INSTITUTIONAL STRUCTURE OF FINANCIAL REGULATION AND SUPERVISION: THE BASIC ISSUES

David T Llewellyn

Professor of Money & Banking,
Loughborough University

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Around the world, many countries are considering the institutional structure of regulatory and supervisory agencies in the financial sector on the grounds that existing structures, which were often established in a markedly different market and intuitional environment than exists today, may have become inappropriate. In many countries governments have been reviewing their institutional structures of financial regulation and in some countries major changes have been made. For an historical perspective on this see Taylor and Fleming (1999) who also emphasise the variety of experiences of different countries including, for instance, the contrasts that exist between Scandinavian countries which have similar institutional models.

The objective of the paper is to consider some of the issues involved in organising the institutional structure of financial supervision. It is designed to set the background to the more detailed papers in this conference. In particular, the focus of the paper is on six key issues:

- Why institutional structure is important in the design of optimal regulatory regimes, and why the issue has arisen at the present time.
- The range of alternative options within a *Regulation Matrix.*
- The advantages and potential hazards of *integrated*, *unified, and Twin Peak* agencies.
- The role of the central bank in alternative institutional structures.
- A review of international experience.
- Corporate Governance arrangements of regulatory and supervisory agencies and their contribution to the effectiveness of regulation and supervision.

The structure of the paper is as follows. Section 1 outlines a set of general perspectives about the role of regulation and supervision in the financial sector. Section 2 discusses the origins of the current debate about institutional structure and section 3 outlines some of the key issues to consider. This is followed in section 4 by a brief discussion of why institutional structure is a significant issue and in section 5 by a discussion of the criteria to assess the optimality of institutional structure. Sections 6 and 7 outline the various options for institutional structure in the framework of a *Regulation Matrix*. This is followed in sections 8, 9, 10 and 11 by a review of the advantages and potential hazards of integrated versus multiple agencies, the Twin Peaks model favoured in some countries, and the concept of a *unified* agency which incorporates all prudential and conduct of business regulation. The role of the central bank in institutional arrangements is discussed in section 12. Section 13 offers a brief review of international experience with respect to the choice of

institutional structure. Section 14 reviews some of the issues related to corporate governance arrangements.

The question of institutional structure of financial regulation has become a major issue of policy and public debate in several countries. Three strategic issues in particular arise:

(1) whether to have integrated prudential agencies encompassing all financial firms and markets, or whether regulation and supervision should be conducted on the basis of specialist agencies for banking, securities, insurance etc,

(2) the role of the central bank in this area, and

(3) whether or not conduct-of-business regulation should also be included within a single all-embracing agency or whether this should be conducted by a dedicated agency.

A distinction is made throughout the paper between *integrated* and *unified* agencies. In the former, the prudential regulation of all financial firms (banks, insurance and securities) is conducted by a single agency rather than separate agencies for each type of financial firm. A *unified* agency, on the other hand, refers to the case where not only is prudential supervision of all firms located in a single agency but that same agency is also responsible for conduct of business regulation and supervision as is the case with the Financial Services Authority in, for instance, the UK. While many countries have moved in the direction of an integrated agency for prudential regulation and supervision, the case for also integrating conduct-of-business regulation and supervision within the same agency is less powerful and considerably less common as is demonstrated in the later section on international experience.

In this general context, increasing emphasis is being given to the question of whether the efficiency of regulation and supervision in achieving their objectives may be influenced by the particular institutional structure in which they are conducted. In most countries, the traditional structure has been for there to be separate agencies and arrangements for regulating and supervising banks, insurance companies, and securities firms. This is largely because, traditionally in many countries, these have been separate activities conducted by specialist institutions with little overlap between them. In this model, there is little distinction between *institutional* regulation (i.e. regulating for the safety and soundness of institutions) and *functional* regulation and supervision (i.e. related to activity) because institution and function are synonymous. However, this is less valid when financial conglomerates emerge and firms across the board diversify into each other's traditional territory.

Institutional Structure

Throughout the paper, "institutional structure" refers to issues related to the number and structure of agencies responsible for the regulation and supervision of financial institutions and markets which includes the role of the central bank in this area.

A central issue in the debate is the extent to which financial regulation as between different types of business should be integrated, and whether responsibility for financial regulation and supervision should be vested in a single agency. One of the most radical changes in institutional structure was the decision in the UK in 1997 to abolish the plethora of specialist regulatory and supervisory agencies and to merge all regulation into a single agency. The responsibility for the supervision of banks was taken away from the Bank of England and vested, along with all other regulation of financial institutions and markets, in the Financial Services Authority (FSA). Many other countries have also recently changed the institutional structure of financial regulation and supervision with the general trend being to reduce the number of agencies involved. However, no common pattern has emerged in detail. In particular, while some (including the UK, Korea, Iceland, Denmark, Latvia, Sweden, Hungary) have adopted the single agency approach (at last as far as prudential supervision is concerned), this has not been a universal model when change has been made.

A review of international experience indicates a wide variety of institutional structures (see Goodhart, *et al.*, 1998). Some countries have created a single agency for prudential supervision, while others have opted for multiple agencies. Some have also created unified agencies. It is argued below that there is a spectrum of alternatives rather than an either/or choice, and there is considerable variety within the spectrum and even within the same basic model. National differences reflect a multitude of factors: historical evolution, the structure of the financial system, political structures and traditions, and the size of the country and financial sector. Although there is no universal common pattern, there is a general trend towards reducing the number of separate agencies, a move towards integrated prudential supervisory arrangements, reducing the role of the central bank in prudential oversight of financial institutions, increasing emphasis to the central bank in its systemic stability role and, if a unified agency is created, for this not to be the central bank. However, Ireland is an exception to the last-mentioned.

1. SOME INITIAL PERSPECTIVES

To set the context, some initial perspectives are offered at the outset before considering more detailed arguments about the alternative models for institutional structure.

Regulation, the Financial System and the Economy

A stable and efficient financial system has a potentially powerful influence on a country's economic development not the least because it may have an impact on the level of capital formation, efficiency in the allocation of capital between competing claims, and also the confidence that end-users (consumers) have in the integrity of the financial system. The stability and efficiency of the system has both supply-side and demand-side effects on the economy. In turn, a well-structured regulatory regime contributes to the efficiency and stability of the financial system. A central issue, therefore, is whether the institutional structure of financial regulation and supervision has any bearing on the efficiency of financial regulation and supervision itself and its impact on the wider economy.

Over-regulation

While the economic rationale of financial regulation is well-established (see, for instance, Llewellyn, 1999a) there is, nevertheless, an ever-present potential to over-regulate and in the process impose avoidable costs on the system and on the suppliers and consumers of financial services. There is almost an inherent tendency towards over-regulation because regulatory and supervisory services are not provided through a market process but are imposed externally. The consumer has no choice with respect to the amount of regulation he/she is prepared to pay for. This means that regulation has a *cost* but not a *price*. In which case consumers will rationally perceive regulation to be a free good and hence will over-demand it. If this is coupled with a risk-averse regulator (who is blamed when there are regulatory failures but not praised when there are not), it is almost inevitable that over-regulation will emerge as it will be both over-demanded and over-supplied. In which case there is the issue of whether particular institutional arrangements for regulation and supervision may themselves be able to address this issue more effectively.

Universal functions.

The basic functions performed by regulatory agencies are universal and cover ten main areas:

- prudential regulation for the safety and soundness of financial institutions;
- stability and integrity of the payments system;

- prudential supervision of financial institutions;
- conduct of business regulation (i.e. rules about how firms conduct business with their customers);
- conduct of business supervision;
- safety net arrangements such as deposit insurance and the lender-of-last-resort role performed by the central bank;
- liquidity assistance for systemic stability, i.e. liquidity assistance for solvent institutions;
- the handling of insolvent institutions;
- crisis resolution, and
- issues related to market integrity.

These are the universal areas that regulatory and supervisory agencies need to address in one way or another. The debate about institutional structure is, therefore, not about which of these activities are to be conducted, but which agencies are to be responsible for which functions.

Role of the central bank.

While it is universally agreed that the central bank has a major responsibility for maintaining systemic stability, the definition and legal authority for this is often blurred. Financial stability usually refers to the risks to the financial system as a whole and the integrity of the payments system. However, there is much controversy over how "financial stability" (and therefore the mandate of the central bank) is to be defined: see Oosterloo and de Haan (2003) for a survey of alternative definitions. The same study also establishes that in only a few countries is there any formal legal basis for the systemic stability role of the central bank.

Irrespective of what role, if any, is assigned to the central bank with respect to the prudential regulation and supervision of financial institutions, it is universally the case that the central bank is the agency responsible for the stability of the payments system, liquidity assistance to markets and solvent institutions, and systemic stability. One dimension of the debate about institutional structure is whether these functions can be effectively performed by the central bank while not also being responsible for the prudential supervision of the individual institutions that make up the system. There are several dimensions to this issue including the independence and authority of the central bank, its skills, and whether the status of the central bank for monetary stability might be compromised by any failures in regulation and supervision of financial institutions if it is given this role.

No universal model.

Given the wide diversity of institutional arrangements for financial regulation and supervision that exists in the world (for two surveys of this see Carmichael, et. al., 2004, Llewellyn, 1999b and Healey, 2001), it is evidently the case that there is no single model for optimal institutional structure. Equally, there is no single model that all countries are converging on. There are advantages and disadvantages of all forms of institutional structure including unified agencies. Nevertheless, there is a trend in many countries for the number of regulatory agencies to be reduced.

It is an illusion to believe that there is a single, superior model of institutional structure that is applicable to all countries. To some extent, the optimal structure may depend upon the structure of a country's financial system etc. Equally, it is an illusion to believe that any structure is perfect or guarantees effective and efficient regulation and supervision of the financial system. Changing the institutional structure of regulation should never be viewed as a panacea, or as a substitute for effective and efficient conduct of regulation and supervision.

Two questions and a possible dilemma.

Two related though separate central questions feature in the debate about institutional structure: (1) the question of whether the central bank should be the prudential supervisor of banks, and (2) whether there should be a single, integrated prudential agency for all financial institutions. The two questions are related and a dilemma may arise in the answers. For instance, as is recognised in many countries, there may be a case for the central bank to regulate and supervise banks. On the other hand, for reasons outlined in later sections of this paper, there may also be a case for having integrated or unified regulatory agencies. In which case, a dilemma can arise because, while it may be argued that central banks should regulate and supervise banks, it may be judged that it could be hazardous for the central bank to regulate all aspects of the financial system and all types of financial institution. One reason is the perception that the safety net might be extended to the full range of financial institutions. In which case a choice has to be made between what is perceived to be the optimal agency to supervise banks and the advantages of having an integrated agency for all institutions.

Use of resources.

A central issue faced by all countries relates to the use of supervisory resources as these are in short supply and can be expensive. This has induced some regulatory agencies (notably the FSA in the UK) to focus on risk-based supervision whereby its

resources are applied disproportionately to those firms considered to be most at risk whether that be in terms of solvency or conduct of business with consumers. This also has the effect of creating incentives for regulated firms to be compliant as it lowers their own costs of supervision as they are treated more flexibly than are more risky firms. Institutional structure of regulatory and supervisory arrangements may have an impact on the efficiency with which scare supervisory skills and resources are used.

Skills and remuneration.

Linked to this is the issue of the skills of the regulatory agencies and how they are to be remunerated. In many cases regulatory agencies are at a competitive disadvantage when bidding in the market for the necessary skills because those same skills are also demanded by regulated firms which are usually in a position to offer considerably more attractive remuneration packages for skilled people. Effective regulation cannot be secured on the cheap as the necessary skills are very demanding. This means that agencies must be adequately resourced if they are to be able to match the skills of those they are regulating. This in turn means that regulatory and supervisory personnel need to be adequately remunerated even if this means moving outside the salary range of, for instance, civil servants. To attempt to cut costs by under-resourcing regulatory agencies and not paying market-related salaries is likely to prove to be a false economy. Money will be saved, but at the expense of ineffective and inefficient regulation and supervision.

Corporate Governance

A major issue to consider is the set of corporate governance arrangements with respect to regulatory and supervisory agencies and the extent to which sound governance arrangements can enhance the effectiveness, reputation and credibility of an agency. A later section emphasises in particular the issues of transparency, accountability, independence, and integrity. Unlike other goods and services, regulatory services are not provided through market mechanisms. In addition, the regulator acts as a monopolist. This means that the discipline of the market is not present to constrain the regulator as it is with most other goods and services. There is, therefore, a need to establish proper accountability mechanisms for regulatory agencies. The three key issues are: to whom, in what way, and when are regulatory agencies to be accountable?

Political independence

It is also important that supervisory agencies are politically independent and not subject to political interference. There are several reasons for this: it is important for agencies to be seen to be politically independent; such independence is essential for consumer and industry credibility; political authorities may wish to influence a regulatory agency for non-regulatory purposes (e.g. favouring certain types of lending), political authorities may seek to influence the agency for short-term political advantage, and it is important for regulatory agencies to behave consistently over time and between institutions. This means that a careful balance needs to be struck between the legitimate demands for regulatory agencies to be accountable, and the need for them also to be independent of political influence.

2. ORIGIN OF THE DEBATE

While the debate about the institutional structure of regulation and supervision in particular countries inevitably reflects country-specific factors and the currently prevailing institutional structure, there are more general reasons why the debate has recently emerged:

- In many countries, the structure of regulatory agencies was devised for a different structure of the financial system than exists now. Financial innovation and structural change in the financial system have challenged many of the assumptions made at the time current structures were created. This raises the issue of whether institutional structure should mirror the evolution of the structure of the system and the business of regulated firms.

- The emergence of financial conglomerates has challenged traditional demarcations between regulatory agencies and has made the business of regulation more complex. In particular, the issue arises as to whether a structure based on specialist agencies supervising different parts of the business of a financial conglomerate may lose sight of the institution as a whole.

- Over time, changes in institutional structure have often been made as a response to particular financial failures, and a pragmatic, piece-meal structure has emerged which would not necessarily be created from scratch and without the legacy of existing institutions. It is appropriate from time to time to review what has emerged and to consider whether a more coherent structure might be put in place.

- In many countries the objectives of regulation have become more complex and extensive. For instance, conduct of business issues have become more significant. This is most notably the case in the United Kingdom where, prior to the creation of the FSA, several agencies had been responsible for the conduct of different types of financial business and institutions. This raises the issue of whether an excessive number of institutions unnecessarily adds to complexity, uncertainty, and the costs of regulation. This was clearly the view taken by the government in the United Kingdom in 1997.

- Financial innovation, and the emergence of new financial markets, has made the risk characteristics of financial firms and the financial system generally more complex. In particular, the systemic dimension to regulation and supervision may no longer be exclusively focused on banking. Banks have lost some of their uniqueness which has traditionally been a case for supervision by the central bank.

- The increasing internationalisation of financial operations has accentuated the international dimension to regulation which in turn has implications for the institutional structure of agencies both at the national and international level.

For all these reasons, some of the traditional assumptions about institutional structure of regulatory and supervisory agencies have come to be challenged, and in many cases new structures have been considered and implemented.

3. SOME KEY ISSUES

When considering reform of institutional structure, some of the issues are specific to individual countries as no two countries are precisely the same. There are, nevertheless, some general issues to consider that are universal:

- The appropriate number of regulatory agencies, and in particular whether there should be a set of specialist regulators, integrated agencies responsible for more than one of the sectors of the financial system, or a single, all-embracing agency responsible for all aspects of regulation in the financial system.

- A particular issue is whether prudential and conduct of business regulation should be separated or combined within a single agency.

- The role of the central bank in the regulatory and supervisory process.

- In the absence of a single, unified regulator issues arise about what structure of agencies is most appropriate, which functions and firms are to be allocated to which agencies, and how the objectives for each agency are to be defined. In particular, the issue arises as to how *functional* and *institutional* dimensions to regulation are to be allocated as between different agencies.

- The specific objectives set for each regulatory and supervisory agency.

- The degree of co-ordination required between different agencies, and the mechanisms needed to ensure effective co-ordination, co-operation and information sharing.

- The degree of political independence of regulatory and supervisory agencies.

- Whether institutional structure has a significant bearing on the costs of regulation.

- In so far as regulation has consequences for competition, what role, if any, there is to be for competition authorities in the regulatory process.

- The extent to which concentration of power is an issue to consider in establishing the optimal institutional structure of regulation and supervision

- Given the international dimension to regulation, what institutional mechanisms are most efficient at facilitating international co-ordination and co-operation between national regulatory agencies?

- Given the power that regulatory agencies have, the independence and accountability of regulatory agencies are also central issues.

4. THE IMPORTANCE OF INSTITUTIONAL STRUCTURE

There are several reasons why institutional structure of regulatory and supervisory agencies is important and not a minor administrative matter, and therefore why it is important to have an active debate:

- Above all other considerations, institutional structure may have an impact on the overall effectiveness of regulation and supervision because of the expertise, experience and culture that develops within particular regulatory

agencies and the approaches they adopt. One school of thought argues that focused, rather than diversified or conglomerate, regulators are more effective simply because their mandates are clearly defined. It is partly for these reasons that there are transaction costs associated with change in the structure of institutions. There is a danger (though this is by no means inevitable) that expertise, collective memory and experience can be lost when changes are made. On the other hand, others argue that regulation is more likely to be effective if a single agency is responsible for all aspects of regulation and supervision.

- Closely related to effectiveness is the question of the clarity of responsibility for particular aspects or objectives of regulation. This in turn raises the question of inter-agency rivalry and disputes.

- Seldom is there a single objective of regulation and, when multiple objectives are set, conflicts can arise between them. Although this is true irrespective of institutional structure, different structures may be more or less efficient at handling conflicts. A particular issue is whether conflicts are better handled within a single agency, or between agencies where responsibilities for particular objectives are more clearly defined. It becomes a question of whether transaction costs are lower when conflicts are resolved internally (e.g. between different divisions of a single agency) rather than externally between different agencies.

- Different structures have implications for the costs of regulation. On the one hand, if there are economies of scale and scope in regulation, there should be advantages in having a small number of agencies, or even a single authority. On the other hand, if a single regulator (encompassing a wide variety of financial institutions) adopts an inappropriate regulatory regime (perhaps because its remit is too wide and unfocused), the *compliance* and *structural* costs of regulation (see Goodhart, *et al.* 1998, chapter 8) would rise even though the purely *institutional* costs of regulatory agencies (i.e. the costs of running supervisory agencies) might be lower.

- A major issue relates to overlap and underlap, and whether a particular structure causes an unnecessary duplication of regulatory activity and hence costs on firms, or that some aspects of business or some institutions fall through the net altogether.

- A multiple-agency regime, most especially if it allows an element of choice to regulated institutions, creates a potential for strategic regulatory arbitrage (whereby they artificially construct their business so as to be subject to a particular supervisory agency which may impose lower compliance costs than an alternative agency) and inconsistent regulation between different institutions conducting the same type of business.

- Public perceptions and credibility may also be a significant issue in that, with multiple agencies, it may not be clear to the consumer which agency is responsible for particular issues of regulation, or to whom complaints are to be addressed.

For these reasons, the institutional structure of regulatory agencies has significance which is greater than simple bureaucratic tidiness. However, the importance should not be exaggerated. It is not difficult to devise a wide range of viable institutional structures: as put by the Governor of the Bank of England, 'there are many ways of skinning this particular cat...and in any event no structure can be set in stone - the markets continue to evolve and so too must the regulatory structure' (George, 1996). A crucial point is that institutional structure does not in itself guarantee what really matters: the effectiveness of regulation in achieving its objects in an efficient and cost-effective manner.

5. THE CRITERIA

Given the wide variety of institutional structures of supervisory agencies around the world, it is evidently the case that there is no single model and that countries have choices in devising their own optimal structures. However, we can outline a set of criteria against which decisions on structure could usefully be judged:

- While many alternative structures will work effectively in a stable environment, different structures may have comparative advantages in times of crisis.
- The impact of alternative structures on the effectiveness and efficiency of regulation and supervision in the financial sector.
- The impact that alternative structures might have on the various and overall costs of regulation most especially with respect to compliance costs on financial firms.
- The issue of public credibility of agencies is an issue to consider.

- In addition, the issue arises as to whether particular institutional structures serve the interests of competitive neutrality as between different sub-sectors in the financial system and between different types of firm which may nevertheless overlap in their business structure.
- If reform is being contemplated, care needs to be taken that strengths in existing arrangements are not compromised or lost altogether. This includes retaining skilled staff in regulatory agencies.
- All agencies need to have clearly defined mandates and responsibilities.
- When financial firms diversify from their traditional business lines, the issue arises as to what institutional structure of supervision is best suited to an environment where financial conglomerates represent a significant part of the financial sector.
- Given that conflicts between the different objectives of regulation and supervision (and in other areas such as the conduct of monetary policy), some arrangements might be more suitable for resolving such conflicts.
- Public perceptions and understanding is an issue to consider.
- There is clearly the important issue of accountability and whether different agency structures are more or less likely to make accountability effective in practice.

Because different countries start from different positions, have different structures of the financial sector, and operate in different legal and political traditions, different countries may apply these criteria and come to different conclusions with respect to optimal institutional structures. While the basic criteria might be universal, their implications can vary.

6. A REGULATORY MATRIX

Four areas of regulation and supervision are identified which, in various ways, need to be accommodated within an institutional structure:

(1) *prudential* regulation (focussing on the safety and soundness of individual financial institutions whether they be banks, insurance companies or securities traders which may also be included within a financial conglomerate),

(2) *systemic* regulation and supervision designed to oversee the stability of the financial system as a whole and most especially the banking and payments system,

(3) *consumer protection* (focussed on conduct-of-business arrangements designed to protect the consumer from factors such as incomplete information, bad practices by financial firms, unfair practices etc), and

(4) *Competition* (designed to ensure that there is an appropriate degree of competition in the financial system and that anti-competitive practices by financial firms are abandoned). A major issue in this regard is how to fit competition issues into the overall institutional structure of regulation and supervision of financial firms, and in particular the extent to which this should be a responsibility of a supervisory agency or whether it should fall within the domain of a general competition agency for the economy as a whole. When the objectives of the Financial Services Authority in the UK were being drafted there was considerable dispute over this issue and a compromise was eventually reached. Enhancing competition was not included as one of the statutory objectives of the FSA though it was mandated to keep in mind the competition implications of its regulation and supervision.

It is also customary to distinguish three broad types of financial business: *banking*, *insurance*, and *securities trading*. In practice, there are many other areas (such as fund management, financial advice etc) which might also be addressed by regulation and supervision and which need to be accommodated within a chosen institutional structure. A central distinction is also made between prudential and conduct of business regulation and supervision and whether they are to be incorporated within the same agency (the *unified* agency model) or are to be kept separate.

The central issue is how the four areas outlined above are addressed in institutional structure. There is a spectrum of institutional arrangements within which are various degrees of integration/unification for prudential and conduct-of-business regulation and supervision. At one end of the spectrum there is a highly fragmented structure with a large number of specialist agencies. At the other end of the spectrum lies a highly concentrated structure with a small number of agencies. In one extreme case (the UK) there is a single agency for all financial institutions which covers both prudential and conduct-of-business issues.

Table 1 summarises the options. At one end of the spectrum, there are dedicated agencies for each area with prudential supervision split between separate agencies for banking, insurance and securities trading (option 1). At the other end of the spectrum lies the *unified* model where all prudential and conduct of business regulation and supervision is vested in a single institution. In terms of the distinction between

integrated and unified agencies, the former is represented in options 3 and 7 in table 1 and the latter in option 2. On the other hand, what in a later section is referred to as the Twin Peaks model (where all prudential regulation and supervision is conducted by one institution and all conduct of business regulation is conducted by another) is represented in options 3 and 7. The one constant in the matrix is that the central bank is always the agency responsible for systemic stability. While aspects of this role might be shared with the Ministry of Finance, the central bank is always involved.

7. ALTERNATIVE FRAMEWORKS

There are broadly three ways of categorising institutional arrangements for regulation and supervision: by *institution*, by *function*, or by *objectives*. Thus different types of institutions may be regulated differently and by different agencies. Alternatively, different functions may be regulated differently and by different agencies irrespective of which institutions are performing those functions. There are hazards in both alternatives. In the case of institutions, the danger is that different regulatory agencies may apply a different type and intensity of regulation which, as different institutions are performing several functions, may give rise to issues of competitive neutrality. On the other hand, focusing upon functions means that a given firm (especially if it is a financial conglomerate) will be subject to many different types of regulation and under the authority of different regulatory agencies, dependent upon the number of business areas in which it is operating.

The ultimate criterion for devising a structure of regulatory agencies must be the *effectiveness* and *efficiency* of regulation: effectiveness relates to whether the objectives are met while efficiency relates to whether they are met in an efficient way and without imposing unnecessary costs on consumers and regulated firms. On this basis, one school of thought argues that the most appropriate basis for organising the institutional structure is in terms of the *objectives* of regulation. There are two main reasons for this. Firstly, regulatory agencies might be most effective and efficient when they have clearly defined, and precisely delineated, objectives and when their mandate is clear and precise. Secondly, accountability might be more effective and transparent when it is clear for what objectives particular agencies are responsible.

In the final analysis, the ultimate objectives and rationale for regulation and supervision in finance are based on various market imperfections and failures which potentially compromise consumer welfare and systemic stability (Llewellyn, 1999a). Carmichael (2003) also argues that unregulated markets and institutions may produce sub-optimum outcomes due to a combination of anti-competitive behaviour, market

misconduct, information asymmetry, and externalities or systemic instability. As noted in Carmichael (2003), "What is interesting about these four sources of market failure is that, by and large, they require different regulatory tools to counteract the market failure." The Wallis Committee in Australia (which reported in 1997) suggested an internationally unique structure of regulatory institutions for Australia based on the nature of market failure. Four institutions were suggested on the basis of this criterion:

- A single prudential supervisory institution to be responsible for the prudential supervision of all financial institutions: the relevant market failure is asymmetric information.
- A single conduct of business (consumer protection) agency: to address issues related to the weakness of consumers in some financial contracts.
- A competition agency to address potential weaknesses of competition in the provision of financial services.
- An institution focussed on the integrity and stability of the payments system and liquidity support for the banking system: the externality issue.

The government accepted this model, and in 1997 created a corresponding institutional structure based on four institutions. Each would be responsible for regulating and supervising all institutions and market participants that were prone to a particular type of market failure but each institution would focus exclusively on that particular failure: the Australian Prudential Regulation Authority (APRA), the Australian Securities and Investment Commission (ASIC), the Australian Competition and Consumer Commission (ACCC), and the Reserve Bank of Australia which would retain its responsibility for systemic stability and the stability of the payments system.

In reality, a strict dichotomy between *functional* and *institutional* regulation, and institutions based on *objectives* or *market failure*, is misleading as they serve different purposes. In practice, it is institutions and not functions that fail or become insolvent and therefore institutions *per se* need to be regulated for safety and soundness. It is the overall institution that must be the focus of such regulation and supervision. *Functional* regulation, on the other hand, is about how an institution conducts the various aspects of its business and how it behaves towards customers. If competitive neutrality of regulation is to be upheld, such functional regulation must apply to particular aspects of the business irrespective of which type of institution is conducting it.

Irrespective of institutional structure characteristics, there is, in practice, no alternative to a *matrix approach*. Firms may be hazardous either because they become insolvent, or because they behave badly with respect to their customers. This means that, as it is institutions (and not functions) that become insolvent, all institutions where safety and soundness is a relevant consideration must be subject to *prudential* regulation and supervision. On the other hand, it is functions which are to be subject to *conduct of business* regulation. Regulated firms will, therefore, be subject to both forms of regulation. Again the question arises as to whether, within the broad spectrum of options, prudential and conduct of business regulation and supervision are to be included within the same agency, or whether dedicated, specialist agencies are to be created.

8. INTEGRATED v. MULTIPLE AGENCIES: THE CASE FOR INTEGRATION

The arguments in favour and against various structures can be outlined by considering the case for and against the fully-integrated prudential agency. One school of thought argues in favour of a single agency for the prudential regulation and supervision of all financial institutions irrespective of their functions. We do not here consider the issue of incorporating conduct of business regulation and supervision within the same agency that is responsible for prudential arrangements. The focus is on integration of prudential supervision.

Several arguments might favour the creation of a single integrated agency for prudential regulation and supervision of all firms:

- As already noted, the distinction between *functional* and *institutional* regulation does not apply in the case of a financial system made up of specialist financial institutions. In the case of financial conglomerates, an integrated agency enables a group-wide picture of the risks of an institution to be more clearly observed and supervised. This is most especially the case when financial conglomerates themselves adopt a centralised approach to risk management and risk-taking. In this case, there is merit in having an institutional structure of supervision that mirrors the practice of regulated institutions. As a result, a more rapid response to emerging group-wide problems should be possible. To the extent that financial institutions have steadily diversified, traditional functional divisions have been eroded. Although there are various ways of addressing overall prudential requirements for diversified institutions, a single, integrated supervisor might be able to

monitor the full range of institutions' business more effectively, and be better able to detect potential solvency risks emanating from different parts of the business. In particular, Taylor (1966) argues: ‘A regulatory system which presupposes a clear separation between banking, securities and insurance is no longer the best way to regulate a financial system in which these distinctions are increasingly irrelevant’. Taylor recognised that there would be some grey areas within the overall structure proposed, but believed that: ‘any system is bound to have its anomalies and illogical ties; it is sufficient that the *Twin Peaks* model has fewer than the alternatives’.

- There may be economies of scale within regulatory agencies (most especially with respect to skill requirements and recruitment of staff with appropriate skills and qualifications). If so, the smaller the number of agencies the lower should be the *institutional* costs. A single regulator might be more efficient due to shared resources etc, and in particular IT systems and support services. The argument for economies of scale might apply particularly to the “small country” case.

- It is likely to be the case that an optimal staff deployment within a unified agency would be easier to achieve than with a specialist and fragmented institutional structure.

- Similarly, there might also be economies of scope (or synergies) to be reaped between different areas of prudential regulation of different types of institution.

- There is less scope for incomplete coverage with some institutions or lines of business slipping through the regulatory and supervisory net because of a lack of clarity about which agency is responsible. There may even be damaging disputes between agencies in a multi-agency structure.

- The interests of competitive neutrality in regulation and supervision as between different types of firms conducting similar business might be easier to sustain within an integrated supervisory regime. A single agency should, in principle, avoid problems of competitive inequality, inconsistencies, duplication, overlap, and gaps which can arise with a regime based upon several agencies.

- There might be merit in having a simple supervisory structure, and one which is readily understood and recognised by regulated firms and consumers.

- The trend for some bank credit risks to be traded and absorbed outside the bank means that bank risks may be absorbed by different types of financial institution in that a loan originally made by a bank may eventually emerge on the balance sheet of a different institution or the credit risk may effectively be absorbed elsewhere. The distribution of all types of risks in the financial system has become increasingly complex and sometimes difficult to disentangle.

- Equally, the distinctions between different financial products has become increasingly blurred which questions the case for regulating them differently. The potential danger of a fragmented institutional structure is that similar products (products providing the same or similar service) are regulated differently because they are supplied by different types of financial firm. This may impair competitive neutrality. It is more likely that a consistent approach to regulation and supervision as between different types of institution will emerge.

- Regulatory arbitrage should be more easily minimised. A potential danger with multiplicity of agencies is that overall effectiveness may be impaired as financial firms engage in various forms of regulatory and supervisory arbitrage. The problem has been put by Abrams and Taylor (2000) in the following way: regulatory arbitrage "can involve the placement of a particular financial service or product in that part of a given financial conglomerate where the supervisory costs are the lowest or where supervisory oversight is the least intrusive. It may also lead firms to design new financial institutions or redesign existing ones strictly to minimise or avoid supervisory oversight." (Abrams and Taylor, 2000). This can also induce "competition in laxity" as different agencies compete in order to avoid a migration of institutions to competing agencies.

- If expertise in regulation is in short supply, it might be more effectively utilised if it is concentrated within a single agency. Such an agency might also offer better career prospects.

- Accountability of regulation might be more certain with a simple structure, if for no other reason than it would be more difficult for different agencies to 'pass the buck'.

- The costs imposed upon regulated firms might be reduced to the extent they would need to deal with only one agency. This was a particularly significant issue in the UK when, prior to the creation of the FSA, a financial conglomerate might be regulated and supervised and required to report to nine regulatory agencies.

In a major study by Luna Martinez and Rose (2003) which was based on a survey of around eighty countries, an analysis was offered of the reasons given by countries that have recently adopted an integrated supervisory agency even though most have stopped short of a unified agency. The two dominant reasons were the need to more effectively supervise the financial system which was moving towards a universal banking model, and to maximise economies of scale and scope (see table 2).

9. THE POTENTIAL HAZARDS OF INTEGRATED AGENCIES

There is clear merit in the above arguments and there is a certain *prima facie* appeal to the concept of an integrated prudential regulator. However, several reservations may be made about such an agency which need to be guarded against:

- One of the arguments alleged to be in favour of a single prudential agency is that, as financial firms have increasingly diversified, the traditional functional distinctions between institutions have been eroded. While this is generally the case in industrial countries, it does not mean that this is true of all countries or even that all institutions in industrial countries have converged on a common financial conglomerate model. In very many countries there remain, and will remain for the foreseeable future, major differences between banks, securities firms and insurance companies.

- Firms in all sub-sectors of the financial system have diversified, but almost invariably their core business remains dominant. The nature of the risks may be sufficiently different to warrant a differentiated approach to prudential regulation. The Reserve Bank of Australia put the issue as follows:

  > "…..insurance companies have long-term liabilities with ill-defined value, while assets are generally marketable with readily ascertainable values. Banks, in contrast, tend to have relatively short-term liabilities with assets which are difficult to liquidate and to value. Consequently, the applicable prudential supervisory regimes are different and there would be few (if any) efficiencies in bringing their supervision together". (Thompson, 1996).

- There is a danger within a single agency that the necessary distinctions between different products and institutions will not be made. A single agency might not have a clear focus on the objectives and rationale of regulation and supervision, and might not make the necessary differentiations between different types of institution and business. Even if the different regulatory requirements of different types of firms are managed within specialist Divisions of an integrated regulator, there is no guarantee that supervisors within the same organisation (but responsible for different types of business) would necessarily communicate and co-ordinate more efficiently and closely than when they are within different, specialist regulatory agencies.

- A potential moral hazard is that a public perception could emerge that the risk spectrum among financial institutions had disappeared or become blurred. In particular, the distinction between deposits which are redeemable on demand at face value, and investments (e.g. life assurance) where the value of an institution's liability is a function of the performance of the institution in managing its assets, could become obscured. An IMF study put the argument this way: "Perhaps the most worrisome of all the criticisms of unified regulation is ….that the public will tend to assume that all creditors of institutions supervised by a given supervisor will receive equal protection." (Abram and Taylor, 2000).

- The creation of a single regulator might involve a loss of potentially valuable information because a single approach is adopted. In effect, there might be merit in having a degree of competition and diversity in regulation so that lessons can be learned from the experience of different approaches. In some respects, the case for not having a monopoly regulator is the same as with any monopolist.

- Further, some may doubt whether there are in fact economies of scale to be derived in an integrated supervisory agency. The economics literature demonstrates quite clearly that diseconomies of scale can also arise in some circumstances. Put another way, what economists refer to as "X-inefficiencies" (i.e. inefficiencies due to sub-optimal resource allocation, and which are not due to the lack of economies of scale) may arise in a monopolist regulator. It is not self-evident that a single, integrated supervisor would in practice be more efficient than a series of specialist agencies based on clearly

defined objectives, and focused specifically on regulation and supervision to meet those clearly defined objectives. In addition, as in Ireland and Finland, economies of scale in infrastructure, IT and services can also be achieved by locating separate agencies within the same building with a sharing of common resources while nevertheless maintaining strict separation in terms of regulatory and supervisory policy and execution.

- A single, all-embracing agency may also be subject to the hazards of the "Christmas tree" effect (see Taylor and Fleming, 1999) with a wide range of miscellaneous other functions being loaded onto it with the effect it becomes overburdened by activities divorced from its primary function and objectives.

Irrespective of the nature of the change to institutional structure arrangements, there are always potentially serious transactions costs to consider: the costs of change itself. There is a degree of unpredictability of the change process itself. The Abrams and Taylor (2000) study notes several dimensions to, what it terms, the "Pandora's Box" effect: a bargaining process is opened between different interest groups; the legislative process might be captured by vested interests; loss of key personnel; managerial diversion from the core activity of regulation and supervision, etc.

A recent World Bank study of institutional structure (Luna Martinez and Rose, 2003) also surveyed the problems encountered in creating integrated agencies. These are summarised in table 3. In particular, legal constraints were highlighted including the need for the law to define the Mission, objectives, powers and scope of the agencies.

10. THE UNIFIED SUPERVISORY AGENCY

The arguments outlined in the previous two sections relate to the case of a single integrated prudential agency. A yet more extreme case of integration within the institutional spectrum is the *unified* agency which combines both prudential and conduct-of-business regulation for all financial institutions and markets. This was the approach of the in-coming government in the United Kingdom in May 1997 which announced a wide-ranging reform of the institutional structure of regulation in the UK and the creation of the Financial Services Authority responsible for all prudential and conduct of business regulation. As the new, single regulator is responsible for both prudential and conduct of business regulation and supervision, and for all financial institutions and markets, the UK has clearly adopted the *unified* regulator concept.

Taylor (1995), referring specifically to the UK, argues that the previous multiplicity of regulatory agencies caused problems associated with regulatory overlap and underlap, duplication, duplicate rule books, a potential for regulatory arbitrage, lack of co-ordination between regulatory agencies, bureaucratic infighting, and lack of transparency in the regulatory system. In his words: "These examples show why structure does, and should matter, if we wish to create an efficient, effective system of financial services regulation".

The potential advantages of a unified agency include those of the integrated model. Briault (1998) outlines arguments for a *unified* agency which apply in addition to those which apply to the integrated model:

- The advantage of harmonisation, consolidation and rationalisation of the principles, rules and guidance issued by the existing regulators or embedded within existing legislation, while recognising that what is appropriate for one type of business, market or customer may not be appropriate for another.

- A single process for the authorisation of firms and for the approval of some of their employees, using standard processes and a single database.

- A more consistent and coherent approach to enforcement and discipline, while recognising the need for appropriate differentiation.

- In addition to a single regulator, a single scheme for handling consumer complaints and compensation, and a single independent Appeals Tribunal.

There may also be additional advantages to incorporating both prudential and conduct of business supervision within the same agency:

- There are circumstances where the distinction between prudential and conduct of business issues are not entirely clear-cut but merge.

- There may be economies of scope through combining the two areas of regulation and supervision.

- It widens the career opportunities for personnel and in the process might enhance recruitment strategies of the agency.

- A unified agency might have greater authority and credibility within the financial system.

- Equally, accountability becomes clear cut because the agency is responsible for the full range of regulation and supervision in the financial sector.

On the other hand, there are also arguments against creating a single unified agency responsible for all aspects of regulation and supervision and in particular for both prudential and conduct of business:

- Prudential and conduct of business dimensions to regulation require fundamentally different approaches and cultures and there may be doubt about whether a single regulator would, in practice, be able to effectively encompass these to the necessary degree. Again as noted by Michael Taylor: 'There are already profound differences between the style and techniques appropriate to prudential and conduct of business regulation, and these are likely to become more pronounced as prudential regulation moves further in the direction of assessment of firms' own internal risk control systems. It would be difficult to combine two such different cultures within a single organisation'.

- A single unified agency responsible for all aspects of regulation and supervision might be considered to be excessively powerful and yet more so than a more limited integrated agency.

- It might also become unwieldy, unresponsive to changing market conditions, and excessively bureaucratic.

- As noted in Abrams and Taylor, 2000), there is a potential conflict of interest between prudential and conduct-of-business regulation and supervision because of the different nature of their objectives. The former is focused on solvency while the focus of the latter is on consumer interests. The *unified* agency might give priority to one over the other. It might be judged that separate agencies responsible for dedicated types of regulation and supervision (i.e. prudential and conduct-of-business) might be more effective at focussing on their respective objectives and mandates.

- As in the case of the integrated prudential supervisor, a single unified agency might not have a clear focus on the different objectives and rationales of regulation and supervision, and might not make the necessary differentiations between different types of institution and business.

- It is possible that significant cultural conflicts may emerge within the organisation if a single agency is responsible for all aspects of regulation, and for all types of financial institutions. Would, for instance, a single conduct of business regulator adequately reflect the fundamentally different requirements, rationale and approach needed for the regulation of wholesale as opposed to retail business? With respect to a unified agency the Reserve Bank of Australia has argued as follows: 'The differences in objectives and cultures would produce an institution which was difficult to manage and unlikely to be clearly focused on the various tasks for which it had responsibility', (Thompson, 1996).

- As with the case of the integrated prudential regulator, it might be argued that specialist agencies which have a clear mandate and set of objectives are easier to monitor and make accountable for their actions and to test their performance against a simple set of regulatory objectives.

- There is also an increased reputation risk in that a regulatory or supervisory failure in any area within a unified agency's remit may contaminate the reputation of the agency and weaken consumer confidence in the agency across the board.

- The so-called Christmas-tree effect (whereby more and more responsibilities in a wide area of finance) are added to the responsibilities of the agency over time.

An argument which is equally relevant to both the integrated and unified agency models is that occasions may arise from time to time when the different objectives of regulation come into conflict with each other. One of the issues to consider, therefore, is what institutional structure is best suited to resolving such conflicts. In a single agency conflicts and their resolution are internalised. However, Taylor (1995) argues that this is undesirable because the resolution of conflicting objectives involves judgements about important issues of public policy, and these judgements and decisions should be made at the political level, in a publicly accountable way. One

alleged merit of focussing institutional structure upon regulatory *functions* is that it requires significant conflicts between different objectives to be resolved at the political level.

11. TWIN PEAKS

The previous three sections have considered the arguments related to the integrated and unified agency models. These are not the only options being considered around the world. One of the intermediate models in the Regulatory Matrix (table 1) is the Twin Peaks structure. Taylor (1995 and 1996, Goodhart (1996), Goodhart, *et. al*. (1999) have all proposed an alternative approach to regulation and supervision based upon the objectives of regulation. This involves creating two separated integrated agencies: for prudential and conduct-of-business regulation and supervision. Both distinguish the two main objectives of regulation (the safety and soundness of institutions and consumer protection) and argue that systemic considerations do not relate exclusively to banks but include a wider range of financial institutions.

A key issue in the Twin peaks model is whether or not the central bank is to be the prudential agency. As already noted, something very much like the Twin Peaks approach was recommended by the Wallis Committee in Australia in April 1997, and the recommendations were accepted by the government. Historically, the Reserve Bank of Australia had been the prudential regulator of banks but not of other financial institutions. The Wallis committee argued against the single prudential regulator being the central bank. However, it also argued that systemic stability (with respect to the payments system) would remain a responsibility of the Reserve Bank of Australia. The central bank would retain powers of lender of last resort to those institutions involved with the payments system. On the other hand, the Netherlands did make De Nederlandsche Bank the prudential peak in its reform of institutional structure in 2005.

There are several advantages to a Twin Peaks model where all prudential supervision is centred in a dedicated agency and all conduct of business regulation and supervision is located in another. The prudential peak may be either located within the central bank (as is the case in the Netherlands) or outside it as in Australia. This model is designed to secure all the advantages of integration in the two areas of regulation and supervision while mitigating the disadvantages that might exist in the unified model. The advantages may be summarised as follows:

- The two agencies have dedicated objectives and clear mandates to which they are exclusively committed.

- Accountability is clear because the objectives and mandates of the agencies are clearly defined.
- There is no danger that one or the other areas of regulation and supervision will come to dominate. It is sometimes alleged that a unified agency might in practice give priority to prudential regulation and supervision.
- There should be no problem of mixing the different cultures of the two areas of regulation and supervision.
- If conflicts arise between the two areas, these are more likely to be settled externally and with publicity.
- There is less concentration of power than in the unified model.
- Reputation and contamination risks are likely to be lower.

12. THE ROLE OF THE CENTRAL BANK

A key issue in any institutional structure of regulatory and supervisory agencies is the position and role of the central bank. In the vast majority of countries, the central bank has historically been responsible for both systemic stability and the prudential regulation and supervision of banks. In only a very small minority of cases has it also been responsible for the supervision of non-bank financial institutions. Even so, and as noted by Healey (2001), there are several alternative models for the role of the central bank dependent upon whether they are involved in monitoring the payments system, the provision of emergency liquidity to the markets, the supervision of banks, the management of deposit insurance, and a safety-net/ crisis resolution role.

International experience varies considerably. In some countries, the central bank is responsible for the supervision of banks and only banks. In others, it is responsible for banking and insurance and/or securities trading. In the Netherlands, which has recently adopted the Twin Peaks model, the central bank has been made the prudential peak. In many countries, on the other hand, responsibility for prudential supervision of all financial institutions (including banks) has been withdrawn from the central bank.

Almost universally the central bank is allocated at least some role in maintaining systemic stability even if it is not involved in the prudential supervision of the banks that make up the system. It is ironic, therefore, that there is no universal definition or agreement about what constitutes systemic stability, and in very few countries is there formal legal authority for the central bank to undertake this task (Oosterloo and Haan, 2003). It is equally ironic that, while many central banks have some role in crisis

management, they do not have the financial resources to mount significant rescue operations.

The first issue to be addressed is that of power. A survey of international experience is given in Goodhart *et al*, (1998), Chapter 8. Of the eight countries in the world at the time that had in place a single, all-embracing financial regulatory authority (including the UK), all but one had made this separate from the central bank; the sole exception was the Monetary Authority in Singapore. This is not accidental. Particularly if the central bank has independent powers to set interest rates, the combination of a wide-spread regulatory function with monetary control might be thought to place excessive powers within the hands of unallocated officials. It might also stand in danger of a moral hazard that a public perception may emerge that any "safety net" that might apply to banks might be extended to a wide range of financial institutions.

The next issue is that of possible conflicts of interest. This is frequently advanced by academic economists as the main argument against central bank participation in regulation, in the belief that a central bank with responsibility for preventing systemic risk is more likely to loosen monetary policy on occasions of difficulty (e.g. Cukierman, 1992; Brimmer, 1989; Heller, 1991). Indeed, there is a slight statistical relationship between responsibility for regulation and higher inflation. However, there is no reason why assistance to individual banks in difficulty need affect the aggregate provision of reserves or level of interest-rates. Any lender of last resort assistance can, in the aggregate, be offset by open market operations. Furthermore, cases where the banking system of a country gets into serious difficulty, (USA 1930-33; UK 1974-75; Japan 1992 to date; Scandinavia in the late 1980s and early 1990s) are much more likely to be periods of deflation than inflation, and the really serious sins of omission are of insufficient support in such cases. Goodhart and Schoenmaker, (1995), identified few cases where the concern of a central bank for the solvency of its banks has been a major factor in an excessively expansionary monetary policy.

Indeed, the question of conflicts of interest might in some cases be an argument in favour of giving the central bank such supervisory responsibilities. The question here is, if not the central bank, then which other body will have such powers, and what conflicts of interest might they have? If the central bank does not play this role, will it then be given to a body more subject to direct political influence? If public policy conflicts do arise they will do so irrespective of whether supervision is a responsibility of the central bank. Such conflicts may arise whatever institutional structure is created, and they must be resolved somehow. The key issue is whether

the transaction costs of resolving them are greater or less when they are resolved internally rather than externally. A particular view on this issue has been put by the Reserve Bank of Australia:

> By supervising banks, (the central bank) gains first-hand knowledge and 'feel' for financial market conditions and for the behaviour of those institutions which are a key element in the transmission of monetary policy changes to the general economy. This can be an important input into monetary policy decisions. There are more likely to be complementarities between supervision and monetary policy than conflicts, and any conflicts that do arise will need to be resolved however the various responsibilities are allocated, (Thompson, 1996).

The arguments for and against the separation between monetary policy and bank supervision have been discussed in detail in Goodhart and Schoenmaker (1995). The advantages of having the central bank also serve as the supervisory agency of banks in the financial system may be summarised as follows:

- As the central bank has responsibility for oversight of the system as a whole, and also the stability of the payments system, there are potentially powerful synergies in also being the supervisory agency for the institutions that make up the system. Some analysts doubt that, in practice when stability is under strain, it is feasible for an agency to be responsible for the system but not the individual firms. This is the view, for instance, of De Nederlandsche Bank. With respect to the UK, the IMF has argued: "As regards risk, the separation of banking supervision and lender-of-last-resort facilities will require the FSA and the Bank of England to act in close co-ordination in the event of a crisis." Whether, in the event of a crisis, the central bank retaining responsibility for systemic stability is viable without also being responsible for prudential supervision of banks remains to be seen.

- In countries with a highly concentrated banking system, it is difficult to distinguish individual banks from the system as a whole. This is an argument that has been used, for instance, in South Africa.
- Because the central bank will always be responsible for systemic stability in the banking sector, if the central bank is not responsible for prudential supervision there will necessarily be a degree of duplication of effort and information collection between the central bank and the supervisory agency.
- The central bank necessarily gains information about banks by virtue of its monetary policy operations. There are, therefore, information synergies between the conduct of monetary policy and the prudential supervision of banks.
- The central bank needs information about the solvency and liquidity of banks when considering its lender-of-last-resort role.

- The central bank often has an independent status in the economy which might not be replicated by other regulatory or supervisory agencies. It status, independence and reputation has already been established and this might not be easily transferable to a new agency.
- The central bank usually has considerable authority in an economy and this enhances the credibility of regulation and supervision if it is allocated this task.
- From time to time, conflicts of interest can arise between the requirements of monetary policy and the prudential position of banks. It can be argued that such conflicts are better resolved internally within a single agency than externally between different agencies. Monetary policy operates largely through interest rates which also impact on the financial position of banks.
- The status of the central bank may enhance its ability to recruit the necessary skills for bank supervision.

Many of the basic arguments have been summarised well by Oosterloo and Haan when reporting the views of De Nederlandsche Bank in a survey report of central banks around the world:

> "According to the Dutch central bank, having banking supervision, oversight of the payments system, and monetary tasks under 'one roof', eases the exchange of information, co-ordination and co-operation between the monetary and financial stability functions on the one hand and the supervision of institutions on the other." (Oosterloo and de Haan, 2003).

There are, however, contrary arguments to having the central bank as the supervisory agency of banks:

- It may be viewed as concentrating excessive power in the hands of an unelected central bank whose accountability may be weak.
- Regulatory failures may compromise the authority of the central bank in other areas of its activity: there is a potential reputation risk and externality.
- The central bank may compromise its monetary stability objectives because they may conflict with its objective of securing the safety and soundness of banks.
- A moral hazard may be created to the extent that the public may judge that they have the same protection (e.g. deposit insurance) with all financial business as they have with banks.

The Reserve Bank of South Africa has devised something of a working compromise between the opposing arguments regarding the location of bank supervision. This has been achieved by establishing an 'arms length relationship' between the Office of the Registrar (of banks), which is located within the Reserve Bank, and the Reserve Bank itself and particularly its role as lender of last resort. Despite being a senior Reserve

Bank official, the Registrar has some autonomy and independence in the administration and implementation of his functions, but also clearly defined restrictions when it comes to decisions on monetary policy. This seems to accept a degree of inevitability that, at least in the current circumstances of South Africa, the central bank must have some role in bank supervision though an attempt has been made to guard against some of the potential hazards involved in such arrangements.

In a recent reform of institutional arrangements for financial regulation and supervision, the government of Ireland has embedded prudential regulation of banks and other financial institutions within the central bank (it was previously already responsible for banks and securities) but at the same time changed the structure of the bank. Supervision and monetary stability are now separated and run as independent arms within the central bank. However, as Ireland is a member of the European Monetary Union, the monetary policy powers of the central bank are now very limited.

In practice, no bank regulator could, or should, ever in practice be totally independent of the central bank. The central bank is the monopoly provider of the reserve base, and the lender of last resort. Any serious banking problems are bound to lead to calls for the central bank to use its reserve-creating powers. Moreover the central bank, in its macro-policy operational role, must have a direct concern with the payments and settlement system, the money markets, and the development of monetary aggregates. Any serious problem with the health of the banking system will touch on one, or more, of these concerns. So there is bound to be, and must be, very close relationships between the bank regulator and the monetary policy authority. Establishing such relationships is one of the priorities in structural reform.

This need for co-ordination might suggest unifying the functions within the central bank. But, for a variety of reasons (including the need for confidentiality) when the central bank combines both roles, the Supervisory Department is usually separate from the monetary policy department. Co-ordination is then only regarded as necessary between the top officials. Such regular meetings of senior officials can be organised just as easily whether their subordinates are in separate, or the same, building, and whether their organisation is formally separate, or not. Perhaps the only real difference is that disagreements between senior officials would be settled (quietly) within the central bank in the case of unification, and outside the Bank, presumably by the Minister of Finance, with more likelihood of publicity, in the case of separation. However, it is hard to identify actual cases of publicly-observed

disagreement between the central bank and the separate bank regulator, in countries where there is such a separation.

A final issue relates to the finance of bail-outs, should they occur. 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', organised 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. Such rescues depend on the existence of a well-defined 'club' of banks, who are prepared and able to spend shareholders' funds to protect the reputation and the privileges of that club. With a mixed array of niche, specialist and universal, domestic and multinational banks, agreement to pay out funds to revive an ailing competitor could not be achieved.

The implication is that any large rescues within the banking field will, in future, have to be financed by taxpayers' funds (see Goodhart and Schoenmaker, 1995). If so, the central government, politicians and Ministries of Finance, will have to be involved in any large failures/rescues. This, in turn, will have a bearing on the question of the relationship between the body charged with prudential regulation and supervision and the central bank.

The bottom line is that banking realities will force there to be considerable co-ordination and interaction between the senior officials dealing with monetary policy and with bank supervision. There must always be a close link between the central bank and the supervisory authority. In the case of the UK, there is a Memorandum of Understanding between the Treasury, FSA, and Bank of England regarding arrangements for maintaining financial stability. There is also a Standing Committee with members from the three institutions which meets monthly. The question whether the banking supervisory body is formally within, or outside, the central bank is then essentially a subsidiary issue, depending on perceptions of the appropriate locus of power and responsibility. These perceptions will vary depending on the accidents of history and culture. There is no single, best approach under all circumstances, as is clearly evidenced by the variety of regulatory structures in being in different countries.

Payments and Safety-Net Provision

The Bank of England recently conducted a survey of the role of central banks in several countries. As noted in a summary of the survey's results contained in the November 2000 issue of the Bank of England *Quarterly Bulletin*, while practice with respect to responsibility for regulation and supervision varies considerably, "...the maintenance of financial stability is, and remains, a core function for all central banks."

The main findings of the survey respect to responsibility for the payments system and safety-net provision and crisis resolution may be summarised as follows:

- All central banks have responsibility for the payments system.

- There is a remarkable degree of similarity between all countries with respect to the role of the central bank in the area of safety-net provision.

- In all but two cases, the central bank provides emergency *liquidity* assistance to the market.

- In all but two cases, the central bank provides emergency *liquidity* assistance to deposit-taking institutions and one of the exceptions operates a Currency Board which effectively precludes the operation of lender-of-last-resort facilities by the central bank.

- The position with respect to emergency *liquidity* assistance to non deposit-taking institutions is more complex. In six industrial and two developing countries, central banks may provide some such assistance suggesting a widening of the LLR role from its traditional focus on banks.

- Only one central bank (that of Chile) offers emergency *solvency* assistance to banks and none at all offers such assistance to non deposit-taking institutions.

- In only seven cases does the central bank itself offer deposit insurance.

- "Honest broking" is a central bank function in all industrial countries and most developing countries. In some countries (notably the UK) this is mainly restricted to cases of systemic risk and involves co-operation with other supervisory agencies.

- Although there is a high degree of commonality with respect to the role of the central bank in safety net provision, there is less commonality of experience with respect to the role of the central bank in crisis resolution. In the majority of industrial countries, the central bank is not involved with, for instance, the sale of assets of insolvent institutions. On the other hand, the central bank in the majority of developing countries is involved with crisis resolution and the sale of assets of insolvent institutions. Overall, in four industrial countries and ten developing countries this aspect of crisis-resolution is at least in part a responsibility of the central bank. The Bank of England notes that in its case: "the central bank's role in crisis resolution would be co-ordinated with other agencies, and will doubtless evolve with experience".

The overall conclusion is that safeguarding financial stability is a core function of the modern central bank even though it may not be responsible for regulating and supervising banks and other financial institutions. Irrespective of the decision about the role in regulation and the supervision of individual financial institutions, the central bank must necessarily be centrally involved in safety-net arrangements, liquidity support, the payments system, and maintaining stability in the financial system as a whole. In cases where it is not responsible for regulation and supervision, its responsibility for financial stability requires co-operation with and from those agencies which are responsible for regulation and supervision. This issue cannot be ducked and explicit arrangements are needed.

13. INTERNATIONAL EXPERIENCE

As already emphasised, there are many different models for the structure of regulatory and supervisory institutions for the financial sector and there is evidently no commonality of experience. Different countries have chosen different models which in itself suggests that there is no single “best” model. The optimal model may be different for different countries dependent upon, *inter alia*, the structure and size of the financial system, the specific objectives of regulation and supervision, a country’s specific historical evolution, political traditions, etc. No consensus has emerged though there is a general tendency for the number of separate institutions to decline and for there to be more integrated supervision. There have been several surveys of international practice most notably by Luna Martinez and Rose (2003), Masciandaro (2003), Llewellyn (1999b), Healey (2001), and Carmichael, *et.al*., 2004.

Great care is needed when interpreting such studies. Firstly the landscape is changing rapidly and empirical studies soon become dated. It is known that several countries

are currently re-considering their institutional arrangements in this area. Secondly, caution is needed when interpreting descriptions of structures, in addition to the general problem of encapsulating sometimes complex structures in a simple form. The nuances cannot be captured in a simple tabulation. Thirdly, the practice is not always as precise or straightforward as might be suggested by formal structure: demarcations and responsibilities are frequently not as precise as the formal structure of agencies might suggest. For instance, in many countries where the central bank is not the primary supervisor of banks, its role in practice may nevertheless be influential. This would be true, for instance, in France and Germany. It is also often the case, and irrespective of formal structure, that the Ministry of Finance and other government departments have significant roles in the regulation and supervision of financial firms and markets. Fourthly, there are varying degrees of co-ordination, co-operation and information-sharing between regulatory and supervisory agencies when responsibilities overlap, and in some cases agencies have joint responsibility in some areas.

Institutional structure is also complicated in some countries because of the existence of both Federal and Regional/State agencies. This is notably the case in the United States, Australia and Canada. In Canada, for instance, while prudential supervision is conducted by the Office of the Superintendent of Financial Institutions, securities regulation and insurance-related consumer protection are provided separately by Provincial agencies. Moreover, securities companies and credit unions are supervised by both Federal and Provincial agencies in Canada.

The important differences relate to four main areas: (1) the number of agencies responsible for prudential supervision, (2) the extent to which arrangements are based on dedicated specialist institutions or are, to some extent, integrated, (3) the role of the central bank in prudential supervision, and (4) which agency(ies) is to be responsible for conduct of business regulation and supervision. As already noted, care is needed in the use of the terms “unified” or “integrated” as they refer to different arrangements. In general, there are more countries that have linked the regulation and supervision of banks and securities companies than have integrated either with insurance. This is largely because there is an element of commonality between banking and securities (in that the risks of both emanate from the assets side of the balance sheet) whereas risks in insurance are based largely on the liabilities side.

Historically, the norm has been to have institutional arrangements based on separate agencies for different institutions. This partly reflected the norm that banking, insurance and securities trading were conducted by specialist institutions. However, in recent years there has been a trend towards more integration and concentration of power even though no single model has emerged.

The international experience (based on a sample of 104 countries in 2005) is summarised in table 2. At the end of that year, a total of 56 countries had some form of integrated supervision (three or two of the sectors) though this number had increased significantly over the previous six years. Of these, 30 countries had adopted the Single Supervisor model (options 3 or 7 in table 1) and at least one country – the UK – had integrated all prudential supervision and conduct of business regulation and supervision (option 2). Thus, the Single Supervisor model is not homogeneous and marked differences exist between countries within this group. Overall, close on 30 percent of the sample had adopted the Single Supervisor model (with recent additions including Estonia, Germany, Malta and Ireland) while 44 percent maintained single dedicated institutions for each sector separately. There is no obvious pattern in that, for instance, the US maintains a multi-agency approach whereas many other industrial countries (e.g. the UK, Scandinavian countries, Japan) have adopted a fully unified structure.

Based on a sample of 160 countries, table 3 (the present author's construction) focuses on the institutions that supervise banks. In the majority of cases, the central bank is responsible for supervising banks and in 80 percent of the cases the central bank is responsible for only bank supervision. In only nine cases the central bank is responsible for prudential regulation of all three sectors, and in 17 other cases the central bank is responsible for supervising more than banks. This confirms an earlier judgement that, while there is some trend towards integrated supervision, this usually does not include the central bank even though historically it might have been responsible for the regulation and supervision of banks.

Considering the countries where an agency other than the central bank is the supervisory authority of banks, in the majority of cases (77 percent) that agency is also responsible for supervising securities and/or insurance. Taking the two together, in well over half the sample banks were supervised by a dedicated agency which is not responsible for any other sector.

Table 4 considers a sample of 105 countries where there are agencies for regulation banks, insurance and securities. We find that in 37 percent of the cases, prudential supervision is conducted on an entirely integrated basis, i.e. all three areas are supervised by a single integrated agency. Only in nine cases is this agency the central bank. However, we also find that 40 percent of countries still maintain separate agencies for each of the three sectors. Table 5 also shows that the number of fully integrated agencies has risen over the years and in particular from 22 to 39 since 2000.

More detail is given in table 6 updated from Masciandaro (2003) where a Concentration Index is constructed based on the basis of weights assigned to how many sectors an agency is responsible for. The higher is the Financial Authorities Concentration Ratio (FAC) in table 6, the more concentrated is financial supervision. The maximum score of 7 (where all three sectors are supervised by a single agency) is found in 31 percent of the sample and have been rising over recent years.

More generally, the Masciandaro study finds that: "the probability that a country will increase the degree of concentration of powers of financial supervision….is higher: (1) the lower is the involvement of the central bank in these powers, (2) the smaller is the financial system, (3) the more equity-dominated is the private governance model, (4) the more concentrated is the intermediation system, and (5) the more the public governance is good, (Masciandaro, 2003).

Masciandaro relates in a matrix (Figure 1) the degree of concentration of supervision and the role of the central bank. A clear relationship emerges in that the higher is the degree of concentration of supervision (the FAC index in figure 1) the lower tends to be the role of the central bank in financial sector supervision. Conversely (though with the notable exception of Ireland) the greater is the role of the central bank the less concentrated supervision tends to be. Again this demonstrates the almost universal conclusion that when financial supervision is concentrated (i.e. a single agency is responsible for a wide area of supervision) that institution tends not to be the central bank. This also highlights the issue raised in section 1 that the possible preference to have the central bank as the supervisory agency for banks may be in conflict with another preference to have a unified supervisory agency.

It is also the case that a higher proportion of central banks in developing countries are responsible for bank supervision than is the case with industrial countries where, until last year, the proportion has been falling (e.g. bank supervision has recently been

taken away from the central bank in the UK, Austria and Australia) as more countries have adopted the integrated agency but have chosen for this not to be the central bank. This general trend has recently been reversed as some countries have extended the remit of the central bank to include the supervision of more than banks. The Netherlands is a notable example.

Many of the arguments in favour of the central bank being responsible for bank supervision (notably economies of scale, independence, authority, moral suasion authority) apply particularly to developing and emerging market economies. It is also the case that in many such countries the financial system is dominated by banks, with non-bank financial institutions tending to be specialist in nature.

The Luna Martinez and Rose (2003) study also considers the scope and powers of unified supervisory agencies. The main finding is that, as observed earlier, there is substantial diversity in experience again confirming the conclusion that unified agencies are by no means homogeneous in that their scope varies as do their powers.

14. CORPORATE GOVERNANCE ISSUES

Whatever institutional structure of agencies is created in any particular country, important issues of corporate governance arise and need to be settled because they are likely to have an impact both on the agencies' effectiveness and efficiency and also its public credibility. Referring more generally to corporate governance arrangements, the OECD defines corporate governance as:

> "the system by which business corporations are directed and controlled….It involves the set of relationships between a company's management, its board, its shareholders and other stakeholders. Corporate governance also provides the structure through which the objectives of the company are set and the means of attaining these objectives and monitoring performance are determined." (OECD, 1999).

With respect to regulatory and supervisory agencies, there are several key areas in corporate governance arrangements relating to:

- The legal nature and legitimacy of agencies and the legal route through which they are created.
- Transparency: in particular, this relates to the clarity of the agencies' mandates, objectives, rules, responsibilities and procedures.
- Independence: the extent to which an agency is independent of external influence in its rule-setting and adjudications. The position has been put by Carmichael as follows: "the regulator should have the capacity to

develop, implement, and enforce regulatory policy without inappropriate interference from the national legislature, government or industry." (Carmichael, 2002). The difficulty is in defining "inappropriate". On the one had, the elected political authorities, and the legislation that establishes an agency, have the right to set the broad objectives of regulation. On the other hand, there should not be interference in the way these are applied to particular regulated financial institutions. Between these two ends of the spectrum may be disputable issues.

- Intervention and disciplinary procedures.
- The structure of any Managing Board that is created within the agency and the nature, security and source of appointments to it. A particular issue relates to whether, as in the UK, the Board also has representatives of the industry itself.
- Appointment procedures of senior staff of the agency.
- The terms of appointments and the security of staff members of the agency.
- The integrity of the agency and its Board and staff and the procedures to monitor this area.
- The extent of legal immunities of staff members acting in a *bona fide* manner.
- Competence of the agency and its personnel.
- Accountability arrangements of agencies. This needs to settle issues such as accountability for what, when, how and to whom.
- Communications and consultation procedures.

Das and Quintyn (2002) emphasise four prerequisites for good regulatory governance in regulatory and supervisory agencies: *independence*, *accountability*, *transparency*, and *integrity*.

There are also internal governance arrangements to settle which include mechanisms and procedures for authorisation of financial firms, mechanisms for dispute resolution and appeals in the event that an agency takes sanctions against a regulated institution, the funding arrangements of agencies and in particular the extent to which it is funded by the industry (in which case the nature of the formula needs to be considered), the resources available to an agency, and the remuneration of agency employees. With respect to the last-mentioned, there is often a dangerous tendency to underpay regulatory staff relative to the firms being regulated. This needs to be resisted as

effective regulation and supervision cannot be bought on the cheap: false economy needs to be resisted.

There are several reinforcing links between the various components of the corporate governance nexus outlined above. For instance, transparency can assist in maintaining independence, and can also reinforce accountability mechanisms. The integrity of an agency is also likely to be reinforced through enhanced transparency arrangements. As noted in Das, et. al. (2003): "Legal protection of agency staff, as well as clear rules for appointment and removal of agency heads support both their independence and their integrity." Also, accountability is a mechanism for monitoring and inculcating integrity.

There are several reasons why corporate governance arrangements are important in regulatory agencies:

- Regulatory and supervisory agencies have considerable power for which they need to be made accountable.
- They also have considerable discretion in the way that powers are used.
- They determine the effectiveness and efficiency of the agencies' operations.
- They have a powerful impact on the agency's credibility, authority and public standing.
- They have an important impact on the authority and credibility of an agency's attempt to encourage and require effective corporate governance arrangements within regulated firms. To some extent an agency needs to serve as a role model.
- Supervisory agencies need to earn and sustain credibility and legitimacy and this is unlikely to emerge if governance arrangements are weak.
- There is a potential for a regulatory or supervisory agency either to be effectively captured by the industry or unduly influenced by government for political reasons.
- They utilise considerable resources for which they need to be accountable.
- Agencies need to gain international credibility which is less likely to emerge when governance arrangements are weak.

Good corporate governance is an important dimension in the regulation and supervision of financial firms and supervisory agencies have a potentially powerful role in establishing good practice, rules and requirements with respect to corporate governance in regulated institutions. Regulatory and supervisory agencies have a key role in promoting and monitoring sound corporate governance practices in regulated

firms. This role of an agency is severely impaired, and will lack credibility and authority, if it itself is not subject to effective corporate governance mechanisms and arrangements. As put by Das, et. al. (2003): "Good regulatory governance practices help reinforce the credibility and moral suasion authority of the regulatory agencies in promoting practices among market participants…….By failing to apply good governance principles, regulatory agencies lose the credibility and moral authority to promulgate good practices in the institutions under their oversight. This could create moral hazard problems and contribute to unsound practices in the markets."

There is also statistical support for the value of good corporate governance arrangements within supervisory agencies. Das, et. al. (2003) construct indices of financial stability and sound corporate governance arrangements within regulatory agencies for a large sample of countries. They find statistical relationships that confirm the importance of good regulatory governance for the soundness of the financial system. These requirements are relevant whatever particular institutional structure is in place.

15. CONCLUDING REMARKS

The institutional structure of regulation and supervision has recently become an issue of public policy debate in several countries which indicates a certain unease about prevailing structures. International experience indicates a wide variety of institutional regulatory formats which suggests there is no universal ideal model. A key issue is the extent to which regulatory structure impacts on the overall effectiveness and efficiency of regulation and supervision, since this should be the ultimate criterion when making judgement between alternative formats. This is why the issue of institutional structure is important.

However, in itself institutional structure does not in itself guarantee effective regulation and supervision, and it would be hazardous to assume that changing the structure of regulatory institutions is itself a panacea. What institutional structure does is establish the framework in which to optimise a regulatory regime. In effect, institutional structure provides the architecture of regulation and supervision. As put by Carmichael (2003):

> "New structures do not guarantee better regulation. More appropriate structures may help but, fundamentally, better regulation comes from stronger laws, better-trained staff and better enforcement. Any country that thinks that tinkering with the structure of agencies will, by itself, fix past shortcomings is doomed to relive its past crises"

With the emergence of mixed financial institutions, the case for unified agencies has strengthened as they more closely mirror the emerging structure of financial systems and the business of financial firms. However, there are reservations and some countries still opt for an institutional structure more closely focused on the objectives of regulation. Whatever decisions are made it needs to be recognised that a perfect institutional structure is a chimera and it might be necessary to accept the inevitability of working within an imperfect structure.

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BIOGRAPHICAL NOTE

David Llewellyn is the Professor of Money and Banking at Loughborough University in the UK and Visiting Professor at the CASS Business School (London), IESE Business School (Madrid) and the Swiss Finance Institute (Zurich). He has previously worked at the UK Treasury in London and at the International Monetary Fund in Washington. He was a Public Interest Director of the Personal Investment Authority and has served as a consultant to financial institutions, central banks and regulatory authorities in several countries. He has researched and written extensively in the area of financial regulation: recent publications include *The Economic Rational of Financial Regulation* and, with Charles Goodhart and others, *Financial Regulation: Why, How and Where Now?* In 2003 and 2004 he was a consultant to PricewaterhouseCoopers on an EU Commission project investigating the Economic Impact of Basel 2. Between 2000 and 2006 he was the President of SUERF: The European Money and Finance Forum.