

Some Regulatory Concerns

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(1) Structure

In many industrialised countries, prior to recent decades, the stability of the financial system was maintained and protected by reliance on cartels and relatively strict segmentation between the operations and scope of financial institutions and functions. Causality ran in both directions; such compartmentalisation helped to determine the structure and nature of financial regulation; while the regulators reinforced segmentation and cartels. This latter was achieved by legal restraints in some countries, e.g. Glass-Steagall in the USA, Article 65 in Japan, and by the less formal encouragement of the authorities in others, e.g. UK. Such compartmentalisation, with some accompanying restrictions on both entry and on price (interest rate controls and cartels) and on marketing competition, protected both the profitability and charter values of the financial institutions involved. Such segmentation generally held between countries for the same function, as well as within countries for different functions. Such segmentation, however, was more pronounced in Anglo-Saxon countries than in Continental Europe. In the latter, universal banks had been a feature of the financial system from the start, so that divisions between banking and securities business was less marked.

The regulatory framework, which developed historically (at least in the Anglo-Saxon countries), usually reflected that same institutional segmentation within each country, with insurance companies, securities' houses, mortgage lending companies and banks becoming the concern of differing Departments and Ministries within governments, and of a variety of separate, often quasi-official non-governmental, entities, to whom supervision was delegated. The resulting separation of regulatory entities within countries, and even more acutely between countries, was untidy, but was not really a serious barrier to efficiency so long as it matched the pattern of the underlying financial system.

This latter is no longer the case. For reasons that are well known, the barriers between operating in differing functional and geographical financial markets have been eroded. Financial conglomerates, multinational financial entities and universal banks have emerged. The forces of information technology and competition within liberalized free markets prevent countries from repelling this

tide, even should they want to do so. Given that the structure of the financial system has been decisively reshaped, the structure of the regulatory system, and its component bodies, should similarly be rationalised and simplified.

Among the monstrous, and expensive, regiment of regulators, chains of command are indistinct and the constituent bodies communicate distantly, often via memoranda of understanding! Little is more difficult than structural change, since that tramples over 'turf' and existing property rights. There seems no feasible alternative to basing regulation on national entities, with these coming together at international groups, e.g. the Basle Committee on Banking Supervision, IOSCO, at the European Commission, or EMI, etc., to seek common ground. Now, a tripartite informal committee has met internationally to consider how multi-national conglomerates covering banking, securities trading and insurance might be handled.

Even though the actual process of structural reform of the regulatory system within each country is likely to be hideously difficult, it may at least be valuable to try to set out a blue print of what the objective might be.

The thrust of these initial comments is that the institutional basis upon which the regulatory structure was initially constructed is no longer practicable. That, almost by default, forces one to advocate the reconstruction of the system of regulation around its functional objectives.

That leads on towards a review of what should be the functional objectives of financial regulation.

Purpose of Regulation

The purpose of external regulations on the operation of private-sector institutions have typically been threefold. These are:-

- (i) to check the abuse of monopoly power.
- (ii) to deal with the effect of externalities, where private and social returns diverge.
Within the financial system, contagious runs and concern with systemic stability represent the main manifestation of this.
- (iii) to prevent the exploitation of poorly (asymmetrically) informed clients and to provide investor protection for those who cannot reasonably be expected to help themselves.

While such objectives are laudable, they come at a cost. External regulation is only relevant if it forces the regulated to do something they would not have done voluntarily anyhow; otherwise it is redundant and otiose by definition. Thus, in addition to the direct costs of regulation, (feeding the monstrous regiment of regulators), there are the indirect costs of adding to the regulated's burdens and expenses, and hence foregone business opportunities. The latter are likely to be much heavier than the former, though much more difficult to quantify. For a recent attempt at some initial quantification, see Franks and Schaeffer (1995).

External regulation is only desirable up to the point where the marginal benefits exceed the marginal costs. Since marginal costs are undoubtedly positive, this must be at a point where there would still be benefits, in reducing the danger of systemic stability or protecting investors, of appointing yet more regulators, obtaining and exchanging more information, issuing more directives, etc., etc. An optimal regulator will be a regulator who fails from time to time in the exercise of her duty, because the alternative is too expensive.

That is not how regulators, or outside commentators after the event of some well-publicized failure, are likely to perceive the situation. The regulatory failure is usually obvious, often flagrant in some respects. The regulators are personally blamed. Against that the indirect costs of regulation, in greater expenses and dealing costs, are covert and rarely perceived. Meanwhile the direct costs, the pay, rations and living quarters of the regulators, hardly appear as a cost to be minimised to the regulators themselves. So, there are patent pressures and incentives for excessive regulation.

There will be a continuous need to guard against that. We will return to this point from time to time.

Let me revert to the three purposes of regulation. First the control of monopoly power; this is the main function of the regulators of privatised utilities which are natural monopolies. It is, in general, a secondary issue within the financial system. There are, however, some cases where a potential monopoly exists. For example, a payment system may amount to a natural monopoly, and the terms on which new entrants can have access to the system may be anti-competitive. Again, a trading market generates information about its own quotes, order-book transactions, etc. The exchange may seek to control and limit access to, and use of, such data to support its own competitive position. When this is a valid protection of copyright and innovation, and when an undue constraint on competition, is a nice problem in law and economics (Ruben Lee, 1995).

But such problems are not unique to the financial system. There is no reason why the financial system needs any special protection, or regulatory oversight in this respect, beyond the general provision of institutions and legal mechanisms to promote competition and to challenge unfair and monopolistic trading. Indeed, the globalisation and liberalisation of financial markets will have enhanced competition between institutions, markets and jurisdictions, perhaps to a greater extent than in many other sectors. But, in so far as there is a residual need to ensure that monopolistic practices do not adversely effect the customers of financial services, the promotion of competition could be made one of the roles of the regulator charged with the duty of investor protection, or of the general pro-competitive body, e.g. the Office of Fair Trading (OFT) in the UK.

So there remain two central functions of regulation within the financial sector, investor protection and systemic stability. An immediate, major question is whether these functions need to be undertaken jointly, or whether they can (and should) be separated. There are good reasons for trying to separate them. The focus of investor protection is micro; that of systemic stability is macro. Investor protection is especially needed, perhaps, among the smaller, fringe institutions; systemic stability is centred around the main, large players and markets. Investor protection will require considerable adversarial tactics, to stop exploitation, force restitution, penalize wrong-doers; systemic stability will normally be fostered by largely consensual agreements.

The problem with separation, of course, is that both systemic stability and investor losses are threatened by the same event, the insolvency of financial institutions. Anything that threatens solvency will imperil both systemic stability and investors' funds. By the same token all measures to preserve and protect solvency will aid both functions, whether this be capital adequacy

requirements, deposit insurance, authorisation and closure rules, large exposure limits, etc., etc. There would obviously, therefore, need to be considerable overlap between regulatory agencies split on these functional lines. Yet if there was to be a single, overall regulatory body for the whole system, would it be perceived as too powerful, especially if it was to remain a part of the Central Bank, a question that I shall return to later; and would an institution with such a wide remit be sufficiently focussed? The only countries which have established unified financial regulatory bodies, (which have been separated from their Central Banks), have been small in terms of the comparative size of their financial systems, e.g. Canada and in Scandinavia.

In my view the difference in focus and function of investor protection and systemic stability is so large that the desideratum would be to have two main regulatory bodies, and two only, in each country. This would require splitting up responsibility for those measures affecting the solvency of financial entities, since these latter affect both systemic stability and investor protection.

This latter could be done in a variety of ways, either by splitting responsibility for functions or for institutional oversight, or by a combination of both. For example, I believe that 100% deposit insurance causes undue moral hazard, whereas capped, partial insurance does not prevent bank runs. Thus I would allocate the responsibility for (partial) deposit insurance to the investor protection arm. Per contra, I would make the formulation of rules for the safety of the system, capital adequacy, authorisation and closure, margining and netting rules for markets, exposure limits, etc., the responsibility of the systemic stability arm. But I would divide the monitoring and operation of such a system between the two arms on the basis of their size, as measured by their balance sheet. The monitoring of all large financial entities, (whether banks, securities houses or insurance companies, and, of course, mixtures of the above), would go to the systemic stability arm. The investor protection arm would be responsible for the myriad small financial institutions (whatever their title) dealing with retail depositors; small financial institutions with only wholesale, informed clients, and unlikely to cause systemic problems, would not require external supervision. The systemic stability arm would also be responsible for the safety, structure and functioning of all payment systems and financial markets, whether derivative or spot. The investor protection arm would, however, be responsible for ensuring fair competition and customer protection on such markets.

No such division could ever be perfect, or, even if correct when established, would soon become outdated by innovation. The responsible Ministry and Minister could, however, retain a power to adjudicate a division of responsibilities between the two arms. One possible danger of such a scheme would be that the systemic stability arm would be seen as much the more important and

glamorous, and that the status of the investor protection body would be perceived as much lower. In particular, the costs to the deposit insurance scheme of the failure of a large institution could be heavy. So, if they were to be primarily monitored and supervised by the systemic stability arm, the investor protection body would find itself having to provide insurance without commensurate monitoring and intervention rights over its largest clients.

Given the historically determined proliferation of a variety of (institutional based) regulatory bodies, it is surely utopian to advocate that these be reduced to two in each country, an investor protection arm and a systemic stability arm. Nevertheless, if we do not have a view of the ideal ultimate objective, we are less likely to progress in a sensible direction.

Bearing in mind the ever-present danger of excessive regulation, and that the optimal regulator is one who fails to achieve all her objectives from time to time, we may turn next to a more extended account of what each arm might do. I shall start with investor protection largely because I have much less to contribute on this aspect of regulation.

Investor Protection

The first question, perhaps, is why we need any special protection for financial investors? The industry is competitive (in the main), and relatively well publicised and documented. A combination of competition, available information and the rule of, commercial, law suffices in most cases. Why do financial investors need extra help?

Many, of course, do not. There is no need for special protection for professional, wholesale investors, and such investors, and those markets on which they dominate should not be subject to regulation by the investor protection arm.

Why do we need special protection for retail, small, possibly badly-informed investors? If we can identify the objective accurately, then perhaps the least cost remedy will become apparent. Perhaps we can divide the cause of the problem into three overlapping segments, ranging from the worst, fraud and misuse; to principal/agent concerns; to the least culpable, well-meaning but poor advice and/or execution.

First, misuse and fraud; the financial sector is unique because in it the buyer hands over cash now in return for a promise of (more) cash to be returned under certain conditions in the future. In virtually all other cases the buyer can inspect the good, or service, before parting with her money. This makes the financial sector particularly prone to fraud; take the money and run, or use it for some other purpose than specified.

The main mechanism of control is the segregation of client moneys, which is clearly essential. Besides this, the authorisation of deposit-taking institutions; and some controls over advertisements and 'cold-calling' can be justified; and an appropriate and accurate standard of external auditing and accounting required.¹

When, nevertheless, misuse, and fraud, does occur and customer funds are lost, restitution via deposit insurance (or some other means of investor compensation) should play the main role. Because the investor protection arm should only be concerned to protect retail financial claims

insurance should be limited, with an (indexed) maximum level per depositor in each institution and, perhaps, only providing partial insurance (restitution), e.g. 90%, up to that maximum. Even with such limits, the amounts involved may be large. Since authorisation and supervision over any consolidated international financial institution will be the responsibility of the home country (e.g. in the EU), deposit insurance, at least up to some agreed minimum harmonised level, should also be the responsibility of the home country, rather than the host country; this has now been agreed in the EU (Schoenmaker, 1993).

Secondly, principal/agent problems arise when the funds handed over by the principal to the agent are used by the latter in a way that benefits itself, rather than the principal. Misuses can result; e.g. where the principal is advised to place funds in a project in which the agent has a personal interest; through dealing at an off-market price (and pocketing the difference); front-running; churning, etc.

Some of these practices can be checked by proper disclosure, e.g. of the market price at the time when the deal was done, turnover rates on average and for each client, etc. The main problem is that the principal may be advised to operate in a way that benefits the agent rather than the principal. The standard remedy for that is to separate the function of advice giving from that of execution; this is known as polarisation, or single (as compared with dual) capacity. The disadvantage of this latter is that it is an expensive remedy. Financial institutions can usually obtain economies of scope by combining advice and execution; and making the investor visit two institutions rather than one adds to costs. Moreover, principal/agent concerns will not be entirely removed so long as undisclosed (financial) linkages remain between the advising body and the final executing agent. Sometimes, when competitive pressures intensify, that part of the financial system shifts to dual capacity; but when regulatory and informational failures are more prominent, e.g. Lloyd's of London, the pressure is for a move to single capacity. Here the balance between benefit and cost seems often quite close and variable from case to case.

Principal/agent infractions, e.g. wilful front-running, churning, misuse of funds, are often hard to prove; and restitution, either via the law courts or investor compensation, may be more difficult to achieve. The investor protection regulator can make such restitution more likely and adequate by collecting and assessing the evidence in cases of suspected principal/agent problems. The main problem in this area is that such supervision and regulation, e.g. on polarisation, requiring data, forcing restitution, etc., is likely to be both intrusive, expensive and sometimes confrontational. The balance between benefit and cost may be often hard to determine. Because practitioners observe the costs, whereas consumer bodies pay more attention to the benefits, there will be a need for representatives of both on the investor protection body board.

The final, third, category of concern relates to poor, negligent advice, but advice which is not consciously self-serving. This is, perhaps, the main problem among the other professions, e.g. medicine, law, accountancy. Among these professions, the problem is usually met by a combination of specialist education combined with (a ladder of) authorisation. While this has been generally satisfactory, there have been cases where the qualifications have been made too exacting, in order to provide rents for the insiders, at the expense of some customers and of some (underpaid and overworked) apprentices. Any investor protection body should be as concerned that educational and entrance qualifications are not too strict, as that they may be too lax, (though the latter has, perhaps, been more often the case within the financial system. In the UK the qualifications required by the Self Regulatory Organizations (SROs) are slight).

Again poor, or negligent, advice may be difficult to prove, and legal rulings over due standards of care can themselves be rather variable. An investor protection body can again collect and assess evidence, suggest appropriate standards, and perhaps act as *amicus curiae*.

The function of investor protection would seem to have a role in all financial institutions and markets in which retail investors participate to any large extent. If investor protection was then concentrated in a single entity, it might have to become too large and unwieldy. Whether there should be such a single body, or a central parent body with subsidiaries dealing with different institutions/markets, must depend on circumstances.

To repeat, the main problem is that coping with principal/agent problems, and assessing, setting and enforcing standards and codes of conduct, is liable to be expensive, intrusive and somewhat arbitrary and confrontational. Given the need for some discretionary balance between benefits and costs in a world where both are shifting over time, e.g. with innovation, legal absolutism should be minimised as far as possible. With journalists, politicians and often the regulators themselves responding to evident cases of regulatory failure by calls for ever-more regulation, there is a need for strong practitioner (and dare I say economist) representation on bodies of this kind. This will, of course, lead to a danger of capture, whereby regulators and practitioners collude to reduce potential entry and competition, so that we get a hermetically-sealed, safe but high-cost sector. To counter this latter we need a separate regulator to promote free-trade, free-entry and competition, such as the OFT in the UK. Perhaps a constructive tension might arise between the investor protection and the pro-competitive regulatory bodies?

Systemic Stability

(a) What is special about banks?

There are multitudes of economic systems. All economic agents interact through many market and non-market linkages. Why should we worry especially about financial systems? There are several reasons. First, several of these markets, notably the domestic and international (foreign exchange) payments' systems, lie right at the heart of the economic system. If the market for cars, or legal services, or what have you, breaks down temporarily it will cause severe problems for those heavily engaged in those particular markets, but the rest of the economy can proceed largely unruffled. If the ability to make and receive payments, e.g. through all these other markets, should collapse then their own separate continuing activities may also be put at risk.² In virtually all markets, goods and services are bought and sold in exchange for money; if the monetary side of the bargain cannot be consummated for one reason or another, all the other markets will experience considerable difficulties.

So the first concern in this field of systemic stability relates to the continuing smooth functioning of the payments' and settlements' system. That concern naturally extends to encompass the major players in that system, notably the clearing banks', and to the associated markets, e.g. money markets, which the clearing agents (the banks) use to help them perform their payments functions. Moreover, there is, and can be, no clear division between a set of central financial markets, whose continuing successful operation is necessary for the functioning of the economy as a whole, and those peripheral markets which are not. This means that someone needs to make a judgment about the externalities involved in the possible failure of any (financial) market, and, if such externalities are perceived to exist, to design methods of regulation and supervision to prevent such failures.

In so far as the first main worry about systemic stability relates to financial systems and markets, it follows logically that a major function of the body charged with the conduct of systemic stability should be the regulation and supervision of those financial systems' markets themselves. Historically, regulators have been seen as responsible for the conduct of the financial agents and

² The severity of a cessation of a payments system can be exaggerated, since home-made substitutes will soon spring up; see for example the work of A.P. Andrew (1908) on the moratorium of cash payments by US banks in the 1907 crisis and by A. Murphy on the Irish bank strike from May 1st till November 17th, 1970.

firms in the markets, not so much of the markets themselves, which were often self-regulatory bodies. This relative emphasis is questionable.

The second main concern for systemic stability relates to the possibility that the failure of one institution within the financial system may endanger the solvency of other related institutions. Clearly if one institution collapses, without imperilling others, the resulting problems cannot be called systemic. Those problems consequential on the failure of a single entity may be very large, particularly in certain communities, so that government assistance and transitional arrangements may need to be made. But there is no difference in this respect between the isolated failure of a single large bank and the similarly isolated failure of a large manufacturing, or service sector company. Both will have many employees, shareholders, creditors, suppliers, etc.; indeed a manufacturing company will probably be more geographically concentrated than a bank. In this limited sense more non-bank companies may be 'too large to fail' than banks!

The systemic problem arises if, and when, the failure of a financial entity significantly increases the probability of failure in another similar financial entity. In general, the failure of a competitor will strengthen the position of its surviving rivals. If there are two retail outlets of a particular kind in a village and one of them fails, the other will tend to give a huge sigh of relief. Why should not the same be true in the financial sector? It probably is true in many branches of finance that contagion is unlikely. Where the value of the financial assets held by the intermediary is transparently and accurately valued (at today's market prices), where the value of the liabilities is related directly and clearly to the value of such assets, and/or where there are constraints on the withdrawal of depositors' funds, then contagion becomes a distant threat. Thus most mutual funds, unit trusts, investment trusts, fund management institutions, insurance companies, etc., etc., pose no systemic threat in themselves as individual entities. There would be no reason for a systemic stability body to concern itself with these individual entities. On the other hand there may be some concern whether certain related markets are safely organized, e.g. Lloyd's of London.

The contagious threat arises from a variety of inter-active factors. First, values of non-marketed (and often non-marketable) assets held by several financial institutions, especially bank loans, but also mortgages, loans and property, held by financial institutions are often uncertain. The failure of one financial institution often involves a sharp reduction in the reported value of such assets. Individuals will perceive that other financial entities with apparently similar assets are also suspect, and may well 'run' from them whether, or not, that is justified.

Of course, uncertainty about the true valuation of assets is not limited to banks, rather the reverse.

Most non-banking companies have functionally specific assets whose second-hand market value is far below their value as an on-going producer. In that respect banks' balance sheets are more transparent than, say, property companies, or even the generality of other non-financial companies.

Yet if a financial company's asset valuation was totally transparent, with accurate mark to market at all times, it would be forced to cease trading as it approached insolvency, whether because of depositor withdrawals or legal restrictions on trading while knowingly insolvent. Even here, however, there remains a problem that financial markets are prone to much larger jumps in prices than consistent with normality (i.e. Kurtosis and fat tails, October 19, 1987, etc.). So a financial company could be operating with what might seem a reasonable cushion of unimpaired capital one day, and be bust the next.

When one non-financial company, say providing foreign holidays, goes bankrupt, we can, and do, usually downgrade our expectations for the condition, profits and solvency, of others in the same sector. If dealing with such firms involves inter-temporal creditor relationships, we may shift our custom to the stronger among such firms. So contagion is certainly possible elsewhere as well. [There has been considerable academic analysis of herding, cascade effects, mimetic contagion, etc., in recent years, see for example Topol 1991, Lux 1995.] But the risk of losing a relatively large proportion of our total financial wealth, and most of our transactions balances³, combined with the ease of withdrawal inherent in the convertibility commitment, makes runs an ever possible phenomenon in banking-type institutions (e.g. credit companies in Japan recently), and more so than in other sectors.

Such contagion is enhanced by the manifold network of interbank linkages, both direct, e.g. interbank deposits, and indirect, via markets, whereby a failing bank may well be a large debtor to certain other banks. This interconnecting network is much denser among banks than, say, among property or leisure companies. This is especially so because of their central role in the payments' system, as already noted.

Moreover, banks facing, or experiencing insolvency, are likely to be forced (fire-sale) sellers of assets, especially those assets with ready markets. This will depress prices in such markets, e.g. in money and bond markets, and hence weaken asset values among other banks. Once more, however, such interaction effects also can and do occur elsewhere, e.g. in property companies.

³ Even if the ultimate loss is not large, the inconvenience of being unable to access and use transactions balances blocked in the course of a financial failure may be considerable.

That runs, and contagious effects, exist in banking, and though probably to a much lesser extent among other financial intermediaries, can hardly be doubted. A first question, however, is how much more serious runs may be in banking than elsewhere. There has been very little attempt to quantify this.

(b) How serious are bank runs?

One such recent attempt at quantification of this is being done by my colleague, Mr. D Schoenmaker. Contagion may be defined as the increase in the conditional probability of firm j failing if firm x ($x \neq j$) in the same sector has already failed. Taking US data over the period [1865 - 1936], before the Fed effectively sought to counter such contagious effects, Schoenmaker ran regressions of the form:-

$$\% \text{ Bank Failure}_t = a + b\% \text{ Bank Failures}_{t-1} + gZ$$

where Z is a vector of macro-economic variables that might be expected to influence the frequency of failures.

If bank failures are contagious, b should be significantly greater than zero, after taking account of a relevant set of macro-economic variables [Z]. Schoenmaker finds, using monthly data, that banking failures in the preceding two months had a strongly significant effect on banking failures in the current month during his sample period, after taking account of contemporary macro-economic conditions. But the basis for imposing special regulations and supervision on banking institutions is not just that they are subject to contagious runs, but that they are much more prone to these than are other non-financial companies. In order to test this, one would need to run the same kind of exercise for certain non-bank sectors, and see whether the contagion coefficient, b , was significantly lower. Unfortunately, monthly data on business failures have been difficult to obtain for this reference period (1865-1935). So this research is not yet completed. Given the importance attached to the question of systemic stability in financial regulation, the dearth of academic analysis (as contrasted with historical description) of this subject is striking. One of the few recent studies of this issue in recent years, (Kaufman, 1987 and 1994), comes to the conclusion that concerns about systemic stability have been greatly exaggerated.

Even if banks are much more subject to contagion than the generality of other non-financial companies, it does not necessarily follow that this, by itself, provides a justification for the introduction of an external regulatory and supervisory regime. A counter-argument is frequently

made that, so long as the central bank ensures that the aggregate money stock continues to grow steadily, no great harm will be done by the failure of, even quite large, constituent segments of the banking system. Moreover, most of the deposits withdrawn from those banks perceived as weak will be redeposited with stronger and safer banks. Why should such a transfer from one institution to another matter economically? Moreover, it has the advantage of benefiting cautious, prudent and conservative institutions, a flight to quality.⁴ Moral hazard will be dispelled. Indeed, such advocates claim, the moral hazard engendered by trying to salvage weaker banks may, in the longer run, cause the banking system with regulation and a lender of last resort to be as weak, or even weaker, than one without.

There are several answers to this. First, this argument is conditioned on the maintenance of 'adequate' growth in the aggregate money supply. But under conditions of contagious panic there are bound to be major changes in liquidity preference; so how can the central bank know what is adequate? During the great depression in the USA, 1929-33, the supply of currency and the monetary base grew at a faster rate (than previously). Yet such was the shift in the demand for currency (and bank reserves) that this was consistent with a fall in the money stock. Moreover, in such a panic and crisis, it may take very low interest rates to bring about a revival of monetary growth. Yet the crisis itself may have been associated with the collapse of a prior asset-price bubble, which will frequently be perceived as having been the result of monetary laxity. It is difficult to press the case for immediate monetary ease on a group of officials who have been berated, often by themselves, for causing the preceding crisis by their own prior monetary laxity. This syndrome played a major role in the USA in the inter-war period, and in Japan under Governor Mieno. Maybe regulation would be otiose if central bankers (and commercial bankers) were super-human; but they are not.

Moreover, the argument that the transfer of deposits from failing to stronger banks is relatively costless, or even beneficial, is not valid, because the counterpart assets are not transferred at the same time. Suppose that all the banks in Argentina fail, but the depositors transfer all their deposits to banks in the USA at no loss to themselves. What happens to the Argentinean borrowers? The banks there will demand repayment of their loans. The US bankers do not know these borrowers. Moreover, the flight to US banks may well have been partly, or largely, caused by failures among Argentinean borrowers. This class of borrowers will now be seen as especially risky. Such

⁴ The flight may, instead, go to the big banks which the public perceives as too big to fail. The effective choice may lie between a widespread rescue, or ending up with an oligopolistic banking system.

borrowers may now find themselves rationed out of the credit market, or only able to borrow at relatively disadvantageous rates.

The use of an international example makes the point explicitly that the dislocation and disturbances caused by banking panics occur as much, or more, in the credit market as on the deposit side. When banks fail, they often do so because they are over-extended in lending to a geographical region or to a sector, e.g. the property market, which has itself had an adverse shock. So, the contagious runs are themselves often concentrated on banks in a particular region, or specialising in certain kinds of loans. Such contagious failures then make it more difficult for borrowers in that class to replace their prior credit lines on reasonable terms.

(c) Narrow banks?

For most ordinary people the argument that we would all be better off without bank regulation and supervision, central banks acting as lenders of last resort, etc., sounds academic and absurd. Instead, non-academic commentators and journalists tend to believe and assert that regulation is insufficient. They see the regulatory 'failures'; the continuing bank insolvencies, but not the costs of regulation.

One set of proposals is to make those costs more transparent, and, if possible, to pass them on to bank customers, so that they can choose how much to bear. One way of doing so is to be found in the 'narrow bank' proposal. Banks can elect in which category they wish to be, e.g. super-safe, safe or normal. Super-safe banks are only allowed to hold super-safe assets, but in return have 100% deposit insurance. Normal banks are allowed to hold any asset, but depositors get no protection at all. But super-safe assets offer a lower yield than normal assets, so the safer the bank the lower the interest rate offered to the depositor.

The problem with all such proposals is that in 'good' times all depositors will want to be in the 'normal' banks, and in bad times in the 'super safe' banks. The contagious transfers of funds between banks would actually be exacerbated. As already emphasized, the danger and damage of such runs is caused as much, or more, by their adverse effect on credit markets than on depositors' wealth. Shifts during 'bad' times into super-safe banks which could not even legally hold the loans of 'normal' banks would greatly worsen this problem. Although the segregation of deposits into differing regulatory categories is frequently rediscovered as a possible solution to these problems, such proposals usually founder because of their adverse effects on credit markets.

(d) Disclosure and supervision:
What is possible and practicable

Be that as it may, the standard result of any major failure, even if individual rather than systemic, such as BCCI or Barings, is for the mass of journalistic commentators to call for more, improved, extended, co-ordinated, tightened regulation and supervision. Moreover, the regulators themselves, not entirely surprisingly, having ritually beaten their breasts in remorse at such occurrences, then also call (indeed declare the need) for more, improved, extended, co-ordinated, tightened regulation. Few ask whether the benefits will exceed the costs!

Furthermore, the developments that are currently perceived as causing many of the regulatory problems, e.g. the erosion of geographical segmentation (globalisation) or of institutional dividing lines (conglomerates) and the development of derivatives, make the full exercise of close and detailed supervision much more difficult and expensive. A bank's risk exposure can be dramatically shifted virtually overnight by a single trader operating far from head office in a number of possible far-flung locations. It is just not possible to control this sort of problem by occasional snap-shots of balance sheets, nor by occasional visits to, and talks with, head office management.

There is no doubt much that can, and should, be done to improve disclosure, particularly in risk and exposures in the OTC derivative market, but the case for making such disclosures private to central bankers and regulators rather than public to all would need to be made. For example, one short-coming that was identified in the Barings case was the failure of Simex' knowledge of Barings' exceptional position to be transmitted either to Osaka or to the Bank of England. If there is to be reporting of exceptional positions, should that be public or privately done?

The crucial failure at Barings was not, however, that of the mechanisms of control; they are said to have had up-to-date risk management (VAR) models. Instead the failure was of the operation, the culture, of those mechanisms. What is relatively easy for outsiders and supervisors to check are the formal mechanisms and processes. What is much more difficult to assess is human quality and culture. Moreover, since such quality and culture is intangible and unquantifiable, how can a supervisor impose a pecuniary penalty, e.g. a higher capital ratio, on a bank just because she does not trust the managers that she has met? Everybody may have "known" that BCCI was crooked, but how can a supervisor close them without a `smoking gun'?

What is crucial, this argument suggests, is the quality of management. But, since this is largely a subjective matter, without an objective measure, (at least prior to a crash), it is difficult to assess,

and even harder to condition actions on such assessment. What can be assessed, balance sheets, reported profits, mechanisms and processes, can, and should, usually be made public knowledge rather than the private information of regulators.

In that case, with public disclosure, the regulator/supervisor would not be, and should not claim to be, in a better position to determine the viability of a bank, or other financial institutions, than an informed member of the public. A major role for supervisors should be to decide what information should be made publicly available, with sanctions on directors and auditors to ensure the accuracy of such information. Public disclosure rather than private channels of information would be cheaper and provide a more realistic picture of what a regulator/supervisor can actually achieve.⁵

The Barings case is widely held to show the need for intensified supervision. On the contrary it may demonstrate that the complexity of the business and difficulty of the exercise is such that supervisors should withdraw from the exposed position where they are expected successfully to second-guess and oversee the failings of inefficient or crooked management on the basis of strictly limited bits of private information. Has New Zealand once again shown the way forward⁶? Are those private interviews, and channels of private information, between commercial bank and supervisor cost effective, or do they simply generate expectations among the general public of what the supervisor can and should do, that are impossible to achieve?

(e) What controls will we continue to need?

The suggestion that the focus of supervision should be on the provision of public disclosure rather than on private channels of information, does not mean, ipso facto, that banks should necessarily be allowed to do whatever they want, just so long as they disclose it publicly, with tough sanctions for non-disclosure. The market may be efficient, but given the inevitable uncertainties about the valuation of non-marketed loans, often poorly informed depositors with some form of (partial)

⁵ Public disclosure should not be expected to provide better information than the authorities can obtain privately. Rating agencies are just as, or more, fallible than regulators, for a variety of reasons. But such a mechanism has advantages in being public, reducing unwarranted expectations of what can effectively be done, and, perhaps, of being cheaper, certainly in reducing the monstrous army of regulators.

⁶ Unfortunately the New Zealand experiment can never be conclusive, if only because all, but one, of the main banks operating there are subsidiaries of banks under consolidated supervision in other countries, e.g. in Australia.

deposit insurance, the risk of major jumps in asset markets, externalities from contagious runs, etc., is it efficient enough? Most practitioners, though not all academics, would doubt it.

For example, most countries require newly-started banking businesses to be authorised, and require that the senior managers have some banking experience and not have a record as a criminal or bankrupt. Would it be sufficient to require such managers to display publicly a full curriculum vitae, including details of prior experience and criminal record, if any, and then to leave it to the public whether, or not, to place funds in that bank? It is easy to provide such a mass of irrelevant detail that the report, say, of a prior bankruptcy gets lost in the fine print.

Again, banks are particularly liable to operate imprudently and get into difficulties when they are

But, given the complexity and variety of individual bank's operations, it is very doubtful how far the authorities should go in making detailed recommendations about what banks should, or should not do, at least in the systemic safety field. Apart from full disclosure, the relatively few rules, imposed externally, should be simple. It is, at the least, arguable that the route recently chosen by supervisors to apply risk-weightings to capital adequacy, though entirely understandable, has been wrong. It has led them into increasing complexity in a field where not only is it extraordinarily difficult to get the system right in principle, (and they have not done so), but the application of such rules to individual banks in different situations will not only be more expensive but also often less appropriate than those banks' own internal procedures. While a continuing dialogue between regulators and bankers on what is currently best practice in such risk-metrics is highly desirable, it would again seem wrong to try to fix and to impose the usage of particular models, or on particular ways of applying such models.

(f) A ladder of graduated responses

All general rules will be arbitrary, even, perhaps especially, when they are complex, as in the case of the allocated risk-weightings. Partly because they are arbitrary, it will usually be impossible, and unwarranted, to impose extreme sanctions, e.g. closure, when a rule is, just, broken. Indeed, there may be occasions when the authorities might be happy to sanction a temporary infraction of some of their own rules, e.g. of large exposures to allow banks to participate in underwriting. If the capital adequacy requirements call for a minimum of 8%, what do the supervisors do if a bank's ratio falls to 7.999?

To the outside observer most of the discussion in international regulatory fora appears to be about what common minimum levels should be, with little, or no, attention paid to the equally important issue of what to do when those levels are breached, as they will be. This, again, is a misallocation of effort. The desired (minimum/maximum) levels of capital/large exposures are bound to be arbitrary within quite wide boundaries. The question of what action should be taken when those (arbitrary) levels are breached is equally important.

Perhaps, given the arbitrary nature of the prescribed levels, the authorities would like to maintain discretion to respond to transgressions as they think fit in each case. But, partly, for reasons developed below, this is likely to lead to time inconsistency. The regulators will announce in advance that they will deal severely with any bank failing to meet these levels, but, when the event happens, any such strong response will seem inappropriate, or difficult, or embarrassing. In practice, regulation will react to transgression, (which is hoped to be temporary) with forbearance. The regulated will soon come to appreciate this behaviour, and factor it into their own decisions.

Such time inconsistency is especially likely because regulatory requirements will bite hardest when economic conditions are adverse. When times are good, profits are high, bad debts are low and associated non-bank companies do not need any special help. So capital adequacy, self-dealing and large exposure rules are all much easier to meet. It is only when times are bad that banks are likely to run up against such limits.⁷ Moreover, when the conjuncture is generally adverse, the shortcomings of a bank, relative to the regulatory requirements, are not then so likely to be due to the failings of its own individual managers/owners; so why penalise them for a condition which was

⁷ For a formal presentation of this simple point, see Blum and Hellwig, EER (1995).

due rather to adverse macro-economic policies?⁸ Finally, would it be sensible to limit the ability of the Japanese banks in 1993-5 to extend loans, or at the extreme to close them, because bad debts had impaired their capital adequacy?

Discretion is most likely to lead to systematic forbearance, and systematic forbearance (time inconsistency) will undermine any set of rules. The way out of the time inconsistency problem is for the authorities to pre-commit themselves to react in a specified manner in advance. Devising such a ladder of responses to transgressions of the rules, especially since it must be realised that these will normally occur at the very worst times, e.g. during panics or in severe depressions, is an essential ingredient of any good set of regulations. In the Basle CAR agreement, it was conspicuous by its absence. It need not be so. An example of the approach that should be followed is the structured early intervention and resolution (SEIR) approach, advocated by Benston and Kaufman in various papers (see, for example, 1994 a and b), and largely incorporated in the FDICIA Act of (1991) in the USA.

Such precommitment to a ladder, a sequence of automatic, graduated responses should also (help to) deal with the 'too big to fail' (TBTF) syndrome. This latter either causes inequity between the treatment of large and small banks, or, if equity is restored by making all banks TBTF, introduces extreme moral hazard. By the precommitment to the response, all banks should be treated alike, and by the graduation of that response remedial action should have been taken before any bank reaches insolvency. The relativity between the size of shock and the rungs on the ladder of graduated response is crucial to the success of such precommitment. If the shock is quite small, relative to the rungs, remedial responses can be put into action before drastic action, e.g. to close the bank(s) affected, need be taken. If the shock is enormous, sudden and largely unforeseen, as in the case of the Mexican default in 1982, then precommitment may involve closing down key segments of the banking system at a critical juncture. There will always have to be some override mechanism, if only to cope with occasions such as the outbreak of war in August 1914 and natural disasters, such as a Tokyo earthquake.

(g) The finance of bail-outs

Nevertheless owing to fraud, mismanagement, or simply incidents of extreme volatility in asset markets, some banks, including perhaps very large banks, may become insolvent. It used to be possible, at least on some occasions, to resolve such situations by a rescue, a 'life-boat', organized

⁸ On this see Dewatripont and Tirole, (1994), Chapter 9.

by the central bank and paid for by a voluntary levy on the remaining commercial banks. The increasing diversity within, and competition among, the banking sector will make that almost impossible to arrange in future years. It depended on the existence of a well-defined 'club' of banks, who were prepared and able to spend shareholders' funds to protect the reputation and the privileges of that club. With a gallimaufry of niche, specialist and universal, domestic and multinational banks, agreement to pay out good money to revive an ailing competitor could not be achieved.

The implication of this is that any large rescues within the banking field will, in future, have to be financed by taxpayers' funds, see Goodhart and Schoenmaker (1995)⁹. If so, the central government, politicians and Ministries of Finance, will have to be involved in any large failures/rescues. This, in turn, must have a bearing on the question of the relationship between the body charged with the maintenance of systemic stability and the central bank, an issue to which we shall return shortly.

(h) A summary of proposals

These proposals/arguments can be summarised as follows:-

- (1) The emphasis in bank supervision should be placed on (a) public disclosure, (b) each bank's own internal risk control procedures. The concept that the authorities either can, or should, be capable of second-guessing management on the basis of better private channels of information should be refuted.
- (2) Some rules should remain, but these should be kept simple and broad-brush, rather than detailed. It is more important to worry about specifying a pre-committed ladder of responses to transgressions than about the arbitrary levels actually set.

(i) Some structural concerns

The increasing complexity of banking is leading to a choice, between trying to match that complexity with an extended, enhanced, coordinated set of regulations, or of withdrawing to more

⁹ Any cumulative series of failures, even if the institutions are quite small, may erode the reserves of the deposit insurance funds to the extent that they also need to be topped up again by injections of taxpayers' funds.

limited, defensible objectives. On grounds of cost efficiency, I advocate the latter. The lesson of Barings is not that the supervisor should do more and better, but that it should be recognised that it cannot efficiently and cost effectively be done.

Whereas the authorities should try to downscale their intervention in the case of individual banks, at least for systemic stability purposes, it is arguable that they should pay more attention to the structure of markets on such grounds. Systemic problems are largely transmitted between entities by markets, and the failure of any major financial market itself represents a potential systemic danger. Indeed, the main systemic problem caused by Barings is believed to have arisen because of insufficient arrangements for dealing with the failure of a principal player, involving correspondent relationships with other financial entities, in the Osaka futures market.

The attention now being paid by regulators to the structure of systems, notably the current enthusiasm for moving towards Real Time Gross Payments' (RTGS) Systems, and also to systemic risks in financial markets more generally is praiseworthy. The authorities should have the obligation and the right to give recommendations to markets about such safety issues as margining, netting, arrangements for handling losses, etc. There is a question, however, whether such standards, e.g. the Lamfalussy standards on netting, should be required or just recommended.

As elsewhere, if such required standards go beyond that which the private sector agents would have voluntarily adopted themselves, they will add to the costs and expenses of those operating that market or system. At the least that will add to the transactions costs; at worst such costs may prevent such a market/system being viable at all, with the alternative processes perhaps being even riskier. Moreover, such standards, e.g. that payments' systems must be able to cope with the failure of their largest single debtor, are themselves somewhat arbitrary. There has been relatively little academic study of the mechanisms for regulating and supervising systems/markets. Moreover, the record of most markets in putting in place safety mechanisms, e.g. in the shape of daily margin requirements and interposing clearing houses between the counterparties, has been good.¹⁰

¹⁰ One of the few major cases of market failure resulting from a counterparty's failure to meet its obligations was in the tin market in London in 1985. This came about because of the refusal of the governments, who had been trying to prop up the price of tin, via an intervention scheme, to agree how to meet the ensuing debts. Markets may find it more difficult to impose adequate safety limits on public sector players in their markets than on private sector counter-parties.

It would certainly be right for any body charged with the maintenance of systemic stability to set up a division to overview safety arrangements in financial systems and markets. It should have the right to collect information and to make recommendations. The question of whether it should have the right also to require certain standards to be met as a condition of operation is much more debatable. In my view such a regulator should not have the right to do so on its own; but should have the ability to make a case for such a ruling to some higher political authority which would be obligated to address any contrary evidence put forward by the relevant private sector agents. The contrary argument is that this would provide an open invitation for lobbying, and that nothing would get done, at least until the aftermath of a patent market failure.

(j) Should the central bank also act as the supervisor?

Let me now finally revert to the question of the nature of the relationship between the body charged with systemic stability and the central bank. There remain several reasons why such a body should best be within the central bank. First, there is bound to be a huge overlap between the areas of interest of, and information required by, and available to, both the supervisor and the central bank. Separation would involve wasteful duplication. Second, any rescue or liquidity crisis will normally involve and require the immediate provision of extra cash. That can only be done by the central bank. So, the central bank and the supervisory body must work closely together in any case. This is best done by internalising the supervisory body within the central bank.

There are, however, a growing list of arguments for separation. First, as argued above, any large rescue is likely, in future, to require government financing. If so, the politicians and Ministry of Finance must become involved. If a central bank is to become more independent in the conduct of monetary policy, it will be anomalous for it simultaneously to become more politically subservient in a supervisory role. As a rider to the above, a central bank which is both independent in its conduct of monetary policy and responsible for banking supervision may be perceived as too powerful and separate an entity in the otherwise democratic body politic. Second, supervision is a bed of nails. As argued earlier, the optimal supervisor will be one who fails from time to time. Such failures weaken credibility. A central bank needs credibility in its conduct of monetary policy. Third, it can be argued, though I would not myself choose to do so, that combining the roles of guarantor both of price stability and of systemic stability can lead to conflicts of interest. [My own prior belief is that these roles are complementary rather than competitive.]

Be that as it may, the case for separation has, in my view, noticeably strengthened in the last decade, or so. But it has not yet become, again in my view, decisive.

Conclusions and Summary

- (1) The previous segmentation and cartelisation of the financial system was influential in shaping the historical structure of its regulatory bodies. Such segmentation has now gone. In principle, therefore, those regulatory bodies should be reformed along functional lines. I argue that there should be two such bodies, dealing with (i) systemic stability, and (ii) investor protection. Both, however, would be concerned with the solvency of financial institutions, so considerable overlap would be inevitable.
- (2) Investor protection is necessary for small, retail depositors as a safeguard against (i) fraud and misappropriation of funds, (ii) principal/agent problems, and (iii) poor, negligent advice.
- (3) Banks are particularly prone to contagious runs for a variety of reasons, e.g. convertibility commitments, uncertainty of asset valuations, manifold interconnections, e.g. via their role in the payments' mechanism. Such runs can have severe effects on the economy, partly because of the shocks to confidence and also because of their deleterious affect on the credit mechanism. The proposal for establishing narrow banks as a run-proof remedy is unsound.
- (4) The main protection against bank failure must be internal management's own risk controls. It is increasingly doubtful whether regulators can effectively aim to second-guess management by direct supervision on the basis of private information. Placing more weight on public disclosure, though not likely to be any better in preventing insolvencies, may be a more realistic approach.

- (5) Even so, there remains a strong case for the application of certain controls, e.g. required capital ratios, exposure limits, constraints on self-dealing, if only because it would be risky to rely solely on 'market forces'. But such controls should be few and simple. Partly since they would still be arbitrary, and to limit time-inconsistent forbearance, a graduated ladder of responses to transgressions, to which the regulators precommit, would be desirable.
- (6) The finance of any large rescues is likely, in future, to involve government funding, giving politicians a direct interest and involvement in financial regulation. This is one of the factors leading to increasing strength for the arguments for separating the (systemic stability) regulator from the Central Bank. Nevertheless the arguments in this respect remain finely balanced.

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