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Governing banks in a global economy: How financial crisis impacts efforts to harmonize bank supervision

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The subprime and sovereign debt crises revealed fundamental risk management failures in banks and brought attention to the extraordinary costs associated with the rescue or bail-out of distressed financial institutions. These types of severe crises may trigger deeper international collaboration to learn from failure and contain risks. Or, crises may lead individual nations to pursue distinctive regulatory reform strategies, tailoring rules to local conditions but leading to fragmentation in global financial markets. The paper investigates this dynamic with a particular focus on innovations in bank resolution and recovery planning. How similar are US, Eurozone, and UK approaches to resolving failed banks? What effect did the crisis have on these practices? Using data from a World Bank survey of national bank supervisors, data produced in response to IMF Article IV consultations, and a recent Financial Stability Board peer assessment, I assess policy convergence and divergence in this critical area of bank regulatory reform. I find that the Financial Stability Board has had a profound effect on national authorities, triggering convergence in administrative and supervisory approaches to crisis management and reshaping approaches to recovery planning and resolution across the G-20 and EU.

Keywords: policy convergence, transnational governance, bank regulation, resolution and recovery, financial crisis

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Reforming bank regulation after the financial crisis

Before the financial crises in the US and EU, the international adoption of uniform capital standards seemed to be an important indicator of enduring, persistent convergence of national approaches to the supervision and regulation of large financial institutions. The implementation of the 2006 version of these rules, Basel II, also signaled an important consensus about the appropriate balance between official sector monitoring and self-discipline. The new rules gave substantial deference to bank managers and relied on internal models of risk. The financial crises revealed, among other things, that even banks satisfying the new capital standards were grossly undercapitalized and vulnerable to rapid deterioration and collapse. A series of reform efforts after the crisis–new capital standards, new restrictions on bank business activity, greater scrutiny of the role of credit ratings agencies, more attention to nonbank financial institutions – created multiple opportunities for regulators to tailor solutions to fit national economic or political needs. Did the financial crisis period (2007-2012) reverse the process of regulatory convergence encouraged by the Basel Committee for Bank Supervision and undo years of work to harmonize financial regulation? Or did actors confronted with instability and failure turn to international forums to coordinate the response, leading to a more tightly integrated network of international standards and rules?

Focusing on recent bank resolution and recovery initiatives in the US, UK and Eurozone, I assess divergence or convergence in regulatory practices after 2008. In each nation affected by the financial crises, bank supervisors confronted the problem of too big to fail: large globally active banks and nonbank financial institutions faced actual or prospective bankruptcy. The catastrophic and disorderly collapse of Lehman Bros, a massive UK investment in the Royal Bank of Scotland, and an extension of credit to AIG in the United States indicated just how uncertain and poorly prepared regulators and other national authorities were for a financial crisis of this magnitude.

The financial crisis in the US and the EU revealed serious flaws in basic choices about how banks are supervised and regulated. After the crisis a host of reforms were undertaken in the US, the UK and across the Eurozone. Some of the efforts were a direct result of international collaboration and coordination – updates to the Basel capital standards, new accounting conventions, and new resolution tools. Other efforts were nation-specific or region-specific – Vickers Commission structural reforms in the UK, Liikanen Group initiatives in the EU, and the Volcker rule and related structural changes in the United States. The rapid pace and wide scope of the reform efforts suggests an interesting question: did financial crisis inspire or trigger convergence in bank regulation and supervision? Or did the crisis interrupt global convergence by demonstrating the weaknesses of an emerging consensus (rooted in the Basel Accords). An answer to these questions requires a fine-grained assessment of the operational and administrative details surrounding the regulation and supervision of banks across multiple nations. Part of a larger project, I focus here on one aspect of bank regulation and supervision – crisis management or, in the language of bank supervisors, recovery and resolution planning.

The paper proceeds in three parts. First, I locate the project in broader debates about the pace and process of policy convergence. Second, I describe what exactly bank regulation is and why a particular focus on recovery and resolution planning can be fruitful for learning about convergence and crisis. The empirical section of the paper, the third section, addresses three questions. (a) What was the extent of national variation in resolution before the crisis? (b) What types of international efforts were undertaken to harmonize crisis management practices after the crisis? (c) What is the extent of national variation today? The assessment of contemporary recovery and resolution approaches focuses narrowly on recovery planning requirements, the diffusion of administrative approaches to resolution and specific ways that resolution authorities have made credible commitments to wind down the operations of systematically important firms (scrutiny of resolution plans and the emergence of the Single Point of Entry approach).

The short answer to major question at the heart of the paper – did we see convergence or divergence – is that international efforts initiated by the Financial Stability Board in 2010 have had a profound effect on the recovery and resolution approaches in each of the nations under observation. There are new specific requirements for banks to submit recovery plans to regulators, there are now resolution authorities in all EU nations, and there is an emerging consensus about feasible legal strategies to resolve large complex holding companies. A particular resolution strategy – Single Point of Entry – has been formally embraced by the US and UK and is likely to become an international convention. There are still persistent differences across nations. The EU Bank Resolution and Recovery Directive (BRRD) extends recovery planning from a narrow range of Globally Systemically Important Financial Institutions (G-SIFIs) to a much larger number of banks, while the US only requires resolution plans for eight G-SIFIs. The US approach to resolving banks – administrative resolution – has been adopted by the UK and Eurozone nations, but the structural form of these administrative resolution authorities remains quite diverse. In the US, the deposit insurance and resolution authority are located in one agency. In Germany, the bank supervisor and the resolution authority will be located in one agency. In the UK and the Netherlands, the resolution authority is located in the central bank. Since experience with the new resolution authority is limited, the political and administrative implications of these diverse structural choices remains unclear. Despite these persistent differences, it is clear that all of the countries under observation have adopted similar supervisory, administrative, and legal approaches to confront moral hazard and the problem of too big to fail.

Policy convergence and the role of crisis

Questions about policy convergence are in many ways at the heart of research on comparative public policy. Dating back at least to the work of Kerr, Dunlop, Harbison and Myers (1960) on industrial relations, scholars have traced the impact of an increasingly global economy on domestic policy choices. The recognition that convergence has been or is occurring across a number of policy domains and across a wide range of diverse national contexts has inspired an enormous literature. The number of policy areas examined in this work is legion: telecommunications, industrial relations, environmental (Fernandez 1994), banking, LGBT rights, tax, trade, finance. In an influential review article, Bennett (1991) sketched out the mechanisms that might cause this type of convergence, focusing on the ways that state actors might influence the pace or path of convergence (emulation, elite networking, harmonization). Drezner (2001) clarified the key dimensions that differentiate various approaches to convergence– the role of economic forces versus the role of ideas and structural versus agent-based approaches. The attention to convergence in the international relations literature reflects the efforts of scholars to highlight the importance of transnational governance structures and ideas that organize the search for policy alternatives (Simmons and Elkins, 2004).

The persistence of policy diversity inspired efforts to classify countries that share particular configurations of policies (notably, the Varieties of Capitalism approach developed in Hall and Soskice (2001)). The sources of persistence differences are rooted in ideas about the ways that nationally distinctive institutional features mediate international influences (recently, and specific to banking, Lavelle, 2014) to broader and more diffuse claims about national culture or the simple influence of path dependence (Hancher and Moran, 1989).

But what happens when shared, global crisis disrupts ideas and understandings about best or ideal policy choices? Do international lessons emerge or do national differences become more salient? This idea – that crisis, in particular, leads to desperate search for solutions appears directly in literature on the recent financial crisis (Eichengreen, 2015). But the idea that crisis and the path of convergence may be linked in important ways is not new. Rose (1993) and Majone (1991) claim that the urgency of crisis is linked to accelerated learning– new problems require immediate attention with few opportunities for original solutions. Foreign models or experiences are among the sources for ideas that inspire these rapid solutions. But, over the last 10 years, the literature on crisis management has expanded and matured. The literature on the management and impact of crisis has moved from thinking about crises as a single event to thinking about crisis as a process. Boin, t'Hart, Stern, and Sundelius (2005) sketch out a framework for tracing the steps that governments take to respond to crisis – from "making sense" of events as the crisis unfolds to, ultimately, the complex process of learning from crisis. Each step of the process of proves be highly contentious. Various actors seek to use the lessons of the crisis to advance particular solutions or policy instruments, to define a new era or signal the return to normalcy, and to balance demands for sweeping reform and more pragmatic stewardship of existing expertise and instruments to avert future crises. Birkland (2006) also pieces together the links between disasters and learning. Disasters and related media attention mobilize groups with a stake in change and, at the same time, draw attention to particular ideas that may inform solutions or reform. The crisis management literature suggests a number of ways that crisis might inspire convergence: other countries experiencing similar crises may share ideas or solutions or countries seeking to preempt crisis may learn from countries experiencing crisis. On the other hand, crisis could disrupt a process of convergence, weakening actors who were advocates or proponents of converging approaches and leading to a search for more appealing national variants. What <u>does</u> happen and why? I use the case of bank regulation and the global financial crisis to offer an answer to this question.

Why bank regulation?

Bank regulation covers a range of government functions and rules– consumer protection, capital requirements, permitted lines of business, quantitative supervision, and crisis management. Banks are chartered by national (and local) governments, supervised by public sector regulators, often participants in a deposit insurance scheme, and subject to a variety of reporting and compliance requirements. The development of common capital requirements – and the Basel Accords – highlighted the important role of international collaboration in the evolution of these rules (Tarullo, 2008). The global mobility of capital may create a particularly strong set of incentives for policy convergence. In 1974, disruptions in foreign exchange markets and the failure of a large German bank, Bankhaus Herstatt, and a large American bank, Franklin National Bank, focused attention on the risks of international financial trading and markets (Auerbach, 1975). The crisis triggered an internationally coordinated effort to increase cooperation between regulators across national borders. This effort, headquartered in the Bank for International Settlements, led to the formation of the Basel Committee in on Banking Supervision. The Committee published the 1975 Basel Concordat, a 1983 Statement of Principles, and, ultimately, became the focal point for efforts to establish uniform capital requirements for banks (see Kapstein, 1994, for links between international financial crisis in the 1970s and the establishment of the Basel Committee). The uniform capital requirements, the Basel Accords, were largely a response of representatives of globally competitive financial sectors—from the United States and the United Kingdom in particular—to diminishing capital positions of Japanese banks in the late 1980s. The claim was that Japanese banks were moving into markets without the same types of capital requirements required of local financial institutions, placing the local institutions at a competitive disadvantage (see Barth, Caprio, and

Levine, 2006). The Basel Accords reinforced and broadened international cooperation in the area of bank supervision and evaluation, building on the 1975 and 1983 efforts to establish norms and practices for cross-border oversight of financial institutions. For a pre-crisis overview of the global financial regulatory architecture that the Basel Committee inspired, see Alexander et al 2006. Writing before the financial crisis period, Lütz (2004), for instance, describes how broad structural features of bank regulation in the US, UK and Germany have converged in important ways – with a broader role for federal actors and a pattern of cooperation on standards that is institutionalized in the Basel Committee.

But institutional diversity was the norm before the crisis– the UK at the time had a single independent financial services regulator, the US has different regulators for bank, insurance, and securities activity, and Germany located the primary regulator in the Finance ministry. And, more broadly, the regulation of banks is a local enterprise. Rules governing the licensing and operation of banks are national or sub-national, statutes that govern these rules are typically national, the actors and norms in the banking sector are nationally distinctive. Banks operating in the U.S. – whether owned by foreign or U.S. interests – are regulated by U.S. agencies, under U.S. rules derived from U.S. statutes, overseen by regulators who are U.S. citizens, typically educated and trained in the U.S. In a typical E.U. member nation, the local situation is similar. Banks operating in the U.K. are regulated by U.K. agencies, under rules derived from British laws, overseen by regulators who are U.K. nationals, typically educated and trained in the U.K. For even the smallest nations in the Eurozone, the situation is also similar: Maltese banks are regulated by Maltese authorities, under rules derived from Maltese legislation, overseen by regulators who are Maltese citizens, typically educated and trained in Malta and abroad. In order to operate across borders, banks are required to conform to these various locally distinctive regulatory environments. One observer of international efforts to develop consistent supervisory standards concluded: “As a practical matter, however, the diversity of G20 members’ banking systems—and the primarily domestic nature of banking regulation—makes … harmonization a major challenge” (Patrick, 2012).

The role of banks in the configuration of the national economy is also a key dimension of the Varieties of Capitalism approach to understanding persistent national variation in policy choices. Grounded in the path-breaking work of Zysman (1983), one fundamental difference in national approaches to economic development is reliance on broader capital markets or narrower bank-centered sources of funding. Coordinated market economies rely on durable long-term connections between bank lenders and corporate borrowers, while liberal economies rely on (anonymous) market transactions to price and allocate capital. Hall and Soskice (2001) describe how coordinated market economies face unique pressures as global financial liberalization transforms national capital markets. Financial market reforms may challenge interests embedded in the coordinated economy or these interests may challenge and shape financial reform. The rapid growth of global equity markets, for instance, disrupted long-stable patterns of corporate finance in coordinated market economies (see Culpepper 2005). In a compelling and related recent critique of this perspective, Hardie, et al (2013) describe how the business of banking has become increasingly market-based, with short-term sources of funding eclipsing deposits as sources of funds and active trading of securitized loans generating a market for assets. Banks are one of a number of financial institutions that comprise "market-based financial networks" (or, for a more ominous label, the "shadow banking system"). Banks are integral parts of – perhaps even the most important parts of – this network, which is why regulation of the traditional banking sector is at the core of efforts to prevent another wave of financial crises. While the actors and practices implicated in the financial crises varied across countries, garden variety depository institutions played central roles in both the subprime and sovereign debt crises. In the US, thrift institutions IndyMac and Washington Mutual failed spectacularly. In the UK, the failure of Northern Rock and the nationalization of RBS were extremely costly. Outside of the UK, the failure of banks in Ireland and the financial distress of major banks in Italy, Spain, and Portugal all highlighted how failures of bank regulation could jeopardize economic stability.

Why recovery and resolution?

The crisis period led to a series of controversial and difficult policy choices that shifted the costs of bank failure from bank creditors, bank management, and bank owners, to taxpayers. One central challenge or problem that emerged from the crisis period was the recognition that some financial institutions – large institutions with an often global reach – are simply too big to fail. National authorities in a number of countries realized that the failure of a large bank or large nonbank financial institution could result in cascade of bank failures and a catastrophic financial crisis. In some nations, the precarious institutions were major banks (particularly in the sovereign debt crisis), but in some nations (particularly in the subprime debt crisis), the precarious institutions were nonbanks (life insurance companies, money market mutual funds). In both cases, authorities did not have well-defined legal or administrative tools (or the political power) to wind-down the activities of failing financial institutions. Since the government lacked this authority and power, banks and other financial firms in this context were encouraged to take on extraordinary risks, knowing full well that governments would be compelled to bail out or prop up the bank in the case of failure. Woll (2014) describes how the major Eurozone actors, Germany and France, faced quite different responses from the financial sector as the crisis unfolded. In the French case, the financial sector worked together and with the government to respond, but, in the German case, the inaction of the financial sector compelled the government to intervene directly and with substantial expense to taxpayers. While the broader public didn't know the name of the problem – moral hazard – taxpayers were ultimately left with large and unexpected bills for the bailouts.

As taxpayers in nation after nation were confronted with the costs of bailout, it became clear that an important set of tools was missing for most bank regulators: systematic and detailed plans to wind-down the operations of large credit institutions. While most nations had and have well-developed plans to manage the failure of a retail bank, even a large retail bank, the failure and wind-down of large, globally active financial institutions presents administrative and legal challenges that were not fully appreciated at outset of the crisis. National authorities around the world have since been crafting new regulations to establish administrative authority and planning requirements for systemically important firms. Often designated as crisis management, this work involves attention to plans for both recovery and resolution planning.

Recovery describes steps taken during periods of severe financial stress that preserve the integrity of the core banking business. Recovery plans are typically crafted by firms, reviewed by supervisors, and have the status of frameworks or plans rather than specific legal obligations. Resolution plans are developed jointly by a public sector resolution authority and the plans describe specific steps taken to liquidate the core business, implying losses to shareholders and other creditors and replacement of management. Recovery is an internal process undertaken by the bank. Resolution typically involves a third party, a public sector actor with extraordinary legal authority. The basic components of these two crisis management tools turn out to be fairly complex. Regulators need to specify triggers for extraordinary action, banks need to have specific plans for recovery, government financial authorities need to have facilities for lending to distressed institutions and legal mechanisms to acquire and wind-down failing firms in an orderly way. While a recovery plan is principally designed to permit a business to continue to operate under adverse conditions, a credible resolution plan to wind down distressed institutions makes clear how failures can be managed, moving costs to bank owners and creditors rather than taxpayers (EBA, 2013). In the event that failure is unavoidable, authorities need to have resolution plans to manage depositor claims and other creditor interests as the bank operations wind down.

Prior to the financial crisis in the United States, there was little attention by regulators to the absence of effective crisis management tools or the problem of moral hazard. For instance, the staff reports included with IMF Article IV consultation findings are one indicator of attention to the challenges of recovery and resolution by national authorities and international monitors. In the 2007 UK consultation, there was no specific mention of bank recovery and resolution practices and only cursory, largely laudatory, mentions of bank supervisory policies. In the 2008 consultation, on the heels of the collapse of Northern Rock, IMF staff highlighted a number of problems with the UK crisis management regime. Similar concerns appear in the US report only after the 2008 failure of Lehman Bros. (see Table 1, below).

Before the crisis: the extent of national variation in the World Bank Surveys

What do we know about crisis management tools prior to the crisis? Measuring supervisory capacity to engage in recovery and resolution planning requires attention to a number of questions: What triggers extraordinary oversight and action? What types of tools are available to national authorities to intervene to preserve or save a financial institution? What types of tools are available to wind-down or resolve failing firms? Who funds recovery or resolution? As part of an ongoing World Bank effort to answer these questions, the Bank administered a survey to national bank supervisors in over 200 countries. The inaugural survey was published in 2003, with follow-ups in 2007 and 2011. The 2007 survey was administered prior to the onset of the crisis in the United States and the 2011 survey, while after the crisis, does not include recent implementation of the EU Bank Resolution and Recovery Directive in the UK and the Euro area.

The results from the first iterations of the survey were the basis for a comprehensive examination of bank regulation and supervisory practices (see Barth et al 2006). Building on that work in a recent paper, Barth et al (2013) propose a number of indices that aggregate data from the World Bank Surveys. One index – "Official Supervisory Power" - includes the questions that will also be the focus of this paper. The index incorporates responses to – among other things –three questions that involve resolution: (1) can the supervisor restructure the bank, (2) can the supervisor declare the bank insolvent, and (3) is the approval of a court required for any of these steps?

The power of bank supervisors relative to national courts varied substantially before the crisis. The 2007 the World Bank Survey indicated that US bank supervisors could declare a bank insolvent and supersede shareholder rights without court approval. This was not the case in the UK or in ten of twelve Eurozone nations (the exceptions were Finland and Portugal). In the 2011 survey, the variation persists.[1] In the US, the bank supervisor or other resolution authority does not require court approval for any of five essential resolution actions, specifically including the power to declare insolvency and supersede shareholders' rights. The UK still required court approval to declare a bank insolvent and only three of seventeen Eurozone states shared the broad US resolution authority (Portugal and two new entrants, Estonia and Slovakia). The

[1]World Bank Survey question 11.6.1 in 2007 and combination of questions 11.6.5.00 and 11.6.5.01 from 2011

implementation of the BRRD addresses these national variations, as every EU country will establish a national resolution authority.

The US has a long history of assertive resolution authority directed at retail banks. The Federal Deposit Insurance Corporation can declare a bank insolvent and facilitate the sale of the bank to another financial institution, using deposit insurance funds to pay high priority bank creditors and share losses associated with distressed bank assets (see CRS, 2014). The National Credit Union Administration has similar powers over credit unions. Dodd-Frank extended FDIC authority to large nonbank financial institutions designated as systemic risks by the Financial Stability Oversight Council.

The US approach contrasts to the approach adopted in the UK and the majority of Euro area nations. Nations like UK and Germany share deference to property rights and judicial resolution of banks, while US resolution authority pursues administrative remedies. The absence of an expedient administrative alternative to traditional bankruptcy means that bank failures are subject to lengthy legal proceedings and this implies uncertainty for creditors and depositors and risks financial market disruptions, including delays in access to deposits (see IMF 2009 for details about how these obstacles challenged German supervisors in 2008). Schooner (2005) described the wide disparity between US and UK approaches to bank resolution under the pre-crisis rules. The key difference is in the role of courts in the resolution process – in the UK, the Financial Services Authority (FSA) could recommend to a court that a conservator be appointed for troubled bank, but judicial standards and court choices determined whether or not the request would be granted and what entity might act as conservator. In the US, a bank supervisor can request the FDIC to designate a bank as failing and the FDIC can act on the request and act as conservator without the intervention of a court.

During the crisis: the international dimension and the Financial Stability Board

As the first wave of financial crisis unfolded in the US and EU in 2008 and 2009, international actors recognized that a collective inability to manage the orderly resolution of large globally active financial institutions required a global response. The G-20, the forum for the coordination of economic activity for the 20 largest global economies, assumed a visible role in the formulation of an international response to the crisis. The response came in the form of the Financial Stability Board (FSB), established in 2009 at the urging of G-20 leaders and building on and including the members of the Financial Stability Forum. Helleiner (2010) concludes that the US, specifically Treasury Secretary Geithner, was the driving force behind the new effort and argues that the unusual level of cooperation reflected intense domestic political pressure - across a variety of nations – to engage in more assertive financial regulation. The FSB was formally established as an organization under Swiss law in early 2013, and the IMF joined the FSB as a member to improve coordination of global monitoring and response to financial crisis (see IMF, 2013) One inspiration for this international collaboration was clearly “level playing field” concerns – the idea that countries needed assurances that locally assertive financial regulation would not result in the competitive disadvantages for local firms relative to foreign competitors based in a less restrictive home jurisdiction.

In 2010, a series of recommendations from the Basel Committee on Bank Supervision and the FSB highlighted the problem of too big to fail and the necessity of effective resolution regimes, as well as the need for better cooperative frameworks for cross-border resolutions of internationally active large firms (BCBS, 2011). The publication a “Key Attributes” document in 2011 created a set of international standards for the identification and resolution of large globally active financial institutions, formally designated Global Systemically Important Financial Institutions or G-SIFIs. The 2011 document endorsed national efforts to create formal mechanisms to resolve or wind-down the business activities of severely distressed financial institutions. The FSB specifically identified 29 G-SIFIs in November, 2011 – all banks or banking groups – eight were headquartered in the US, four in the UK, and ten in Eurozone nations, so a large proportion of these institutions are supervised under the rules outlined below. In a 2012 updated list that included categories related to size, eleven of the fourteen largest banks were headquartered in the US, UK or Euro area. (See Table 2, below, for the 2011 G-SIFI list).

As will become clear below, the Key Attributes document has become an incredibly influential international norm, influencing the creation of the EU BRRD, US/UK cooperation on resolution of large financial groups, and UK efforts to establish an administrative authority for orderly resolution. At the same time that the FSB was developing specific standards or key attributes for bank supervision and resolution, there was also a deliberate effort to improve international adherence to these standards. The clear expectation was that all member jurisdictions would conform and that there would be broader effort to ensure that other jurisdictions with large financial sectors would be encouraged to participate (see FSB, 2010)

This critical work was carried out under a number of severe constraints that may undermine this type of international coordination in the long run. Critics have identified weaknesses in staffing levels and enforcement authority. The FSB has no formal legal mandate and it supported by a relatively small staff detailed from the Bank of International Settlements (see Patrick 2012 and Helleiner 2010).

After the crisis: evaluating recovery and resolution planning along three dimensions

To what extent have national approaches to resolution and recovery planning converged since the financial crisis? To answer this question, I focus on three distinct areas: recovery planning, administrative authority to resolve failing institutions, and legal strategies for pursuing orderly resolutions.

<u>What is the scope of recovery planning requirements?</u>

In response to the FSB initiatives, US, UK, and Euroarea authorities all adopted requirements for some banks to submit recovery plans. The US requirement is very narrow, the UK requirement is quite broad, and, as the BRRD is implemented, the Eurozone will also have a broad requirement. The experience in the EU and the US reveals the impact of the FSB on recovery and resolution planning efforts in the G-20 nations.

In 2014, the US Federal Reserve System announced "heightened supervisory expectations for certain bank holding companies," new rules that applied to the eight US banks included on the FSB list of G-SIFIs (see Table 2 for the list and home country). All FSB members who are home or significant foreign host for these large complex institutions agreed to require this type of plan (FSB, 2013). A Supervision and Regulation Letter released later in the year described expected content for the recovery plans. The letter identifies four specific required elements: a description of interval governance framework for crisis management (including triggers for extraordinary action), recovery options (including sale or disposal of significant assets), an execution plan, and an impact assessment (Board of Governors, 2014). As the U.S. requirements only apply to eight large banks, recovery planning is limited and overseen exclusively by the Federal Reserve.

In the UK and Euro Area, the European Banking Authority (EBA) has taken a broad role in the development of recovery planning requirements. Development of recovery plan elements was delegated to EBA to "avoid national supervisory authorities making substantially divergent information requirements." (EBA, 2013). The EBA prescriptions drew directly on the FSB Key Attributes document: assessing the prospective costs of compliance, for instance, the EBA concluded that costs would not be substantial if national supervisors were already using FSB principles to guide recovery and resolution planning requirements (EBA, 2013:22). The process of designing technical specifications for recovery plans proved to be contentious, revealing uncertainty about the legal status of triggers that may initiate recovery efforts, as well as the substantial costs that the development of recovery plans may impose on smaller financial institutions. The EBA consultation document makes clear that while specific indicators – some combination of capital, liquidity, profit and risk metrics- will be used to trigger recovery plans, the plans should not be automatic but instead lay out an "escalation process."

Prior to the implementation of the BRRD and application of the new EBA rules, the types of institutions required to submit recovery plans varied substantially by country. The scope of the UK rules is quite broad, requiring even small firms with relatively simple business models to develop and submit recovery plans that conform to the EBA rules (see Bank of England, 2015) This scope distinguished the UK approach as early as 2011 (see BCBS, 2011). Even as late as a 2013 FSB peer assessment, most of the participating Eurozone actors (Germany, France, Italy, the Netherlands) had recovery planning requirements limited to large systemically important firms. Only Spain required recovery planning for smaller firms. Spain was also the only participating Eurozone actor that gave the bank supervisor the power to compel firms to restructure to improve resolvability (FSB, 2013). The BRRD expands the scope of the recovery planning requirements. but the BRRD ultimately included a proportionality component: small institutions are only required to submit brief plans, while large institutions are required to submit comprehensive plans. For instance, German savings and credit cooperatives are only required to comply with a "simplified set of recovery planning obligations" (Bundesbank, 2014).

It is clear that new requirements for recovery planning emerged as a consequence of FSB initiatives and the national supervisors in many countries will have a broader range of information and options than they did in the financial crisis period.

Who has the authority to resolve failing institutions?

Before the onset of the subprime crisis, a large majority of Euro area nations relied on courts to resolve failing financial institutions. Court proceedings draw on well-established principles of bankruptcy law to reconcile competing claims for assets, protect shareholder rights, and establish a hierarchy for creditors. International authorities were critical of this arrangement: a 2009 IMF review of the German economy identified specific weaknesses in the framework for resolving failed banks. German corporate law forecloses quick and decisive resolution action, with stronger property rights for bank owners, so resolution is slow and expensive (IMF, 2009). In a 2011 working paper, Hendren compares judicial and administrative approaches to bank resolution and describes a number of obstacles to harmonization of conventional bankruptcy codes; he ultimately concludes that the international adoption of specific norms for specialized resolution regimes is the likely alternative to move toward a consistent approach to resolution (Hendren 2011). The FBS Key Attributes document inspired just such a convergence. One of the major EU responses to the crisis – the BRRD – implements the major recommendations of the FSB Key Attributes document, specifically requiring individual member states to establish a national resolution authority that has extraordinary legal authorities to resolve failing institutions. This is a signal change in the practice of bank regulation in the UK and the Eurozone.

The UK case is notable since the authorities deliberately hard to break from a long-standing tradition and understanding that the bank supervisory approach was a "zero failure" regime – bank failures were not perceived as routine consequence of firms taking risks, but instead treated as an avoidable policy mistake by an inattentive regulator.   While US supervisors have been criticized for excessive forbearance – an unwillingness to take prompt corrective action in the face of an impending crisis – it is clear that bank failures are relatively commonplace (exceeding 100 annually in 2009 and 2010). The British experience is radically different. Prior to 1987, the Bank of England largely relied on informal tactics to organize the sale of a distressed institution, rather than implicating public funds or drawing a bank into a court-supervised resolution. The failure of JMB Limited in 1984 triggered a critical assessment of the supervisory practice in the bank and a 1987 law formalized the supervisory powers of the Bank (Singer 2007 *Regulating Capital*). Under the new rules the norm of zero failure persisted: there were only nine bank failures in the UK between 1987 and 1995 (see GAO, 1994). After the spectacular failure of Barings Bank in 1995, bank supervisory and lender of last resort functions were formally split, with supervisory power consolidated in the Financial Services Authority or FSA. This split inaugurated a period of "tripartite" supervision, with responsibilities for bank supervision and oversight shared across the Bank, the FSA, and HM Treasury. As the 2007 and 2011 World Bank Surveys indicate, under this arrangement the central bank and bank supervisory authorities in the UK had very limited legal authority to engage in recovery and resolution actions prior to the financial crisis and no permanent statutory regime for managing bank resolution.

In the UK, a new resolution authority was established prior to the implementation of the BRRD. Two separate parliamentary initiatives –the 2009 Banking Act and a 2013 Banking Act – give the Bank of England a broad set of new powers (see HM Treasury, 2014). The 2009 Banking Act created a Special Resolution Regime (SRR) to give the Bank of England permanent authority to respond to an imminent bank failure – powers to force a sale, create a bridge bank, or to request that the bank be declared insolvent (FSB, 2013). The UK carried out two resolutions under the this new authority: Dunfermline Building Society and Southsea Mortgage. Under the 2013 banking act, the supervisory functions were moved back in the Bank of England under the Prudential Regulatory Authority or PRA. A separate bank supervisory unit in the Bank of England, the PRA retains the discretion to place a failing bank in the SRR, also a separate unit in the Bank, or pursue other administrative remedies.   The Bank of England detailed new resolution planning protocols in October, 2014 and the supervisors in the PRA, especially the newly appointed head of the PRA Andrew Bailey, were quite clear that the new approach would not be a "zero-failure" regime (see BOE, 2012 and BOE, 2014).

How can resolution plans be credible?

Resolution authorities have taken a number of steps to ensure that orderly resolution is a credible alternative in the event a too big to fail firm faces financial distress: institutions are now required to submit detailed and credible resolution plans and regulators have developed concrete strategies for resolving complex financial groups. What these national approaches share is a commitment to avoid taxpayer-funded bailouts and to impose costs of failure on creditors and shareholders ("bail in" provisions).

In the US, the problem of too big to fail was primarily confined to large investment banks or nonbank financial institutions (AIG, the Reserve Fund, Lehman Bros.), largely out of reach of the resolution authority given to the FDIC. The absence of a roadmap or tools for resolution of nonbanks in the US led to the creation of a new interagency council, the Financial Stability Oversight Council. Rather than relying on the type of ad hoc decisions that led to the Bear Stearns sale in early 2008, the later Lehman Bros. bankruptcy, and the AIG bailout, the FSOC institutionalizes crisis management in the US. Dodd-Frank permits the FSOC to designate large financial services firms as systemic risks, triggering oversight by the Federal Reserve System, special capital requirements, and provisions for the development of a liquidation or orderly resolution plan (a "living will") with the Federal Deposit Insurance Corporation (FDIC). In 2011, only the 11 US banks identified on the G-SIFI list were required to submit resolution plans, but by 2014 that number grew to 138 financial institutions (see FRS, 2015). So, in the United States, while recovery planning requirements are limited, there is a vigorous effort to improve resolution planning.

As the US resolution planning requirement is new, it is perhaps not surprising that the first round of plans did not meet the expectations of key regulators – eleven resolution plans were specifically designated as "not credible." (Board of Governors and FDIC, 2014). FDIC Vice Chair Thomas Hoenig, a former Fed governor, was characteristically blunt in his assessment: "Despite the thousands of pages of material these firms submitted, the plans provide no credible or clear path through bankruptcy that doesn't require unrealistic assumptions and direct or indirect public support" (Adler, 2014).

Beyond adopting similar resolution planning requirements, resolution authorities in the UK and US have developed a particular legal strategy to implement "bail-in." The Bank of England and the FDIC released a 2012 statement describing coordinated efforts to create credible resolution plans for G-SIFIs. The Bank and the FDIC described a particular legal strategy – Single Point of Entry – for resolving large complex holding companies. In the US case, SPOE involves actions to maintain the ongoing business activities of the subsidiaries of a top holding company, while the FDIC takes over as conservator and the assets of the top-level holding companies are transferred to a bridge holding company. Senior holding company management would be removed, shareholder equity would be used to cover losses, and unsecured creditors would absorb any remaining losses. The planning document describes how unsecured creditors would be given an equity stake in a new holding company (see FDIC/BOE, 2012). Public funds, from a US Treasury Orderly Liquidation Fund, could be used on short-term basis, but the objective is to wind down the activities of large complex firm without relying on taxpayer funds. The SPOE strategy is specifically designed to minimize the need for extensive cross-border cooperation as different business units in different areas would continue to operate even as the top holding group was restructured (FDIC/BOE, 2012: 15) The UK approach does not rely on a bridge holding company, but does introduce bail-in provisions. Any losses from the resolution would be apportioned to equity holders and creditors. Funds from the deposit insurance scheme could be used to cover a portion of losses.

The rule proposed by the FDIC described how the SPOE meets policy goals articulated in Dodd-Frank and provides details about the creditor hierarchy (the "claims waterfall") and the timeline for a Dodd-Frank Title II resolution (FDIC, 2013). A banking industry quarterly published by a major financial services trade association, The Clearinghouse, concludes that SPOE has gained the status of the "leading strategy for dealing with the too big to fail problem" (Guynn and Sahni, 2014). In 2014 testimony before the US Congress, FDIC Chair Martin Gruenberg described how SPOE approaches were the focus of ongoing collaborations with the European Commission and national supervisory authorities in several EU nations, including the UK (Gruenberg, 2014).

Conclusions

It is clear that the FSB Key Attributes document inspired G-20 nations to adopt a fairly uniform approach to manage the problem of too big to fail. As US experience with resolution plans indicates, it is unclear if the new administrative, legal and supervisory framework will actually lead to a successful example of orderly resolution during the next financial crisis. And, despite the adoption of uniform approaches, a substantial amount of national diversity persists. Much of this diversity is structural – in the US, the FSOC, the Fed, and the FDIC are all implicated in Dodd-Frank requirements for recovery and resolution planning. Under the BRRD, each EU member state must establish a national resolution authority and, in 2016, a single EU resolution authority will be created with national representation. Although a number of countries locate resolution authority in the deposit insurer, neither the Eurozone nations nor the UK follows that practice (see Hendren, 2011). In the UK, the resolution authority (SRR) is located in the Bank of England; in Germany, the resolution authority will be located in the bank supervisor (BaFIn) (FMF, 2014).

There are known or well-understood challenges with each of these structural choices. Supervisors face reputational challenges when banks fail, creating incentives to delay enforcement triggers (see Kane, 1989, on the S&L crisis in the US). Central banks face a dilemma when a failing institution is a large borrower under lender-of-last resort facilities – premature choices about resolution could generate losses for the central bank. And deposit insurers also face dilemma – resolution of a large group with a large retail banking subsidiary could result in extraordinary losses for the deposit insurance fund. Given the lack of experience with the resolution of G-SIFIs and bail-in innovations, it is unclear which of these structural choices will facilitate an orderly resolution.

Bank regulation encompasses a number of different policy choices and trade-offs. One the key dimension of crisis management, the answer to the question posed at the beginning of the paper seems clear. The crisis inspired international collaboration and coordination in the articulation and adoption of a set of new and clear standards that are targeted at the problem of too big to fail.

Table 1
Mentions of bank resolution or recovery in IMF Article IV consultation staff reports.

Year	UK	US
2007:	0	0
2008:	22	0
2009:	15	6
2010:	6	10
2011:	11	8
2012:	13	3
2013:	8	7

Table 2
Globally Systemtically Important Financial Institutions (G-SIFIs) identified by the Financial Stability Board in 2011.

Bank of America	United States
Bank of China	China
Bank of New York Mellon	United States
Banque Populaire CdE	Eurozone (France)
Barclays	United Kingdom
BNP Paribas	Eurozone (France)
Citigroup	United States
Commerzbank*	Eurozone (Germany)
Credit Suisse	Switzerland
Deutsche Bank	Eurozone (Germany)
Dexia*	Eurozone (Belgium)
Goldman Sachs	United States
Group Crédit Agricole	Eurozone (France)
HSBC	United Kingdom
ING Bank	Eurozone (The Netherlands)
JP Morgan Chase	United States
Lloyds Banking Group*	United Kingdom
Mitsubishi UFJ FG	Japan
Mizuho FG	Japan
Morgan Stanley	United States
Nordea	Sweden
Royal Bank of Scotland	United Kingdom
Santander	Eurozone (Spain)
Société Générale	Eurozone (France)
State Street	United States
Sumitomo Mitsui FG	Japan
UBS	Switzerland
Unicredit Group	Eurozone (Italy)
Wells Fargo	United States

* removed from the list in 2012. Six of largest banks identified on the 2012 list are either Eurozone or US or UK

References

Adler, Joe. 2014. "Agencies: Banks must fil gaps in 2015 living wills, or else." *American Banker*. (5 August)

Alexander, K., Dhumale, R., Eatwell, J. 2006. *Global governance of financial systems: The international regulation of systemic risk*. New York: Oxford University Press.

Auerbach, Kay J. 1975. 'International banking: Where do we go from here?" Staff Report. No. 10. (June). Federal Reserve Bank of Minneapolis. Retreived 2 April 2014 from www.minneapolisfed.org

Barth, James R., Gerard Caprio, and Ross Levine. 2006. *Rethinking Bank Regulation: Till Angels Govern*. New York: Cambridge University Press.

Barth, James R. and Caprio, Gerard and Levine, Ross. 2013. "Bank Regulation and Supervision in 180 Countries from 1999 to 2011" (January 19). Retrieved 11 April 2015 from ssrn.com/

Basel Committee on Bank Supervision. 2011. "Resolution Policies and Frameworks. Progress so Far." Bank for International Settlements. (July).

Bank of England. 2012. "News Release - Andrew Bailey sets out details of the PRA's approach to regulation." Retrieved 7 April 2015 from bankofengland.co.uk (22 October)

Bank of England. 2015. "Implementing the Bank Recovery and Resolution Directive - response to CP 13/14." Prudential Regulatory Authority . PS 1-15. (January) Retrieved 14 April from bankofengland.co.uk/pra

Bank of England. 2014. *The Bank of Englands's Approach to Resolution*. (October). Retrieved 6 April 2015 from bankofengland.co.uk

Bennett, C. J. 1991. "What Is Policy Convergence and What Causes It?" *British Journal of Political Science.* 21:215–233.

Birkland, Thomas A. 2006. *Lessons of Disaster: Policy Change After Catastrophic Events.* Washington, DC: Georgetown University Press.

Board of Governors of the Federal Reserve System. 2014. "Consolidated Recovery Planning for Certain Large Domestic Bank Holding Companies." Supervisor Letter SR 14-8. (September 25). Retrieved 13 April 2015 from federalreserve.gov

Board of Governors of the Federal Reserve System and the Federal Deposit Insurance Corporation. 2014. “Agencies Provide Feedback on Second Round Resolution Plans of "First-Wave" Filers” Joint Press Release. (August 5). Retrieved 12 April 2015 from federalreserve.gov.

Bundesbank. 2014. “Europe’s new recovery and resolution regime for credit institutions.” *Deutsche Bundesbank Monthly Report*. (June)

Boin, Arjn, Paul ‘t Hart, Eric Stern, and Bengt Sundelius. 2005. *The Politics of Crisis Management: Public Leadership Under Pressure.* Cambridge: Cambridge University Press.

Congressional Research Service. 2014. “Deposit Insurance for Banks and Credit Unions.“ Congressional Research Service Report R41718. Retrieved 2 April 2015 from fas.org

Culpepper, Pepper D. 2005. “Institutional Change in Contemporary Capitalism: Coordinated Financial Systems since 1990.” *World Politics* 57:173–99

Drezner, Daniel W. 2001. “Globalization and Policy Convergence” *International Studies Review.* 3:53-78

Eichengreen. Barry. 2015. *Hall of Mirrors: The Great Depression, the Great Recession and the Uses – and Misuses – of History*. New York: Oxford University Press.

European Banking Authority. 2013. “On the content of recovery plans under the draft directive establishing a framework for the recovery and resolution of credit institutions and investment firms.” Consultation Paper. Draft regulatory technical standards. EBA/CP/2013/01. (11 March). Retrieved 14 April 2015 from www.eba.europa.eu

Federal Deposit Insurance Corporation and the Bank of England. 2012. “Resolving Globally Active, Systemically Important, Financial Institutions.” A joint paper by the Federal Deposit Insurance Corporation and the Bank of England (December 10). Retrieved 2 April 2015 from fdic.gov

Federal Deposit Insurance Corporation. 2013. “Resolution of Systemically-Important Financial Institutions: The Single Point of Entry Strategy.” *Federal Register*. 78(243):76614. (18 December)

Federal Ministry of Finance. 2014. “German government moves forward with package of measures for European banking union.” (9 July) Retreived 8 April 2015 from www.bundesfinanzministerium.de

Federal Reserve System. 2015. "Resolution Plans" Retreived 2 April 2015 from federalreserve.gov

Fernández, Susana Aguilar. 1994. "Convergence in Environmental Policy? The Resilience of National Institutional Designs in Spain and Germany." *Journal of Public Policy*. 14:39-56.

Financial Stability Board [FSB]. 2013. Thematic Review on Resolution Regimes. Peer Review Report. (April).

Financial Stability Board [FSB]. 2010. FSB Framework for Strengthening Adherence to International Standards. (9 January)

Government Accountability Office. 1994. "Bank Regulatory Structure: The United Kingdom. GAO/GGD- 95-38. Washington DC: GAO.

Gruenberg, Martin. 2014. Testimony before the Committee on Banking, Housing, and Urban Affairs, U.S. Senate. (September 9). Retrieved 13 April 2015 from fdic.gov

Guynn, Randall and Reena Sahni. 2014. "SIFI resolution under Title II: Toward a preferred path." *Banking Perspective*. (First Quarter). Retrieved 9 April 2015 from www.clearinghouse.org

Hall, Peter A. and David Soskice. 2001. "An Introduction to Varieties of Capitalism." In *Varieties of Capitalism: The Institutional Foundations of Comparative Advantage*. Peter A. Hall and David Soskice (eds.). New York: Oxford University Press.

Hancher, Leigh and Michael Moran. 1989. "Introduction" In Capitalism, Culture and Economic Regulation. Leigh Hancher and Michael Moran (eds.). New York: Oxford University Press.

Hardie, Iain, David Howarth, Sylvia Maxwell and Amy Verdun (2013). Banks and the False Dichotomy in the Comparative Political Economy of Finance. *World Politics* 65:691-728

Helleiner, E. 2010. What Role for the New Financial Stability Board? The Politics of International Standards after the Crisis: Financial Stability Board. *Global Policy*. 1(3), 282–290

Hendren, Charles. 2011. "Judicial and Administrative Approaches to Bank Resolution: Prospects for International Harmonization" Working Paper. Wharton Financial Institutions Center. Retrieved 2 April 2015 at fic.wharton.upenn.edu

HM Treasury. 2014. Consultation Outcome: Bail-In Power Implementation. Retrieved 2 March 2015 from www.gov.uk.

International Monetary Fund. 2013. IMF Membership in the Financial Stability Board. Public Information Notice.(22 March). Retrieved 2 April 2015 from imf.gov

International Monetary Fund 2009. *Germany: 2008 Article IV Consultation—Staff Report*. (January). Retreived 2 April 2015 from imf.gov

Kane, Edward. 1989. *The S&L Insurance Mess, How Did It Happen?* Washington, DC: Urban Institute Press.

Kapstein, E. B. 1994. *Governing the global economy: International finance and the state*. Cambridge, Mass.: Harvard University Press.

Lavelle, Kathryn. 2014. "The foundations of regulatory convergence and divergence between the Federal Reserve and the European Central Bank. Georgetown Journal of International Law. 45:1137-1168.

Lütz, Susanne. 2004. "Convergence within National Diversity: The Regulatory State in Finance." *Journal of Public Policy.* 24:169-197

Majone, Giadomenico. 1992. "Cross-National Sources of Regulatory Policymaking in Europe and the United States." *Journal of Public Policy*. 11:79-106

Patrick, Stewart. 2012. "The United States and the G20" Background paper prepared for the Stanley-CICIR-CAP Workshop on China, the US, and the G20. Santa Monica, California, February 15-17, 2012. Retrived 12 April 2015 from cfr.org

Rose, Richard. 1993. *Lesson-drawing in public policy: A guide to learning across time and space.* Chatham, NJ: Chatham House Publishers.

Rothacker, Richard. 2012, "Exclusive: U.S. banks told to make plans for preventing collapse." (August 10). Reuters. Retrieved 26 March 2015 from reuters.com

Schooner, Heidi. 2005. Bank Insolvency Regimes in the United States and the United Kingdom 18 TRANSNAT'L LAW. 385

Simmons, Beth A., and Zachary Elkins. 2004. The Globalization of Liberalization: Policy Diffusion in the International Political Economy. *American Political Science Review* 98 (1):171-89.

Tarullo, Daniel K. 2008. Banking on Basel: The Future of International Financial Regulation. Washington DC: Peterson Institute for International Economics.

Woll, Cornelia. 2014. "Bank Rescue Schemes in Continental Europe: The Power of Collective Inaction." *Government and Opposition.* 49:426–451

Zysman, John. 1983. *Governments, Markets, and Growth: Financial Systems and the Politics of Industrial Change*. Ithaca, NY: Cornell University Press.