreswear such interventions on grounds of moral hazard,[23] but in the midst of a panic, their perspective will inevitably change. Economists refer to this as the problem of 'time inconsistency' on the part of policymakers.[24]

There is reason to believe that problems of moral hazard may have been a real contributing cause of the crisis. If financial firm shareholders anticipate that the state will step in to bail them out if things go badly wrong, then they will want their firms to take greater risks. Indeed, empirical studies suggest that the financial firms with governance structures that made them most accountable to shareholders (less CEO autonomy, more independent directors, etc) were those that suffered the greatest losses.[25]

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[21] See, e.g., J Kambhu, T Schuermann and KJ Stiroh, 'Hedge Funds, Financial Intermediation, and Systemic Risk', *Federal Reserve Bank of New York Policy Review*, December 2007, 1.

[22] The fact that large banking groups are able to obtain credit on more favourable terms than smaller ones suggests that this guarantee has a real value for firms: see D Baker and T McArthur, 'The Value of the "Too Big to Fail" Big Bank Subsidy', *CEPR Issue Brief*, September 2009 (estimating interest rate spread between large and small banks to have been 0.29% prior to the bailout package in 2008, then widening to 0.78% thereafter).

[23] [See comments of Mervin King regarding moral hazard in relation to Northern Rock in August 2007].

[24] See, e.g., B Weder di Mauro, 'Taxing Systemic risk: Proposal for a Systemic Risk Levy and a Systemic Risk Fund', paper presented to Deutcshe Bundesbank, 25 January 2010, 5.

[25] A Beltratti and R Stulz, 'Why Did Some Banks Perform Better During the Credit Crisis? A Cross-Country Study of the Impact of Governance and Regulation', NBER Working Paper w15180, July 2009; D Erkens, M Hing and P Matos, 'Corporate Governance in the Recent Financial Crisis: Evidence from Financial Institutions Worldwide', working paper, July 2009; S Pathan, 'Strong Boards, CEO Power and Bank Risk-Taking', (2009) 33 *Journal of Banking and Finance* 1340; R Fortin, GM Goldberg, and G Roth, 'Bank Risk Taking at the Onset of the Current Banking Crisis', working paper, New Mexico State University, March 2010.

Not only does the prospect of bailouts generate perverse incentives *ex ante*, but their operation *ex post* generates political outcry. Little has been less popular in recent years than the prospect of large amounts of taxpayer funds apparently going to line the pockets of those working in the very institutions perceived as responsible for the crisis.

However, the only *ex post* alternative to a bailout in many cases is bankruptcy. Most nations' bankruptcy laws include 'liquidation' and 'reorganization' procedures; these are intended to provide, respectively, for an orderly winding-up and for a restructuring of a firm's debts or sale of its assets.[26] These procedures, however well they work for ordinary industrial firms, are likely to be inappropriate for institutions that pose systemic risks.[27] On the one hand, the process takes time to complete and a payout is not usually made to creditors until it is determined how much money will be available to do so. Consequently creditors are required to bear liquidity risk associated with delay in the proceedings, even if funds are eventually paid. This has potential systemic effects through the channel of interconnected liabilities.

On the other hand, the *en masse* liquidation of a financial firm's assets by a trustee can depress the value of these assets generally, also causing systemic losses. The ordinary bankruptcy procedure may therefore suffer the improbable defect of being both too slow *and* too quick in its operation. The Catch-22 aspect of this is brought out most clearly when one considers the role of 'firebreak' mechanisms that have been inserted into many bankruptcy codes in relation to financial contracts.[28] These provide for exemptions from automatic stays of enforcement typically imposed on creditors of distressed firms where the claim in question is one held by, or of a type usually held by, a financial institution. The rationale is that this permits more rapid enforcement and thereby mitigates the problem of systemic risk transmission through the liabilities side of a distressed firm's balance sheet. The problem is that by permitting rapid execution, they also likely precipitate fire sales of

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[26] See eg, IMF, *Orderly and Effective Insolvency Procedures: Key Issues* (1999).

[27] See RR Bliss, 'Resolving Large Complex Financial Institutions', in GG Kaufman (ed.), *Market Discipline in Banking: Theory and Evidence* (Elsevier, Oxford: 2003), 3, 10-12.

[28] See eg, Directive 2002/47/EC on Financial Collateral Arrangements [2002] OJ L168/43, as amended by Directive 2009/44/EC [2009] OJ L146/37; Bankruptcy Code (US) §§ 362(b)(6),(7), 555, 556, 559-562.

assets held as collateral, which, if these are of a class held by other financial institutions, will also transmit systemic risk through the 'assets' channel.[29]

(c) Special Resolution Mechanisms

Avoiding domino effects associated with financial institution failure requires mechanisms to limit these channels of transmission. The most conclusive way to do this is to provide for the troubled institution's balance sheet to be underwritten by another party of undoubted financial strength. This obviates the need for claimants to push for payment; consequently no forced liquidation of assets need take place. A private sector purchase of a troubled firm would achieve this result. If the troubled firm's balance sheet is no longer solvent, then a similar result can be achieved through a transfer of assets *and* liabilities, such that both end up in the hands of the purchaser. In each case, the *mechanics* of the transfer need to be effected very quickly. This will require at the very least some legal power for the agency conducting the process to override the wishes of junior claimants without the usual adjudication as to whether or not they are in the money. Perhaps more challenging still may be the sheer complexity of the firm's operations when faced with the need to effect a transfer so quickly, without time for due diligence.

This latter aspect may prove a serious obstacle to finding a private sector purchaser in many cases. One way to mitigate the problem, currently much-discussed, is to require financial institutions to prepare and keep up-to-date "living wills"—that is, plans for how their organisation could be effectively carved up in the event of difficulties.[30] Such plans would be intended to facilitate the rapid restructuring of the firm in a way that would—ideally—not require any sort of formal resolution procedure. The key to ensuring their success would be early intervention and effective regulatory supervision to make sure the plans are credible.

If the firm is balance sheet insolvent, the question arises of how to cover the *shortfall*. One approach is simply to be selective as to which liabilities are assumed by the

[29] FR Edwards and ER Morrison, 'Derivatives and the Bankruptcy Code: Why the Special Treatment?', (2005) 22 Yale Journal of Regulation 91; MJ Roe, 'Bankruptcy's Financial Crisis Accelerator: The Derivatives' Players Priorities in Chapter 11', ECGI Law Working Paper No 153/2010.

[30] See Dodd-Frank Act §165(d).

purchaser, so that the residual losses fall onto those claimants whose claims remain against the troubled entity. This is of course what happens in bankruptcy: the most junior creditors are the ones that are not paid. The problem with this, from the systemic risk standpoint, is that if it is uncertain *ex ante* how much money will be realised, then some contagion may occur, as fragile institutions become concerned about their exposure. A solution is to specify clearly in advance that some sorts of claims will *always* be met, and that the rest will not enjoy this kind of guarantee. In order to minimise contagion, it is important for it to be clear *ex ante* which claims will be met, and to avoid the subordinated claims being held by fragile institutions. The existence of the subordinated claims also has the property of ensuring that market forces can help to contribute to the minimization of moral hazard.[31]

In order for the guarantee to be effective, it is not enough simply to give these claims priority in the payouts. There must be a fund available to underwrite their payment in the case of a major shortfall. Proposals for resolution mechanisms consequently involve a ring-fenced resolution fund, that is has been pre-financed (or is liable to be post-financed) by a risk-adjusted levy on institutions that may be able to access it, it may help to mitigate moral hazard by giving firms an incentive to monitor one another's risk-taking.

The FDIC's receivership regime, which forms the prototype for most resolution regimes introduced since the crisis, exhibits both of these features. At its core is a deposit guarantee administered by the FDIC. This insurance was originally introduced because of concern for the welfare of consumer depositors,[32] but it had the serendipitous consequence of mitigating bank runs, because depositors did not feel the need to stampede for payment when their claims were guaranteed.[33] The guarantee functions to stop contagion through the liabilities side of the distressed bank's balance sheet, insofar as the liabilities are deposits. The 'baseline' resolution if the FDIC steps in is a bank liquidation: the FDIC pays the depositors in cash out of the fund, then takes over the assets of the bank and liquidates

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[31] O Hart and L Zingales, 'Curbing Risk on Wall Street' (2010) 3 *National Affairs*.

[32] C Calomiris and EN White, 'The Origins of Federal Deposit Insurance', in CG Goldin and GD Libecap (eds), *The Regulated Economy: A Historical Approach to Political Economy* (University of Chicago Press, Chicago, IL: 1994), 145.

[33] D Diamond and PH Dybvig, 'Bank Runs, Deposit Insurance, and Liquidity' (1983) 91 *Journal of Political Economy* 401.

them. The insurance fund has a priority claim against the assets. However, as it is able to control the timing, and does not have a need for early liquidity, the FDIC can thereby also control contagion through the assets side of the balance sheet. If possible, however, the FDIC will not pay depositors and liquidate the assets, but rather arrange for a purchase of the assets and assumption of deposits by the transferee. In this case, the depositors do not need to get paid, as their claims become solid again. Moreover, this reduces the call on the deposit insurance fund. After the sale, the FDIC oversees the payment of non-depositor creditors out of the purchase price received.[34]

Critics of resolution mechanisms see little difference between the use of a resolution fund and an *ad hoc* bailout. The presence of insurance from the fund *ex post* creates moral hazard: firms with insured debts face less market discipline in their risk-taking.[35] Moreover, for very large financial firms, the size of the funds necessary to underwrite their liabilities is likely to be so great as to dwarf any pre-funded resolution fund; and the imposition of post-funding on other financial institutions may cripple their liquidity. For institutions that 'blow out' the insurance fund, then the only options will be bankruptcy or bailouts.

(d) Resolution as Part of a Larger Regulatory Toolkit

In order to mitigate these difficulties, resolution mechanisms must be seen as just one part of a larger regulatory toolkit, which contains a mix of *ex ante* measures as well as *ex post* resolution tools. First, it is important to have some form of mechanism for limiting risk-taking at insured firms. The theory of banking *capital adequacy* regulation is that firms are required to maintain an adequate level of capitalisation given their balance sheet profile, so as to reduce their fragility.[36] Moreover, the equity portions of the capital would be wiped out in a failure and so keep some market discipline in the process.

However, as became apparent in the financial crisis, prudential banking regulation was insufficiently rigorous. Amongst other things, it failed to take account of liquidity issues

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[34] See RL Bennett and H Unal, 'The Effects of Resolution-Method Choice on Resolution Costs in Bank Failures', FDIC Working Paper, July 2009.

[35] See eg, RC Clark, 'The Soundness of Financial Intermediaries' (1976) 86 *Yale Law Journal* 1, 90-96.

[36] See generally, *Turner Review, supra* note 14, 53-69.

as well as capital,[37] and focused too narrowly on the position of individual institutions, as opposed to their interrelationships with one another. As we have seen, the systemic effects of a firm's failure depend not so much on its balance sheet, but on the relationships between that balance sheet and the balance sheets of other financial firms. As a consequence, a new type of regulatory authority, with responsibility for oversight of 'macro-prudential' regulation, has been conceived. In the US, this will be carried on by the new Financial Stability Oversight Council;[38] in the UK, by the Bank of England.[39] It has, amongst other things, power to step in and impose prudential regulation on any financial institution that poses a risk to systemic stability, and to increase the intensity of that regulation for institutions which look to be showing signs of difficulty.[40]

Another strategy is to *limit the activities* in which insured firms can engage. This was the original approach of the Glass-Steagall legislation in the US, which mandated the separation of investment from commercial banking.[41] The deposit-taking institutions, enjoying insurance, were to be prohibited from engaging in capital market transactions, which had been the source of great losses for universal banks in the early 1930s. Glass-Steagall was of course finally repealed in 1999 by the Gramm-Leach-Bliley Act, but only after a lengthy period in which its rules were gradually watered down by arbitrage.[42]

The same approach has recently reasserted itself. In a much-publicised proposal, Paul Volcker, former US Treasury Secretary, espoused prohibitions on regulated banks from engaging in certain types of proprietary trading activity. A full *ex ante* prohibition has not made its way onto the statute book; rather there is a power for the FSOC to step in and

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[37] See, e.g., FSA, Strengthening Liquidity Standards, CP08/22 (December 2008).

[38] Dodd-Frank Act, Title I.

[39] Banking Act 2009 s 238. Under proposals recently announced by HM Treasury, this function will shortly be hived off to a new Prudential Regulatory Authority (PRA) which will operate as a subsidiary of the Bank of England: HM Treasury, *A New Approach to Financial Regulation: Judgement, Focus and Stability*, Cm 7874, July 2010, 23-30.

[40] Dodd-Frank Act §§ 113, 115, 120.

[41] Banking Act of 1933, Pub L 73-66, HR 5661.

[42] See JR Macey, 'The Business of Banking: Before and After Gramm-Leach-Bliley' (1999) 25 *Journal of Corporation Law* 691.

impose limitations on scope and conduct of business *ex post* on an institution-by-institution basis, if it determines that the institution poses a "grave threat" to US financial stability.[43]

Third, the problem that the *size* of the institution is simply too large for the value of the fund, may plausibly be dealt with through outright limits on the size of financial institutions.[44] The new FSOC's powers to impose additional regulatory restrictions on firms that pose a risk to financial stability extends to requiring them to be broken up, if no lesser measures will do the job.[45] Similarly, in the UK, the new conservative government has established an independent commission, chaired by Sir John Vickers, to investigate whether a case exists for the breaking up of banking institutions on grounds, amongst other things, of systemic risk minimisation.[46]

III. Post-Crisis Reform: The UK

(a) Bank Resolution

The UK has adopted, or is in the process of adopting, a range of new provisions following the crisis. These include a mixture of bailout, resolution and bankruptcy powers. As regards banks, the most important measure has been the Banking Act 2009. The is best-known for introducing a 'Special Resolution Regime' for banks, but also—and perhaps more significantly—clarified the ground rules for bailouts. This legislation was a relatively direct response to the failure of Northern Rock plc in August 2007.[47] At the time Northern Rock found itself having liquidity problems, the UK did not have a comprehensive deposit insurance scheme. Rather, only the first £2,000, then 90% of anything up to £35,000 of retail deposits was guaranteed, on the theory that a portion of co-insurance would assist in

[43] Dodd-Frank Act, §121.

[44] S Johnson and J Kwak, *Thirteen Bankers* (Pantheon, 2010).

[45] Dodd-Frank Act, § 121(1)(a)(5).

[46] See HM Treasury, Independent Commission on Banking—Terms of Reference, June 2010 (http://www.hm-treasury.gov.uk/d/banking_commission_terms_of_reference.pdf).

[47] See R Lastra, 'Northern Rock, UK bank insolvency and cross-border bank insolvency' (2008) 9 *Journal of Banking Regulation* 165.

mitigating moral hazard.[48] The consequence was Britain's first bank run since the nineteenth century.[49] The government halted the bank run by giving a guarantee of retail deposits. There followed an *ad hoc* exercise of open-bank assistance: the Bank of England and then the UK government stepped in to provide £29.6bn of senior loans, whilst efforts were made to find a private buyer for the bank. EU state aid rules meant that assistance of this sort could only be provided for a maximum of six months, that is, by February 2008. The UK, having not had a bank failure in four or five generations, did not have a special regime for insolvent depositary institutions. The government feared that allowing the firm to go into ordinary insolvency would provoke widespread contagion, and instead opted to nationalise the firm. The government was loath to grant a takeover premium to the shareholders of Northern Rock, so emergency legislation was passed to permit the compulsory purchase of its shares, at a price to be determined by an independent assessor.[50]

The reforms that followed were very much driven by the experience of Northern Rock. On the one hand, the general deposit insurance payable by the Financial Services Compensation Scheme ('FSCS') and administered by the Financial Services Agency (as opposed to the *ad hoc* government guarantee of Northern Rock) was extended in October 2008 to 100% of the first £50,000 deposited.[51] On the other hand, new legislation—the Banking Act 2009—was introduced to provide a wider set of resolution tools. Because the Northern Rock involved a run by retail depositors, UK policymakers viewed the problems with domestic legislation in terms of depositor protection.[52] As a result, the new Special Resolution Regime is modelled quite closely on the US FDIC receivership. Most significantly, it only applies to banks, defined as 'deposit-taking institutions' in the legislation.[53] And the

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[48] Bank of England, FSA and HM Treasury, Financial Stability and Depositor Protection: Strengthening the Framework, Cm 7308 (January 2008), 68. The maximum insurance payment was therefore £31,700.

[49] See generally, House of Commons Treasury Committee, *Fifth Report for 2007-8 Session: The Run on the Rock* (London: TSO, 2008).

[50] Banking (Special Provisions) Act 2008.

[51] FSA 2008/53, Compensation Sourcebook (Amendment No 8) Instrument 2008 (in force 7 October 2008).

[52] [Cite to consultation papers]

[53] Banking Act 2009, s 2.

goals of the special resolution regime are cast as a mixture of protection of financial stability and the protection of depositors.[54]

First, the Act extended the compulsory transfer powers introduced to facilitate the nationalisation of Northern Rock to permit their use to effect a transfer of shares to a private sector purchaser as well.[55] Again, this prevents the existing shareholders from demanding a 'hold up' premium for their consent.

Second, it introduced a mechanism to permit a transfer of assets and liabilities (e.g. deposits). This may be either to a private sector purchaser, or to a new 'bridge bank' owned by the Bank of England, with a view to selling it to a private sector purchaser in due course. The difficulty with an asset transfer is that determining the precise entitlements to the assets of a complex banking organisation takes a great deal of time, and the imperative of a resolution mechanism is to effect this as quickly as possible. Consequently, at the core of the mechanism are a set of powers to override ordinary property law. Section 34(4) of the Act provides that, "[a property] transfer takes effect despite any restriction arising by virtue of contract or legislation or in any other way."[56] The property transfer may provide that the transferee is, "to be treated for any purpose connected with the transfer as the same person as the transferee."[57] The powers extend to waiving contractual termination provisions,[58] and to imposing obligations on the transferor entity in relation to the transferee post-transfer.[59] What is more, the legislation also contains a so-called "Henry VIII" clause, permitting for any other laws (apart from the Act and associated secondary legislation) to be amended as necessary—even retrospectively—so as to give effect to the

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[54] *Ibid.*, s 4.

[55] Banking Act 2009, ss 14-32.

[56] Whilst the Act purports to grant extraterritorial effect to such transfers (s 35(1)(d)), clearly this may not be recognised by the courts of other jurisdictions as regards assets within their territory. The parties to the transfer as consequently subjected to obligations to take any necessary steps to ensure that the transfer is effective as a matter of foreign law (s 39).

[57] *Ibid.*, s 36(1).

[58] *Ibid.*, s 38.

[59] *Ibid.*, s 63.

purposes of the Act.[60] However, the Act is not intended to cause the UK to come into breach of its EU law obligations, and consequently, although the Act does not specify this explicitly, no transfer order may impede the exercise of financial collateral arrangements, which are protected under European law.[61] Where it is sought to get a purchaser to take on deposits—as will usually be the case—then the FSCS is required to guarantee the deposits insofar as they would have been liable to pay out had the bank gone into insolvency.[62]

The correlative to the property transfer powers are measures providing for the payment of compensation to parties affected. Most straightforwardly, a compensation fund will be established for the transferee bank. This entity will then be placed in liquidation to provide for the payment of creditors in order of priority. If the transfer is only partial—that is, some but not all assets and liabilities are transferred—then unsecured creditors in the remaining entity must receive at least as much as they would have obtained in its liquidation, assuming no financial assistance had been provided to the failing bank by the authorities.[63] Also, a so-called 'third party compensation order' must be made in favour of any third party whose property rights were affected by the transfer—for example, secured creditors whose collateral is transferred but whose claims remain against the transferee. Where a bridge bank is used, then compensation takes the form of a 'resolution fund', from which the costs of the resolution process are deducted before the creditors of the original institution get anything. In each case, the assets are valued by an independent valuer,[64] on the basis that no special financial assistance has been given to the distressed firm by the public authorities.[65]

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[60] *Ibid.*, s 75.

[61] See *supra*, note 28.

[62] *Ibid.*, s 171 (inserting section 214B of the Financial Services and Markets Act 2000).

[63] The mechanism by which this payment is made is a 'third party compensation order' of the shortfall, if anything, between what the creditors receive from the transferee and what they would have had in liquidation. Banking Act 2009 (Third Party Compensation Arrangements for Partial Property Transfers) Regulations 2009, SI 2009/319, reg 5.

[64] 'Independent' in the sense that they are not directly appointed by the authorities; rather the Treasury appoints the *person who appoints* the valuer: Banking Act 2009, s 54(2).

[65] *Ibid.*, s 57(3).

Third, the Act establishes modified versions of ordinary insolvency procedures (administration and liquidation) to deal with failed banks.[66] The intention is that these are used to distribute the proceeds of a compensation order paid to the transferee bank, and/or to provide for the orderly winding-up of the 'rump' assets which the transferor does not wish to acquire. These are almost identical to ordinary insolvency procedures, save that bank administration may be used with the additional objective of supporting a bridge bank, and bank liquidation must also achieve the repayment of depositors, working in conjunction with the FSCS. It is worth noting that the depositors do not have any formal priority in bank insolvency: rather, they are paid from the FSCS which then only has an unsecured claim against the bank assets (unlike in the FDIC receivership in the US).

Fourth, the Banking Act specifies a set of procedures for triggering the use of the stabilisation options, which involves input from each of the three members of the 'tripartite authority'.[67] Each has responsibility for key stages of the process. The *FSA* is responsible for initiating entry to the special resolution regime. It must be satisfied in the first instance that the bank is, or is likely to, fail to meet the 'threshold conditions' established by prudential regulation for carrying on a deposit-taking business,[68] and that the bank is not capable of taking steps to rectify the situation. This general condition having been met, the *Bank of England* must decide, in consultation with the FSA and the Treasury, whether a private sector purchase or a bridge bank order would be appropriate. The Bank may exercise these powers only insofar as it judges them *either* necessary to protect the stability of the UK financial system, to protect public confidence in that stability, or to protect depositors. The *Treasury* is responsible for decision-making regarding public ownership. It is also able to decide on the use of the other stabilisation tools (with the consent of the Bank of England) if it has provided public funds to support the failing institution and these mechanisms are necessary to protect the public interest.

(b) Bailouts: financial support for troubled firms.

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[66] *Ibid.*, Parts 2 and 3.

[67] *Ibid.*, ss 7-9.

[68] These include adequacy of resources, and the fitness of the bank's management.

In addition to—and perhaps more important than—the stabilisation powers, the Banking Act also clarified the position as regards the provision of public funds to support troubled banks and financial institutions. Ordinarily, this is to be done only with the approval of Parliament, but the Treasury is given power to pledge public funds—with no limit—even without Parliamentary approval where it is satisfied that the need is 'too urgent to permit arrangements to be made for the provision of money by Parliament.'[69] In this case Parliamentary accountability is achieved only by means of an *ex post* report and account. Importantly, the power to provide financial assistance thereby granted may be exercised in favour not only of bank but any 'financial institution' defined essentially as any institution the Treasury has so provided to be classed. The Treasury therefore has executive power to bailout any troubled financial firm.

The biggest interventions by the UK government during the crisis did not involve any formal resolution mechanism. The support for the Royal Bank of Scotland group and Lloyds-HBOS in 2008-9 took the form of equity recapitalisations totalling around £40bn followed by government guarantees for particular assets to a total of over £500bn. However, it is worth considering why the powers of nationalisation, introduced to deal with Northern Rock, were not used in this instance. Two plausible reasons emerge. On the one hand, the UK government was concerned about the strength of its own balance sheet. Whilst risks associated with Northern Rock, with assets of £104bn, could be absorbed without affecting the national credit rating, matters might be different as regards groups the size of RBS, with assets valued in 2008 at £2,400bn: this alone is nearly twice the UK's GDP, which in 2008 was £1,400bn.[70] On the other hand, retaining private sector involvement can plausibly assist in promoting market discipline for the restructuring of the troubled firms. To be sure, the other resolution tools introduced by the Banking Act—which was passed on March 2009—were not available to the authorities. Yet it is unlikely, even if they were available, that they could have been used in the case of such large firms. Few, if any, private purchasers were large enough and strong enough to contemplate the acquisition of a firm of this size. A

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[69] Banking Act 2009 ss 228-231.

[70] Royal Bank of Scotland, *Annual Report and Accounts 2008* (London: Royal Bank of Scotland, 2009), 175 (Assets valued at £2,401,652m on 31 December 2008); Office for National Statistics (UK), *Quarterly National Accounts, fourth quarter 2008* (ONS: Cardiff, 2009), Table A2 (GDP for 2008 estimated at £1,442,921m in current prices).

cautionary example is the case of was Lloyds, which having been strongly encouraged to perform a distressed acquisition of HBOS in October 2008, found it indigestible and itself had to seek government support. This implies that, so long as banking groups of the sheer size of RBS and HBOS exist, bailouts will need to be a continued option for the UK government.

(c) "Living wills": ex ante *Rescue and Resolution plans*

In addition to the foregoing *ex post* resolution mechanisms, the Financial Services Act 2010 requires the FSA to mandate the production by authorised financial institutions of "rescue and resolution plans" detailing how, in the event of difficulty, their operations would be recovered.[71] The FSA indicated it might require firms that failed to satisfy such requirements to restructure.[72]

(d) Enhancing insolvency laws for investment companies.

Whilst the resolution and insolvency regimes established by the Banking Act do not extend beyond deposit-taking institutions, the Lehman bankruptcy exposed painfully the difficulties with using ordinary insolvency laws to deal with a failed financial institution. Lehman's group treasury function meant that all spare cash was remitted by the London entity to the New York parent at the close of trade every day. As a consequence, when it became clear on the evening of Sunday 14th September 2008 that the parent was going to file for Chapter 11, the directors of the UK subsidiary Lehman Brothers International Europe (LBIE) realised that there would be no cash to fund operations. Under English law, when directors realise (or ought to realise) that there is no reasonable prospect of avoiding insolvent liquidation, they must take every step with a view to minimising losses to creditors or face liability for 'wrongful trading'.[73] Consequently the board took the view that they had no option but to put the company into administration immediately. The firm's access to exchanges and clearing systems was frozen immediately on the commencement of administration, with the

[71] Financial Services Act 2010, s 7 (inserting new sections 139B-139F into the Financial Services and Markets Act 2000).

[72] FSA, *Turner Review Conference Paper*, DP09/4, October 2009.

[73] Insolvency Act 1986 s 214.

result that approximately 839,000 securities trades that had not yet executed were left open.[74]

The other major impact of the LBIE administration was on client assets. A wide range of different legal structures were used to hold client assets. Some involved cash held in client omnibus accounts subject to the FSA's CASS rules, which turned out to contain crucial ambiguities over the treatment of asset shortfalls.[75] Others were securities held subject to very complex bespoke agreements, for example for prime brokerage clients, which provided for the client assets to be used as security for offsetting obligations, and often had rights of 'rehypothecation', permitting the firm to sell the assets, in which case the client's claim would be merely personal rather than proprietary. Moreover, these arrangements often provided for security to be taken not just for debts owed by the client to LBIE, but to any other Lehman group entity. This might in turn mean that dealings with assets to which LBIE had no direct proprietary claim might nevertheless affect its creditors by reason of intra-group claims. Unfortunately, when the administrators, PriceWaterhouseCoopers, were appointed, they had to contend with the fact that the group operated a global IT system run out of New York, which ceased being updated for the UK entity after the bankruptcy filing. This and the complexity of the client asset arrangements meant that it was extremely difficult to *identify* the approx-$35bn worth of client assets held by the UK entity extremely difficult.[76] This in turn made it hard for the administrators to return any assets to clients: if assets were distributed to which the client did not in fact have a valid proprietary claim, the administrators might face potential liability for breach of fiduciary duty to the company. The delay in returning client assets greatly magnified the systemic consequences of the Lehman failure, by impairing the liquidity of many firms whose assets were tied up.

The UK government consulted in 2009 over a series of proposals to improve the resolution of investment banks.[77] These were clearly derived from the perceived failings in

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[74] See *In Re Lehman Brothers International (Europe)*, Claim no. 7942 of 2008, Witness Statement of Steven Anthony Pearson; HM Treasury, *Establishing Resolution Arrangements for Investment Banks*, Consultation Paper December 2009, 10-11.

[75] See *Re Lehman Brothers International (Europe)* [2010] EWCA Civ 917.

[76] *Establishing Resolution Arrangements*, *ibid.*, 64.

[77] *Ibid.*

relation to the Lehman administration. The proposals are, at root, a modification to insolvency law, rather than a resolution regime in the sense described above. They consist of a series of discrete measures designed to minimise the systemic impact of a failing investment company. The most significant of these are as follows.

First, *ex ante*: investment companies are to be required to consider much more carefully the likely consequences of their business structure should they fail. 'Living wills' would be required, to explain to regulators—and to any administrator appointed—how to wind down the affairs of the firm. Alongside these, it would be necessary to put in place provisions to ensure continuity of key service providers (e.g. IT) and employees, and to have a fund of liquid operational reserves to pay them for a short period post-insolvency. To oversee the drafting of such measures, a new board-level role of 'Business Resolution Officer' would be created, who would be responsible for ensuring that all such plans were in place and adequately tested.

Second, *ex post*: the proposals would introduce a new Special Administration Regime for investment companies (defined as any firm authorised by the FSA to conduct investment business and holding client assets), which would be triggered by the FSA. In conjunction with this, the duties of directors and administrators of investment companies would be modified: for directors, to permit them to continue trading to implement a resolution plan; and for administrators, to require them to treat the reconciliation of client positions and other actions relevant to financial stability as a procedural priority.

Third, a host of measures aimed at fixing the problems with the existing client asset rules, and introducing greater comprehension and standardization of the contractual documentation and greater use of insolvency-remote SPVs into which client money could be segregated. Another proposal floated is to require the appointment of a dedicated client asset trustee in an investment company insolvency, charged solely with ensuring the expedited return of these assets.

(e) Summary and assessment

The UK's policy responses have clearly been triggered as reactions to specific events: most importantly, the Northern Rock and LBIE failures. This has lead to what might be

characterised as a twin-track approach to the reform of *ex post* mechanisms for mitigating systemic risk. For deposit-taking institutions, a new Special Resolution Regime has been introduced which goes to great lengths to make feasible the *mechanics* of effecting a rapid transfer of a large body of complex assets and liabilities. For investment companies, new proposals for insolvency laws will focus on streamlining the return of client assets from a failed firm. This is overlaid with two additional mechanisms that are available to all (or all systemically important) financial institutions: the use of 'living wills' to facilitate an effective resolution before invoking any legal procedures, and the availability of discretionary public bailout funds limited only by the state's own balance sheet.

There appear to be two major problems with the UK's current regime. The first is the institutional footprint of the new mechanisms. The Special Resolution Regime applies only to banks, rather than to any systemically important financial institution.[78] This limitation in scope can readily be understood as a product of the fact that the Northern Rock failure looked—at least superficially—to be a retail run, and that the existing benchmark for bank resolution—the FDIC receivership regime—applied only to depositary institutions. Yet this overlooks the fact that there is no reason to think that retail depositors are the only, or even a significant, channel for the transmission of systemic risk, as the failure of Lehman—which had no depositors—illustrated. Indeed, the wholesale clients of investment banks are likely a far more dangerous transmission channel than retail depositors. Consequently mechanisms aimed at mitigating systemic risk should match the footprint of the firms that have the potential to cause it. There is no reason to think that a mechanism facilitating the emergency sale of a distressed institution—such as the private sector purchase tool under the Banking Act 2009—would not be useful in mitigating systemic risk if it applied to investment banks—with the goal of protecting their clients—the same as it applies to deposit taking banks. (Conversely, if the policy of improving insolvency law will work better in relation to client assets for investment banks, why can the same policy not suffice to protect depositors of retail banks?)

This mismatch in the footprint of the SRR extends also to the enhancement of deposit insurance. As we have seen, deposit insurance had the serendipitous feature of

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[78] See House of Lords Select Committee on Economic Affairs, 2nd Report of Session 2008-9, *Banking Supervision and Regulation*, Vol I, HL Paper 101-I (TSO: London, 2009), para ___.

stalling bank runs and consequent transmission of systemic risk through retail depositors.[79] However, most of the 'runs' in the 2007-8 crisis were not by retail, but by wholesale investors. These investors, who themselves aggregate funds from retail investors; typically have large balances of uninvested cash at any time that they need to keep readily accessible for investment or redemptions. As deposits of this size are uninsured, they typically protect themselves using very short term secured loans known as 'repos'. Under these arrangements, the borrower transfers title to securities to the lender as collateral for the loan, on the understanding that they will repurchase ('repo') the securities by repaying the loan. Such arrangements can be entered into not only with banks that take retail deposits but with a range of other (unregulated) financial institutions. In the financial crisis, there were a series of 'repo runs' on financial institutions, feedback loops whereunder where the margin of collateralization was increased repeatedly because of doubts about the quality of the borrower institution's balance sheet. Consequently if it is sought to mitigate these wholesale runs, then there is a case for extending the insurance function beyond simply retail depositors to encompass all short-term debt.[80]

Clearly discussion about extending insurance raises questions about how this is to be funded. This in turn is the second major problem with the UK's current scheme. The Banking Act deals only with the *mechanics* of effecting a transfer; it does nothing to establish a fund to pay for the costs of resolution—save for reliance on the FSCS to cover deposit guarantees. The real backstop—as arguably was illustrated by RBS and Lloyds-HBOS—will be government discretionary funds. The point is *a fortiori* for investment companies, where despite the improvements to insolvency laws that have been proposed, it is scarcely credible that policymakers would let a repeat of the Lehman failure occur. This unstable structure gives an implicit state guarantee to financial institutions, limited only by the nation's own balance sheet. Far from limiting insurance "only" to depositors, the reality is that *all* creditors are fully insured by such a regime, at the expense of the taxpayer. Whilst a case can be made for extending insurance to short-term wholesale lenders, to extend such

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[79] GB Gorton, *Slapped in the Face by the Invisible Hand: The Panic of 2007* (OUP: Oxford, 2010), 43-51.

[80] M Ricks, 'Re-establishing the Banking Social Contract', working paper presented at Columbia Law School conference on the Financial Crisis, March 2010 (http://www.law.columbia.edu/null/download?&exclusive=filemgr.download&file_id=154856).

protection to bondholders and other long-term investors, who are able to diversify and do not need liquidity, is unnecessary and subsidises risk-taking by financial institutions. To be sure, the problems may be solved by tougher *ex ante* regulation of risk-taking, but it will be harder to do so without the right *ex post* structure.

IV. Comparisons with the US and EU

(a) The US: The Dodd-Frank Act of 2010

It is worth exploring the extent to which the UK's emerging regime differs from the resolution regime very recently enacted in the US under the Dodd-Frank Act. There are three key differences.

First, the US resolution mechanism will extend the *mechanics* of rapid resolution powers—the FDIC receivership regime—to all systemically important financial institutions, not just deposit takers (to which the current regime extends).

Second, and potentially more important, the US legislation grapples with the problem of *funding* the resolution mechanism. It expressly stipulates that no public funds shall be provided for the resolution of distressed financial institutions, other than the 'resolution fund' to be established. This fund is to be paid for by systemically important financial institutions themselves. This has the potential greatly to reduce the problems of moral hazard associated with bailouts. By placing the responsibility on the shoulders of financial institutions, it generates a degree of potential cross-monitoring, with firms having incentives to encourage each other not to place the others at risk.

Moreover, the US structure will also make it easier to target any insurance aspect of the resolution fund onto only those creditors who are really liable to act as channels for the transmission of systemic risk. The fact that financial institutions will be paying for any resolution will make them very interested parties in the design of any mechanism, and

introduce a natural constraint on the extent to which unnecessary insurance will be paid out.[81]

Third, the new US measures are explicitly targeted on firms that are 'systemically important'. This permits the authorities to focus their energies on those firms that pose the greatest risks, and avoids the unnecessary imposition of costs on small firms that do not generate any externalities.

To be sure, the new US regime is untested and contains a number of significant potential failure points. The first, and most profound, is that it relies on there being sufficient funds available amongst financial institutions to fund a resolution exercise. If they do not have the capacity to do this, then the whole house of cards will collapse. By 'tying its hands' through prohibiting discretionary bailouts, Congress raises the stakes for all parties involved, as overrun in the need for funding will now be catastrophic.[82]

The second obvious problem is how to determine the appropriate focus of the targeted new measures: that is, how does one identify a 'systemically important' institution? Here perhaps, there is less need for concern, as the new Financial Stability Oversight Council will have time to experiment with various definitions. The Dodd-Frank Act is also replete with mandates to carry out further research into financial stability and appropriate regulatory responses.

(b) Problems of International Co-ordination and the role of the EU

The discussion so far has, for expositional reasons, glossed over another very significant problem in the resolution of large financial firms: the fact that their operations typically straddle multiple jurisdictions, each of which likely applies a different regulatory mix and has different resolution regimes available. As a consequence, each corporate *entity* tends to get dealt with under the laws of the jurisdiction in which it is based. In banking terms, this is the

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[81] See C Calomiris, 'How to fix the Resolution Problem of Large, Complex, Nonbank Financial Institutions', paper presented at Columbia Law School conference on the Global Financial Crisis, March 2010 (http://www.law.columbia.edu/null/download?&exclusive=filemgr.download&file_id=154847).

[82] Indeed a cynic might question how strong the legislative commitment to the "no bailout" clauses of the Dodd Frank Act would be in the teeth of another financial crisis.

problem of branches versus subsidiaries: local subsidiaries are dealt with under local laws, whereas the failure of a bank with only branches may lead to the application of an unknown and—locally—unsatisfactory resolution mechanism. Moreover, the application of (different) entity-based regimes has the effect of destroying synergies for the institutional group as a whole, as illustrated most graphically by the cessation of group treasury and IT systems at Lehman. No nationally-based resolution regime will be free of this Achilles' heel.

The European Union represents a plausible testing-ground for supranational measures, because of the degree of economic and legal integration between Member States. Prior to the crisis, progress had been quite limited, despite the obvious potential problem. Whilst Directives passed in 2001 established that the rules of the 'home country' (that is, the place of licensing) of a bank or insurance company should govern its insolvency,[83] the substantive rules that are applicable still vary throughout the Union. Moreover, these harmonized forum and choice of law rules operate on the basis of individual corporate entities rather than corporate groups, meaning that one economically integrated business will be dissolved through multiple, potentially conflicting, national insolvency procedures.[84] Consequently, the European Commission recent consulted over possibilities for introducing EU-wide resolution mechanisms, and also over the possibility of moving towards a more group-oriented (as opposed to entity-based) resolution procedure for multinational firms. In particular, they floated the idea of a European Resolution Authority, and the less radical suggestion of measures facilitating greater intragroup asset transfers within a series of coordinated resolution proceedings.[85]

Whilst there was strong support for the introduction of resolution mechanisms, Member States were equally strongly opposed to the idea of giving up control over

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[83] Directive 2001/17/EC on the reorganisation and winding-up of insurance undertakings [2001] OJ L110/28; Directive 2001/24/EC on the reorganisation and winding up of credit institutions [2001] OJ L125/15. For investment companies, there is as yet not even harmonization of choice of law and jurisdiction principles, as they are excluded from the general European Insolvency Regulation: Council Regulation No 1346/2000 on insolvency proceedings [2000] OJ L160/1, Art 1(2).

[84] See European Commission, Public Consultation on the Reorganisation and Winding-up of Credit Institutions, May 2007, 8-12.

[85] European Commission, Commission services' feasibility report on "asset transferability" within cross border banking groups, Brussels, 14 November 2008; European Commission Communication, An EU Framework for Cross-Border Crisis Management in the Financial Sector, COM (2009) 561 final, 13-14.

proceedings to a European Resolution Authority.[86] However, respondents were more positive about the possibility of facilitating intragroup asset transferability.[87] Whilst there are significant practical problems to designing asset pooling mechanisms, the benefits to doing so would seem to be extraordinarily high.

The EU case also offers two reasons for thinking that the rather negative assessment of the UK position offered above is actually less problematic than it at first appears. First, the emerging EU-level proposals for resolution mechanisms appear to look closer to the US model than that adopted in the UK. Their scope will likely encompass all systemically important financial institutions,[88] and they will turn to the banking sector, rather than the public sector, to address the funding problem.[89] As no draft legislation has yet been put forward, it is perhaps too soon to read much into this, but it could well provide a stimulus to enhance the UK provisions.

Second, continuing difficulties over coordination on group-based resolution means that the primary mechanism that is capable of responding to this problem is a carefully-designed "living will": that is, the financial institution itself must be aware of the scope of its international footprint and the applicable regimes, and be encouraged by regulators to design its processes *ex ante* so as to mitigate systemic shocks, *given* this backdrop.

V. Conclusion

This paper has considered the problem of the 'resolution' of distressed financial institutions. Many financial institutions differ from ordinary firms in that their failure has the potential to engender systemic risk: contagion in the financial system which ultimately creates losses in the real economy many multiples of the losses to investors in the institution. Consequently, a strong case exists for the application of special procedures to mitigate the transmission of financial shocks. *Ad hoc* government bailouts create moral hazard for financial firms, encouraging them to take more risks *ex ante*. Conversely, the application of ordinary

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[86] See European Commission, Overview of the results of the public consultation on an EU framework for Cross-border crisis management in the banking sector, Brussels, 11 March 2010, 7.
[87] *Ibid.*, 4.
[88] *Ibid.*, 2.
[89] European Commission Communication, Bank Resolution Funds, COM (2010) 254 final.

insolvency law—even with some streamlining—may do too little to stop the spread of contagion.

Consequently many jurisdictions have introduced, or are designing, 'special resolution' mechanisms for financial institutions. The design problem has two key aspects. First, the *mechanics*: there must be information and ability available to execute a very rapid transfer of complex assets to a private sector purchaser. This is being pursued through a combination of requiring firms to produce 'living wills' and introducing sweeping legal powers to effect transfers that waive ordinary property rights. Second, the *funding* of resolution must be addressed: in order to differentiate this from *ad hoc* bailouts and the associated moral hazard, there must be a discrete fund with only limited, or zero, recourse to public funds.

The UK's emerging regime deals effectively with the *mechanics* of resolution, but only for deposit-taking institutions. For investment companies—regardless of whether they are systemically significant—a modified insolvency law will be the only applicable regime. Worse still, the UK has so far failed effectively to address the problem of *funding*, with resolution being underwritten by unlimited executive power to advance funds to troubled firms. In contrast, the new regime announced by the Dodd-Frank Act in the US deals squarely with both these issues. Its scope is extended to all systemically important institutions, and it is to be funded only by an industry levy.

The significance of this distinction may, however, be diluted by international concerns. On the one hand, EU-level reform proposals may bring the UK regime more into line with the new US structure. On the other hand, lack of agreement at the international level—even within the EU—over how to generate an effective *group* resolution regime for troubled financial institutions means that even the most effective national regime may be compromised at the international level. As a consequence, informal ex ante cooperation between regulators over the production of 'living wills'—a policy that appears to have been universally adopted— holds the most promising chance of overcoming this issue. So long as all regulators require the production of such plans, and co-ordinate on their content, then the plans are at least in principle capable of working. We had better hope that they do.