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# Has the regulation pendulum swung too far in the banking industry?

*David Llewellyn*

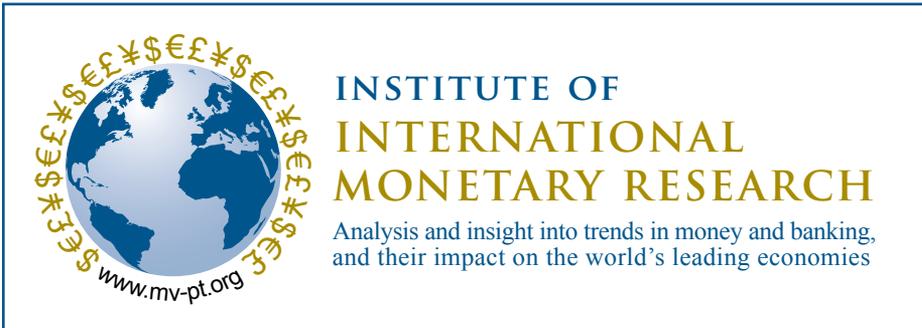


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In his 1970 Institute of Economic Affairs pamphlet on *The Counter-Revolution in Monetary Theory* Milton Friedman, who was to be awarded the Nobel prize for economics six years later, wrote,

“Inflation is always and everywhere a monetary phenomenon in the sense that it is and can be produced only by a more rapid increase in the quantity of money than in output. ... A steady rate of monetary growth at a moderate level can provide a framework under which a country can have little inflation and much growth. It will not produce perfect stability; it will not produce heaven on earth; but it can make an important contribution to a stable economic society.”

# Has the regulation pendulum swung too far in the banking industry?

*by David T. Llewellyn*

Banking crises inevitably bring forth more and different regulation of banks, and the global crisis from mid-2007 to early 2009 was no exception. There were many reasons why a comprehensive review of regulatory, supervisory and intervention arrangements was undertaken in the wake of one of the most serious banking crises ever. In particular, the crisis imposed substantial costs on tax-payers in some countries, although in others the state made sizeable profits from its liquidity support of the banking system. (Notably in the USA, often seen as the epicentre of the crisis, the various interventions by federal authorities generated profits running into the tens of billions of dollars. One estimate is that by March 2017 the profit had reached \$75.8 billion.<sup>1</sup>) The exposure of the state to possible losses in the private sector created what Mervyn King, as governor of the Bank of England, dubbed the “biggest moral hazard in history”.<sup>2</sup> Arguably, a central requirement of any regulatory reform strategy was – and remains – to limit potential claims on tax-payers and to prevent risks being shifted to them. A case can be made that too little attention had previously been given to the resolution of failed banks.

As part of the remedial agenda, credible and timely resolution arrangements for failing banks were viewed as necessary. The scope of regulation was therefore widened not only to lower the probability of bank failures, but also to limit the costs of those failures that might occur.<sup>3</sup> The aftermath of the crisis saw perhaps the biggest-ever upheaval in international banking regulation. The changes extended to more aspects and components of bank balance sheets, and also were more intensive and detailed in application, than earlier reform attempts. Not only were rules on capital provision and liquidity cover tightened up, but changes in the regulatory architecture added new institutions and supervisory procedures. Banks have become subject to newly rigorous stress testing of their capital adequacy, as well as greater official scrutiny of internal risk models. Consequently, extra supervisory paper-work and reporting requirements have been imposed. The introduction of so-called “living wills”, and of structural measures such as ring-fencing between the subsidiaries of bank holding companies, has taken regulation in new directions.<sup>4</sup>

A by-product of the reforms has been a revolution in the lexicon of regulation. Discussions of public policy-making towards the banking sector now include such phrases as “common equity tier 1 (CET1)”, which must be not less than 4½ per cent of the sum of risk assets (compared with a pre-crisis figure of 2½ per cent), “pillar 2A capital”, the level of which is at national supervisors’ discretion for idiosyncratic risks, “total loss absorbing capacity”, “the capital conservation buffer”, “counter-cyclical capital buffer” and so on. A major change has been the introduction of a leverage ratio requirement in order to limit the extent to which banks are able to raise total assets, both risky and riskless, relative to equity capital. That has been on top of the regulations that have traditionally focused on the capital needed against risky assets, assessed by means of the Basel rules’ risk-weighting system. Furthermore, the risk-weighted approach itself has been

recalibrated and become more granular. Roughly speaking, the equity capital that banks need nowadays to cover a representative unit of risk assets is 50 to 75 per cent higher than before the 2007 – 09 crisis.

The regulatory pendulum has had a long history, as bank regulation has varied in ambition and complexity over the decades. The variations can be explained in part by the bargaining and lobbying power of regulated institutions, as they seek to minimise regulatory costs. Prevailing ideology also has a role, with ever-changing views about the relative effectiveness of free markets and regulatory institutions in securing and maintaining market integrity. The philosophy of public policy in the years running up to the crisis was dominated by rational expectations and efficient markets paradigms. These paradigms were not only supported in mainstream academia, but also respected by practitioners in banks, central banks and regulatory agencies, and (in some countries) even by politicians. They spawned the “light touch” approaches to regulation seen in much of the advanced world, notably the USA and the UK, often understood to represent “Anglo-Saxon capitalism”. These approaches have been dramatically reversed since the 2007-09 crisis.

This paper is intended to question whether the new regulatory regime for banks implies excessive regulation, with attendant and unnecessary costs. The chapter considers two strands of the argument,

- the ever-present potential for “over-regulation”, and
- the need for the regulation of particular institutions to be proportional to the economy-wide (or “systemic”) risks posed by delinquencies in the privately-owned, profit-seeking financial sector.

With respect to the former, the chapter identifies several pressures that tend towards over-regulation; with respect to the latter, it borrows from a 2015 report of the European Union’s Banking Stakeholder Group and surveys five dimensions of proportionality. A subsequent section asks whether public policy should focus on reducing the probability of bank failure or the costs of resolving failures as they occur. The conclusion emphasizes the continuing relevance of market pressures and incentives to good management decision-taking, and urges that regulation reinforces the positive effects of these pressures and incentives. But first the chapter proposes a social cost-benefit framework, since an assessment of financial regulation – like that of any activity in modern business – needs to recognise the standard criteria of welfare economics.

## **I. A social cost-benefit framework**

Regulators can be conceptualised as the suppliers of regulatory services. As has been widely discussed since the Great Financial Crisis, banks’ operations can give rise to externalities, which are to be understood as divergences between the costs and benefits of their actions to society, and the costs and benefits to themselves (that is, their shareholders and managements, in particular). For example, when an individual loss-making and under-capitalised bank suffers a run on its cash, doubts about its survival may affect its creditors. Via the inter-bank market, these creditors may include other banks which are profitable and well-capitalised. As confidence weakens and the run spreads to them, it disrupts their business, even though they have been well-managed,

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and operate with high-quality assets and ample capital reserves. To the extent that regulation can pre-empt the self-feeding contagion that characterizes cash runs, it can avoid the costs of this kind of externality.

More generally, it was widely alleged during and after the Great Recession that irresponsible decisions by many banks, particularly large or “systemically important” banks, had undermined confidence in bank solvency and led to the freezing of the international inter-bank market in August 2007. The freezing of the inter-bank market was in turn said to have been at least one cause of the subsequent falls in the stock market, and weakness in aggregate demand and output. The argument was given greater credibility by the traumatic events of September 2008, when Lehman Brothers failed, the AIG insurance group lost its market funding, and the viability of the major American mortgage guarantee agencies (the Federal National Mortgage Association, or “Fannie Mae”, and the Federal Home Loan Mortgage Corporation, or “Freddie Mac”) came into question. By implication, misjudgements by private sector agents in the banking system can be a causative factor in macroeconomic instability. Again to the extent that regulation can prevent bank insolvencies and the disintegration of financial confidence, it can mitigate – or even prevent – the costs of a dangerous externality. As argued by Jaime Caruana in influential papers, regulation has a “systemic stability dimension”.<sup>5</sup>

On the other hand, financial regulation has costs. Most obviously, the regulatory institutions employ staff and occupy buildings, and the staff costs, rent and related expenditures have to be covered somehow. Levies on transaction flows are one method, but the costs then fall predominantly on the consumer. Further, inside banks and other financial institutions senior management has to spend time understanding what regulations mean and to ensure that regulatory requirements are met. For big organizations teams of compliance officers may be needed, with the staff costs, rent and other expenditures now being incurred in the private sector.

But less apparent potential costs of regulation, some with a systemic dimension, also need to be mentioned. As noted in a later paper, economics has not have a definitive theory on the optimal ratio of bank intermediation to national output.<sup>6</sup> But a significant literature has seen “financial deepening” – to adopt a term advanced by Edward Shaw in a 1973 book – as an important ingredient in economic development.<sup>7</sup> A hallmark of “financial deepening” is that the ratio of banks’ assets and liabilities to national output increases over time, where this effect is benign when banks are financing commercial activity and taking risks. Unfortunately, when regulation enforces a higher capital-to-asset ratio on the banking industry than the industry would itself choose, an almost certain result is a reduction in the ratio of banks’ risk assets to national output. If the fall in the ratio of banks’ risk assets to national output is viewed as a departure from the social optimum, bank regulation has a cost to society.<sup>8</sup>

The debating points here have been widely rehearsed since the Great Recession: this is not the place to offer adjudication.<sup>9</sup> Nevertheless, it is inescapable that regulation has costs as well as benefits. Any balanced appraisal must remember the possible inefficiencies that regulatory intervention may engender in market processes. Crucial is a comparison of the costs of the market failures suffered in an unregulated environment with the costs of regulation, assuming that regulation can in fact alleviate the market failures.

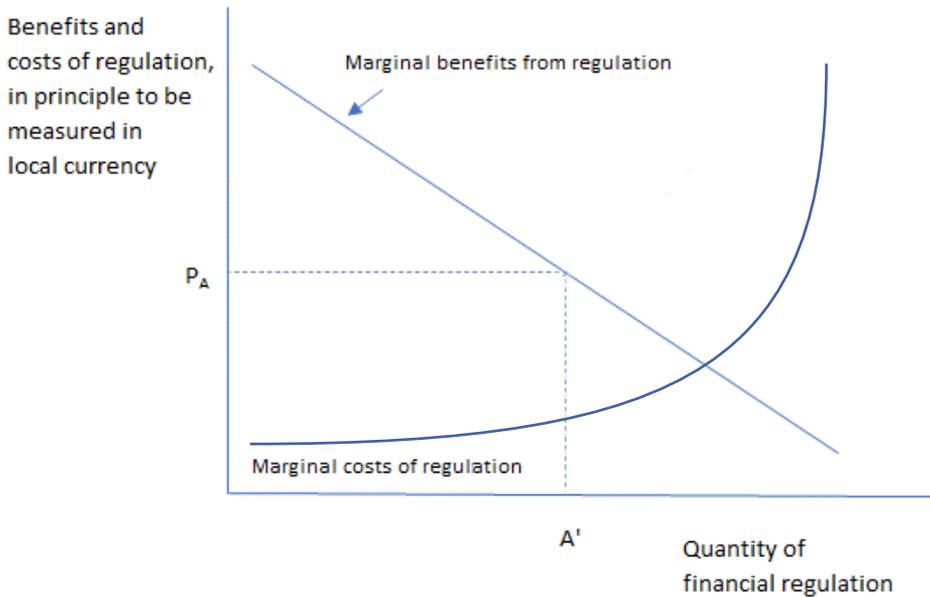
Undoubtedly, one danger is that regulation is subject to diminishing returns as more resources are committed to it. The benefits of the regulatory effort are most evident in its early stages, and may peak or even decline after a certain point is reached.<sup>10</sup> The situation can be represented diagrammatically, with an optimal point being reached when the marginal cost and benefit of regulation are equal. (See Figure 1.) If the banking industry is deemed to be at or close to that optimum at present, care must be taken about extra regulation. The logic of the situation – with the marginal benefit of regulation falling as the quantity of it is increased, and the marginal cost rising as diminishing returns set in – is that regulation can be taken too far.

In attempting to characterise and reach the social optimum, policy-makers confront two problems that seem to be specific to regulation. The first is that regulation absorbs resources and so has a cost, but it is not supplied through a market process. The absence of market forces prevents stakeholders from expressing “demand”, or the lack of it, in the sense understood by economics textbooks. No “demand curve” for regulation, with price varying with the quantity “consumed”, is readily identified or even perhaps conceptualised. More bluntly, regulation has a cost, but no price. Observers may view it falsely as a “free good”, with a consequent tendency for it to be both over-demanded by articulate, but only marginally affected stakeholders, and over-supplied by risk-averse regulators. The imperfection of the situation may seem to justify the scope and content of regulation being determined by a “benevolent dictator”, with the dictator taking the shape of a regulatory agency answerable to the legislature and the government bureaucracy. The legislature, the bureaucracy and indeed the agency itself can respond to lobbying and public opinion, but they are not market participants. As is well-known, the thinking of politicians and government officials is susceptible to, or may even be dominated by, the “availability heuristic”. This can be regarded as a tendency to dramatize the significance of well-publicized events and recently experienced problems that are prominent in “the news”. In the words of the psychologist Jonathan Haidt, as quoted in Daniel Kahneman’s *Thinking, Fast and Slow*, “The emotional tail wags the rational dog.”<sup>11</sup> The sequel is for regulatory agencies to over-respond with new initiatives. Indeed, regulation seems to have an inherent bias to over-expand, a subject which deserves a section of its own.

## **II. The bias for regulation to over-expand**

When a particular regulatory problem emerges, the instinct of a regulator is often to respond by creating new rules. However, serious problems can arise from an incremental rules-based approach. Risks are often too complex to be covered by simple rules. Perhaps not surprisingly, a prescriptive approach then emerges with a tendency towards “rules escalation”. Rules are added over time, but few are withdrawn. Moreover, an inflexible approach based on a detailed rule-book has the effect of impeding firms from choosing their own least-cost way of meeting regulatory objectives. A prescriptive regime tends to focus upon firms’ processes rather than outcomes, with the ultimate objectives of regulation being forgotten. The rules may become compliance officers’ centre of attention rather than the objectives they are designed to achieve; they can give rise to a culture of “box ticking” by regulated firms, with the letter of the regulation being obeyed, but

Figure 1: The costs and benefits of financial regulation



Financial regulation can in principle be analyzed with standard welfare economics criteria. The marginal cost per unit of regulation can be understood to increase with the quantity enforced and administered, and the marginal benefit to decrease. The optimum quantity of financial regulation ( $A'$ ) in the diagram is then identified as that at which the marginal cost of supply rises and becomes equal to marginal benefit. However, the notions of the 'price' of financial regulation, and of a 'market' in financial regulation, are notional and elusive.

not the spirit or intention. Paradoxically, the proliferation of rules may blunt the power of other mechanisms in the regulatory regime and, in the process, reduce its overall effectiveness.

Regulatory strategy conventionally assumes that problems to be addressed – notably, excessive risk-taking by banks – are exogenous to the regulatory process. Unacceptable behaviour is observed and taken to be “a given”. A regulatory response is organized to deal with it, specifically, to reduce the probability of it happening. However, behaviour is *not* a given. It adjusts both to regulation as currently stated and as a pre-emptive anticipation of expected future regulation; it is endogenous to regulation, at least to that extent. Perhaps unfortunately, it is notorious that financial innovation in banking sometimes seeks to circumvent regulation. There is a clear symbiotic relationship between bank business models and regulation: the two are interactive and causation operates in both directions. One might even talk about an “endogeneity paradigm” to describe the evolution of regulation. The endogeneity problem is likely to raise the cost of effective regulation because it both engenders a rules-escalation strategy and increases complexity.

In 1987 Edward Kane suggested the term “regulatory dialectic” to characterise the cat-and-mouse interactions between the regulated and their regulators.<sup>12</sup> Banks may be prohibited from adopting a particular path to achieving their objectives, but this merely creates an incentive to find an alternative route. Over multi-decadal horizons financial regulation in the USA has seen cycles in which regulation and restriction give way, perhaps a generation or more later, to deregulation and liberalization. The tightening of regulation that followed the Great Depression of the early 1930s was followed over 40 years later by a wave of liberalization in the 1980s and 1990s, and that wave has in turn been followed by a tightening of regulation since the Great Recession of 2008 and 2009. Given these cyclical fluctuations, which admittedly can play out over generations, it has to be wondered whether a regulatory “steady state” will ever be achieved or that an optimal outcome is in sight.

On the other hand, practitioners in profit-seeking financial businesses may become so weary with the cat-and-mouse game that they cease to compete hard and to pursue the best course of action, for either their customers or their shareholders. Detailed and extensive rules can stifle innovation. Official balance-sheet rules may respond to events several years ago, and fail to keep up with the latest technologies and institutional advances. A prescriptive rules-based approach may in practice prove to be inflexible and not sufficiently responsive to market conditions. An example is provided by the growth of financial futures, after the Chicago Mercantile Exchange introduced contracts on the S & P 500 in 1972. Financial futures enabled banks to hedge risk at lower cost than before, and hence to operate with different risk exposures relative to capital. It also helped banks to write derivatives to their own customers and to close down almost immediately most of the related risks. Regulation needed to adjust to the new reality. In the extreme, undue and burdensome regulation of the banking industry may not only unduly increase the costs charged to banks’ customers, but also even undermine their basic function as financial intermediaries. Whilst banks may become safer, their ability to meet society’s need for banking services may be compromised. For some customers the disadvantages of tighter bank regulation may outweigh the benefits. (See the next section for a discussion of the contraction

in bank lending to Eurozone companies that followed the post-2008 regulatory shake-up. It can also be shown that in the UK the ratio of bank lending to unincorporated businesses collapsed, both in nominal amount and relative to national income, as the Basel III rules on solvency were taking effect.<sup>13</sup> In the USA bank credit to the private sector declined relative to gross domestic product from late 2008.<sup>14</sup>)

The process of regulatory arbitrage highlights the nature of the problem. Regulatory arbitrage emerges, as businesses migrate what they regard as over-regulated activities to locations less subject to regulation or not even regulated at all. This migration can be geographical, to a different jurisdiction, or it can involve a blurring of legal categories within the same jurisdiction as an activity is conducted under a new label in an unregulated part of the economy. All too often regulation is shooting at a moving target, as the target moves partly because of regulation itself. The situation has been described well by Haldane in his remarks to a 2012 conference. To quote, “Risk migrates to where regulation is weakest, so there are natural limits to what regulatory strategies can reasonably achieve.”<sup>15</sup> The interplay between regulation and conduct is reflected in the history of the Basel bank capital rules. The original Basel regime established in 1988 was revised in Basel II and again in 2010 in Basel III. The Basel II bank capital regime was hailed at its publication in 2004 as a decisive breakthrough, in that capital weights were adjusted more closely to risk than under Basel I. However, it created incentives for banks to remove assets from their balance sheets by means of securitisation and for the associated creation of “structured investment vehicles” (SIVs). The SIVs could make loans or purchase newly-issued securities, activities that were in effect “bank credit”, but the credit was not – in a strict legal sense – from a bank. This pattern, along with the proliferation of other off-balance sheet vehicles and the use of credit risk-shifting derivatives, led to excessive gearing. The over-gearing was a salient and disreputable feature of the banking crisis.<sup>16</sup> Evidently, the detailed regulation at the time did not prevent the crisis and perhaps even, to some extent, contributed to it.

The successive adjustments to the Basel rules can be seen as steps towards the “perfect model” (“Basel N”), as they correct for past errors. An alternative interpretation is that there are inherent fault-lines in the regulatory process, because banks will forever engage in regulatory arbitrage. To propose that that “regulators are always behind the curve” is not to pass adverse judgement on the current generation of regulators, but to offer a sceptical comment on the entire regulatory endeavour. In truth, the long series of adjustments to bank regulation in the last 300 years over time has not solved the problem of periodic crises. Unless regulation becomes grossly repressive, regulatory arbitrage will be a feature of bank business models. There must be limits to what regulation can achieve. If intervention in business processes is too ambitious, regulatory escalation and regulatory arbitrage may spiral out of control. The extent of regulation needs to be proportional to the problems it is meant to solve.

### **III. The need for proportionality in regulation**

The severity of the Great Recession of 2008 and 2009 discouraged early criticism of the consequent regulatory upheaval. But the passage of time has caused some rethinking, notably

in the EU. Figure 2 shows the ratio of banks' claims on non-financial and financial corporations to Eurozone GDP.<sup>17</sup> The introduction of the European single currency in 1999 represented a major liberalization of the banking system in some member states, leading for several years to growth in bank balance sheets that was faster than the growth in national output. Bank credit to companies, in particular, increased relative to GDP, and arguably contributed to improved corporate efficiency and rising economy-wide productivity. Perhaps here was an example of Shaw's "financial deepening". As the tightening of bank regulation took effect in late 2008, the initial response may have been some drawing down of credit lines while they were still available. The ratio of bank credit to companies relative to GDP peaked at just over 60 per cent in the first quarter of 2009. By raising the capital requirement for risk assets, the implementation of the Basel III rules was thereafter accompanied by a fall in banks' holdings of such assets, again relative to GDP. By 2017 the ratio of bank credit to companies relative to GDP had dropped by over a fifth, to under 48 per cent.

The contraction of bank credit agreed with the advocacy of "deleveraging", a theme in official post-crisis rhetoric. But it necessarily involved the closure of some specialized bank departments, where risk was viewed as excessive, such as private equity financing, and shipping and aircraft leasing.<sup>18</sup> On the face of it, "financial deepening" went into reverse. (Lending to households for house purchase was less affected by the tightening of regulation. See Figure 3.) As all aspects of economic activity are directly or indirectly affected by the banking system, bank regulation had ramifications well beyond the banking sector itself. In October 2013 the EU Board of Bank Supervisors appointed the Banking Stakeholder Group as part of the European Banking Authority, with its 30 members intended to represent a range of stakeholders, including shareholders and management. In autumn 2015 the European Commission issued a working paper on *Better Regulation Guidelines* which urged that EU regulations should be "qualitatively different from any other model of collective governance in the world", with "every single measure in the EU's rulebook" being "fit for purpose, modern, effective, proportionate, operational and as simple as possible".<sup>19</sup> In 2016 the BSG published its report on *Proportionality in Bank Regulation*.

In the report's first sentence the BSG says that it wants "to emphasise at the outset that it is in no way antagonistic to regulation". All the same, the notion that regulation should be "proportionate" implies that it might in some circumstances become disproportionate. Indeed, the report is forthright in asserting that disproportionate regulation could result in unsatisfactory outcomes, for example, by inhibiting small banks from providing finance to the real economy to support innovation and growth. It identifies five pillars of proportionality:

1. *Objectives*. Each and every regulation should say what objective is being sought, and not be disproportionate in relation to it. By mentioning this pillar the BSG was in effect asking that a cost-benefit analysis should be conducted for every regulation.
2. *The totality of regulation*. A regulation might seem to make sense by itself, but a large number of apparently desirable regulations may mean that the totality of regulation is disproportionate for the key regulatory objectives. Cost-benefit analysis should again be applied, and it should be related to the total of regulation, and to all relevant costs and

benefits.

3. *Excess complexity.* Regulations should not be excessively and unnecessarily complex for the attainment of their objectives. If less complex regulations can meet objectives with the same effectiveness, they should be preferred.
4. *Differentiations.* Regulations ought to differentiate between different types of banks, since imposing similar requirements (the “one-size-fits-all” syndrome) on small and large banks may result in undesirable effects. Small banks cannot spread overheads – such as the fixed costs of a regulatory compliance department – as easily as large banks.
5. *Materiality.* Regulations of certain activities are sometimes applied to institutions that are not involved in the activities, or are only marginally involved in and slightly affected by the activities’ risks. Activities need regulation only when they are material to banks’ businesses.

Inevitably, there is some overlap among these five dimensions. Yet each of them deserves analysis, with the BSG report giving several examples – for all of the pillars of proportionality – where the principle of proportionality has been infringed in EU practice. The appeal to proportionality as a criterion for determining the extent of regulation reminds everyone affected that regulation has costs as well as benefits. As in other areas of economic policy, costs and benefits must be balanced, and the optimum is breached when marginal costs run ahead of marginal benefits.

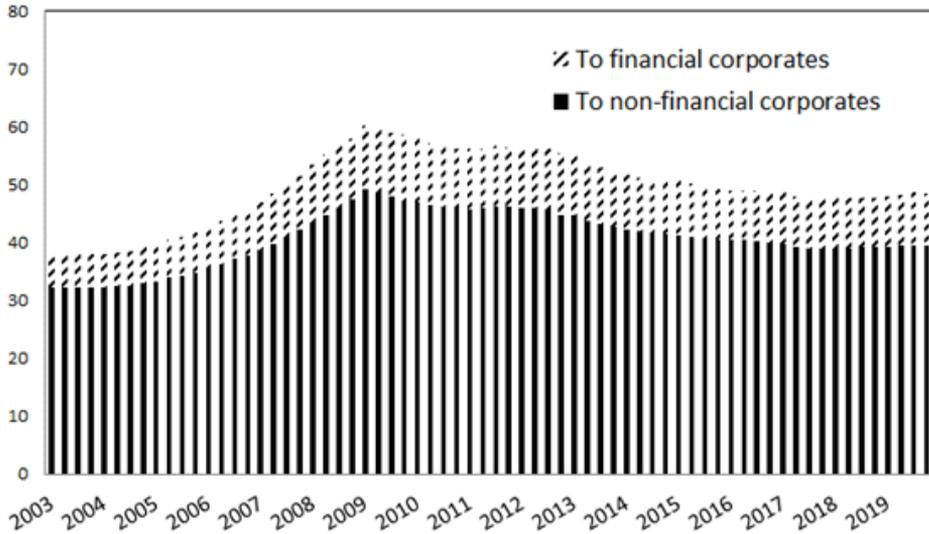
#### **IV. Probability and cost of bank failures: a trade-off?**

At the outset of this paper two core objectives of a regime of bank regulation were identified, to lower the probability of bank failures (objective 1) and to reduce the costs of those bank failure (objective 2) that do occur. In practice, a blend of the two approaches is needed. The debate is about the appropriate weight to be given to these two important dimensions of banking regulation. Clearly, if failed banks can be resolved with little cost to society, less effort needs to be invested in preventing bank failure altogether. However, as already discussed, the endogeneity problem is likely to raise the cost of regulation for living and successful banks, because it engenders a rules-escalation process. Given that there is a risk that the costs of regulation designed to lower the probability of bank failure rise and become disproportionate, the trade-off between objectives 1 and 2 changes in favour of minimising the cost of resolving failed banks. Of course, if the social costs of bank failure could be reduced to zero, the probability of failures would be of little concern, there would be no potential taxpayer liability, no need for bail-outs, no moral hazard attached to bail-outs and indeed no need for regulation to reduce the probability of bank failures!

It was noted in the opening discussion that the social costs of bank failures arise through a range of externalities. These may be incurred across the whole economy, as in Caruana’s discussion of the “systemic stability dimension”, but further talking points are the potential cost to taxpayers called upon to finance rescue operations, and the threat to deposit insurance funds from large-scale and costly bank failures. Customers – both depositors and borrowers – may also

**Figure 2: Bank credit to the corporate sector in the Eurozone, 2003 - 2019**

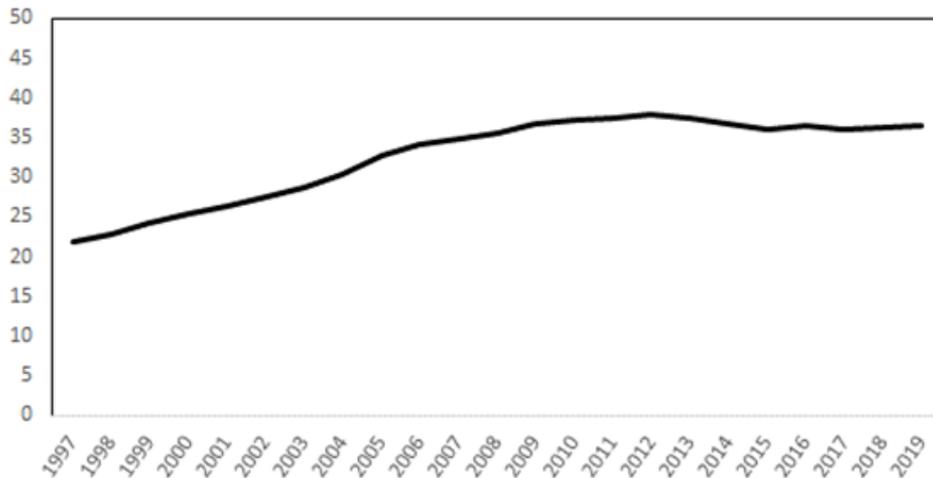
Data show % ratio of bank loans to GDP and are quarterly



Bank credit to companies increased relative to output in the Eurozone in the first decade of the single currency, with the euro's introduction representing a major financial liberalization in several member states. But the tightening of regulation after the Great Recession, notably with the Basel III capital rules, contributed to a fall in the ratio of bank credit to companies to GDP from the first quarter of 2009. (Data are from the European Central Bank website.)

**Figure 3: Loans for house purchases in the Eurozone, 1997 - 2019**

Ratio of loans for house purchase to GDP, %, end-year values



Mortgage credit, like bank credit to companies, increased relative to output in the Eurozone in the first decade of the single currency. However, in some countries - such as Ireland - the boom in mortgage credit was associated with speculative excesses. The change from the Basel II to the Basel III capital regime had less effect on mortgage lending than on lending to corporates. The ratio of loans for house purchase to Eurozone GDP was much the same at the end of 2019 (36.6%) as it had been a decade earlier at the end of 2009 (36.8%). (Data are from the European Central Bank website.)

suffer if banking services are disrupted amid macroeconomic uncertainty. Only in an extreme and unrealistic world, almost of an *Alice in Wonderland* utopia, could this assortment of costs be cut to zero. At any rate the discussion serves to illustrate the nature of a possible trade-off latent in the regulatory regime. The trade-off between the two dimensions is critical to decisions about the optimal intensity of regulation.

Historically, the focus of regulatory regimes has been on reducing the probability of failures rather than minimising the costs of failures once they have happened. Indeed, in many countries the second issue has been addressed in a serious way only since the recent crisis. For instance, the UK adopted a Special Resolution Regime in 2009 in the context of the previous absence of any special insolvency arrangements for banks, and weak and ill-defined institutional arrangements for dealing with failing institutions. The EU has also responded since the crisis in its 2014 Bank Recovery and Resolution Directive. A major development has been the establishment of the “single resolution mechanism” across the Eurozone, under the aegis of the ECB and in association with its “single supervisory mechanism”. The specific purpose of the SRM, which is the second pillar of the banking union, is to ensure an orderly resolution of failing banks with minimal costs for taxpayers and to the real economy. EU legislation and the latest version of the Basel capital accord may not be identical, but they share common ground. For example, they both include provisions that, if the supervisor judges it to be necessary, banks with inadequate equity capital must be able to transform parts of their debt capital into equity. This in turn requires some banks to issue convertible debt with the appropriate characteristics.

The absence of clearly-defined and credible resolution arrangements was an unsustainable feature of the pre-crisis environment that needed to be corrected. The crisis showed that new structures were needed to allow banks to fail without aggravating systemic instability. In the past a perhaps disproportionate emphasis had been given to reducing the probability of bank failures, Objective 1; in future more attention needs to be paid to limiting the social cost of such bank failures as do occur, Objective 2. Optimal regulation for Objective 1 cannot be determined independently of the arrangements for Objective 2. A strategic (or “holistic”) approach is required, to achieve the right balance between these two core objectives.

## **V. Conclusion: regulation should work with the market**

Over the last decade the post-crisis debate on regulation has been all-pervasive in the banking industry. Participants in the debate have perhaps forgotten that the market itself imposes pressures and incentives for good management decision-taking. The incentive structures and moral hazards that confront decision-makers – including not just bank owners and managers, but also banks’ depositors and borrowers – are central in the regulatory regime. To the extent that they can, regulators must monitor internal management processes and sometimes create appropriate incentives within the banking organizations on their watch. Decision-taking by all stakeholders must be consistent with the safety and soundness of particular financial institutions, and hence with overall systemic stability. At the same time, regulators must appreciate the danger of blunting the incentives of other agents – such as the rating agencies, depositors, shareholders

and inter-bank creditors – to discipline and restrain the banks. The position was well described by Schinasi *et al* over 20 years ago. In their words, “Policy makers are therefore faced with the difficult challenge of balancing efforts to manage systemic risk against efforts to ensure that market participants bear the costs of imprudent risk-taking and have incentives to behave prudently.”<sup>20</sup> They argue that official regulation and supervision overlay the pattern of market incentives faced by bank decision-makers. The more emphasis is given to detailed, extensive and prescriptive rules formulated *by outsiders*, the weaker might be the role of incentive structures, market discipline and corporate governance arrangements *inside* financial firms.

If incentive structures are badly designed, in the sense that they motivate private gain without respecting the possible wider social costs, regulation resembles pushing water uphill. Several types of misguided incentivisation are to be found in the banking industry. Rewards can be based on the volume of business undertaken, regardless of risk; internal control systems may be defective, with insufficient information technology back-up having the result that risk concentrations are not spotted in time; loan officers’ decisions may not be subject to sufficient oversight and monitoring; profit-sharing schemes may unfairly favour risk-takers and fail to punish those responsible for losses. From another perspective, fund managers and analysts in capital markets may be unduly impressed by profit gains in the short run, where these have been bought by ill-advised cost-cutting and under-investment in the future.

More generally, reward systems based on short-term profits can be hazardous if they induce managers to pay less attention to the longer-term risk characteristics of their decisions. High staff turnover, and the speed with which officers are moved within the bank, may undermine accountability for a bank’s strategic direction and again tempt managements into excessive risk-taking. Notoriously, financial markets are characterised by “herd behaviour”, with participants confident that they will not be blamed for mistakes if their rivals and counterparties are behaving in exactly the same fashion. Most fundamentally, too many banks tend to copy what others banks are doing, with reward structures which focus on short-term profitability and have a bias to excessive risk-taking.

The regulator should therefore constantly assess the impact its own rules have on regulated firms’ incentive structures; it must check whether regulation might have perverse effects and worsen management incentives. Supervisors need to consider the incentive properties of compensation schemes within banks, particularly the extent to which they encourage (or discourage) behaviour that accords with prudential guidelines.<sup>21</sup> A large academic literature is concerned with so-called “asymmetric information” in banking. But remuneration systems may suffer instead from an “asymmetry of rewards”, in that managements have limited downside risk, but high upside potential for risky bets that go well. The danger has to be that senior executives indulge in excessive risk-taking. The management challenge was effectively described by Laura Kodres, an economist at the International Monetary Fund, in a 2008 article:

Unless the governance structure within major financial institutions changes so that both risk and business line managers have equal weight in senior management’s eyes, senior managers are unlikely to pay sufficient attention to the risk part of the risk-reward trade-off. Ideally, traders should be rewarded on a risk-adjusted basis and managers on a cyclically-adjusted basis.<sup>22</sup>

Without doubt, reward structures can become a supervisory issue. As the Great Financial Crisis and its sequel showed, central banks and regulatory agencies can in the extreme interfere with top management pay, and even the terms of payment incentive schemes and arrangements. The schemes and arrangements are – quite properly – designed to encourage managements to work hard, to take good decisions, and to generate profits and dividends for shareholders. All the same, they must not imperil systemic safety.

A central theme of this chapter has been that regulatory reform needs to be *strategic* rather than *incremental*. An incremental approach can call to easily culminate, via the endogeneity paradigm, in wasteful and expensive rules escalation. Our discussion of bank failure argued that reform needs to remember both Objective 1 (to reduce the *probability* of bank failures) and Objective 2 (to lower the *social cost* of failures). Historically, the focus of the regulatory regime has been on reducing the probability of failures rather than minimising their costs, while the pursuit of Objective 1 has been beset by a tendency for regulation to over-expand. In many countries the second issue has only been addressed in a serious way since the Global Financial Crisis of 2007 – 09. We have argued that, partly because of the undue risk of rules escalation in pursuit of Objective 1, more emphasis needs to be given to credible arrangements to lower the social costs of bank failures.

Nevertheless, regulation – even when appropriately structured and targeted – can never be an alternative to market discipline. After all, the biggest losers when banks go bust are their owners. Ideally, market discipline needs to be reinforced within the regime: it was the third of the three pillars in the Basel II rules and remains that in the Basel III successor. In fully-developed financial systems the monitoring of bank behaviour is not unique to specialist official agencies, even though it provides their rationale and *raison d'être*. Market participants have equally compelling reasons to watch what their rivals and counterparties are doing, and the discipline they impose can be as powerful as any sanctions from the regulators. Market discipline works through at least three channels – prices, quantities and awareness of triggers for official supervisory intervention. As for price, banks that take too much risk are punished by increased credit spreads on their wholesale funding and bond issuance, plus falls in their share prices and consequent rises in the cost of their equity capital. On quantity, the ability of badly-run banks to issue large amounts of paper to capital markets is of course compromised relative to those that are well-run, while a cash run on deposits is the harshest and most fundamental quantitative constraint imaginable on any bank's operations. Triggers come into play when capital markets are aware that central banks and regulators may take action if certain benchmarks are breached. For example, banks' market capitalisations usually fall if it is known that they have failed regulatory stress tests. There is two-way interaction here. Regulators and supervisors can and should use market signals as information sources upon which to base their own decisions, and sometimes to justify intervention.

It is in the interests of efficient regulation to strengthen the procedures whereby financial firms monitor each other and to ensure that they work in parallel with official agencies. Large creditors in the wholesale markets – which may include other banks with positive net inter-bank positions – have the resources, expertise and knowledge to follow trends and to enforce market discipline.

## Has the regulation pendulum swung too far in the banking industry?

Moreover, as the information held by market participants in the private sector is dispersed and heterogeneous, they all have an incentive to be sharp, alert and well-informed relative to their competitors. As Hayek observed over half a century ago, competition can be interpreted understood as “systematically...a procedure for discovering facts which, if the procedure did not exist, would remain unknown or at least would not be used”.<sup>23</sup> By contrast, the official supervisory bodies that monitor banks operate at one remove and are usually monopolists. They tend to have less than perfect and complete information, and rely on blunt incentives that are not based on the profit motive. It has been noted that:

Broader approaches to bank supervision reach beyond the issues of defining capital and accounting standards, and envisage co-opting other market participants by giving them a greater stake in bank survival. This approach increases the likelihood that problems will be detected earlier...[it involves] broadening the number of those who are directly concerned about keeping the banks safe and sound.<sup>24</sup>

The international inter-bank market has been criticised as disappointingly weak and slow in reacting to the excesses in US housing finance in the run-up to the crisis. On the other hand, it did eventually – from August 2007 – differentiate between banks that had taken too much risk and those that had behaved prudently. Market institutions – such as the ratings agencies – may have underestimated the emerging risks. But on the whole central banks and the regulatory agencies also had been complacent about dangerous practices in US mortgage origination in the early years of the 21st century.

After a costly crisis, it is inevitable that strong public and political pressure will emerge for more intensive regulation. Whereas the 1980s and 1990s were decades of liberalisation of banking markets and operations, the period since 2008 has seen tighter financial regulation in general and significantly tighter regulation on banks in particular. Undue veneration of market forces seems to have given way to excessive faith in regulation. In this “pendulum effect”, the pendulum may swing alternately too far in both directions. The 2015 *Proportionality in Bank Regulation* report from the EU’s Banking Stakeholder Group was surely right to suggest that the time had come to take stock of how regulation has evolved since the crisis. Changes to the regulatory regime have been enormous. With respect to EU regulation, the European Commission has now recognised that “the entire stock of EU legislation” needs to be kept under review.<sup>25</sup> The main focus of any such review should be whether the new regime, with all the details and rigour it contains, is proportionate to the objectives being sought.

- <sup>1</sup> Eric Posner *Last Resort: the Financial Crisis and the Future of Bailouts* (Chicago and London: University of Chicago Press, 2018), p. 52.
- <sup>2</sup> Mervyn King, Speech to Scottish Business Organizations, October 2009: available at [www.bankofengland.co.uk/publications/pages/default.aspx](http://www.bankofengland.co.uk/publications/pages/default.aspx)
- <sup>3</sup> David Llewellyn ‘A post-crisis regulatory strategy: the road to Basel N or pillar 4?’, in Andreas Dombret and Otto Lucius (eds.) *Stability of the Financial System: Illusion or Feasible Concept?* (Cheltenham: Edward Elgar, 2014).
- <sup>4</sup> In its *Report and Recommendations of the Cross-Border Bank Resolution Group*, issued in March 2010, the Basel Committee on Banking Supervision described a “living will” as a plan to maintain the institution as a going concern in times of severe financial distress. (See Basel Committee on Banking Supervision *Report and Recommendations of the Cross-Border Bank Resolution Group* [Basel: Bank for International Settlements, 2010]).
- <sup>5</sup> For more on the concept of “systemic risk”, see ‘Systemic risk: how to deal with it?’, a research paper by Jaime Caruana published under the auspices of the Bank for International Settlements, 12 February 2010, and available at <https://www.bis.org/publ/othpo8.htm>.
- <sup>6</sup> See Tim Congdon *How have changes in financial regulation affected UK bank credit since the Great Financial Crisis?*, Institute of International Monetary Research papers (Buckingham: IIMR), no. 9 (August 2021).
- <sup>7</sup> The usual reference is Edward Shaw *Financial Deepening in Economic Development* (Oxford: Oxford University Press, 1973). A substantial literature on the relationship between growth and financial development has emerged. See, for a leading example, Asli Demirgüç–Kunt and Ross Levine *Financial Structure and Economic Growth: A Cross-Country Comparison of Banks, Markets and Development* (Cambridge, USA: MIT Press, 2004).
- <sup>8</sup> A direct relationship between the real money stock (that is, the level of banks’ deposit liabilities in real terms) and the capital/output ratio is proposed in Ronald McKinnon *Money and Capital in Economic Development* (Washington: Brookings Institution, 1973). See, particularly, chapter 6, pp. 55 – 68, on the complementarity between money and physical capital.
- <sup>9</sup> The banking system has been criticized as being to blame for the Great Recession, in a large literature on the dangers of so-called “financialization”. See, for example, Turan Subasat *The Great Financial Meltdown: Systemic, Structural or Policy Created* (Cheltenham, UK, and Northampton, USA: Edward Elgar Publishing, 2016). In the index to this book, the word “financialization” has 44 entries.
- <sup>10</sup> If the marginal costs incurred by regulatory institutions and in compliance exceed the marginal benefits of regulation, net marginal benefit is of course negative.
- <sup>11</sup> Daniel Kahneman *Thinking, Fast and Slow* (London and New York: Allen Lane, 2011), p. 140.
- <sup>12</sup> The phrase was introduced in Edward Kane ‘Interaction of financial and regulatory innovation’, *American Economic Review*, vol. 78, no. 2, *Papers and Proceedings of the One-Hundredth Annual Meeting of the American Economic Association* (May 1988), pp. 328-334.

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- <sup>13</sup> See, again, Congdon *How have changes in financial regulation affected UK bank credit...?* Institute of International Monetary Research papers, no. 9.
- <sup>14</sup> See Steve Hanke 'The Basel rules and the banking system: an American perspective', pp. 164 – 77, especially pp. 167 -8, in Tim Congdon (ed.) *Money in the Great Recession* (Cheltenham, UK, and Northampton, USA: Edward Elgar Publishing, 2017).
- <sup>15</sup> Andrew Haldane 'The contribution of the financial sector – miracle or mirage', speech at the Future of Finance Conference, London, July 2012. Available at <https://www.bis.org/review/r100716g.pdf>. The quotation is from p. 14.
- <sup>16</sup> See David Llewellyn *The Global Banking Crisis and the Post-Crisis Banking and Regulatory Scenario*, Topics in Corporate Finance, Amsterdam Centre for Corporate Finance, University of Amsterdam, October 2010.
- <sup>17</sup> The data on bank lending is obtained from Table 5.3 of the ECB's *Economic Bulletin* and the ECB database. At December 2020 Eurozone "monetary financial institutions" (mostly, banks) extended credit to Eurozone residents, apart from the general government, of €14,343.4 billion. Of this loans to non-financial corporations were €4,723.6 billion, and to "financial corporations, excluding MFIs and insurance companies and pension funds" and to "insurance companies and pension funds" they were €916.1 billion and €167.7 billion respectively. Banks also held debt securities, a high proportion of which would have been claims on corporates, but no separate categorization is given.
- <sup>18</sup> Adam Ridley 'The impact of the New Regulatory Wisdom on banking, credit and money: good or bad?', pp. 137 – 54, in Tim Congdon (ed.) *Money in the Great Recession* (Cheltenham, UK, and Northampton, USA: Edward Elgar Books, 2017). See, particularly, pp. 142 – 3.
- <sup>19</sup> European Commission *Better Regulation Guidelines* (Brussels: European Commission, 2015), Commission Staff Working Document, SWD/2015/0111 final.
- <sup>20</sup> Garry Schinasi et al, 'Managing global finance and risk', *Finance and Development*, IMF, 1999, p. 39.
- <sup>21</sup> See, for instance, Raghuram Rajan 'Has financial development made the word riskier?', Jackson Hole Symposium, 2005, and Malcolm Knight, 'Some reflections on the future of the originate-to-distribute model in the current financial turmoil', speech at London conference, 2008.
- <sup>22</sup> Laura Kodres 'A crisis of confidence... and a lot more', *Finance and Development* (IMF: Washington, 2008), vol 45, no. 2, June 2008. Available at <http://www.imf.org/external/pubs/ft/fandd> - p.15
- <sup>23</sup> Hayek, Friedrich 'Competition as a discovery procedure', *The Quarterly Journal of Austrian Economics*, vol. 5, no. 3 (Fall, 2002), p. 9.
- <sup>24</sup> Caprio, Gerard, and Honahan, Patrick 'Restoring banking stability: beyond supervised capital requirements', *Journal of Economic Perspectives*, vol. 13, no 4, Fall 1999, p. 43.
- <sup>25</sup> European Commission (Brussels: European Commission, 2014, [368 final]), on 'Regulatory fitness and performance programme [REFIT]: State of play and outlook'.

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