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Changing Perceptions of Systemic Risk in Financial Regulation

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After the onset of the financial crisis in 2007, official reports noted that the crisis demonstrated failures of pre-crisis financial regulation. Since the crisis, governments, international organizations and regulators have emphasized systemic risk and financial stability as a core concern of financial regulation. A focus on interconnectedness is a critical component of the analysis of financial stability: financial market activity interconnects across territorial borders, across market sectors and through transactional linkages in ways that pre-crisis financial regulation did not effectively address. The institutional arrangements for transnational financial regulation have also changed: the G20 countries committed to a new co-ordination of financial regulation emphasizing financial stability, an enterprise commentators have characterized as a departure from the pre-crisis paradigm of networks of regulators. Public pronouncements by governments, regulators and international organizations suggest that there has been a transnational paradigm shift in financial regulation.

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However, there are reasons to doubt that there has, in fact, been a paradigm shift rather than an evolution of pre-crisis financial regulation. Systemic risk was a concern of regulators before the crisis, and the new Financial Stability Board is the renamed Financial Stability Forum, established in 1999 in response to the Asian financial crisis. Progress in development and implementation of new transnational standards of financial regulation is slow, and the new standards are developments of, rather than substitutes for, earlier standards. Financial regulation remains excessively complex in ways that impede effectiveness and make it hard for non-experts in financial regulation to understand what the rules are. Enforcement actions arising out of pre- and post-crisis events suggest that there has been and remains a systemic problem in the culture of finance.

The Financial Crisis and Systemic Risk

Before the global financial crisis, banking regulators and the markets generally behaved as though risk was under control: there were financial assets that were risk-free, and regulators and market participants trusted in risk mitigation techniques with respect to assets that were perceived as involving risk. Indeed the Joint Forum was arguing already in 2008 that credit risk transfer 'allows credit risk to be more easily transferred and potentially more widely dispersed across the financial market. CRT has made the market pricing of credit risk more liquid and transparent. But CRT also poses new risks. A failure to understand and manage some of these risks contributed to the market turmoil of 2007' (The Joint Forum 2008).

The Basel Committee on Banking Supervision (Basel Committee) developed standards for banking regulation, generally, and capital adequacy, in particular, which aimed to identify and neutralize a range of risks associated with the business of banking (Goodhart 2011). The crisis demonstrated that this faith in the control of risk had been misplaced. Many commentators noted before the crisis, or have emphasized subsequently, that the prevailing paradigm in financial regulation was one of decentring of financial regulation (Black 2012) or, less subtly, that the markets should regulate themselves with as little governmental

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intervention as possible (Dorn 1993). Investigations of the financial crisis identified deregulation broadly (Born 2011; Levine 2012), or excessive faith in mathematical models more narrowly (Financial Services Authority 2009), as an important cause of the crisis, and initial responses to the crisis emphasized the need to bolster regulation: 'We are determined to enhance our cooperation and work together to restore global growth and achieve needed reforms in the world's financial systems' (G20, 15 November 2008 Declaration).

After the onset of the financial crisis, governments acknowledged the need for governmental and even international governmental action (see, again, G20 declaration of 2 April 2009) to promote and maintain confidence in the financial markets. As Claessens et al. (2010: 3) argue, 'the crisis highlights that the international financial architecture is still far from institutionally matching the closely-integrated financial systems'. Money provided by governments and the International Monetary Fund (IMF) and new rules were employed to support the financial markets (see US Department of the Treasury Office of Financial Stability, October 2010 and IMF Response, Coffee 2012). But the mutual dependence of banks and governments led to new difficulties (Bradley 2014). In the European Union (EU), government bailouts of financial institutions increased stresses on public finances (Sutherland et al. 2012), which in turn led to market participants worrying about sovereign credit risk and a reduction in the value of some sovereign debt held by banks (ECB 2010; Lane 2012). The EU experienced a sovereign debt crisis on top of the financial crisis, and the EU and IMF imposed austerity measures as a condition for loans to states that needed financial assistance (Featherstone 2011; IMF 2010; Matsaganis 2011). More generally, policy-makers have emphasized the need to solve the problem that financial firms that are 'too big to fail' are subject to moral hazard and could cause financial crises in the future (European Commission Communication 2010/579; Siegert and Willison 2015). And regulators and market participants recognize that the idea of a risk-free financial asset is an illusion (Bank for International Settlements 2013).

The scale of the crisis and governmental financial support for troubled financial institutions, a US foreclosure crisis and EU sovereign debt crisis, domestic policies of austerity implemented with or without the

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involvement of the IMF—as Ulrich Beck argued (2013: 68), 'the risks posed by big banks are being socialized by the state and imposed on retirees through austerity dictates'—led to financial regulation becoming part of the general political conversation in a way that it had not been before the crisis when financial regulation was a matter for technocrats and market participants rather than politicians and citizens. Citizens engaged in public protests about austerity and failures of government from Syntagma Square to Wall Street (Calhoun 2013). The Occupy movement has spawned groups that have produced long and detailed critiques of regulatory proposals (Appel 2014; Occupy the SEC 2012), but citizens generally lack the expertise and resources to participate effectively in political and regulatory discussions of the complexities of financial regulation (Levine 2012). And the politics surrounding financial regulation can be incomprehensible: in the USA the Chairman of the House Financial Committee on Financial Services asked, 'who will protect consumers from the overreach of the Consumer Financial Protection Bureau?' (House Committee on Financial Services 2015).

The causes of the financial crisis included phenomena that had been present in other financial crises: asset bubbles, credit booms, build-up of risk and failures of regulation (Claessens et al. 2010: 4). But policymakers identified what they described as new or newly significant phenomena that exacerbated the crisis: innovation involving complex and opaque financial instruments, increased interconnectedness of financial institutions and markets and increased leverage of financial institutions (Claessens op. cit.: 7).

Governments, international organizations and regulators reacted to the financial crisis by announcing that they would develop new and better rules of financial regulation. In 2008, the G20 states announced that they would do whatever was necessary to stabilize financial markets (G20, Declaration of 15 November 2008, also Buckley 2014). Although the G20 Declaration of 2008 referred to the need to improve financial regulation, there was no detail about what changes were planned, although there was an agreed Action Plan that assigned tasks to various actors:

> We commit to protect the integrity of the world's financial markets by bolstering investor and consumer protection, avoiding conflicts of interest,

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> preventing illegal market manipulation, fraudulent activities and abuse, and protecting against illicit finance risks arising from non-cooperative jurisdictions. We will also promote information sharing, including with respect to jurisdictions that have yet to commit to international standards with respect to bank secrecy and transparency. (G20, 15 November 2008, *Declaration of the Summit on Financial Markets and the World Economy*)

The new measures to deal with risk in the financial system would be developed through international standards, and the G20 reiterated this plan the following year (G20, 2 April 2009) together with a commitment by the G20 states to implement the new standards (G20 ibid.). The Financial Stability Forum, which was established in 1999 to address issues of financial stability revealed by the Asian financial crisis (Carrasco 2010), would be reconstituted as the Financial Stability Board (FSB) with a broader mandate and with increased institutional capacity (G20 ibid.).

The G20 committed to 'implement international financial standards (including the 12 key International Standards and Codes)'[1] and to 'undergo periodic peer reviews, using among other evidence IMF/ World Bank public Financial Sector Assessment Program reports' (G20, 2 April 2009). Transnational standards for financial regulation would be improved and expanded and would be implemented more effectively. A significant component of the project was an intensification of the institutional arrangements for developing and ensuring implementation of international standards of financial regulation.[2] In the EU, the crisis led to new institutional mechanisms for the control of banking risks with

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[1] The International Standards and Codes are the IMF's Code of Good Practices on Fiscal Transparency, Code of Good Practices on Transparency in Monetary and Financial Policies, General Data Dissemination System, and Special Data Dissemination System the Basel Committee's Core Principles for Effective Banking Supervision, IOSCO's Objectives and Principles of Securities Regulation, IAIS' Insurance Core Principles, The Basel Committee and IADI's Core Principles for Effective Deposit Insurance Systems, the World Bank's Insolvency and Creditor Rights Standard, the OECD's Principles of Corporate Governance, the IASB and IAASB's International Financial Reporting Standards (IFRS) and International Standards on Auditing (ISA), the CPMI/IOSCO Principles for Financial Market Infrastructures, and the FATF Recommendations on Combating Money Laundering and the Financing of Terrorism & Proliferation. *See* http://www.financialstabilityboard.org/cos/key_standards.htm date accessed 17 June 2015.

[2] See, for example, Financial Stability Board (29 January 2015). *First Annual Report: 28 January 2013–31 March 2014*, at ii (noting that the Financial Stability Board 'became a separate legal entity in the form of an association ("Verein") under Swiss law on January 28, 2013'.)

the creation of a European Banking Union and the transfer of powers to supervise eurozone banks to the European Central Bank (Moloney 2014).

In addition to redeveloping the architecture of international financial regulation, the G20 emphasized that systemic risk and financial stability are a core concern of financial regulation (G20, 2 April 2009). The FSB has taken on the task of evaluating states' implementation of international standards by means of country peer reviews (Financial Stability Board, 23 September 2010) and has also carried out thematic peer reviews that focus on issues the FSB regards as important for financial stability (Financial Stability Board, 8 February 2012). The FSB characterizes a major function of both types of peer review as encouraging dialogue and the sharing of experiences between FSB members.[3]

In 2009, in addition to commitments with respect to capital adequacy, credit rating agencies, pay and compensation, banking secrecy and accounting standards, the G20 announced that the FSB and IMF would collaborate to identify and warn of macroeconomic and financial risks and that regulation would take account of macro-prudential risks and would deal with 'systemically important financial institutions, instruments and markets' (G20, 2 April 2009). The G20 countries also committed to 'conduct all our economic policies cooperatively and responsibly with regard to the impact on other countries' (G20 ibid.). Thus, the G20 recognized that maintaining financial stability required focusing on risks in three different but inter-related ways: through the lenses of micro-prudential risk (risks affecting individual firms), macro-prudential risk (systemic risks) and monetary policy (Tarrullo 2014).

In a number of ways, the G20 program of stabilizing financial markets looked like a dramatic shift away from the pre-crisis paradigm of financial regulation in which technocratic regulators acknowledged and deferred to the expertise of market actors in identifying and controlling risk; governments were taking charge of financial regulation (Mackintosh 2014, 2015). The financial crisis was a political rather than merely a regulatory problem, and it required political as well as regula-

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[3] See, for example, Financial Stability Board (8 February 2012) *Thematic Review on Deposit Insurance Systems Peer Review Report*, 2. For a description of the procedures for FSB peer reviews see Financial Stability Board (7 January 2014b). *Handbook for FSB Peer Reviews.*

tory solutions. Governments stated publicly that they would take control of systemic risk domestically and through intensified transnational arrangements. The next sections of the chapter explore the extent to which the new transnational arrangements and the new approaches to systemic risk do and do not represent a paradigm shift in transnational financial regulation.

The New Transnational Arrangements for Addressing Systemic Risk

The G20's commitment to a new co-ordination of financial regulation emphasizing financial stability is a departure from the pre-crisis paradigm of networks of regulators (Gadinis 2013). The Basel Committee, the International Organisation of Securities Commissions (IOSCO) and the International Association of Insurance Supervisors (IAIS) had been developing transnational standards for financial regulation since the 1980s. The Basel Committee published the Basel Accord in 1988 (Goodhart 2011), but central bankers and banking regulators had been focusing on issues raised by the internationalization of financial markets since the early 1970s (Goodhart 2011). IOSCO was formed in 1974 as a forum for discussion of issues relating to securities regulation and was formalized a decade later when it was incorporated in Quebec (Sommer 1996). In 1987, IOSCO established a Technical Committee that would be 'responsible for the co-ordination of international co-operation on the regulation of securities transactions' (IOSCO 1989: 2).

The IAIS was formed in 1994 (Braithwaite and Drahos 2000). These three organizations developed as international policy networks, linking policy-makers from different jurisdictions with common interests and facing common problems (Slaughter 2004). Indeed, as Reinicke ((1999–2000: 45) argued, 'Trapped by the territoriality of their power, policy makers in traditional settings often have little choice but to address the symptoms rather than the causes of public problems'.

Although the transnational standard setters for financial regulation developed a range of agreed standards, the standards are not formally

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binding, even on states that participate in the relevant networks (Alford 2005). States may feel pressure to comply with the standards (Brummer 2011; Feldman 2013), the IMF can focus on standards as a component of conditionality with respect to its borrowers, and the IMF and World Bank have developed a Financial Sector Assessment Program (FSAP) to examine the extent to which states' laws are consistent with the international standards (Brummer 2011). But the standards have often been drafted in language that is vague and open to multiple interpretations (Barr and Miller 2006).

Even Basel II, which was much more detailed and specific than the original Basel Accord, provided states with significant leeway in implementation (Kane 2007). In responding to the crisis, the G20 and the Financial Stability Board have emphasized the need to develop transnational standards to be more demanding and to give states less discretion with respect to implementation (G20, 2 April 2009).

It was the G20, rather than the transnational regulatory networks, that took the lead in responding to the crisis at the international level. States collaborated outside the established networks to implement responses to the crisis (although a history of co-operation through the networks may have facilitated this collaboration) (Zaring 2010). The G20 set out the parameters for the regulatory responses that the Financial Stability Board and the transnational networks would implement, thus giving political direction to processes that had previously seemed to be technocratic (Zaring ibid.) As Pan (2010: 245) argued, 'for financial law scholars, the G20, both in its existence and in the types of actions it puts forward, represents only a temporary solution to an on-going problem of regulation of international financial markets and institutions'.

That financial regulation seemed more political during the crisis, when states were bailing out financial firms, was not surprising. And it was necessary for states to co-ordinate their behaviour at the transnational level because individual states could not control a transnational crisis on their own. Meanwhile, the international responses to the crisis, in particular the implementation and imposition of austerity measures, have also led to a new emphasis on the international financial system and financial regulation as political issues within domestic systems.

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The FSB and the transnational standard setters have worked on implementing the G20 program for financial reform, but domestic legislators and regulators have taken steps to implement reforms to some extent independently.[4] The G20 established some general principles for reform of financial regulation. Although the transnational standard setters have developed more detailed standards to flesh out the general principles, states have been implementing their own versions of reformed regulation at the same time (Deutsch 2014; Financial Markets Law Committee 2015).

Thus the G20 principles have been implemented according to different timetables in different places (specifically in the EU and the USA), and the details of the new domestic regulatory regimes are not always consistent with each other (see, for example, Deutsch 9 July 2014 and GAO 3 April 2014). Market participants have critiqued these regulatory inconsistencies (GFMA et al. 30 May 2014).

The G20 committed to a new FSB peer review process to improve implementation of international standards, and, in addition, the standard setters have focused more attention on implementation of their standards than they had in the pre-crisis period. The Basel Committee had established an Accord Implementation Group to focus on implementation of the Basel II capital adequacy framework, and in 2009, the AIG was renamed[5] the Standards Implementation Group, and it was given a broader task of focusing on the Basel Committee standards more generally (BIS, 8 January 2009).

In 2011, the Basel Committee announced that it would be reviewing states' implementation of Basel III (Basel Committee on Banking Supervision, Oct 2011), and this initiative developed into a Regulatory Consistency Assessment Program (Basel Committee on Banking Supervision, Oct 2013). IOSCO carried out rather formal exercises in evaluating implementation of its resolutions and standards beginning in the 1990s (for example, IOSCO 1996, 2000). More recently

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[4] Note that it may sometimes be complex to achieve co-ordination of regulatory efforts domestically. See, for example, Government Accountability Office (2014).

[5] This renaming may or may not be connected with the bailout of the other AIG, which occurred in 2008. As to the bailout, see, for example, Sjostrom, W. K. Jr. (2009). The AIG Bailout, *Washington & Lee Law Review*, *66*, 943–991.

IOSCO has carried out significantly more detailed assessments of the extent to which states are implementing some of its standards. These assessments include evaluations of implementation of IOSCO standards and principles relating to benchmarks (IOSCO, 25 February 2015b), credit rating agencies (IOSCO, March 2009) and financial market infrastructures (IOSCO, April 2013). Thus, during and after the financial crisis, the Basel Committee and IOSCO intensified their existing interest in issues of implementation rather than developing an entirely new interest in implementation: an evolution rather than a change of paradigm.

In addition to the work of the Basel Committee and IOSCO, the IMF and World Bank continue to monitor implementation of the standards through the FSAP process. Within the IMF structure, FSAPs were originally conceived as voluntary technical assistance, but the IMF decided to make Financial Sector Assessments a mandatory component of surveillance for countries with systemically important financial sectors (assessed based on criteria of size and interconnectedness).[6] Originally, the IMF identified 25 such countries, notably Australia, Austria, Belgium, Brazil, Canada, China, France, Germany, Hong Kong SAR, India, Ireland, Italy, Japan, Luxembourg, Mexico, Netherlands, Russia, Singapore, South Korea, Spain, Sweden, Switzerland, Turkey, United Kingdom, and the USA (see IMF, 27 September 2010a), and in 2013 the number of such countries was increased to 29 (all of the original 25 and Denmark, Finland, Norway, and Poland) (IMF, 15 November 2013). The list includes a large number of European countries because of the emphasis on interconnectedness (IMF, 15 November 2013).

The FSB peer reviews were intended to demonstrate that the G20 countries were leading by example: their compliance with transnational standards, established by the peer reviews, would allow them more credibly to encourage other countries to comply (FSB, 9 January 2010). But the FSB peer reviews do not, in fact, demonstrate compliance with international standards. They build on FSAP assessments rather than

[6] IMF (21 September 2010b). *Decision No. 14736-(10/92)*. See also IMF (27 August 2010c). *Integrating Stability Assessments Under the Financial Sector Assessment Program into Article IV Surveillance: Background Material*. The IMF's approach to surveillance has been evolving. See, for example, IMF (30 July 2014a). *2014 Triennial Surveillance Review—Overview Paper*.

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duplicating them: for example, they may assess how a state has responded to FSAP recommendations (Financial Stability Board, 7 January 2014b). The FSB Handbook for Peer Reviews states that, 'unlike the FSAP, a country review does not comprehensively analyse a jurisdiction's financial system structure or policies, nor does it provide an assessment of its conjunctural vulnerabilities or its compliance with international financial standards' (Financial Stability Board, 7 January 2014b: 2).

What the decision not to reproduce FSAPs means is that the peer reviews are carried out on the basis of data in FSAPs that are not current, and on the basis of statements of regulators about what they are doing. For example, the Peer Review of Canada, published in January 2012, noted that it was 'largely based on the Canadian financial authorities' responses to a questionnaire designed to gather information about the actions taken in response to the relevant recommendations of the most recent Financial Sector Assessment Program Assessment for Canada' (FSB, 30 January 2012: 3). This FSAP assessment of Canada had been carried out four years earlier, in 2008 (IMF, February 2008). The FSB suggests that its peer reviews are geared to examining the responsiveness of the states subject to the reviews to recommendations made in the FSAP process rather than to monitoring compliance with international standards. In the case of Canada, the time lag was significant: Canada's FSAP was completed in the early stages of the financial crisis, so a focus on how Canada responded to recommendations made at that time does not help very much to instil confidence about what Canada was doing with respect to changes in thinking about standards between 2008 and 2012. At the same time, the peer review report does include a lot of information about Canada's reactions to the financial crisis (see, for example, FSB, 30 January 2012). And the Canadian financial system fared well during the crisis.

The FSB says that one of the main functions of the peer reviews is to encourage dialogue between the participants:

> The added value of the FSB comes in significant part from the cross-sectoral, cross-functional, system-wide perspective brought by its members. Dialogue with peers and the sharing of lessons and experiences are a key benefit of FSB peer reviews (FSB, 7 January 2014b).

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The FSB is not the only body that can promote dialogue, but unlike the Basel Committee or IOSCO it includes participants who focus on different sectors of finance. As some of the complex issues financial regulators need to deal with relate to regulatory perimeters, gaps and arbitrage—shadow banking is this type of complex issue, for instance (Schwarcz 2013, and Financial Stability Board, 14 November 2014a)—a body that can bring together people who understand the different parts of the overall picture is useful. The FSB's decision to focus on thematic and country peer reviews reflects this idea: the objective of thematic peer reviews is to evaluate (where possible) the extent to which standards and policies have had their intended results, to identify gaps and weaknesses in reviewed areas and to make recommendations for potential follow-up (including via the development of new standards) by FSB members (FSB, 7 January 2014b).

This idea of the benefit of dialogue among regulators was cited before the financial crisis as an advantage of the regulatory networks that proved to be unable to limit the crisis without governmental intervention. What the FSB describes is a process that involves a wider range of technocrats than participated in the individual standard-setters: it is cross-sectoral, cross-functional and system-wide rather than being limited to banking, securities or insurance. But the cross-sectoral communication is not entirely new; beginning in 1993, the sectoral regulators did co-operate in a Tripartite Group, later renamed the Joint Forum, to address issues raised by the 'growing emergence of financial conglomerates and the blurring of distinctions between the activities of firms in each financial sector' (Basel Committee on Banking Supervision 2001b: 5). The Joint Forum met three times a year between 1996 and 2001 (Basel op. cit.), and it has established working groups to focus on particular issues. For example, in 2000, the Joint Forum established a working group to compare the core principles that had been developed by the sectoral standard-setters (Basel Committee on Banking Supervision, November 2001a: 1).

In 2004, the IMF published a paper that identified a number of emerging risks and cross-sectoral issues the standard-setters should address (IMF, 4 August 2004). The Joint Forum had convened an indus-

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try roundtable to address cross-sectoral issues in 2003; it established a Working Group on Regulatory and Market Differences, noted the IMF's paper and published its own paper on cross-sectoral issues in 2006 (Basel Committee on Banking Supervision 2006: 1). These are only a few examples of the Joint Forum's work, but they do illustrate that cross-sectoral discussions were occurring before the financial crisis, and that the FSB's cross-sectoral work is not really new.

The Joint Forum's 2006 cross-sectoral issues paper noted that there had been some convergence in market practice and regulation across sectors (Basel Committee on Banking Supervision 2006: 3). For example, the paper identifies risk management within financial conglomerates as an area of convergence in market practice (Basel Committee on Banking Supervision 2006: 4–5). Generally, the Joint Forum characterized this development as positive, although the paper did note that 'supervisors recognise that models are only one tool in a firm's risk management process and that they have their limitations' (Basel Committee on Banking Supervision 2006: 5). In 2013, the Joint Forum decided to survey regulators and firms in order to 'understand the current state of credit risk…management given the significant market and regulatory changes since the financial crisis of 2008' (The Joint Forum, February 2015: 1).

This brief sketch of some aspects of the work of the transnational standard setters, individually and together through the Joint Forum, with the co-operation of the IMF, illustrates that the work of the FSB is another step in an evolving process of transnational co-ordination of financial regulation rather than a new phenomenon. The developing discourse among financial regulators is also an example of evolution rather than something that is novel. While a more comprehensive and regulator dialogue among regulators may be useful, we should also note that groupthink has been identified as an issue in the lead-up to the crisis (Independent Evaluation Office of the IMF 2011: 1), and the new processes are not guaranteed to produce better thinking. Nor are they guaranteed to apply an appropriate level of scepticism to the claims of financial market participants. Indeed, Admati and Hellwig (2013), too, argue that not much has really changed in banking regulation.

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Systemic Risk After the Financial Crisis

Just as the structures and processes for international cooperation in financial regulation seem to be an evolution rather than a paradigm shift, the regulatory approaches to systemic risk can be characterized as an evolution of pre-crisis financial regulation. The language policy-makers use to describe their focus on systemic risk has changed: macro-prudential regulation is added to micro-prudential regulation (a development that has been characterized as dramatic) (Baker 2013: 418; Mackintosh 2015), and monetary policy must take account of financial stability concerns.[7]

In its Financial Stability Report in December 2014, the Bank of England analysed market liquidity from microstructural and macrofinancial perspectives, describing how market liquidity can build up systemic risk (Bank of England, Dec 2014: 54–56). During the financial crisis, securitizations involved liquidity problems (Bank of England op. cit.: 56), and the Report states that 'efforts are now underway internationally to improve the simplicity and transparency of securitisations' (Bank of England, December 2014: 56).

The example of securitization clearly comes from the last crisis and the acknowledgment of the relationships between firm safety and soundness, systemic stability and monetary policy reflects a complex thinking about financial stability, which, as of December 2014, also included issues relating to damage to market confidence from bank misconduct:

> Recent misconduct and other operational failings have highlighted that rebuilding confidence in the banking system requires more than financial resilience. That, and changes to banks' business models in response to commercial and regulatory developments, make it important for banks to continue to enhance the effectiveness of their governance arrangements. (Bank of England, December 2014: 48)

[7] Although compare Yellen, J. (2 July 2014). *Monetary Policy and Financial Stability, Remarks at the 2014 Michel Camdessus Central Banking Lecture, International Monetary Fund*, Washington, D.C. ('In my remarks, I will argue that monetary policy faces significant limitations as a tool to promote financial stability'.)

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In March 2015, the Bank of England, noted that it is 'one of a handful of institutions internationally with responsibility for monetary macroprudential and microprudential policy', and published an agenda for research on the inter-relationship between these policy areas (Bank of England, March 2015b: 1). The agenda recognizes that recent changes in the regulatory environment and the conduct of monetary policy demand further research to understand their implications for financial stability (Bank of England, March 2015b: 3–4).

Policy-makers did not begin to think about issues of financial stability (or even macro-prudential regulation) in 2007. The Bank of England published the first financial stability review in 1996 after the failure of BCCI and Barings (Oosterloo et al. 2007). [AU3] Claudio Borio at the Bank for International Settlements, the institution that houses the Basel Committee's secretariat, advocated a macro-prudential approach in 2003 (Borio 2003), and some years earlier than that he wrote about regulation and financial stability (Borio and Filosa 1994). The European Central Bank has published a Financial Stability Review since December 2004 (European Central Bank, December 2004: 7). Recent developments in thinking about financial stability thus look, as do the changes in the institutional arrangements for setting international standards for regulation, like an evolution rather than a dramatic change.

Although the terminology of macro-prudential regulation has spread since the crisis, policy-makers were concerned about similar issues under the rubric of financial stability before 2007: financial crises with varying causes and characteristics had preceded the global financial crisis (Krugman 1999). Other financial crises have involved losses of confidence in financial institutions (Bernanke 1983). So rules of financial regulation aim to boost confidence in the safety and soundness of financial institutions, particularly, commercial banks. Rules to address safety and soundness address issues within individual financial firms, but they also address the risk of contagion, which is a systemic issue. And the concern about panics is not new: Alex Preda notes that 'panics became an object of systematic description in the 1860s' (Preda 2009: 221).

Speculative bubbles are frequently a component of crises. De Long and Shleifer (1991: 677), studying the 1929 stock market bubble, estimate that, at the peak, the stock index was more than one third above its

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fundamental value. Legislators and regulators have, however, designed rules of financial regulation to reduce the likelihood of speculation (Bradley 2000). The margin requirements that apply to securities and derivatives trading are meant to limit speculation (Furbush and Poulsen 1989). Bubbles are phenomena that do not affect only individual firms or investments but also categories of investments: tulips, securities of high-tech firms, or real property (Eichengreen 2015).[8] Housing markets and speculation in real property were part of the background to the financial crisis:

> While the vulnerabilities that created the potential for crisis were years in the making, it was the collapse of the housing bubble—fueled by low interest rates, easy and available credit, scant regulation, and toxic mortgages—that was the spark that ignited a string of events, which led to a full-blown crisis in the fall of 2008. (Financial Crisis Inquiry Commission 2011: xvi)

Policy-makers worried about the transnational transmission of risk through the financial system before 2007. Charles Goodhart identifies concerns relating to systemic risk and the Euromarkets dating back to the early 1970s but which were exacerbated by the collapse of Bank Herstatt in 1974 (Goodhart 2011: 3–4). In 1985, the Governors of the G10 Central Banks established a study group to focus on international banking (Goodhart 2011: 352–3). When the group reported the following year, it warned that innovation in the financial markets could be contributing to systemic vulnerabilities (Bank for International Settlements 1986). This was the beginning of the process that led to the development of the transnational standard-setters. As Goodhart shows, over the period between the early 1970s and the collapse of Lehman Brothers, policy-makers and academics worried about risks to financial stability, including those which derived from the internationalization of the financial markets. In 1998, Benjamin Cohen warned that 'monetary geography

[8] Describing the Florida property market bubble of the 1920s, Peter Garber has written: 'Gathered around the campfires early in their training, fledgling economists hear the legend of the Dutch tulip speculation from their elders, priming them with a skeptical attitude toward speculative markets'. Garber (1989: 535). Compare Roubini (2006) and Posen (2006).

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needs to be re-conceptualized in functional terms, to focus on evolving 510
[AU4] networks of currency transactions and relationships' (Cohen 1998: 5). 511

The post-financial crisis developments with respect to micro-prudential 512
risk are refinements of and additions to regulatory standards that applied 513
before the financial crisis: banking regulators have been revising capital 514
adequacy requirements for banks so that they address credit risk more 515
effectively (Basel Committee on Banking Supervision, March 2015) and 516
also so that they now address liquidity risk (Basel Committee on Banking 517
Supervision, March 2015: 3–4). 518

These refinements of capital adequacy requirements are designed to 519
make sure that risks are contained within banking firms. Banking regula- 520
tors evaluate the effectiveness of the new requirements by carrying out 521
stress-tests that examine how a bank's capital would deal with adverse 522
events (Board of Governors of the Federal Reserve System, March 2014). 523
In order to bolster the internal containment of risks, policy-makers argue 524
that banks should issue contingent convertible bonds (CoCos) as a com- 525
ponent of capital. CoCos are bonds designed to absorb losses either by 526
means of a writedown of principal or because they are convertible into 527
equity on the occurrence of defined events, such as when the issuer's regu- 528
latory capital falls below a specified proportion of risk-weighted assets 529
(Avdjiev et al. 2013). The regulatory focus on liquidity, stress-testing and 530
instruments to ensure that capital actually absorbs risks reflect reactions 531
to the circumstances of the last crisis. It is a perennial characteristic of 532
regulation that it tends to address issues that are historic, and policy- 533
makers' ability to predict the future is limited. Regulation introduced to 534
control risks that developed in the past may create their own new risks as 535
market participants manoeuvre around the rules.[9] 536

Like the new rules to address micro-prudential risk, the recent devel- 537
opments in thinking about macro-prudential risk are designed to address 538
the issues that policy-makers can identify based on past events. The need 539
to identify, analyse and control for interconnectedness is a critical com- 540
ponent of the thinking about financial stability since the crisis (Gai et al. 541

[9] Compare, for example, Jackson et al. (April 1999: 2): 'over time the banks have learnt how to exploit the broad brush nature of the requirements—in particular the limited relationship between actual risk and the regulatory capital charge. For some banks, this has probably started to undermine the meaningfulness of the requirements'.

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2011); financial market activity interconnects across territorial borders, across market sectors and through transactional linkages in ways that pre-crisis financial regulation did not effectively address. Transnational financial regulation had, in the past, sought to address some of these issues. For example, the Joint Forum had studied cross-sectoral issues (Basel Committee on Banking Supervision, The Joint Forum 2006) and credit risk transfer (Joint Forum, March 2005) before the crisis. But this focus did not prevent the problems that led to the bailout of AIG, an insurance firm that took on excessive amounts of credit risk via credit default swaps (Sjostrom 2009). So in the post-crisis period, regulators seek to identify firms that, like AIG, pose risks to financial stability; such firms are systemically significant financial institutions (SIFIs) (Financial Stability Board, 4 November 2011).

As the Basel capital adequacy requirements focused on the need for capital to address credit risk, banks could comply with the requirements by increasing capital or by reducing the credit risks to which they were exposed. Banks developed various strategies designed to have the effect of transferring credit risk to firms that were not regulated as banks and not subject to the same capital adequacy requirements as banks.[10] Firms that perform functions similar to the functions we associate with banks are now known as shadow banks, and policy-makers have been trying to address a range of issues associated with shadow banking.[11] This includes new rules to address risks associated with securitization (see, for example, Department of the Treasury Office, 24 December 2014; Segoviano et al. 2015), securities lending and repo transactions (Financial Stability

[10] See, for example, Joint Forum (March 2005): 'In recent decades, loan syndication and securitisation activities experienced significant growth. The present report, however, focuses more narrowly on the newest forms of CRT, in particular on those activities associated with credit derivatives'. And compare with Eichengreen (2015) who notes that the focus on regulating banks obscured the risks developing in nonbanks.

[11] See, for example, EU Commission (9 April 2013a). *Shadow Banking—Addressing New Sources of Risk in the Financial Sector, COM (2013) 0614 final*; EU Commission (19 March 2012). *Shadow Banking Green Paper, COM (2012) 102 final*; Financial Stability Board (29 August 2013a). *Strengthening Oversight and Regulation of Shadow Banking Policy Framework for Strengthening Oversight and Regulation of Shadow Banking Entities*; IMF (October 2014b). *Global Financial Stability Report: Risk Taking, Liquidity, and Shadow Banking—Curbing Excess While Promoting Growth*, Chapter 2.

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Board, 29 August 2013a, b) and money market funds (EU Commission, 9 April 2013a).

Money market funds and asset management firms are an important part of the new focus on financial stability because of their 'systemic interconnectedness…with the banking sector on the one hand and with corporate and government finance, on the other hand' (EU Commission, 9 April 2013a: 2), and they are perceived as vulnerable to runs (EU Commission, 9 April 2013a: 3).

In the USA, the Office of Financial Research published a report on the asset management industry in 2013 that identified possible risks to financial stability from asset management firms and concluded that there was a need for more data to allow for effective macro-prudential analysis (Office of Financial Research, September 2013: 24). In December 2014, the US Financial Stability Oversight Council, the body responsible for designating SIFIs in the USA, published a notice in the Federal Register asking for information about asset management (Financial Stability Oversight Council, 24 December 2014: 77488, Financial Stability Oversight Council, 11 February 2015: 7595).

Meanwhile, the Financial Stability Board has been working on developing criteria for identifying non-bank, non-insurer (NBNI), global SIFIs (NBNISIFIs), publishing an initial consultative document in 2014 (Financial Stability Board, IOSCO, 8 January 2014), which generated a number of comments and was followed by a second consultation document in 2015 (Financial Stability Board, IOSCO, 4 March 2015, FSB NBNI Consultation 2015: 1). The initial consultation document identified three ways in which an NBNI could have an impact on financial stability: through the impact of its failure on counterparties, through the impact on the market from asset liquidation forced by its failure, and from its failure to provide a service on which other market participants relied (FSB NBNI Consultation 2014: 3). The FSB noted that the task of identifying NBNISIFIs was a complex one because many different types of firm with different characteristics might be implicated: 'the methodologies have to allow sufficient flexibility to capture different risks (or externalities) posed by entities in each type/sector appropriately while maintaining a certain degree of consistency across the entire NBNI financial space' (FSB NBNI Consultation 2014: 5). The FSB's criteria

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for evaluating systemic significance are: size, interconnectedness, substitutability, complexity and global activities (cross-jurisdictional activities) (FSB NBNI Consultation 2014: 5, see also FSB NBNI Consultation 2015: 6).

Even this very brief outline of the work that policy-makers have been doing to identify and seek to control macro-prudential risks makes it clear that the endeavour is time- and resource-intensive, and that the policy approaches are as complex as the phenomena they address. The starting point for thinking about macro-prudential risks is the events leading up to and during the financial crisis. The idea of focusing on interconnectedness and complexity derives from the crisis. At the same time, the policy-makers are trying to develop methodologies for identifying risks in more nuanced ways. And the ongoing process of working to understand systemic risk more completely—as illustrated, for example, by the Bank of England's One Bank Research Agenda—gives some hope for the future, because it does not take the easy or obvious route but attempts to engage with the real substance of market activity (Bank of England, March 2015b, Bookstaber and Glasserman, 11 February 2015).

Monetary policy does have implications for financial stability, and recognition of this fact is part of the new approach to thinking about financial institutions and markets. As Roubini argues (2006: 93): 'Although the precise magnitude of the effect may be uncertain, the fact that bubbles have an impact on the economy—on the way up and on the way down—means that monetary policy needs to take them into account'. But the idea of considering financial stability a component of monetary policy is not new, it is difficult to implement, and different policy-makers have different views about the extent to which monetary policy should take account of financial stability, price stability and employment. Those who argue that monetary policy should address issues of financial stability note that 'financial institutions have a natural tendency to accumulate assets that are too risky and to hold too little capital' (Cechetti and Kohler 2014: 208). Increasing interest rates could reduce asset price bubbles (Cechetti and Kohler 2014: 209). But the actions of central banks in managing monetary policy to address domestic issues have implications

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not only for domestic financial stability but also for international financial stability (Bush et al. 2011: 4).

Together, new approaches to micro-prudential, macro-prudential and monetary policy are designed to address the risks that policy-makers worry about as a result of their understanding of the global financial crisis. But our understandings of crises are only partial, and fixing the problems we can see may disguise the fact that other problems are building up (Eichengreen 2015: 379). Progress in development and implementation of new transnational standards of financial regulation is slow, and the new approaches are often developments of, rather than substitutes for, earlier standards. Financial regulation remains complex in ways that impede effectiveness and make it hard for non-experts in financial regulation to understand what the rules are. The development of complex research and analysis of risk in central banks and financial regulators provides a useful expertise counterpoint to the expertise claims of market participants, perhaps reducing risks of over-reliance on market-based expertise. However, there are contexts in which regulators depend on information they acquire from market participants (see, for example, Joint Forum, February 2015: 1), and market participants and trade associations are not shy about expressing their views on financial regulation (see, for example, Cross-Border Regulation Forum 23 February 2015 and Public Comment on the Task Force on Cross Border Regulation, ISDA, 23 February 2015).

Conclusions

This chapter characterizes policy responses to the financial crisis as evolutionary rather than as a paradigm shift (Helleiner 2014), in contrast to the views of some commentators who have argued that there has, in fact, been a paradigm shift in financial regulation as governments have moved away from deregulation (Mackintosh 2014).

This chapter shows that regulators have engaged in more and different transnational co-operation than they did before the crisis. Before the financial crisis, regulators behaved as though risks in financial mar-

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ket activity could be controlled. Since the financial crisis, we know that risk-free financial assets do not exist, but regulators continue to fine-tune the mechanisms of risk-control. Rather than moving away from models-based approaches to risk management, regulators have refined the models. Both in terms of the institutional structures of transnational co-operation and in terms of the mechanisms of risk management, the post-crisis environment is a response to the problems that surfaced during the crisis. The urgency of the problems demanded quick responses, which could explain an evolutionary response. As Tsingou (2014: 418) argues, 'fast-burning crises are characterised by alarm and an urgent demand for political action. In fast-burning crises, the time available for reaction is limited. Such crises are times at which knowledge is "hot" in addressing problems, where policy-makers seek clear ideas that can put out the flames'.

At the same time, the scale of the problems raised more fundamental questions about the role of finance in society and about how financial regulation should develop. Financial regulation was seen to involve political rather than merely technocratic questions, and deregulation was seen to involve costs as well as (or even rather than) benefits. If financiers' irresponsible behaviour (Crouch 2014) led to bailouts and austerity measures that reduced support for the most vulnerable members of society—Crouch (2014: 118) noted that 'the policies that the EU, with others, has imposed on the problem economies of the euro zone call overwhelmingly for the exposure of workers to radical insecurity'—then a fundamental rethinking of the relationship between finance and society was necessary: 'If the financial system is a public good, it should be regulated like one, with the public interest in stability as the guiding consideration' (Mügge 2014: 415).

There is evidence that a new era of strong government regulation cannot be taken for granted in finance or in other arenas. Financial firms complain about over-regulation (American Bankers Association 2014) or suggest they might move their headquarters to jurisdictions with lower regulatory costs (Colchester 2015). Meanwhile, other commentators worry about the dangers of regulatory capture (Boyer and Ponce 2012), revolving doors between regulators and financial firms (Lucca et al. 2014,

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Project on Government Oversight, 11 February 2013) and new build-ups of risk (Segoviano et al. 2015).

Debates about what the appropriate level of regulation might be do not just involve financial firms and those who wish to regulate them. Negotiations over a Transatlantic Trade and Investment Partnership include negotiations about harmonizing impact assessment of regulation (see, for example, EU Commission 2013b). Impact assessment of regulation tends to reduce, rather than increase, the amount of regulation (OECD 2009). Proponents of increasing the application and effectiveness of regulatory impact analysis argue that it can prevent regulation, which is excessively costly given the anticipated benefits (OECD 2009). But regulatory impact analysis also has critics who worry that it merely disguises exercises of discretion (Coates 2015) and can impede useful regulations (Kennedy 1981). Regulatory policy is an arena of contestation, and deregulatory imperatives have not been overcome.

But other developments suggest that simple deregulation may still not win out. Ulrich Beck has argued, that 'global risks—like climate change or the financial crisis—have given us new orientations, new compasses [AU7] for the twentyfirst-century world' (Beck 2014: 79). Financial stability has been threatened by cultural problems in finance that are different from the problems the post-crisis regulatory reforms were designed to fix. Manipulation of Libor and other benchmarks led IOSCO to focus on ensuring the integrity of benchmarks (see, for example, IOSCO 2015). In the UK, the Treasury, the Bank of England and the Financial Conduct Authority established a Fair and Effective Markets Review to examine how misconduct occurred and how it can be prevented for the future (Fair and Effective Markets Review, June 2015, and October 2014). Following on from this review, the Bank of England announced a discussion of 'Building Real Markets for the Good of the People' (Bank of England, June 2015a).

Financial regulation continues to be the subject of evolving thought, and central banks and financial regulators are exploring risk in new and serious ways. Andrew Haldane of the Bank of England has given a number of speeches in which he has argued for a financial reformation (Haldane,

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740 29 October 2012), a more radical rethinking of financial regulation that
741 takes on the complexity of financial regulation rather than taking it for
742 granted (Haldane and Madouros, 31 August 2012).

[AQ3] 743 References

744 Admati, A., and M. Hellwig. 2013. *The Bankers' New Clothes*. Princeton:
745 Princeton University Press.
746 Alford, D.E. 2005. Core Principles for Effective Banking Supervision: An
747 Enforceable International Financial Standard? *Boston College International*
748 *and Comparative Law Review* 28: 237–297.
749 American Bankers Association. 2014. An Avalanche of Regulation, http://www.
750 aba.com/Issues/Index/Documents/2014RegBurdenInfographic.pdf, date
751 accessed 30 June 2015.
752 Appel, H. 2014. Occupy Wall Street and the Economic Imagination. *Cultural*
753 *Anthropology* 29: 602–625.
754 Avdjiev, S., A. Kartasheva, and B. Bogdanova. September 2013. CoCos: A
755 Primer. *BIS Quarterly Review*, 43–56.
756 Baker, A. 2013. The Gradual Transformation? The Incremental Dynamics of
757 Macroprudential Regulation. *Regulation & Governance* 7: 417–434.
758 Bank for International Settlements. April 1986. *Recent Innovations in*
759 *International Banking* (Cross Report) CGFS Publications No 1.
760 ———. July 2013. Sovereign Risk: A World Without Risk-free Assets? *BIS*
761 *Papers* No. 72.
762 Bank of England. December 2014. *Financial Stability Report.*
763 ———. June 2015a. *Open Forum: Building Real Markets for the Good of the People.*
764 ———. March 2015b. *One Bank Research Agenda: Discussion Paper.*
765 Barr, M.S., and G.P. Miller. 2006. Global Administrative Law: The View from
766 Basel. *European Journal of International Law* 17: 15–46.
767 Basel Committee on Banking Supervision. November 2001a. *The Joint Forum,*
768 *Core Principles: Cross-Sectoral Comparison.*
769 ———. July 2001b. *Compendium of Documents Produced by the Joint Forum.*
770 ———. October 2011. *Progress Report on Basel III Implementation*, http://www.
771 bis.org/publ/bcbs203.pdf, date accessed 21 June 2015.
772 ———. October 2013. *Basel III Regulatory Consistency Assessment Programme*
773 *(RCAP)*, http://www.bis.org/publ/bcbs264.pdf, date accesses 21 June 2015.
774 ———. March 2015. *Basel III Monitoring Report*

Uncorrected Proof

Basel Committee on Banking Supervision, The Joint Forum. 2006. *Regulatory and Market Differences: Issues and Observations.* 775 776

Beck, U. 2013. Why 'Class' Is Too Soft a Category to Capture the Explosiveness of Social Inequality at the Beginning Of the Twenty-first Century. *British Journal of Sociology* 64: 63–74. 777 778 779

——— 2014. Emancipatory Catastrophism: What Does it Mean to Climate Change and Risk Society? *Current Sociology* 63: 75–88. 780 781

Bernanke, B.S. 1983. Non-Monetary Effects of the Financial Crisis in the Propagation of the Great Depression. *American Economic Review* 73: 257–276. 782 783 784

BIS. 8 January 2009. Steps to Strengthen Implementation of Supervisory Standards and Guidance Taken by the Basel Committee, http://www.bis.org/press/p090108.htm, date accessed 21 June 2015. 785 786 787

Black, J. 2012. Paradoxes and Failures: 'New Governance' Techniques and the Financial Crisis. *Modern Law Review* 75: 1037–1063. 788 789

Board of Governors of the Federal Reserve System. March 2014. *Comprehensive Capital Analysis and Review 2014: Assessment Framework and Results.* 790 791

Bookstaber, R. and P. Glasserman. 11 February 2015. Process Systems Engineering as a Modeling Paradigm for Analyzing Systemic Risk in Financial Networks. *Office of Financial Research Working Paper* 15–01 792 793 794

Borio, C. February 2003. Towards a Macroprudential Framework for Financial Supervision and Regulation?, *BIS Working Papers*, No. 128. 795 796

Borio, C., and R. Filosa. November 1994. The Changing Borders of Banking: Trends and Implications. *BIS Working Papers*, No. 23. 797 798

Born, B. 2011. Deregulation: A Major Cause of the Financial Crisis. *Harvard Law & Policy Review* 5: 231–243. 799 800

Boyer, P.C., and J. Ponce. 2012. Regulatory Capture and Banking Supervision Reform. *Journal of Financial Stability* 8: 206–217. 801 802

Bradley, C. 2000. Disorderly Conduct: Day Traders and the Ideology of "Fair and Orderly Markets". *Journal of Corporation Law* 26: 63–96. 803 804

——— 2014. Breaking Up is Hard to Do: The Interconnection Problem in Financial Markets and Financial Regulation: A European (Banking) Union Perspective. *Texas International Law Journal* 49: 269–295. 805 806 807

Braithwaite, J., and P. Drahos. 2000. *Global Business Regulation*. Cambridge: Cambridge University Press. 808 809

Brummer, C. 2011. *Soft Law and the Global Financial System*, 136–147. Cambridge: Cambridge University Press. 810 811

Buckley, R.P. 2014. The G20's Performance in Global Financial Regulation. *University of New South Wales Law Journal* 37: 63–93. 812 813

Uncorrected Proof

Bush, O., K. Farrant, and M. Wright. December 2011. Reform of the International and Monetary System. *Bank of England Financial Stability Paper* No. 13.

Calhoun, C. 2013. Occupy Wall Street in Perspective. *British Journal of Sociology* 64: 26–38.

Carrasco, E.R. 2010. The Global Financial Crisis and the Financial Stability Forum: The Awakening and Transformation of an International Body. *Transnational Law & Contemporary Problems* 19: 203–220.

Cechetti, S.G., and M. Kohler. September 2014. When Capital Adequacy and Interest Rate Policy Are Substitutes (And When They Are Not). International Journal of Central Banking, 205–231.

Claessens, S., G. Dell'Ariccia, D. Igan, and L. Laeven. 2010. Lessons and Policy Implications from the Global Financial Crisis. *IMF Working Paper* WP/10/44.

Coates IV, J.C. 2015. Cost-Benefit Analysis of Financial Regulation: Case Studies and Implications. *The Yale Law Journal* 124: 882–1011.

Coffee, J.C. Jr. 2012. The Political Economy of Dodd-Frank: Why Financial Regulation Tends to be Frustrated and Systemic Risk Perpetuated. *Cornell Law Review* 97: 1019–1082.

Cohen, B.J. 1998. *The Geography of Money*. Ithaca, NY: Cornell University Press.

Cross-Border Regulation Forum. 23 February 2015. *Public Comment on the Task Force on Cross-Border Regulation*.

Crouch, C. 2014. Putting Neoliberalism in its Place. *The Political Quarterly* 85: 114–121.

De Long, J.B., and A. Shleifer. 1991. The Stock Market Bubble of 1929: Evidence from Closed-end Mutual Funds. *Journal of Economic History* 51: 675–700.

Department of the Treasury Office of the Comptroller of the Currency, Federal Reserve System, Federal Deposit Insurance Corporation, Federal Housing Finance Agency, Securities and Exchange Commission, Department of Housing and Urban Development (24 December 2014) 'Credit Risk Retention', *Federal Register* 79, 77602.

Deutsch, K. 9 July 2014. Transatlantic Consistency? Financial Regulation, the G20 and the TTIP. Deutsche Bank Research. *EU Monitor Global Financial Markets*.

Dorn, J.A. 1993. Financial Deregulation in a Global Economy. *The Cato Journal* 13(2): 155–164.

Eichengreen, B. 2015. *Hall of Mirrors*. Oxford: Oxford University Press.

Uncorrected Proof

EU Commission. 19 March 2012. Shadow Banking Green Paper, COM (2012) 102 final.

———. 9 April 2013a. Shadow Banking—Addressing New Sources of Risk in the Financial Sector, COM (2013) 0614 final.

———. 2013b. *EU—US Transatlantic Trade and Investment Partnership: Trade Cross-cutting Disciplines and Institutional Provisions, Initial EU Position Paper*, http://trade.ec.europa.eu/doclib/docs/2013/july/tradoc_151622.pdf, date accessed 30 June 2015.

European Banking Authority. 26 October 2014. *Results of 2014 EU—Wide Stress Test*

European Central Bank. December 2004. *Financial Stability Review.*

European Central Bank. Financial Stability Review (December 2010)

Fair and Effective Markets Review. October 2014. *Consultation Document: How Fair and Effective are the Fixed Income, Foreign Exchange and Commodities Markets?.*

———. June 2015. *Fair and Effective Markets Review Final Report.*

Featherstone,, K. 2011. The Greek Sovereign Debt Crisis and EMU: A Failing State in a Skewed Regime. *Journal of Common Market Studies* 49: 193–217.

Feldman, M.L. 2013. The Domestic Implementation of International Regulations. *New York University Law Review* 88: 401–438.

Financial Crisis Inquiry Commission. January 2011. *The Financial Crisis Inquiry Report*

Financial Markets Law Committee. 2015. *Discussion Paper: Coordination in the Reform of International Financial Regulation: Addressing the Causes of Legal Uncertainty.*

Financial Services Authority. 2009. The Turner Review: A Regulatory Response to the Global Banking Crisis.

Financial Stability Board. 23 September 2010. Country Review of Mexico, Peer Review Report.

———. 4 November 2011. *Policy Measures to Address Systemically Important Financial Institutions*

———. 8 February 2012. *Thematic Review on Deposit Insurance Systems Peer Review Report*

———. 29 August 2013a. *Strengthening Oversight and Regulation of Shadow Banking Policy Framework for Strengthening Oversight and Regulation of Shadow Banking Entities*

———. 29 August 2013b. *Strengthening Oversight and Regulation of Shadow Banking: Policy Framework for Addressing Shadow Banking Risks in Securities Lending and Repos.*

Uncorrected Proof

———. 14 November 2014b. *Transforming Shadow Banking into Resilient Market-based Financing: An Overview of Progress and a Roadmap for 2015.*

———. 7 January 2014c. *Handbook for FSB Peer Reviews.*

——— 29 January 2015. First Annual Report: 28 January 2013—31 March 2014.

Financial Stability Board, IOSCO. 8 January 2014a. *Consultative Document: Assessment Methodologies for Identifying Non-Bank Non-Insurer Global Systemically Important Financial Institutions: Proposed High-Level Framework and Specific Methodologies* (FSB NBNI Consultation 2014)

———. 4 March 2015. *Consultative Document (2nd) Assessment Methodologies for Identifying Non-Bank Non-Insurer Global Systemically Important Financial Institutions Proposed High-Level Framework and Specific Methodologies* (FSB NBNI Consultation 2015)

Financial Stability Oversight Council. 24 December 2014. Notice Seeking Comment on Asset Management Products and Activities. *Federal Register*, 79, 77488.

———. 11 February 2015 'Notice Seeking Comment on Asset Management Products and Activities. *Federal Register*, 80, 7595.

FSB. 9 January 2010. *FSB Framework for Strengthening Adherence to International Standards*.

Furbush, D., and A. Poulsen. 1989. Harmonizing Margins: The Regulation of Margin Levels in Stock Index Futures Markets. *Cornell Law Review* 74: 873–901.

G20. 15 November 2008. Declaration of the Summit on Financial Markets and the World Economy.

———. 2 April 2009. Declaration on Strengthening the Financial System.

Gadinis, S. 2013. The Financial Stability Board: The New Politics of International Financial Regulation. *Texas International Law Journal* 48: 157–176.

Gai, P., A. Haldane, and S. Kapadia. 2011. Complexity, Concentration and Contagion. *Journal of Monetary Economics* 58: 453–470.

GAO. 3 April 2014. *International Financial Reforms: U.S. and Other Jurisdictions' Efforts to Develop and Implement Reforms*, GAO-14-261

Garber, P.M. 1989. Tulipmania. *Journal of Political Economy* 97(535–560): 535.

GFMA et al. 30 May 2014. Letter to IOSCO Re: Recommendations on Global Regulatory Coordination and Responses to IOSCO Task Force on Cross-Border Regulation Roundtable Question Sets, http://www.iosco.org/library/cross-border-taskforce/pdf/GFMA-JFMC-written-submission.pdf, date accessed 21 June 2015.

Uncorrected Proof

Goodhart, C. 2011. *The Basel Committee on Banking Supervision: A History of the Early Years 1974–1997*. Cambridge: Cambridge University Press.

Government Accountability Office. 2014. *Dodd-Frank Regulations: Regulators' Analytical and Coordination Efforts*, GAO-15-81.

Haldane, A.G. and V. Madouros. 31 August 2012. The Dog and the Frisbee. Speech at the Federal Reserve Bank of Kansas City's 36th Economic Policy Symposium, "The Changing Policy Landscape", Jackson Hole, Wyoming, http://www.bankofengland.co.uk/publications/Documents/speeches/2012/speech596.pdf, date accessed 28 June 2015.

Haldane, A., Executive Director, Financial Stability and Member of the Financial Policy Committee. 29 October 2012. 'A Leaf Being Turned', Speech at Occupy Economics, "Socially Useful Banking" at Friend's House. Euston, London, http://www.bankofengland.co.uk/publications/Documents/speeches/2012/speech616.pdf, date accessed 28 June 2015.

Helleiner, E. 2014. *The Status Quo Crisis*. Oxford: Oxford University Press.

House Committee on Financial Services. 3 March 2015. Hensarling: "Who Will Protect Consumers from the Overreach of the Consumer Financial Protection Bureau?". http://financialservices.house.gov/news/documentsingle.aspx?DocumentID=398764, date accessed 15 June 2015.

IMF. 4 August 2004. *Financial Sector Regulation: Issues and Gaps.*

———. February 2008. *Canada: Financial System Stability Assessment—Update*, IMF Country Report No. 08/59

———. 27 September 2010a. Top 25 Financial Sectors to Get Mandatory IMF Check-Up. *IMF Survey Online*

———. 21 September 2010b. Decision No. 14736-(10/92).

———. 27 August 2010c. *Integrating Stability Assessments Under the Financial Sector Assessment Program into Article IV Surveillance: Background Material.*

———. 15 November 2013. *Mandatory Financial Stability Assessments under The Financial Sector Assessment Program: Update*

———. 30 July 2014a. *2014 Triennial Surveillance Review—Overview Paper.*

———. October 2014b. *Global Financial Stability Report: Risk Taking, Liquidity, and Shadow Banking—Curbing Excess While Promoting Growth.*

Independent Evaluation Office of the IMF. 2011. *IMF Performance in the Run-Up to the Financial and Economic Crisis: IMF Surveillance in 2004–07.*

Independent Evaluation Office of the IMF. 13 December 2013. IMF Response to the Financial and Economic Crisis: An IEO Assessment.

International Monetary Fund. May 2010. Greece: Request for Stand-By Arrangement, IMF Country Report No. 10/111.

Uncorrected Proof

IOSCO. 1989. International Equity Offers: Summary of Report.

———. 1996. *Report on the Implementation of IOSCO Resolutions*; IOSCO (May 2000) *Report on Implementation of International Disclosure Standards.*

———. March 2009. *A Review of Implementation of the IOSCO Code of Conduct Fundamentals for Credit Rating Agencies*.

———. April 2013. *Implementation Monitoring Of PFMIs—Level 1 Assessment Report*.

———. 30 September 2014a. *Review of the Implementation of IOSCO's Principles for Financial Benchmarks by WM in respect of the WM/Reuters 4.p.m Closing Spot Rate*, FR07/2014.

———. 22 July 2014b. *Review of the Implementation of IOSCO's Principles for Financial Benchmarks by Administrators of Euribor, Libor and Tibor*, FR03/2014.

———. 2015a. *Review of the Implementation of IOSCO's Principles for Financial Benchmarks*

———. 25 February 2015b. *Review of the Implementation of IOSCO's Principles for Financial Benchmarks*, OR02/2015.

ISDA (23 February 2015)

Jackson, P. et al. April 1999. Capital Requirements and Bank Behaviour: The Impact of the Basle Accord. *Basle Committee on Banking Supervision Working Papers* No. 1

Joint Forum. March 2005. *Credit Risk Transfer*.

———. July 2008. *Credit Risk Transfer: Developments from 2005 to 2007*.

———. February 2015. *Consultative Document: Developments in Credit Risk Management Across Sectors: Current Practices and Recommendations.*

Kane, E.J. 2007. Basel II: A Contracting Perspective. *Journal of Financial Services Research* 32: 39–53.

Kennedy, D. 1981. Cost-Benefit Analysis of Entitlement Programs: A Critique. *Stanford Law Review* 33: 389–445.

Krugman, P. 1999. Balance Sheets, the Transfer Problem, and Financial Crises. *International Tax and Public Finance* 6: 459–472.

Lane, P.R. 2012. The European Sovereign Debt Crisis. *Journal of Economic Perspectives* 26: 49–68.

Levine, R. 2012. The Governance of Financial Regulation: Reform Lessons from the Recent Crisis. *International Review of Finance* 12: 39–56.

Lucca, D., A. Seru and F. Trebbi. June 2014. The Revolving Door and Worker Flows in Banking Regulation. *Federal Reserve Bank of New York Staff Reports* No. 678

Uncorrected Proof

Colchester, M. 24 April 2015. HSBC Reviewing Whether to Move Headquarters Away From U.K. *Wall Street Journal*, http://www.wsj.com/articles/hsbc-reviewing-whether-to-move-hq-away-from-the-u-k-1429864288 date accessed 30 June 2015. 1004–1007
Mackintosh, S.P.M. 2014. Crises and Paradigm Shift. *The Political Quarterly* 85: 406–412. 1008–1009
Mackintosh, P.M. 2015. Crises and Paradigm Shift: A Response to Critics. *The Political Quarterly* 86: 3–6. 1010–1011
Matsaganis, M. 2011. The Welfare State and the Crisis: The Case of Greece. *Journal of European Social Policy* 21: 501–512. 1012–1013
Moloney, N. 2014. European Banking Union: Assessing its Risks and Resilience. *Common Market Law Review* 51: 1609–1670. 1014–1015
Mügge, D. 2014. Policy Inertia and the Persistence of Systemic Fragility. *The Political Quarterly* 85: 413–416. 1016–1017
Occupy the SEC. 13 February 2012. *Comment on Prohibitions and Restrictions on Proprietary Trading and Certain Interests in and Relationships With, Hedge Funds and Private Equity Funds*, http://www.occupythesec.org/files/OSEC%20-%20OCC-2011-14%20-%20Comment%20Letter.pdf, date accessed 15 June 2015. 1018–1022
OECD. 2009. *Regulatory Impact Analysis: A Tool for Policy Coherence, OECD Reviews of Regulatory Reform*. Paris: OECD Publishing. 1023–1024
Office of Financial Research. September 2013. *Asset Management and Financial Stability*. 1025–1026
Oosterloo, S., J. de Haan, and R. Jong-A-Pin. 2007. Financial Stability Reviews: a First Empirical Analysis. *Journal of Financial Stability* 2: 337–355. 1027–1028
Pan, E.J. 2010. Challenge of International Cooperation and Institutional Design in Financial Supervision: Beyond Transgovernmental Networks. *Chicago Journal of International Law* 11: 243–284. 1029–1031
Posen, A.S. 2006. Why Central Banks Should Not Burst Bubbles. *International Finance* 9: 109–124. 1032–1033
Preda, Alex. 2009. *Framing Finance*. Chicago: University of Chicago Press. 1034
Project On Government Oversight. 11 February 2013. *Dangerous Liaisons: Revolving Door at SEC Creates Risk of Regulatory Capture.* 1035–1036
Reinicke, W.H. 1999–2000. The Other World Wide Web : Global Public Policy Networks. *Foreign Policy*, 117, 44–57. 1037–1038
Roubini, N. 2006. Why Central Banks Should Burst Bubbles. *International Finance* 9: 87–107. 1039–1040
Schwarcz, S.L. 2013. Regulating Shadows: Financial Regulation and Responsibility Failure. *Washington & Lee Law Review* 70: 1781–1825. 1041–1042

Uncorrected Proof

Segoviano, M., B. Jones, P. Lindner and J. Blankenheim. January 2015. Securitization: The Road Ahead. IMF Staff Discussion Note, SDN/15/01.

Siegert, C., and M. Willison. 13 February 2015. Estimating the Extent of the 'Too Big to Fail' Problem—A Review of Existing Approaches. *Bank of England Financial Stability Paper.*

Sjostrom, W.K. Jr. 2009. The AIG Bailout. *Washington & Lee Law Review* 66: 943–991.

Slaughter, A. 2004. *A New World Order*. Princeton: Princeton University Press.

Sommer, A.A. 1996. IOSCO: Its Mission and Achievement. 17 *Northwestern Journal of International Law and Business*, 17, 15–29.

Sutherland, D., P. Hoeller and R. Merola. April 2012. Fiscal Consolidation: How Much, How Fast and by What Means?. *OECD Economic Policy Papers No. 1*

Tarrullo, D.K. 2014. International Cooperation in Central Banking. *Cornell International Law Journal* 47: 1–14.

Tsingou, E. 2014. The Club Rules in Global Financial Governance. *The Political Quarterly* 85: 417–419.

United States Department of the Treasury Office of Financial Stability. October 2010. Troubled Asset Relief Program: Two Year Retrospective.

J. Yellen. 2 July 2014. Monetary Policy and Financial Stability. Remarks at the 2014 Michel Camdessus Central Banking Lecture, International Monetary Fund, Washington, D.C.

Zaring, D. 2010. International Institutional Performance in Crisis. *Chicago Journal of International Law* 10: 75–504.

Uncorrected Proof

Author Queries

Chapter No.: 3 03

Queries	Details Required	Author's Response
AU1	AU: Please provide page numbers for all direct quotes.	
AU2	Ref. "IOSCO 2000" is cited in text but not provided in the reference list. Please provide details in the list or delete the citation from the text.	
AU3	AU: Please spell out at first occurrence.	
AU4	The citation "Cohen 1988" has been changed to "Cohen 1998" to match the author name/date in the reference list. Please check if the change is fine in this occurrence and modify the subsequent occurrences, if necessary.	
AU5	The citation "Financial Stability Board, 2013" has been changed to "Financial Stability Board 2013a, b" to match the author name/date in the reference list. Please check if the change is fine in this occurrence and modify the subsequent occurrences, if necessary.	
AU6	AU: Consider revising. There seems to be more than one starting point.	
AU7	AU: Is there a hyphen in the source text?	
AU8	References "European Banking Authority (2014), Independent Evaluation Office of the International Monetary Fund (2013), IOSCO (2015a, 2014a, b)" are not cited in the text. Please cite these references in text or delete them from list.	

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