Market Imperfections and the Targets-Instrument Approach to Financial Services Regulation

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The ultimate case for regulation in finance lies in various forms of market imperfections. This article argues that: (1) the precise rationale and form of regulation is significantly different in non-banking financial services than in banking because the nature of the market imperfections are different; (2) given that the ultimate objectives of regulation may be in conflict, the appropriate structure for financial regulation lies in the application of the 'targets-instrument' paradigm; and (3) the emergence of financial conglomerates highlights the distinction between 'functional' and 'institutional' regulation as a particular case of the targets-instrument paradigm.

INTRODUCTION

In a previous issue of this journal, Thornton [1992] correctly argues that the ultimate case for the regulation of banks lies only in various forms of market failure, and that some forms of regulation have the effect of distorting bank behaviour without contributing to the objectives of regulation. The purpose of this extension to that analysis is to demonstrate that: (1) while the analysis of market imperfections and failures applies to financial services generally, the precise rationale and form of regulation is significantly different in non-bank financial services than in banking because the nature of market imperfections are different; and (2) the appropriate structure for financial regulation in non-bank financial services lies in the application of the 'targets-instruments' paradigm. Both issues have become more complex with the emergence of financial conglomerates.

All forms of regulation have actual or potential hazards and in five dimensions in particular: direct and indirect costs can be substantial [Goodhart, 1988 and 1989; Hall, 1991; Franks and Schaefer, 1993]; regulation has the

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potential to impair significantly or distort competition [Goodhart, 1989; Revell, 1986; Onado, 1986]; an asymmetric valuation of the benefits of competition and regulation by risk-averse regulators may create a bias towards excessive regulation [Llewellyn, 1987]; regulation may be extended through a dialectic process [Kane, 1984], and regulation may at times have perverse effects [Di Cagno, 1990]. Because of these actual and potential costs, the *objectives* of regulation need to be unambiguously defined and delineated. It is not evident that the objectives of regulation in the UK financial services sector are clearly defined; the Chairman of the Securities and Investments Board has suggested that the objectives of the 1986 Financial Services Act itself are unclear [Large, 1993].

The ultimate objectives of regulation are fivefold: to achieve a high level of efficiency in the financial system; to promote the safety and soundness of financial institutions; to ensure systemic stability; to maintain the integrity of the payments system, and to 'protect the consumer'. The objectives are therefore both micro (related to the consumer and producer) and macro (to the extent of a systemic interest).

BANKS v. NON-BANK FINANCIAL SERVICES

The formal analysis of regulation in finance has focused on banking, with comparatively little attention given to the different issues in non-banking financial services, (insurance, fund-management, life assurance, pensions, etc.). Both the ultimate rationale of regulation and the form that regulation takes is significantly different as between banking and non-banking financial services, most especially (as in pensions, insurance and life assurance) when long-term contracts are involved. In particular, while systemic issues are a central element in the rationale of the regulation of banks, they are less significant for non-bank financial services, while 'consumer protection' issues are comparatively more important.

The rationale for regulation and supervision of banks has four main dimensions: the pivotal position of banks in the financial system, the systemic dangers resulting from bank runs, the nature of bank contracts, and problems of moral hazard and adverse selection associated with the lender-of-last-resort role. Banks have a pivotal position and importance in the economy for two main reasons: they are the only source of finance for a large number of borrowers [Bernanke, 1983], but most especially because they manage the payments system. If the banking system is placed in jeopardy the resultant financial disruption is likely to be more serious than with other sectors of the financial system. Because of the nature of banks' deposit contracts (full-money certainty on the basis of assets with an uncertain value) and the potential for contagion, banks are prone to runs where the failure (or perceived threat of failure) of one bank may induce customers to withdraw deposits from other banks. This is partly because a solvent bank is unable to signal the quality of its assets. The problem of bank runs, and its relevance as a rationale for regulation, is discussed in Diamond and Dybvig [1983]; Postlewaite and Vives [1987], and Baltensperger and Dermine [1987]. The particular market failure justifying regulation is the social cost of a bank failure exceeding the private costs borne by the bank's depositor and shareholders.

The nature of bank contracts is also relevant: banks offer contracts for liquid deposits (where the redemption value of the deposit is independent of the performance of the bank and the value of its assets) which finance the acquisition of illiquid assets of uncertain value. The potential hazard is that even a solvent bank may be forced to sell assets at a loss. Bank assets are difficult to sell in the absence of a secondary market as it is difficult for potential purchasers to evaluate customer-specific information. 'Distress selling of assets' may induce insolvency in what would otherwise be a solvent bank because, due to problems of asymmetric information, the market is unable to assess the quality of assets [Lewis and Davis, 1987; Benston and Kaufman, 1986].

For these reasons, central banks provide lender-of-last-resort assistance to banks. However, as with any protection or insurance, there is a danger of inducing adverse behaviour by the insured: adverse incentives and moral hazard. In particular, banks may be induced to adopt a higher risk profile because of perceived implicit insurance, and similarly depositors may be less concerned at the riskiness of their banks. In such cases, the higher-risk bank does not pay a risk premium for deposits. Similar arguments apply to deposit insurance where premiums are not related to risk. This creates a rationale for regulation of banks: to prevent the moral hazard resulting from deposit insurance and lender-of-last-resort facilities being exploited.

The issues involved in the regulation of non-banking financial services are different. The systemic risk is considerably less evident (and often does not exist at all) compared with banking [Mayer, 1993], contagion is less likely, and the potential disruption of the payments system does not arise. The nature of the contracts are different compared with banks, although the long-term nature of many contracts issued by non-bank financial institutions raises different regulatory issues. As there is no perceived lender-of-last resort, problems of moral hazard do not arise.

Although the ultimate rationale of all regulation rests with various forms of market failure and market imperfections, the nature of these imperfections are different in the case of non-bank financial services compared with banks. The nature of regulation therefore needs to be different in the two areas, and in particular regulation in non-banking relies more on conduct of business rules. The ultimate rationale of regulation relates to market imperfections or market failure which would compromise consumer welfare in a regulation-free environment: problems of inadequate consumer information; problems of asymmetric information; under-investment in information by consumers (the 'free-rider' argument where all consumers assume that others have investigated the safety and integrity of suppliers of financial services); potential principal–agent problems and issues related to conflict of interest and, because of the technicalities of some financial products, consumers are not equally equipped with an ability to assess quality and so on. Many of the problems in non-banking financial services arise because of the fiduciary role of financial institutions, and that financial contracts (e.g., in life assurance, insurance, pensions, etc.) are long-term in nature with the consumption of the service not being made instantaneously at the point of purchase.

TARGETS-INSTRUMENTS APPROACH

Public policy objectives related to banking and financial services are frequently in conflict. Maximising the efficiency in the provision of financial services has become a central objective of public policy in many countries and has generally been sought by generalised deregulation and measures to increase competition in the financial sector [OECD, 1989]. A powerful strand in the history of regulation is based upon alleged dangers of 'excessive competition' [Llewellyn, 1986]. Historically, regulation in finance has had the effect of limiting competition, sustaining restrictive practices, cartels and anti-competitive mechanisms, and of limiting the size of banks' balance sheets. Regulation has frequently acted as a protection to banks (e.g., by limiting competition etc.) and in the process has conferred economic rents on banks. As a result, profits were reasonably assured, credit-rationing was practised, and risks were limited. A policy of deregulation in order to enhance competition and efficiency is, therefore, likely to produce both micro and systemic changes in behaviour as institutions develop business strategies and behavioural characteristics on the basis of a prevailing regulatory regime.

In the process, other pubic policy objectives may be compromised: financial institutions may become more vulnerable (safety and soundness impaired); systemic stability may be weakened, and consumers may become more vulnerable. Llewellyn and Holmes [1992] analyse how deregulation and increased competition are likely to induce competitive strategies that create more balance sheet risk and erode credit rationing, and Keeley [1990] demonstrates that competition reduces the value of the banking franchise which is prone to induce banks to accept more risk. In an analysis of the response to deregulation, the BIS [1992] argues: 'the greater competitive pressures unleashed by de-regulation and innovation tended to reduce the cushion of protective rents and make earnings more variable...These same competitive pressures encouraged greater acceptance of risk'. Similar conclusions were reached by a committee of enquiry into the Norwegian banking crisis in 1992, by Reve [1992], and by Llewellyn [1992a and 1992b] in an analysis of Scandinavian banking performance.

A similar conflict may emerge at the systemic level. Baltensperger [1993] identifies two trade-offs at the macro level: between the stability of the financial system and market discipline, and between systemic stability and the degree of competition in the banking industry. In this sense public policy has to confront a potential trade-off between a protected banking industry with low failure rates but supra-competitive returns, and an industry with open and intense competition with greater levels of supply but possibly resultant higher failure rates. The experience of deregulation in the Scandinavian banking industries in the 1980s highlights the dilemma.

A third potential conflict arises between competition and deregulation designed to raise efficiency and the protection of the consumer. The pressures that induce banks to absorb more risk can equally induce unfair business practices to the detriment of consumers' interest: pressure-selling etc. A former governor of the Bank of England has observed: 'People in the City are driven to cutting corners by competitive pressures' [Leigh-Pemberton, 1993].

One approach to handling policy conflicts lies in the targets-instruments paradigm first outlined by Tinbergen [1952] with reference to conflicts in macroeconomic policy. The paradigm is relevant to the regulation of financial services as each policy instrument has the potential to influence more than one of the targets of regulation and, as argued by Gardener [1993], individual instruments may have multiple objectives. The targets-instruments approach establishes that, when each instrument affects each target, all targets can be achieved simultaneously only if there are as many instruments as targets: i.e., there exists some combination of instruments that achieves the desired combination of targets. The value of each instrument is set not only to have direct effects on particular targets, but also to neutralise the negative effects of other instruments for other targets. This analysis indicates that, if each of the regulatory objectives is to be secured, a multi-instrument approach is required; an optimising approach designed to achieve satisfactory levels of competition, efficiency, systemic stability, safety and consumer protection.

Applying the 'targets-instruments' paradigm to the objectives of regulation in finance, the potential increase in risk that accompanies deregulation and increased competition can be offset by other forms of regulation and supervision specifically designed to limit the risk exposure of financial institutions. An official enquiry into the Norwegian banking crisis in 1992 concluded that a public policy failure was that supervisory arrangements were not adjusted and strengthened in response to the new competitive environment created by deregulation. This conclusion is reinforced by the BIS when commenting on the behavioural responses to deregulation of banks in many countries: 'the strengthening of prudential supervision sometimes lagged behind the changes in the financial environment' [BIS, 1992]. In terms of the targets-instruments paradigm, the adverse effect on risk profiles resulting from deregulation designed to increase efficiency may be offset by increased supervision or regulation designed specifically to limit risk.

The systemic hazard of deregulation can similarly be countered by capital adequacy rules and active use of lender-of-last-resort facilities. However, neither of these two responses is without its own hazards. For instance, the imposition of capital adequacy rules on banks may reduce risk in the sense of providing a greater cushion to absorb losses and asset write-offs, but at the same time increase the probability of the bank acquiring more risky assets. If capital-adequacy regulation acts as a tax, higher rates of return and hence risk might be sought to pay the tax. An extensive literature demonstrates that, under some circumstances, the imposition of capital requirements on banks has the effect of increasing risks and may, as a result, increase the probability of failure [Kahane, 1977; Koehn and Santomero, 1980]. Other studies have challenged these conclusions. The only safe conclusion is that regulation with respect to capital adequacy has an ambiguous effect on the risk-profile of banks and that more needs to be known about banks' behavioural responses before it can be certain that the imposition of capital requirements unambiguously reduces risk. Similarly, as already noted, the availability of a lender-of-last-resort facility also has adverse incentive and moral hazard effects. These side-effects reinforce the requirement for supervision as an active policy instrument. Gardener [1993] makes the point as follows: 'Supervision may be seen as a process of ensuring that the central bank lender of last resort is not used as a "lender of first resort"'. In addition, Gardener indicates that: 'increasing supervision (or supervisory re-regulation) has been an empirical phenomenon alongside growing structural deregulation (the "freeing-up" of liberalisation) of financial markets from the early 1970s'.

A further example is in arrangements for consumer protection. One method of dealing with potential conflicts of interest that may work against the interests of the consumer is regulation that restricts an institution's range of allowable business. If such regulation is abandoned, other measures to limit the potential for conflict of interest are needed; such as Chinese-walls, rules of conduct, compliance officers, disclosure rules, etc.

CONSUMER PROTECTION

It is frequently alleged that finance is in some sense 'special' and that the consumer is at potentially greater risk than in other areas. However, Franks and Mayer [1989] show that clients of investment management firms are probably less at risk than with other firms, e.g., building contractors. In the final analysis, if there is a protection role of regulation it needs to be clear whether the motive is *paternalistic* or whether it is designed to protect against *market imperfections.*

Gardener [1993] notes that there has been a rise in consumerism and, as part of this, growing concern about depositor protection. The general issue of consumer protection, and the appropriate regulatory response, can be highlighted by considering three central issues relevant to the rationale of regulation in non-banking financial services: (1) why financial contracts might fail to the detriment of the consumer; (2) what it is reasonable for the consumer of financial services to demand; and (3) what it is reasonable to protect the consumer against. Having identified what could go wrong, the appropriate regulatory response can be constructed within a 'targets-instruments' framework.

A financial contract can go wrong for one of five reasons:

(1) the consumer receives bad advice which may, though not always, be because of a conflict of interest by the supplier of the service,
(2) the firm supplying the contract becomes bankrupt before the contract comes to maturity,
(3) the contract eventually turns out to be different from what the consumer thought was the case: the nature of the contract is misunderstood,
(4) because of fraud or misrepresentation, or
(5) because of incompetence on behalf of the supplier of the contract or financial service.

These issues lead to a consideration of what it is reasonable for the consumer to demand in a contract, and what the appropriate targets-instruments regulatory response should be. A schema is suggested in Table 1. Nine elements are identified with respect to what consumers might reasonably demand: efficient provision of financial services, relevant information before a contract is entered into; a presumption about the integrity of the supplier of a contract; a reasonable assurance of the contract itself most especially with long-term insurance contracts; a reasonable degree of competence in the supplier of the contract; good products at a reasonable and fair price; good advice when advice is sought; that an agent serves the consumer's interest, and some measure of compensation if the contract fails.

Against these requirements Table 1 indicates an appropriate regulatory response. The objectives of efficient provision of financial services and consumers' demand for 'good products at fair prices' are addressed by general deregulation and by enhancing competition. However, this is not an issue that either should, or in practice can, be addressed specifically by regulation *per se*. It is essentially a question of competition and competition policy which is the ultimate assurance of quality at competitive prices. If, for instance, regulatory requirements are based upon 'best practice' in the industry, it will become cumbersome, excessively detailed, and too prescriptive. At the same time, the setting of minimum standards has the potential to worsen the welfare of consumers who would choose to purchase cheap and low quality services, and result in over-investment in training and the provision of high quality services [Shapiro, 1986].

The issue of integrity and problems of 'adverse selection' can, in principle, be met by authorisation procedures and continuing supervision, and the assurance of the contract is most appropriately met by requirements to hold adequate capital. The issue of competence can be addressed by authorisation, and requirements for training and certification.

The information issue can be dealt with by appropriate and detailed disclosure requirements, and the consumer screening and monitoring of firms although this is less feasible for retail financial services. Information is central to efficient financial contracts, and regulation, supervision or protection funds are not to be regarded as effective alternatives to full information disclosure. Information made available to consumers is an integral part of an efficient regulatory structure. Information performs many roles: it is necessary for informed judgements to be made; it allows the market and consumers to make informed comparisons between alternative suppliers and to identify the precise nature of contracts being envisaged; and it allows the market and consumers to assess the standing and potential risk of institutions.

Many complex financial products (e.g., pensions and insurance) are purchased on the basis of advice sought by the consumer. In many cases the consumer seeks objective advice based explicitly on an understanding of his financial circumstances. If an agent or adviser is called upon for advice the consumer requires the agent to serve the consumer's interest. The principal–agent problem can be addressed by explicit conduct-of-business rules and explicit rules with respect to conflict of interest. Such rules include disclosure requirements, disclosure of commissions received by agents, 'Chinese walls' etc. Finally, the question of compensation can be addressed, where appropriate, by industry protection funds

WHOLESALE v. RETAIL BUSINESS

A distinction needs to be made between retail and wholesale finance. The case for regulation and supervision of retail financial services is more firmly based

TABLE 1
REGULATORY RESPONSE

Consumer Demands	Regulatory Response
(1) Efficient provision of financial services	Deregulation and Competition
(2) 'Good products at fair price'	Competition
(3) Integrity of supplier	Authorisation and supervision
(4) Assurance of contracts	Capital and solvency requirements
(5) Relevant information	Disclosure requirements
(6) Competence	Training and certification
(7) Advice	Specific rules
(8) Agents serve his interest	Conflict of interest arrangements
(9) Compensation	Protection funds

than for wholesale markets. Firstly, there is a problem associated with the absence of repeat orders; the small-volume retail customer does not make frequent repeat orders of financial contracts and hence has a more limited ability to 'learn from experience'. Secondly, problems of asymmetric information are greater at the retail level than in professional wholesale markets. Thirdly, individuals are not in a position to monitor the behaviour of the supplier of financial contracts. Fourthly, the individual consumer has limited ability and opportunity to acquire the necessary skills to enter into complex financial contracts. Fifthly, the suppliers and demanders of financial contracts are considerably less equal in the retail sector than in professional wholesale markets. In effect, market imperfections are more pervasive in the retail than in the wholesale sector and, as the ultimate rationale of regulation centres on questions of market imperfections, it is appropriate for retail financial services to be regulated more explicitly than wholesale business. If this distinction is not made, the danger emerges of over-regulating wholesale markets because of the requirements for reasonable regulation at the retail level.

INSTITUTIONAL v. FUNCTIONAL REGULATION

The emergence of financial conglomerates (financial institutions providing a wide range of services, e.g., banking, insurance, fund management and advice, securities trading and broking, etc.) raises two additional dimensions to regulation and supervision: the complexity of regulation intensifies, and a distinction arises as between a *functional* or *institutional* focus to regulation. The need for consumer protection is increased because there is more potential for conflicts of interest, and more scope for insider trading. The process of regulation and supervision also becomes more complex when a wide range of diverse activities is conducted within a single financial firm. Thus, if a bank provides insurance contracts as well as traditional banking contracts and services, the overall risk characteristics of the bank become more complex, a wider range of correlated and uncorrelated risks is involved, and the issue arises as to whether risks are to be regulated separately or in aggregate. Judgements need to be made as to whether the risks in one activity (e.g., insurance) may undermine other activities (e.g., banking), and whether the risks are negatively correlated and hence the overall risk of the financial firm is reduced. In this last case the capital required by a conglomerate firm might be less than the aggregate capital requirement of two firms conducting specialised activities.

The second dimension relates to the distinction between *functional* and *institutional* regulation. A choice has to be made as to whether the focus of regulation is on institutions or functions. When financial institutions are specialist the issue does not arise, as institutions and functions are synonymous. There are problems associated with both of the alternative approaches. If regulation is applied to institutions (i.e., banks are regulated by a different agency than insurance companies for the full range of activities) the potential hazard is that given functions may be regulated differently dependent upon the type of institution involved. This gives rise to potential competitive-neutrality issues.

In the case of functional regulation, specialist regulators and regulatory arrangements are established to regulate and supervise clearly defined financial activities independently of the institutions providing the service. Two immediate problems arise: each institution becomes subject to the jurisdiction of several regulators, and the risk characteristics of the firm overall may not be addressed.

Historically in the UK, the institutional approach has been dominant, largely because institutions have tended to be specialist in nature. Lately, however, more emphasis is being placed on a functional approach to regulation (e.g., the Financial Services Act is based upon this principle).

A targets-instrument solution is available, and in practice both the institutional and functional approaches need to be employed in parallel. Financial firms are regulated both for consumer protection reasons (the way business is conducted) and safety and soundness and systemic reasons. The former is more appropriately conducted on a functional basis so that consumers are afforded the same degree of protection for each service irrespective of the type of institution providing it. It is also more likely to ensure competitive neutrality of regulation as between different types of institution providing the same service. However, as it is institutions and not functions which become bankrupt, a different type of regulation is required for safety and soundness.

Both types of regulation are needed and different regulatory agencies may be involved. Thus under the 1986 Financial Services Act banks, building societies and insurance companies are subject to the same regulatory requirements for the conduct of business and protection of the consumer and, dependent upon which service is involved, are subject to the regulatory requirements of the Securities and Investments Board, Personal Investment Authority, and the Investment Management Regulatory Organisation. However, for prudential purposes, banks are subject to the requirements of the Bank of England, building societies to the Building Societies Commission and Insurance Companies are subject to the jurisdiction of the Department of Trade and Industry.

CONCLUSION

Appropriately structured, the targets-instruments paradigm can be applied to the potential conflicts that arise in public policy with respect to financial services. While a structure of deregulation, re-regulation, authorisation, disclosure requirements, supervision, and conduct of business rules can be devised to address conflicts, there remains a potential hazard in all forms of authorisation, regulation and supervision.

When a regulatory or supervisory authority is created and establishes regulatory requirements, a danger emerges that an 'implicit contract' is perceived as being created between the user of financial services and the regulator, in that the consumer assumes that, because there is an authorisation procedure, that specific aspects of regulation are established, and that the supplier of financial services is in some sense authorised and supervised, that therefore the institution is safe. The obvious danger is that an *implicit contract* creates the impression that the consumer need not take care with respect to the firms with which he or she deals in financial services. This becomes a moral hazard of regulation: a hazard that regulation itself creates the image that less care need be taken. Recent experience (not the least with respect to the collapse of BCCI) suggests that consumers do sometimes assume there to be an *implicit contract* between them and the regulator or supervisor. Again applying the targets-instrument paradigm, the appropriate 'policy instrument' is a public policy recognition, and encouragement of consumer awareness, of the limitations of regulation and supervision, that they have only a limited role, that even in this restricted dimension they can fail, that not all risks are covered, and that the optimum level of regulation and supervision falls short of eliminating all possibility of consumers making wrong choices in financial contracts. False expectations in the mind of consumers are to be discouraged and public policy arrangements should never reduce the incentive for consumers of financial services to exercise due care. Consumers need to be clear about the limitations of regulation and supervision as it is no part of regulation, supervision or authorisation to protect the consumer against all possibility of loss.

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