PRELIIMINARY DRAFT CHAPTER FOR "AFTER THE CRASH" EDITED BY SHARYN O'HALLORAN AND THOMAS GROLL, MARCH 2018 DRAFT

RULES VERSUS PRINCIPLES IN FINANCIAL REGULATION FOLLOWING THE CRISIS: IT ALL DEPENDS ON THE PURPOSE

PAUL TUCKER, CHAIR, SYSTEMIC RISK COUNCIL; FELLOW, HARVARD KENNEDY SCHOOL

This part of the book gives an airing to some of the issues around whether regulatory reform has produced a sounder, healthier financial system without choking off economic growth and efficiency. By way of scene setting, these introductory remarks will try to locate a few of the deep questions about financial regulation that have not gone away. The exposition is intended to be suggestive rather than comprehensive, so I do not pin down each and every assertion or argument.[1]

Those questions include the perennial debate about the relative merits of rules versus discretion; whether conduct regulation and prudential supervision are similar endeavours; whether regulatory regimes should be in the hands of judges or administrative agencies; and whether an essentially common international reform program can coexist with serious diversity in institutional regulatory architecture across the main jurisdictions. As such, they bridge between the preoccupations and interests of, on the one hand, policy makers and economists and, on the other hand, legal scholars and political scientists. Most of the examples will be drawn from the US and UK, as they occupy very

[1] What follows draws on, and is expanded upon in, (1) *Unelected Power: The Quest for Legitimacy in Central Banking and the Regulatory State*. Copyright © 2018 by Paul Tucker. Published by Princeton University Press. Reprinted by permission; (2) "Banking Culture: Regulatory Arbitrage, Values, and Honest Conduct", in *Getting the Culture and the Ethics Right, Towards a New Age of Responsibility in Banking*, Andreas Dombret and Patrick S. Kenadjian eds., de Gruyter, Berlin 2016; and (3) *The Design and Governance of Financial Stability Regimes: A Common Resource Problem That Challenges Technical Know-How, Democratic Accountability and International Coordination*. CIGI Essays on International Finance, volume 3. Waterloo, ON: CIGI, 2016.

different points on a spectrum of institutional reform following the 2007-09 crisis.

Setting the scene: the core of the reform program

After the near collapse of the international financial system in late 2008 and its eventual stabilization in spring 2009, policymakers embarked upon the most significant reforms of finance for a couple of generations. The program was agreed internationally, mainly at the G20 and in Basel. While there was some embellishment via local bells and whistles (such as the Volcker Rule in the US, and Vickers ring-fencing in the UK), the core reforms were intended to be shared --- as they had to be in an era of liberalized capital flows and international finance.

In the words of the former key officials who now gather together as the Systemic Risk Council, the new regime has:[2]

> "…five pillars..:
>
> 1) mandating much higher common tangible equity in banking groups to reduce the probability of failure, with individual firms required to carry more equity capital, the greater the social and economic consequences of their failure;
> 2) requiring banking-type intermediaries to reduce materially their exposure to liquidity risk;
> 3) empowering regulators to adopt a system-wide view through which they can ensure the resilience of all intermediaries and market activities, whatever their formal type, that are materially relevant to the resilience of the system as a whole;
> 4) simplifying the network of exposures among intermediaries by mandating that, wherever possible, derivatives transactions be centrally cleared by central counterparties that are required to be extraordinarily resilient; and
> 5) establishing enhanced regimes for resolving financial intermediaries of any kind,

[2] The Systemic Risk Council, Statement to the Finance Ministers, Governors, Chief Financial Regulators, and Legislative Committee Leaders of the G20 Countries (Feb. 27, 2017), *available at* http://4atmuz3ab8k0glu2m35oem99-wpengine.netdna-ssl.com/wp-content/uploads/2017/02/Systemic-Risk-Council-Policy-Statement-to-G20-Leaders.pdf.

> size, or nationality so that, even in the midst of a crisis, essential services can be maintained to households and businesses without taxpayer solvency support—a system of bailing-in bondholders rather than of fiscal bailouts."

That catalogue objective makes the underlying objective clear enough. While there was (and remains) some desire to dampen the macro-credit-asset price boom-and-bust 'cycles' that have characterised financial capitalism since the 19th century and earlier, the dominant goal was to increase the *resilience of the financial system as a whole*. As part of that, there was a shift away from relying almost wholly on prophylactic regulation and supervision (ie, trying to reduce the probability of distress and failure amongst financial intermediaries. Instead, almost equal billing was given to containing and mitigating the social costs of distress and failure when it occurs.

The reliance on rules

If that was a notable departure from half a century's substantive orthodoxy, in other respects --- especially in the *form* of the reforms --- it seemed to be business as usual. In particular, everywhere the new policies were implemented via new domestic regulations: thousands and thousands of pages of them. But that seemed to ignore one of the deep flaws in the pre-crisis regime: that labyrinthine rule books are an open invitation to regulatory arbitrage that has the perverse effect of undermining the very systemic resilience they are designed to underpin.

Meanwhile, the scandals and detritus revealed as the financial tide went out raised questions about ethics and culture that could not obviously be fixed by more rules, vital though it was to remedy gaping holes in pre-crisis prohibitions.

Architectural diversity: common policies delegated very differently

If those puzzles are shared, the response to institutional design could hardly have been more different. In the United States, the multitude of financial regulators continued unscathed (almost)[3]. While a new Consumer Financial Protection Bureau (CFPB) was created, the SEC, CFTC and Federal Reserve retained most of their conduct-regulation responsibilities. In Britain, by contrast, prudential and conduct authorities were more clearly separated than ever before; the pre-crisis Financial Services authority being split into two parts --- the Financial Conduct Authority (FCA) and Prudential Regulation Authority (PRA) --- as the UK finally embraced the Twin Peaks idea promoted by some during the 1990s.

The two key international financial centers also took very different approaches to the challenge of delivering a joined-up stability policy. Whereas the US established the Financial Stability Oversight Council (FSOC) as a multi-agency committee with limited powers under the political leadership of the Treasury Secretary, the UK delegated the lead in day-to-day stability policy to a new body within the central bank, the Bank of England's Financial Policy Committee.[4] Arguably, this was partly because the US seemed to put more weight on (faith in) early-warning systems, creating a new Office of Financial Research with the Treasury, whereas the UK embraced the prospect of continuing policy evolution and action.

Having said which, there was one notable point of similarity, not only between the US and UK but more widely, including the euro area. This was the expanded responsibilities of central banks, nearly all of which accumulated new regulatory powers to sit alongside their monetary policy role and balance-sheet powers. Having rediscovered that they were invariably at the scene of financial disasters, if only in their guise as lender of last resort, the fiction that monetary authorities were merely an adjunct to a macroeconomics PhD class was exposed as dangerous nonsense.

---

[3] Only the small Office of Thrift Supervision was abolished.

[4] Following reforms formally planned from 2010 and introduced into law in 2012, the Bank of England has separate statutory committees for macro-stability policy (Financial Policy Committee, FPC) and micro-prudential supervision of banks and major dealers (Prudential Policy Committee (PRC), which following the French model had initially been set up as a subsidiary). FPC is empowered to make formal Recommendations to FCA and PRA and, in specific areas, may give the micro-regulators Directions to act.

Even there, however, there were differences that amount to more than nuance. For example, as the Federal Reserve's LOLR powers were trimmed back, the Bank of England's were, if anything, expanded.

A similarly subtle but important divergence was observable in resolution regimes. Just as the UK belatedly adopted US-style special resolution regimes for financial intermediaries, first replicating the FDIC's long-standing powers for small and medium-sized banks and then leading the debate on bail-in and single-point-of-entry resolution for large and complex firms, the US seemed to move away from its own orthodoxy. The Dodd Frank Act (and, even more so, recent proposals from Treasury and the House) give priority to bankruptcy procedures, which no other significant jurisdiction thinks can work to mitigate social costs.[5] In the background, and sometimes even the foreground, was a belief that courts uphold the rule of law whereas administrative agencies such as the FDIC and Fed do not.

With that sketch of the new world, we can turn to issues about the form of regulation and the division of regulatory labour among different unelected power holders.

Rules versus standards: the demands of rule-of-law values

Given the urgency that rightly gripped policymakers during the key reform years (broadly, 2010-2013), deep questions about rules versus principles (standards, as they are known to US legal scholars), and about delegating to agencies instead of courts, were not addressed head on, and at best only implicitly. Ten years on is not a bad moment to reopen them. In what follows, I will conclude that while rules are unavoidably central to the regulation of conduct, they cannot be the beginning and end of stability policy. Since that seems to challenge the regulatory orthodoxy of the past quarter century or

[5] U.S. Department of the Treasury, *Report to the President of the United States: Orderly Liquidation Authority and Bankruptcy Reform* (Feb. 21, 2018), *available at* https://home.treasury.gov/sites/default/files/2018-02/OLA_REPORT.pdf.

more, we begin with why some of our deep values seem to demand rules-based policy.

Rules versus standards

The difference between rules and standards can be illustrated with an example from prudential policy for a stable financial system:

- *Rule*: "Licensed banks must maintain tangible common equity (as defined) of at least X% of total assets (as defined)"
- *Standard*: "Licensed banks must manage their affairs prudently and maintain capital adequate to remain safe and sound in stressed states of the world".

The former could be thought of as a world in which the regulator monitors compliance with the letter of the law, and punishes non-compliance: a world of enforcement. The latter is a world in which the regulator makes judgments about particular cases: its litmus test is adjudicatory fairness.

Regulatory policy was centred on the adjudicatory/standards model during the first half of the 20th century in the United States, and even longer in Britain and other parts of Europe. By the 1960s, however, that approach was questioned on the Western Atlantic. Somewhat later, it became unsustainable in London after the so-called Big Bang reforms broke the club-like culture of Britain's domestic capital-markets. And it was never a serious option when the EU turned to forging common policies and practices across its member states.

The crucial point is that, over time, a series of adjudicatory decisions generates something like an implicit rule or general policy but without the regulated community and the general public getting a chance to comment or challenge. In the early 1960s, some three decades after the New Deal regulatory initiatives, US judge Henry J. Friendly expressed concern that the standards applied via agencies' adjudicatory decisions were not "sufficiently definite to permit decisions to be fairly predictable and the reasons for them understood"

and prescribed that "the case-by case method should…be supplemented by greater use of…policy statements and rulemaking."[6]

The judge was calling upon one of the central strands in the values of the rule of law (the other being procedural fairness). Perhaps most systematically expressed by late Harvard Law professor Lon Fuller, this requires law, whether statutory law or regulatory law, to have the following qualities: generality, being publicly announced, being prospective rather than retroactive, clarity, internal consistency, being reasonably stable over time rather than subject to unpredictable or capricious change, compliance being realistic, and the promulgated law actually being the law enforced and applied by the executive and courts.[7]

While Fuller framed this in terms of law's morality, those formal rule-like qualities of law provide people with the (degree of) certainty and clarity useful for planning their affairs and for cooperative endeavours to be sustainable --- distinctly instrumental welfarist considerations. Indeed, that is the classic liberal view of a law of rules, associated in modern times with Hayek:[8]

> *"Rules fixed and announced beforehand --- rules which make it possible to foresee with fair certainty how the authority will use its coercive powers in given circumstances and to plan one's individual affairs on the basis of this knowledge"*

The consequential preference for rules over (vague) standards is clear:[9]

> *"When we obey laws, in the sense of general abstract rules laid down irrespective of their application to us, we are not subject to another man's will and are therefore free. It is because the lawgiver does not know the particular cases to which his rules will apply, and it is because the judge [or administrative agency official] who applies them has no choice in drawing the conclusions that follow from the existing body of rules and the particular facts of the case, that it can be said that laws and not men rule."*

---

[6] Friendly, Henry J. *The Federal Administrative Agencies: The Need for Better Definition of Standards*. Cambridge, MA: Harvard University Press, 1962.
[7] Fuller, Lon L. *The Morality of Law*. Revised edition. New Haven, CT: Yale University Press, 1969.
[8] Hayek, F. A. *The Road to Serfdom*, p. 80. Chicago, IL: University of Chicago Press, 1994.
[9] Hayek. *The Constitution of Liberty*, p.153. Chicago, IL: University of Chicago Press, 1960.

This inspires many on the liberal Right today, who accordingly press for rules-centered banking regulation (and instrument rules for monetary policy).

To eliminate discretion, however, the rules would have to be *mechanical*, in the sense of everyone readily agreeing --- indeed, finding obvious --- how each and every rule must be applied in every conceivable circumstance. Where the law cannot be applied as a mechanical rule, as very often it cannot, it is subject to both interpretation and judgment-based application.

Partly for that reason, on the other side of contemporary debates, standards (or a rule for an objective) are preferred by those who regard the state of economic knowledge as insufficient for society to harness itself to a detailed rule book, let alone a mechanical one, and who place weight on the avoidance strategies likely to be adopted by regulated industries. Even though interpretation and discretionary judgment are then embraced, rule-of-law values nevertheless push in the direction of those judgments being consistent over time --- in other words, principled (and so systematic); for any exceptions being carefully explained; and for any change in the underlying principles being signalled in advance. This is a world where policymakers are expected to furnish their choices with *reasons*, enabling challenge, and incentivizing consistency and clarity.

In the same spirit, formalist rule-of-law values mean that room for discretionary judgment should be constrained by laws that incorporate a *clear* standard (or objective) and avoid unnecessary vagueness. As I say elsewhere, Hayek might not get his mechanic, but he should be spared an artist.[10] This is *constrained discretion*.

Why does it make a difference?

It might reasonably be asked why any of this makes a difference. Surely the distinction between rules and standards (principles) can be overdone. As we

[10] *Unelected Power*, chapter 8.

have observed, regulatory rules require interpretation, and their application involves judgment; and adjudicatory policy should be principled in order to be consistent. Moreover, where agencies implement a statutory standard, they often publish guidelines on how they understand the standard, and fairly prescriptive internal manuals (quasi rule books) to their staff.
But, as lawyers would stress, different rules of the road apply to rules and adjudicatory decisions. In the US, the agency is required by law formally to consult on draft rules via what is known as "notice and comment rulemaking", whereas no such process is imposed on general policy that emerges incrementally the soft precedent created by a series of adjudicatory cases. In a similar spirit, an agency is bound by the rules it has issued, which it can amend only by re-consulting, whereas it is not bound by its guidance and internal manuals but only by the words of the statute. Incremental policy making is, therefore, less onerous and less transparent --- precisely the concern of the Hayekians.

So the question of rules versus standards does matter. Armed with that background, we can turn to our question about financial regulation.

The role and place of rules in financial regulation: distinguishing conduct regulation

Nearly every regulatory regime for financial intermediation has, in my view, got into a muddle about the role of rules. I will assert three bold propositions, and then go on to explain them. They are:

1) Rules are central in the regulation of conduct
2) Rules are ineffective in the preservation of stability
3) The prevalent use of rules in prudential policy has contributed to corrosive cynicism about rules in general and so about conduct rules.

Rules are needed for market conduct

When policies are framed in rules, and when firms are confident that the rules will be applied narrowly, to the letter as it were, epidemics of regulatory arbitrage follow. That is so whether the rules are complex or simple.

In terms of how policymakers should respond, however, conduct regulation is quite different from stability policy. Conduct regulation is directed at preventing one private agent (service provider, counterparty, or customer) from cheating or reneging on promises to others; and, more generally, at laying down a framework of legitimate expectations in market transactions. Whether in wholesale or retail markets, it is vital that participants, customers, and counterparties know the rules of the game. If something goes horribly wrong and it turns out that there was a gap in the rules, the rules need to be adjusted, but without retrospective effect. Breaches are to be punished, partly in order to deter bad conduct. All this is central to the rule of law in the ways outlined above.

For the reasons advanced in the next section, the same approach is much less compelling for stability policy but was the course taken in the main jurisdictions in the decade or so leading up to the 2007/2008 crisis. I suspect that an environment in which arbitrage around prudential rules was endemic --- a normal part of life in financial firms --- fostered cynicism towards regulatory rules in general, generating a culture in which the difference between 'right' and 'wrong' became blurred across large parts of the industry.

If that is correct, it was a high cost to pay --- on top of the crisis of instability --- for the false turn taken by prudential supervision. Workers in firms need to grasp that the rules of a conduct regulator are not the same *kind* of thing as prudential and stability policies. They are not fair game.

This is easier when the institutional architecture separates the conduct regulator from the prudential supervisor. As described above, the UK's post-

crisis Twin Peaks system is closer to delivering that than the US's architecture. While the creation of the CFPB introduces some specialism in the United States, the responsibilities of the financial regulatory agencies continue to overlap much more there.

Architecture aside, those two jurisdictions (and many others) share a particular pathology: financial regulators working under multiple, vague objectives.[11] As a result, intermediaries and their customers cannot form clear expectations of the agencies' priorities or enforcement policy. As far as I can see, the post-crisis reforms did next to nothing to cure this.

Basing conduct regulation on Rules under binding Principles

One way of summing up the difference between prudential supervision and conduct regulation (as I shall go on to describe it) is that for the former it is the spirit that matters, whereas for conduct it is the letter of the rules that matters *at any particular time*. While there is truth to that, conduct rules are always open to interpretation and incomplete, driving those working in finance to search for legal loopholes.

[11] In the paraphrase of its mission statement, the *SEC* is responsible for: protecting investors, maintaining fair, orderly and efficient markets, and facilitating capital formation. The Trump Administration appointed a chair with the intention of shifting the emphasis to the last leg.

Summarizing its statutory objectives, the *CFPB* is responsible for: improving the quality and accessibility of information that consumers receive about consumer financial products; protecting consumers from unfair, deceptive, and abusive practices and from discrimination; maintaining transparent and efficient markets for consumer financial products; reducing unwarranted regulatory burdens; and ensuring that federal consumer financial law is enforced consistently.

The UK's *Financial Conduct Authority* has a strategic objective of ensuring that financial markets function well, and three operational objectives: securing an appropriate degree of protection for consumers; protecting and enhancing the integrity of the UK financial system; promoting effective competition in the interests of consumers. (The objectives of the old FSA, which was also the prudential supervisor of banks, were market confidence, public awareness, consumer protection, and reducing financial crime. It also had to have regard to the competitiveness of UK financial services, which some believe gave politicians a lever in pressing for 'light touch' regulation. Safety and soundness were not mentioned.)

In the US, rule books have simply grown and grown. In the UK, over the past thirty years or so market-cum-conduct regulators have flip-flopped between rules- and principles-based regimes, but with a monotonic increase in reliance on rules.

This is a world of artful interpretations and creative loopholes, sowing the seeds of its own demise. It generates an industry of expert advisors who have a narrow commercial interest in lobbying to preserve this kind of regime as the status quo.

The truth, however, is that the spirit of the rules ought to matter in the conduct arena too, because society expects it to: hence the renewed concern about ethics and culture prompted by the scandals that engulfed finance after the 2008 systemic collapse changed the weather.[12] Given the heterogeneity prevalent amongst financial intermediaries for three decades, it would be foolhardy to rely upon somehow recapturing the informal norms characteristic of thick community relations. International finance is almost unavoidably based on thin rule-based morality.[13]

This seems to create a dilemma. On the one hand, we cannot just leave unelected regulators to construe their own rules in the light of whatever they declare to be their policy's animating spirit. On the other hand, we should not sacrifice the reduction in uncertainty (and so inefficiency) that can be delivered by carefully crafted rules. What then should be done, or are we simply stuck?

One possible route would be to *combine statutory principles with detailed regulatory rules*. A set of Principles would be enacted in primary legislation, together with a statutory provision --- binding on the courts --- that the detailed rules promulgated by the conduct regulator must be interpreted in

---

[12] In the UK, this is being pursued by a new, non-statutory body, the FICC Markets Standards Board(www.fmsb.com). Its aim is to establish global standards for wholesale fixed income, currency and commodity markets, setting out how participants in the wholesale markets should behave in situations where conflicts of interest or ambiguity can lead to poor outcomes for market users. Its Standards are designed to sit alongside formal regulation, perhaps addressing the space between high level regulatory principles and detailed legally binding rule books. While not formally pursuing an "ethical" or "cultural" mission, its output might provide guidance on "how to do business" and so might affect informal norms and culture.

[13] On thick versus thin relations (or ethics versus morality), see Margolit, Avishai, *On Betrayal*, Cambridge, MA and London: Harvard University Press, 2017.

the light of those legislated Principles. So far as I know, this legislative structure has not been attempted in a major jurisdiction. It does not give rise to the radical indeterminacy that afflicts non-statutory principles, since the rules reduce open-ended uncertainty. But the interpretation of those rules is tied to their social purpose, as instantiated in the statutory Principles. While leaving the courts as the final arbiter of how the Principles should be construed, it would give elected legislators not regulators the responsibility of framing and specifying the Principles that they judged best captured the political community's ethical standards.[14]

Stability policy: prudential regulation of the system's resilience

I want to argue that prudential regulation of the safety and soundness of the financial system as a whole is different. In essence, this is because neither enforcement nor compensation rises to the social costs imposed by systemic financial crises.

Enforcement comes too late

What might be termed 'regulatory avoidance', which can have very high social costs where it leads to instability and economic downturns, is not an offence. Even if it were an offence, enforcement after the fact cannot undo those social and economic costs. The prudential endeavor is, in its essence, prophylactic not retributive (see below).

[14] I first encountered this thought in discussion at Australian National University with John Braithwaite, who has canvassed it in the field of tax evasion versus avoidance. See J. Braithwaite, *Markets in Vice, Markets in Virtue* , Sydney and New York, Federation Press and Oxford University Press, 2005, especially Chapter 10, "Reforming the Law" ; J. Braithwaite, "Making Tax Law More Certain: A Theory", *Australian Business Law Review*, 31(2), 2003, 72-80; For the initial and more general formulation that goes beyond tax: J. Braithwaite, "Rules and Principles: A Theory of Legal Certainty", *Australian Journal of Legal Philosophy*, 27, 2002, 47-82. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=329400

The infeasibility of committing to compensate for financial instability

In a similar spirit, legal rules (primary legislation or regulations) cannot offer a remedy by requiring improvident intermediaries to compensate the victims of a financial crisis. Very simply, in the event of a massive banking collapse pushing the economy onto a persistently lower path of output and employment, the losers are never going to be able to recover their costs from the 'financial polluters', because the banks and other intermediaries are bust.

More broadly, if the hit to the economy is bad enough, society in aggregate is truly poorer, so it is impossible for transfers to restore all of the losers to the wealth (or well-being) they might reasonably have expected had the systemic crisis not occurred.

However well property rights had been designed and however fairly and efficiently the courts adjudicated conflicts over those rights, they could not be enforced. *Stability warrants state intervention to reduce the probability of crises and to contain the social costs when they occur*.

System resilience as an objective

That being so, intermediaries cannot be considered one by one. The financial system is just that, a *system*, its parts connected in myriad ways, including via the real economy and across countries. As the first chairman of the Basel Supervisors Committee said over thirty years ago:[15]

> *"[I]t is part of the [supervisor's] job to take [a] wider systemic view and sometimes to curb practices which even prudent banks might, if left to themselves, regard as safe."*

[15] Blunden, George "Supervision and Central Banking." *Bank of England Quarterly Bulletin*, August 1987.

In consequence, it is hard, although not impossible, to separate responsibility for system stability from micro-prudential supervision.[16] Further, unless society wills a zero-failures policy, which would be neither desirable nor feasible, the prudential regime, properly conceived, needs to embrace recovery planning and, even more important, resolution planning.

One obvious conclusion is that the standard micro-prudential statutory objective of ensuring the 'safety and soundness' of individual intermediaries needs to be framed explicitly in terms of system resilience and stability. The US did not do that explicitly in its 2010 reforms. Two years later, perhaps benefiting from having more time to think and a legislative process less affected by negotiation to placate local interests, the UK did do so. The 'safety and soundness' objective of the Bank of England's micro-prudential supervisors is cast in terms of ensuring intermediaries carry on business in ways that avoid adverse effects on stability, and of minimizing the expected effect of their failure on stability.

Under this approach, policymakers need to determine the severity of shock that the system should be able to withstand. In principle, that would be driven by three things:

a) A view of the underlying (stochastic) process generating the first-round losses from end borrowers that hit the system;
b) A picture (or model) of the structure of the financial system through which those losses and other shocks are transmitted around the system;
c) A tolerance for systemic crisis.

While the first and second are properly objects of scientific inquiry by technocrats and researchers, the third is different, requiring political debate and decision to the extent that prosperity would (or might) be damaged by totally eliminating the risk-taking structures that can threaten periodic bouts of

[16] Germany has an interesting system where the Bundesbank makes micro-prudential inputs to the formal regulator (Bafin) and macro-prudential recommendations to the ministry without being formally responsible for decisions in either sphere. But it seems unlikely that this would be feasible in countries where accountability is a *de facto* as well as a *de jure* thing.

instability.[17]

In practice, politicians need to decide (or bless) a basic resilience requirement for core intermediaries (constraints on their balance sheets and inter-connectedness). That cannot come out of the sky but must reflect judgments on (a) and (b) above and also upon the effectiveness of other policies and instruments, including how far the provision of core services could be maintained by (i) resolving or transferring the functions of failed intermediaries (the domain of resolution policy) or (ii) replacement capacity entering the market (competition policy).

The job of the financial authorities is, to use the usual language for the regulatory state, simply to police the resilience standard and the resolvability of individual firms. For reasons that go to very heart of stability-policy regimes, however, that turns out to need rather more than a detailed rule-book constraining intermediaries' balance sheets and risk-management practices.

System resilience as a common good plagued by hidden-action problems

The resilience of individual financial intermediaries is not akin to the resilience of individual aeroplanes. Some aircraft share common components, but each one is not invariably put in jeopardy by problems in other models. In the financial system, intermediaries are so interconnected that a serious problem almost anywhere can bring down the ceiling.

Those direct and indirect exposures and dependencies are almost impossible to avoid. As customers, we do not all use the same intermediary, so they have to meet on our behalf via settlement systems and the money markets through which an economy's financial transactions are effected and intermediaries' books are balanced. Smaller intermediaries depend upon larger firms for what amount to infrastructural services, such as clearing, custody, and liquidity

[17] Ranciere, Romain, Aaron Tornell and Frank Westerman. "Systemic Crises and Growth." *The Quarterly Journal of Economics* 123, no. 1 (2008): 359–406.

insurance. Efficiency is served through the competition that the inter-dependencies permit.

This means that the financial system's resilience can be thought of as a *common good*: the benefits accrue to everyone but can be eroded by individual members of the system. Each has incentives to take more risks than they would willingly incur if the system were not believed to be resilient. So as long as they are not spotted, they will be undercharged for risk by their customers and market counterparties. Since firms seem to care about relative short-term performance, it is hard for them to stay virtuous. If, however, many firms succumb, in aggregate some of the resilience of the system as a whole is eroded, invalidating the assumption upon which their private risk appetites were predicated. This is an example of the *problem of the commons*, where historically individuals would overuse the common grazing land, leaving everybody worse off.[18]

Unlike a local, physical commons, the erosion of the financial system's resilience creeps up on us, because firms are able to disguise their true state via what economists call *hidden actions*. When the state writes rules to constrain intermediaries' balance-sheet choices, *regulated firms* find ways of taking more risk than contemplated in the calibration of those rules. If the rules are complex, they take risk in forms that reduce, say, their regulatory capital requirements even when nothing material has changed economically. If the rules are simple, they take risk via routes that simply step around the constraint; say via the composition of asset portfolios if they are subject to only a cap of their total assets/ equity leverage.

Meanwhile, *unregulated intermediaries* have incentives to structure their activities in forms that replicate the economic substance of banking, insurance or whatever, but leave them outside the regulatory net.

In other words, *finance is a shape-shifter*. Regulatory arbitrage is endemic, and the rule-writers end up chasing their tails.

---

[18] Ostrom, Elinor. *Governing the Commons: The Evolution of Institutions for Collective Action*. New York: Cambridge University Press, 1990.

On this way of thinking, the Great Financial Crisis was waiting to happen. That it was triggered by the relatively small US subprime-mortgage market revealed that the system's resilience was wafer thin. It had been eaten away over the preceding years by the dynamics of the system itself.

At first blush, then, societies seem to face a clash between, on the one hand, the rule-of-law values of predictability and generality that we described earlier and, on the other hand, the welfare of the people. But it is not quite so straightforward. The value of predictability is thrown into doubt when rules (predictably) fail to achieve their public policy objective. As the Systemic Risk Council has put it:[19]

> "The resilience of national financial systems is a vital good, essential for citizens to live decent lives. It is necessary for individuals, families, businesses, and entrepreneurs to be able to plan for the future, transact with each other, and commit their savings to new ventures."

Those are very much amongst the goods that drove Hayek's attachment to predictability and transparency.

Judgment-based prudential supervision

Stability policy accordingly confronts the issue around rules versus standards in a particular way. To repeat, a compliance-based approach of identifying and punishing rule breaches after the financial system has imploded, creating economic havoc, does not exactly rise to the seriousness of the stability

[19] The Systemic Risk Council, Statement to the Finance Ministers, Governors, Chief Financial Regulators, and Legislative Committee Leaders of the G20 Countries (Feb. 27, 2017), *available at* http://4atmuz3ab8k0glu2m35oem99-wpengine.netdna-ssl.com/wp-content/uploads/2017/02/Systemic-Risk-Council-Policy-Statement-to-G20-Leaders.pdf.

mission.

Where generalised rule-like quantity constraints are placed on intermediary balance sheets to induce them to internalize social costs or self-insure beyond their (perception of their) private interests, those requirements likely need tailoring to the specific cost and risk structures of each intermediary, and to their significance to the system being able to maintain the provision of core services in adverse circumstances. In the language of prudential supervisors, this would cover both 'Pillar 2' and 'systemic surcharge' requirements.

It is a form of regulation that requires deep knowledge of and judgments about each relevant intermediary. Further, the micro-supervisor has to be ready and able to make judgments of the following kind:

> "Firm X is managed so imprudently that there is no reasonable prospect of its meeting the required standard of resilience in the states of the world it is likely to confront."

Where that judgment is reached, the micro-supervisor needs to be ready (and legally empowered) to revoke the firm's license or to place constraints on its risk taking.

The basic criteria (*standards*) underpinning the supervisor's findings—for example, prudence, competent management —have to be established in statute. When applying them to individual firms, the micro-supervisor is called upon to comply with the canons of procedural fairness and reason that comprise the other central tenet of the rule of law.

More than that, we also want a micro-supervisor's judgments and actions to be fair in the sense of being *consistent across different cases and over time*. This makes it important that the supervisor should articulate how it plans to apply the statutory criteria for authorization, consistent with the over-riding standard for resilience.[20] I stress this because, as I hope will be clear by now, it is not the same as writing and enforcing legally binding rules for each and

[20] In *Unelected Power* I call these 'Operating Principles'. They are, in my view, a vital part of any independent-agency regime.

every dimension or facet of activities bearing on safety and soundness.

It is nothing short of tragic that this basic conception of prudential supervision was lost for a generation. That is precisely why, in the UK, when planning for the return on banking supervision to the Bank of England, the then top management stressed the reform would entail a return to 'judgment-based supervision' centred on statutory criteria for authorisation.

Making the judgments: stress testing

It matters hugely to all this that the post-crisis regulatory reforms have been accompanied by some major developments in the practice of prudential supervision, notably regular stress testing of key intermediaries and service-providers. This has distinctly US origins.

Since the spring of 2009, the Federal Reserve has led the world in seeking to undertake *credible* stress tests of banks' capital adequacy. As well as being forward-looking and focused on unlikely (tail) risks, they are conducted annually, concurrent for all firms above a certain size, systematic and, by any previous standard of supervision, highly transparent.[21] They help supervisors to assess system resilience and, applying *statutory standards* for continued authorisation, to make *adjudicatory judgments* on the safety and soundness of individual firms taking into account correlated exposures across intermediaries.[22]

[21] Transparency is not complete: notably, the regulator's own models are not published given the risk of gaming by the banks. Tarullo, Daniel K. "Departing Thoughts." Board of Governors of the Federal Reserve, April 4, 2017.

[22] This is quite different from regarding stress testing as the enforcement of a rule, as argued by some US scholars. *See* Letter from the Committee on Capital Markets Regulation (CCMR) to Ann E. Misback, Secretary,

The Fed was followed by the ECB and the Bank of England when they took up their new prudential functions. At the level of high policy, this will help legislators think about the degree of resilience they want to require in the financial system, about how well the regime is working, where it needs reform, where responsibilities should be rejigged.

Agencies versus courts

I hope it will be clear enough that this is not a regime that lends itself to courts applying a detailed legislative code. Why then the demands from some quarters in the US, including the House of Representatives, that resolution policy be executed via the courts rather than by specialised resolution agencies?

Partly because, appealing to some of the rule-of-law values rehearsed earlier, there are concerns about the possibility of resolution agencies exercising powers to discriminate between creditors of the same class in order to preserve financial stability (or, more accurately, contain instability). But this ignores that courts exercise discretion; that the bankruptcy code does not give courts a priority of preserving stability; and, at a higher level, that it is a mistake to think that the rule of law is preserved by courts alone rather than by all senior state power-holders.

The better point is the authorities may well need to be more prescriptive about the structure of the creditor hierarchy of banks and other financial intermediaries so as to minimize the risk of stability being jeopardized (instability exacerbated) by treating equally ranked creditors exactly alike. This is a policy that would lend itself to the approach of "rules under binding principles" advocated above for conduct regulation. One such principle might be that purely financial liabilities should take losses before liabilities intrinsically connected with the provision or receipt of services.

With the exception of insured depositors being preferred creditors and certain

---

Board of Governors of the Federal Reserve System (Jan. 19, 2018); CCMR, *The Administrative Procedure Act and Federal Reserve Stress Tests: Enhancing Transparency* (Sept. 2016), http://www.capmktsreg.org/wpcontent/uploads/2016/10/Final_APA_Fed_Stress_Test_Statement1.pdf. I regard that as utterly misconceived as a matter of policy, if stress testing is to help protect citizens from stability-threatening risk (mis)management.

bonds needing to be deeply subordinated, nothing of this kind has been attempted on either side of the Atlantic.

Beyond banking to market resilience

If it was tragic that micro-supervision lost its stability-oriented roots in the run up to the 2007-09 crisis, it is no less disturbing that all too frequently stability policy does not face up to threats from beyond the perimeter of *de jure* banking.

Given that other parts of the financial system can deplete the common resource of system resilience and have equally powerful incentives to hide or camouflage their actions, it is vital that they too be supervised in the sense I have described: making judgments about whether the resilience standard is in jeopardy.

As the Systemic Council put it in an open letter to G20 Finance Ministers and Governors in February 2017:[23]

> "Policymakers should not doubt that with the formal banking sector required to be more resilient, there will be powerful forces pushing activity out of de jure banks into other types of firm, vehicle, or structure. Much of that could be for the good, adding to the vibrancy and depth of capital markets. But, to put it gently, it would be imprudent to disregard the likelihood that some banking activity will migrate to intermediaries or structures that replicate banking-like fragility through leverage and liquidity mismatches. If that happens, the executive and legislative branches will, later or sooner, face a choice between allowing socially costly distress or bailing out such nonbanks.
>
> The SRC wishes to repeat that relying on monitoring developments, which for the moment seems to be the default approach, is a recipe for failure given the obstacles to flexible, timely regulatory initiatives. That, more or less, was exactly the mistake of the early-2000s, as many people, including some SRC members, could testify

[23] The Systemic Risk Council, Statement to the Finance Ministers, Governors, Chief Financial Regulators, and Legislative Committee Leaders of the G20 Countries (Feb. 27, 2017), *available at* http://4atmuz3ab8k0glu2m35oem99-wpengine.netdna-ssl.com/wp-content/uploads/2017/02/Systemic-Risk-Council-Policy-Statement-to-G20-Leaders.pdf.

> based on first-hand experiences. A clear substantive policy on shadow banking—focusing on liquidity mismatches and leverage, and so distinguishing between different asset-management activities and structures—is a glaring gap in the regimes of every major jurisdiction."

Developing the same theme, a year later the SRC urged the US Treasury Secretary to develop policies to ensure the resilience of market-based finance:[24]

> "…the problem is not limited to specific non-banks becoming bank-like in their functions and significance. The SRC wants to suggest that the…authorities should be bothered about the resilience of markets themselves.
>
> In framing any such policy, it is important to distinguish: (i) between markets that serve end users and those on which intermediaries themselves depend; and (ii) between social costs that build over time and those that are severe and occur immediately when a market breaks down…
>
> For capital markets important to end users (businesses and households), the costs of closure depend in part on the availability of ready substitutes, including resorting to banks. The fewer the substitutes --- and thus, among other things, the more constrained banks are --- the more important it is that capital markets stay open. This is a matter of both *ex ante* design and *ex post* mitigants.
>
> In summary, the aim should be to identify what might be termed 'systemically significant markets' that need to be especially resilient, and to pin down the particular vulnerabilities in any such markets that need to be addressed. Such vulnerabilities might lie in market structure, its physical or legal infrastructure, the underlying instruments, or the institutions acting as intermediaries."

In the post-crisis years, no jurisdiction has risen to this challenge. At the level of supervision, we have barely seen rigorous stress testing extended to clearing houses and big asset management vehicles, let alone, as ECB Vice President Vitor Constancio has envisioned, *macro-prudential stress tests of the*

---

[24] The Systemic Risk Council, Comment Letter on the U.S. Treasury Department Reports on Capital Markets and on Asset Management and Insurance (Feb. 23, 2018), https://4atmuz3ab8k0glu2m35oem99-wpengine.netdna-ssl.com/wp-content/uploads/2018/02/SRC-Comment-Letter-to-Treasury-Dept-2.23.18.pdf. .

system as a whole.[25] At the level of policy, with a few notable exceptions, including SEC policy on the liquidity of mutual funds, we seem to be stuck with a regime of monitor-and-play-catch-up-when-threats are obvious-and-hope-lobbying-power-isn't-too-great. It is a policy that, one day, will enrage the people.

Institutional implications

Part of the problem is the failure of most jurisdictions to update their market regulators' statutory mandates in the light of what was learned during the Great Financial Crisis.

There can be no doubting that market regulators are absolutely vital to maintaining a resilient US (and international) financial system. In the US, the SEC is responsible for regulating and supervising dealers in securities, central counterparties that clear securities and repos, asset management vehicles, and disclosure requirements for securities of all kinds, including asset-backed securities. The CFTC is responsible for regulating and supervising swap execution facilities, derivatives-clearing organizations, designated contract markets, swap data repositories, swap dealers, futures commission merchants, commodity pool operations, and more. Between them, therefore, they cover many of the markets and structures through which shocks to the system are propagated, and are the first line of defense in distinguishing healthy 'market-based finance' from unhealthy forms of 'shadow banking'. Neither has an overt statutory objective for the stability of the financial system.[26]

[25] Constancio, Vitor. "Macro-prudential stress tests: A new analytical tool." *CEPR Policy Portal*, 22 February, 2017.

[26] In the case of the SEC, stability can be inferred as a statutory purpose from the SEC's key governing legislation. The preamble to the 1934 Act motivates the need for the agency very broadly, including the risk of sudden and unreasonable fluctuations in the prices of securities causing alternately unreasonable expansion and unreasonable contraction of the volume of credit supplied to the economy. That captures a good deal of modern thinking about why financial stability matters, but it is not fleshed out in the body of the legislation.

Correcting that should be a priority in any legislative reforms. At the very least, it is hard to see how the US Financial Stability Oversight Council can be a long-term success when the agencies (as opposed to the individuals) around its table do not all have an unambiguous mandate from Congress to prioritize the resilience of the system.

In the UK, the powers of the Bank of England's Financial Policy Committee to issue formal Recommendations and Directions to the Financial Conduct Authority helps. But the FCA's duty to prioritize stability has to be inferred from its statutory mandate: it is not clear.

Matters are clearer with the European Securities and Markets Authority, which was created in the aftermath of the crisis. Its statutory objective is to "protect the public interest by contributing to the short, medium and long-term stability and effectiveness of the financial system, for the Union economy, its citizens and businesses".[27]

Diverse regulatory architecture and the international reform program

This brings us to our final question: *can countries rely upon each other to preserve stability when their regulatory systems vary so much?*

It seems that the rest of the world could reasonably be skeptical about whether the US's market regulators will maintain interest and focus on the resilience of intermediaries and core infrastructure. That is one of the lessons of history; and as I write, we can see it in the reluctance to develop policies for

---

[27] The legislation further stipulates that ESMA shall contribute to:

(a) improving the functioning of the internal market, including in particular a sound, effective and consistent level of regulat
(b) ensuring the integrity, transparency, efficiency and orderly functioning of financial markets,
(c) strengthening international supervisory coordination,
(d) preventing regulatory arbitrage and promoting equal conditions of competition,
(e) ensuring the taking of investment and other risks are appropriately regulated and supervised, and
(f) enhancing customer protection.

…..In the exercise of [its] tasks…., *the Authority shall pay particular attention to any systemic risk posed by financial market participants, the failure of which may impair the operation of the financial system or the real economy*." (My emphasis)

ensuring the central counterparty clearing houses could be resolved in an orderly way if and when recovery plans do not suffice.

Meanwhile, Europe needs to persuade the world that its new ECB-centered system of banking supervision can rise about the problems of industry capture in member state capitals and respond more decisively to banking system weakness.

This is a world in which it makes sense for the international soft-law standard setters to monitor the extent to which key jurisdictions are living up to their (non-binding) commitments; in which central bankers need to work hard at their relationships with market regulators; and in which concerns about problems should be aired publicly rather than set aside in the interests of harmony during financial peacetime.

Summary and Conclusions

This introduction to [Part X] has attempted to tee up discussion of a range of issues. They include:

- Whether stability policy and conduct policy should differ in the weight they give to rules as opposed to principles (standards)
- Whether courts should have a bigger role
- Whether it matters that different jurisdictions approach the imperative of maintaining financial stability with very different regulatory structures

The overall conclusions are that:

- ✓ Stability policy is different from conduct regulation, and in particular cannot safely be centered on legally binding detailed rule books enforced *ex post* by the courts

- In consequence, stability policy and prudential supervision require the continuous application of expert judgment
- But the degree of resilience demanded of the financial system as a whole should be decided by elected politicians

✓ Much has been done to improve the resilience of the core banking system
- But there is room for a more prescriptive rule-based approach to the creditor hierarchy of banks and other intermediaries in order to reduce the prospect of resolution agencies having to exercise discretion in order to contain instability when firms fail

✓ Much less has been done to improve the resilience of the financial system beyond banking
- General policies enshrined in law are needed to cater for the threats to public welfare (and political stability) from intermediation that replicates the fragility of banking outside *de jure* banks
- More attention needs to be given to how markets (and so activities and the provision of services) can be made more resilient

✓ Many jurisdictions have not done enough to reconfigure their regulatory architecture to deliver an enduringly resilient financial system
- In particular, market regulators need to be given an explicit (and, perhaps, overriding) statutory objective to preserve system stability
- Central banks need to work hard to establish cooperative relationships with market regulators
- International standard setters should monitor whether agreed standards are being implemented around the world.

No jurisdiction has delivered all of this. Some might have regulatory architecture that is more fit for purpose than others. But the priority now should be to keep politicians and the public focussed on the extraordinary costs of crises as memories of the implosion a decade all too obviously begin to fade, even as its broader consequences continue to play out.