APPLYING RIA TO POLICY MAKING IN THE AREA OF CORPORATE GOVERNANCE

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CHAPTER 5. APPLYING RIA TO POLICY MAKING IN THE AREA OF CORPORATE GOVERNANCE

Chapter 5 looks at a study within the OECD of the application of RIA in the field of the regulation of corporate governance. Noting that the requirement to undertake RIA is an established part of the regulatory systems of OECD members, this chapter examines examples of the application of RIA by financial services regulators to strengthen their evidence-based policy-making. It draws on examples from OECD experience notably; Canada, Australia, the UK, US and the EU. It looks at how regulators have dealt with some of the challenges to effective RIA which include; defining the problem, undertaking effective consultation, and identifying and measuring costs and benefits.

Introduction

The general requirement to undertake Regulatory Impact Analysis (RIA) on new policy initiatives is becoming more commonplace in OECD jurisdictions. This development has been aided by the *2005 OECD Guiding Principles for Regulatory Quality and Performance* (OECD, 2005) which promoted the use of RIA to assess impacts and review regulations systematically to ensure that they meet their objectives efficiently and effectively. However, the take-up has been neither universal across countries nor across policy branches. Thus RIA is quite firmly established in some countries in areas such as the environment and transport while other regulatory organs of the state remain relatively untouched by these developments. This is particularly so for the various policy makers concerned with corporate governance.[i]

There is nothing in principle to suggest that RIA is not a suitable technique for developing corporate governance policies. Policy decisions often appear to be reactions to scandals so that their adequacy and efficiency, including consideration of possible negative side-effects, have often been a cause for public concern. RIA demands systematic consideration of different options and so would aid better policy formulation even, or especially so, in times of scandal. The limited use of evidence-based approaches such as RIA is often put down to the difficulty, if not impossibility, of measuring benefits in this policy area and might be an important consideration with some policy makers such as a Ministry of Justice. However, full quantification of benefits is but one aspect of RIA and not necessarily the most important one.

To convince policy makers that RIA is a valuable technique also in the corporate governance policy area will require both political support as well as a change in culture. This will be made easier if one can point to successes in actually using the technique. This chapter therefore documents examples of policy makers in some jurisdictions in the OECD using RIA techniques effectively to improve the assessment of potential benefits and costs and therefore the potential effectiveness of different regulatory approaches. The examples are also relevant to practitioners in other policy areas where there is also resistance to a closer and more explicit consideration of policy alternatives.

The *OECD Principles* already recommend the use of what amounts to regulatory impact assessment in assessing policy options in the area of corporate governance. Principle I.A of the OECD Principles of Corporate Governance (OECD Principles hereafter) recommends that policy makers develop the corporate governance framework "*with a view to its impact on overall economic performance, market integrity, and the incentives it creates for market participants and the promotion of transparent and efficient markets.* The OECD's Steering Group on Corporate Governance has therefore launched a study about issues that arise in the process of implementing RIA in the area of corporate governance. This chapter is based on this on-going work.[ii]

The first section focuses on procedures to identify both market and regulatory failures which, *inter alia*, form the basis for government intervention even in the corporate governance area. The second section deals with *ex ante* RIA including the general approach which might precede, and be a foundation for, public consultations. The section covers both cases where there is little quantification available, so that the analysis must remain essentially qualitative, and other areas where some quantification is both possible and desirable. Several different approaches to quantification are covered including econometric models, and potential pitfalls noted. Policy questions covered include the composition of audit committees, reporting obligations of directors, rights issues, special rights for some shares (*i.e.* golden shares), and improved disclosure.

The third section covers several processes and techniques that can be classed as *ex post* RIA. The classification *ex ante* and *ex post* is only for expositional purposes since *ex ante* analysis will often necessarily be based on *ex post* studies pointing to failures of regulatory intervention or excessive cost. Developments in this area appear to be less advanced than for *ex ante* analysis. Examples include

disclosure regulations, insider trading and the impact of Sarbanes Oxley. Concluding comments are presented in the fourth section.

Clarifying the policy questions

Regulatory impact assessment is as much a style of analysis and approach to solving policy issues in a coherent manner as it is an empirical technique and getting the policy question right is as important in corporate governance as in other areas. For example, how to stop corporate fraud and financial mis-statements, how to ensure "accurate" audits and how to control "excessive" executive compensation are just some of the policy questions that have been posed where the policy response is far from clear. The prohibition of fraud and ensuring total audit reliability are simply not possible without drastic and costly measures so that other measures based on a balance of likely costs and benefits are called for. Past measures to control executive compensation have been counter-productive with performance-based systems in the US circumventing a ban on tax deductibility for payments above USD 1 million. It is hardly surprising, therefore, that in a number of countries policy making appears to be moving in the direction of encouraging or empowering shareholders to object to compensation schemes (*e.g.* say on pay). The way the policy problem is defined has thus moved to some extent to be more in line with RIA approaches including threshold tests and market failure analysis.

Threshold tests to determine if policy action is justified

The 1995 OECD recommendations on regulatory quality (OECD, 1995) highlighted the need for a "threshold test" to be undertaken to determine whether regulation, including more general legal measures, is justified. Such a test would respond to Questions 2 and 3 of the OECD checklist: "Is government action justified" and "Is regulation the best form of government action". Thus a threshold test should clearly define the problem and highlight the full rationale for government action. For example, a threshold test would clearly define the problem or the rationale for regulation to include:

- Market failure (such as a lack of, or misleading information, presence of externalities or public goods, or use of excessive market power);

- Regulatory failure (such as government imposed restriction on competition that is not in the public interest; ineffective regulation);

- Unacceptable hazard or risk;

- Social goals/ equity issues, other goals etc.

Unacceptable hazard or risk might also be a rationale for whether government measures and specifically regulation can be justified. As OECD 2007 notes, risk analysis also has a wider role in RIA methodology, constituting a key means of assessing alternative approaches and having a significant role in the analysis of the appropriate degree of regulatory stringency.

From the viewpoint of RIA in the corporate governance context, more guidance would appear to be required than the broad threshold test above. This is because for RIA in a corporate governance context, it might be necessary to be clearer about the policy objectives or intermediate objectives before identifying "the problem", which might be market failure, regulatory failure, or even a risk issue, before recommending what type of regulatory intervention, if any, is required. Market failure should also be more widely interpreted. For example, bad corporate governance practices that result in an economic loss might be attributed to abuse of power by insiders rather than the more usual criteria, "use of excessive market power". A useful applied example is provided by market failure analysis in the area of financial market

regulation which forms a part of the corporate governance framework. In this area there is a closer relationship between policy objectives and the type of potential market failure than in other areas of corporate governance.

Market failure analysis

Market failure analysis (MFA) is a subset of threshold testing focusing only on market and regulatory failure. One very useful guide relevant for corporate governance issues is provided by the United Kingdom Financial Services Authority (FSA, 2006). As a financial markets regulator they have a clear set of objectives: preserving and enhancing market confidence, ensuring consumer protection, raising public awareness and combating financial crime. The first and last are closely related to corporate governance policy issues. These goals are in turn derived from broader government objectives such as maintaining market integrity so as to promote growth through a lower cost of capital and a more dynamic business sector.

The FSA practice is for the MFA to precede any benefit-cost analysis and it should be undertaken at the start of the policy-making process, not at the end. The MFA is largely conceptual in nature and is intended to tell policy makers whether the FSA can improve on the market solution to whatever the problem is. It is concerned with the economic case for intervention but the non-economic case also needs to be considered. By contrast, the benefit-cost analysis (CBA) is intended to tell policy makers whether the particular measure that is proposed is likely in reality to correct the market or regulatory failure in a way that produces net benefits.

According to the FSA guidance, the MFA and the initial CBA should deal with six questions. For the MFA they are: What is the relevant economic market or markets? What are the material market failures and /or regulatory failures in the relevant markets now? If no intervention or no further intervention takes place, will an improvement in economic welfare take place? Will the market failures be corrected in the short term? For the first stage of a CBA the questions are: What broadly are the regulatory options? What are the economic and other costs and benefits of the options relative to doing nothing? What further CBA might be required?

The FSA guidelines elaborate what they mean by regulatory failure and this is useful in the broader corporate governance context although some adjustments are necessary to deal with specific issues. In its narrow sense, regulatory failure means an intervention whose economic costs were higher or economic benefits were lower than was originally expected such that the net effect is harmful or more harmful than it need have been. The latter typically occurs when there have been unintended or unforeseen consequences, which is often argued to have been the case in the initial stages of SOX404 implementation regarding external audit attestation of internal financial controls. Regulatory failure can also occur when the intervention is not correctly targeted on the relevant market failure. It can also occur when demand in the targeted market was much more sensitive to price increases than the authorities believed.

The FSA guidance as to how to answer the question—what are the material market failures and/or regulatory failures in the relevant market(s) now— is also useful in the corporate governance area more generally. The most important difference is that for the FSA the particular market failures are principally, though not exclusively, associated with their particular objectives. They propose five steps (FSA, 2006, p. 13):

- Determine which objective is the main motivation for the initiative and then determine which market failure is likely to be relevant;

- Determine whether this market failure and/or another one, is in principle relevant by considering the nature of the relevant economic market. For this purpose they recommend assuming the complete absence of financial regulation.

- Determine whether any relevant market failure identified in the above step has in principle been cured by appropriately targeted regulatory intervention (including rights or obligations created by primary legislation or the common law);

- Determine whether a regulatory failure is in principle relevant; this may be in addition to a market failure or, where a risk to objectives has been identified but the above process suggests that it is unlikely to be due to a market failure, regulatory failure may be the sole cause;

- Check that any relevant market and/or regulatory failure is material to the risk to objectives that is of concern

FSA (2006) also provides broad guidance as to the contents and purpose of a high level or preliminary benefit-cost analysis that should only be several pages. The analytical structure is:

- What are the regulatory options available?

- What is the appropriate baseline for the CBA of the available options? Very often this will be the world without the rule since what is being assessed is the incremental impact of the proposed rule change.

- Whose behaviour would be affected by the options, and in what ways?

- Relative to the baseline, what are each option's material economic costs and benefits? In what ways, and how far, would each option reduce or eliminate the market failures that have been identified in the MFA and that are considered relevant to achieving policy objectives?

- Relative to the baseline, what are each option's non-economic costs and benefits?

- What is the evidence on which the assessment is based? Are there any significant gaps in the evidence?

A good example relevant for corporate governance is provided by FSA (2007, Annex 1) which looks at whether disclosure requirements for major shareholders should also extend to a specific financial instrument, contract for differences. The question is whether the existing regulation constituted market failure. The study places the question firmly in the context of the rationale for the dissemination of information about the identity of major shareholders in public companies: such information should help to protect minority shareholders, help make markets operate more efficiently and thus improve market confidence. The benefit-cost study goes on to examine three options (see below).

The example of one share one vote and proportionality

The analytical approach to public policy-making outlined above has been used to consider whether there was a need at the EU level to require one-share-one-vote in European companies and to weaken control enhancing mechanisms. The case for market/regulatory failure where non-proportionate systems are in place, and therefore one reason for intervention, rests on the agency problem which arises when economic rights and ownership rights diverge. However, it also needs to be noted that even in firms with a unified equity structure agency problems exist, albeit ones that in principle are more easily tackled by,

inter alia, active shareholders. For the purpose of an RIA, the potential market failures need to be kept separate in order that concerns can be precisely targeted later in the policy analysis. The typical potential market/regulatory failures include the controllers extracting private benefits of control, abuse of minority shareholders during a change in control and negative externalities whereby the demand by investors for compensation (*i.e.* through lower share prices) leading to an increased cost of capital is also paid for by other companies in the jurisdiction that might even have proportionate systems. The fundamental market failures include asymmetric information and negative externalities

Whether these potential market failures in fact exist will of course depend on other legal and regulatory aspects such as effective oversight of private benefits that also need to be considered. The points would include (European Policy Forum, 2007):

- Any variation in voting rights would be reflected in the price paid by an investor;
- Some may not wish to exercise voting rights but only concentrate on returns;
- Differential voting systems encourage more firms to become publicly held companies since the founder entrepreneur will enjoy some protection (*e.g.* Google);
- Other means of control that are substitutes for current mechanisms might be more costly in terms of economic efficiency such as pyramid company structures;
- The contractual relationship between investors and owners is more a market benefit than a market failure. This is especially so when investors are heterogeneous;
- Market alternatives will tend to eliminate inefficient voting structures and measures such as control by the board of abusive transactions might also be a contractual solution
- Laws and regulations not directly related to the question of proportionality might have negated market failure. In the EU case, the Takeover Directive already addresses asymmetric information by requiring disclosure of control mechanisms.

The European Commission conducted an impact assessment (Commission of the European Communities, 2007) and in so doing clearly defined its objectives as being as being to enhance investor confidence in capital markets which it said required "giving investors the opportunity to be more active across the different EU capital markets and to have confidence that the companies they invest in have sound and equivalent corporate governance frameworks". To achieve this general objective the study set a specific objective: reducing the risk of private benefits of extraction by insiders (management and controlling shareholders) to the detriment of non-controlling shareholders. The final report incorporated criticisms by the internal review committees (European Commission, 2007) that concluded that the "key problems arising from the separation of ownership and control should be presented in a clearer and more rigorous way and more coherently linked with the identified objectives. The identified options should be assessed against a thoroughly developed baseline scenario" (p. 2).

The final RIA concluded that it was not clear that "adopting a directive or a recommendation would represent the least onerous way to reduce the risk of private benefit extraction by insiders across the EU member states compared with the combined action of spontaneous market pressure, member state regulatory initiatives and the existing community legal framework. In the absence of empirical evidence on the existence and extent of shareholder expropriation, adopting further measures could entail a risk of imposing significant costs to issuers and controlling shareholders without a proportional benefit".

Experience with *ex ante* regulatory impact assessment

As indicated above, RIA is as much a style of analysis as an empirical technique and emphasises the need to consider alternative solutions and how and why the current system actually functions. As such, it can be used to organise and to motivate consultations with stakeholders. For this purpose, it needs to be broadly understood. A useful example is provided by the explicit framework used by Australia in its current exercise to simplify the regulatory framework in which they have tackled typical corporate governance issues such as prospectus reforms to encourage rights issues and reporting by non-listed companies. The conceptual approach to costs is in general well understood so that only additional comments are in order. However, the approach to defining and measuring benefits is much more difficult so that this section describes a market-oriented proxy approach that has been developed. Several examples in the difficult area of transparency where both cost and benefits have been estimated are also described, the emphasis being on the methods.

A framework for public consultations

The methodology used in Australia is an interesting example of qualitative analysis but in a formal setting which makes clear the existence of different groups (*i.e.* consumers/investors, business, regulator/government) and the differing nature of costs and benefits for each group. Typical impacts of an option on consumers might include changes in access to a market, the level of information and disclosure provided, or prices of goods and services. Typical impacts on business would be changes in the cost of compliance with a regulatory requirement and, of more recent concern, the opportunity costs of scarce company specific resources that must be used. Typical costs for a regulator/government would include the costs of administering a regulatory requirement.

The assessment of impacts in the Australian framework is based on a seven point scale relative to a "do nothing" scenario, an impact being allocated a positive rating of +1 to +3 depending on the magnitude of the relative benefit (small, moderate and large benefit respectively), and vice versa for the magnitude of the relevant cost (Table 5.1). The method has now also been used by the Italian financial markets regulator (CONSOB, 2008) to examine changes to the regulations covering related party transactions. The magnitude of the rating of a particular impact associated with an option is assigned taking into account the overall potential impact on the impact group which includes whether the cost or benefit is one-off or recurring, and whether it would fall on a small or large proportion of the impact group. Thus a cost or benefit, even though large for the persons concerned, may not result in the maximum rating if it is a one-off event that only falls on a few individuals. Conversely, a small increase in costs or benefits might be given a moderate or high rating if it would be likely to recur or if it falls on a large share of the impact group. The methodology thus handles the need to discount cost and benefit streams in a qualitative manner.

Table 5.1. Qualitatively rating an individual impact

+3	+2	+1	0	-1	-2	-3
Large benefit/ advantage compared to 'do nothing'	Moderate benefit/ advantage compared to 'do nothing'	Small benefit/ advantage compared to 'do nothing'	No substantial change from do nothing	Small cost/ disadvantage compared to 'do nothing'	Moderate cost/ disadvantage compared to 'do nothing'	Large cost/ disadvantage compared to 'do nothing'

What is classed as large, moderate or small depends on the nature of the problem and the options being considered. However, as all the ratings are made relative to the status quo/do nothing option for a particular problem, the absolute value of large, moderate or small is not really important. All that matters is that within a problem assessment, the impacts of each option are given appropriate ratings relative to the

status quo and each other. If that occurs, the individual impacts can be tallied to produce an overall outcome for the option that assists in assessing the relative merits of options, from a benefit-cost perspective, to address the particular problem. The methodology thus establishes a suitable framework for further consultations with stakeholders, which might result in a quantified assessment of costs and benefits that would be included in the final version of the regulation impact statement. The Australian authorities use the method in this way, asking for comments on whether all potential impacts have been considered, whether the rankings are appropriate, and whether the costs and benefits can be further quantified. This approach has been used to look at regulations covering rights issues. A similar procedure was followed in the case of the UK's RIA on a proposed new report to be made by company directors. Both examples are considered in the following section.

Measuring costs

In the area of corporate governance, the definition of cost appears to require some care and require the use of incremental compliance cost: those costs that are incurred in complying with the regulation/law that would not be incurred or would not have been incurred in the absence of the mandatory rule. One study indicates that the incremental cost of regulation, legal requirements etc. varies between firms (Deloitte, 2005). Some specific requirements are regarded as being integral to the normal business practices of a firm but are regarded by others (perhaps only by a small number) as solely driven by regulation. For example, in a study of independent audit committees discussed below, it is clear that for a number of companies on the Toronto Stock Exchange, such committees are regarded as normal business practice. In this particular case, the large number of firms that have not adopted the practice will face an incremental cost of compliance.

The Deloitte study also confirmed the need to separate start-up outlays from recurring costs, a distinction stressed in the Australian approach. The study found that the costs of changing business processes due to the introduction of new or changed requirements are often quite material, but that once embedded in a business's ongoing operations, the degree to which most such processes are seen as incremental (especially financial market regulation to which the study refers) is generally quite limited. The corollary is that the cost savings attached to the removal of any one underlying rule may only be marginal, a factor of some significance in studies considering the potential benefits of deregulation.

A number of countries have developed software based tools to assist in calculating administrative costs that are important in any RIA analysis. For example, the Netherlands has developed the Standard Cost Model for measuring administrative costs and this has now been adopted by more than a dozen other countries.[iii] An independent Advisory Board on Administrative Burdens has existed in the Netherlands since 2000 and has the role of scrutinising RIA with specific reference to the quantification of administrative burdens.

A cost which has been given more emphasis in recent years in the wake on Sarbanes Oxley is the opportunity cost of firm specific resources. This is particularly the case with time devoted by the management and boards to a legal/regulatory requirement. Thus it is often claimed in the business press that boards and management have become more compliance oriented rather than strategy focused and that this is the reason for the relative decline in the rate of investment in the US. Even if the claim is accepted, testing and quantification will clearly be difficult. One study reviewed below (OFR) makes a rough estimate of the order of magnitude.

Measuring benefits

Many existing studies often do not provide a comprehensive overview of the dimensions of benefits that a regulatory change might deliver, or may contain little discussion of how different types of potential

benefit can be measured. On the empirical side, while costs are often estimated, existing benefit-cost analysis often leaves the benefits assessment to qualitative discussion, without measurement or explicit analysis of the mechanisms through which regulation is supposed to deliver the intended change. To address this deficiency, the UK's Financial Services Authority (FSA) has developed a framework for assessing the benefits of financial regulation that is also applicable for the most part to many aspects of corporate governance (FSA, 2006a). The framework presents at a conceptual level how benefits can be measured and guides the user to ask the right questions as a starting point for any assessment of the benefits of regulation. The empirical tools and techniques are discussed elsewhere in this chapter.

A key aspect of the FSA framework is that the benefits of regulation should be measured as the improvements in market outcomes that result from regulation. For *ex post* analysis, where the aim is to evaluate the impact of regulation already in place, measurement requires comparison of actual market outcomes in a regulated world with outcomes that would have arisen in the counter factual world without regulation. Where proposed changes in regulation need to be evaluated *ex ante*, the assessment requires measurement of the likely improvement in market outcomes compared with the status quo. The FSA framework takes the perspective of end "consumers" (*e.g.* private savers, investors, firms raising capital) rather than intermediate consumers, and identifies seven broad dimensions of detrimental market outcomes that emerge from the combined effects of market failures, risks and incentive misalignment (Table 5.2). In the case of corporate governance issues, such as those measures seeking to lower agency costs, the classifications would require modification but the rigorous approach remains essentially the same.

Table 5.2. Classifying types of detriment to consumers and potential benefits of regulation

Types of consumer detriment in the absence of regulation	Example/explanation of detriment	Potential benefits of regulation
Sub-optimal choice	Mis-buying of financial products	Value that consumers derive from better choice
Reduced choice	Lack of consumer confidence may make it less worthwhile for firms to offer certain types of products reducing choice available for the consumer	Value that consumers derive from increased choice (*i.e.* reduction in opportunity cost of not being able to buy what could be available.
Higher costs from operational risks	Losses that arise to consumers as a result of an operational failure by a firm (*e.g.* fraud, mis-selling); higher prices if failure is compensated by the firm and cost passed on to consumers.	Reduction of expected losses and other costs associated with financial failure.
Higher costs from financial risks	Losses that arise to consumers as a result of the default of a firm (*e.g.* pensions lost)	Reduction of expected losses and other costs associated with financial failure
Higher costs from systemic risks	Costs incurred by consumers due to widespread failures of the financial system	Reduction of expected losses and other costs associated with systemic failure
Higher prices from market power of firms	Consumers pay excessively high prices to a firm exercising its market power	Reduction of excessive prices
Higher costs from transaction/system inefficiencies	Consumers incur higher transaction costs (*e.g.* due to the need to monitor financial intermediaries if there is no regulator to perform this function)	Reduction of transaction costs/prices arising from inefficiencies, including consumer search costs

Source: FSA, London, 2006 and Oxera.

Direct measurement of improvements in market outcomes is an option for *ex post* analysis when it is possible to compare the relevant indicator defining a particular outcome before and after the regulation. The techniques for *ex post* analysis include event studies but for *ex ante* analysis other techniques are more suitable. These techniques are discussed below. The importance of the FSA framework is that it relates the benefit to a measurement. For example, moves to improve outcomes for "consumers" arising from changing the agency arrangements of corporate governance might include improved valuations (*i.e.* share prices) and greater efficiency of resource utilisation (*i.e.* economic value added, EVA) and lower cost of capital. However, not all benefits lend themselves to measurement, even in *ex post* analysis. In Table 5.2, for example, it would be difficult to establish whether an increase in consumer choice as a result of

regulation had actually contributed to improving the fit between what consumers purchase and what they really need.

While benefits measurement should aim to directly quantify improvements in market outcomes that flow from regulation or a specific rule, the FSA methodology recognizes that measurement can be difficult because, for example:

- Predictions are required
- Market outcomes depend on a large range of factors, which cannot always be controlled to isolate the impact of regulation;
- Where the regulation is in place, data about outcomes prior to its introduction may not exist
- Some of the relevant dimensions of market outcomes are inherently hard to measure and/or quantify in monetary terms.

These problems have led to an important innovation of the methodology: indirect measurement that involves the identification and measurement of proxies that are good and robust indicators of changes in the desired market outcomes (Table 5.3). The first step is to identify the detriment that a regulation or specific rule is supposed to mitigate (first row) and the next step is to consider the mechanism or processes by which the measure is likely to deliver the desired change in market outcome. Indirect measurement (second column) refers to quantifying intermediate improvements somewhere along the process. The final step is to confirm that the chosen proxies are suitable for drawing inferences about improvements in market outcomes. An example directly relevant for corporate governance is described below and involves a study of independent audit committees.

Table 5.3. Illustration of indirect measurement of benefits

Process of identifying measurable	Example
Identify market outcomes that regulation is intended to improve	Disclosure rule intended to reduce mis-buying by consumers
Identify the mechanisms by which regulation delivers the improvement	More information leads to better purchase decisions
Identify and measure the corresponding proxy metrics	Degree of information provision by firms
Validate the link between proxy and market outcome	Test whether consumers use/understand information and adjust their decisions

Source: FSA.

Existing benefit-cost analysis often evaluates benefits by considering changes in indicators that are in fact proxies rather than market outcome measures. The strength of the FSA approach is that it calls for a discussion of the rationale for the chosen proxies and/or a validation of their suitability. Without this there is a risk that the estimated improvements generate incorrect inference about ultimate benefits. An example is provided by FSA (2008, Annex II) concerning a widening of major shareholding disclosure. The benefit-cost study noted that very little economic literature directly addresses the issue of major shareholding notifications (MSN) but that there is a vast body that examines the role of information in markets. This

literature was then used to provide proxies for judging potential benefits from extending disclosure to include contracts for differences.

Another advantage is that the precise causal mechanisms for a benefit have to be clearly specified. In an increasing number of cases around the world, regulatory impact analysis is being called upon to make statements about macroeconomic benefits (*e.g.* innovation, growth, income distribution and poverty) for which the analytical framework is at best weak, at least when applied to less far reaching regulatory proposals (OECD, 2006).

Case studies

Disclosure and transparency

All stakeholders usually agree that transparency and disclosure are key to corporate governance systems allowing investors and others to make rational decisions. However, the balance between the costs to companies on the one hand, and the benefits to shareholders and other stakeholders on the other, are not always obvious and often subject to polemics. This section therefore focuses on studies about transparency and disclosure including a RIA in the UK about directors' reports and two studies in Australia dealing with prospectus requirements and reporting by non-listed companies. The following section returns to this theme discussing attempts to measure benefits including those arising from improved transparency due to independent audit committees.

Improved reporting by board members: UK Operating and Financial Review

The UK RIA study (DTI, 2006a) concerned the proposed introduction of a statutory directors' report for listed, UK registered companies: the Operating and Financial Review (OFR) that was intended to be a "balanced and comprehensive analysis of the development and performance of the business, including the main trends and factors underlying the performance and financial position of the business during the year, and those which are likely to affect its performance in future years". The RIA study has several best practice features: it was used in a preliminary version for public consultation and to draw out where initial cost estimates might be off the mark, including the danger that an audit requirement had not been clearly specified and thus could lead to large unforeseen costs; it considered a number of options; it considered enforcement and close specification of directors and auditors duties and; proposed follow-up studies. The RIA was also subject to an independent outside review by the National Audit Office (see below). On the other hand, benefits were not measured and the impression is gained that the policy decision to improve disclosure had already been taken so that the policy decision for the RIA is one of cost effectiveness.[iv] It should also be noted that the RIA was in the context of an overall reform of company law (DTI, 2006a).

With respect to potential benefits, the RIA noted that a forward looking narrative report had been a matter of best practice for some time and was also supported by the Accounting Standards Board but that compliance had been uneven. One study quoted by the RIA from 2003 found that the forward looking narrative reports had an average length of 12 900 words, the longest being eighteen times longer than the shortest, with 47% of the content dedicated to operating performance, but only 5% to future strategy and 1% to vision and values. The RIA drew the conclusion that a mandatory requirement was therefore needed and noted that "continuing to leave to companies themselves the decision whether or not to prepare an OFR could result in shareholders not having sufficient information to understand and assess the businesses in which they have invested and to hold directors to account. It will also reduce the possibility of comparing companies' performance across the board". The reasons for market failure are only briefly enumerated.

Benefits are classified as those accruing to firms, shareholders and the economy in general.[v] Quoting a US FASB study, the RIA notes that investors benefit chiefly from the reduced likelihood that their capital will be misallocated while companies benefit from: lower average cost of capital, enhanced credibility and improved investor relations; and access to more liquid markets with narrower price changes between transactions. Some general studies are quoted in support but they are general transparency studies. They are therefore a proxy for the forward looking OFR and not definitive studies of forward-looking information where there are other mechanisms such as analysts and professional publications. The third category, benefits to the economy in general, is more questionable and might involve double counting. However, there are studies showing externalities from capital markets to growth, although they relate to transparency and capital markets in general and not to a forward looking statement such as the OFR.

The treatment of costs is closely related to the specification of alternative specifications of the proposed law. After a first round of consultations changes were made to the legislative proposal in order to better deal with issues where costs might have become excessive (Table 5.4). Costs covered preparation and distribution of the OFR including the time of directors and management, distribution and importantly, the cost of audit verification.[vi] High distribution costs for the largest companies resulted in an electronic dissemination option being adopted with shareholders being able to request a printed copy. With respect to audit fees and director liability, the initial RIA elicited important responses that pointed to a significant under-estimate of expected costs. The initial draft and cost estimate required auditors to state in their assurance report: *i)* whether in their opinion the directors had prepared the OFR after due and careful enquiry; *ii)* whether in their opinion the information given in the OFR was consistent with the accounts; and *iii)* whether any matters had come to their attention, in their performance of their functions as auditors of the company, which in their opinion were inconsistent with the OFR. Apart from questions of liability for auditors, a number of respondents claimed that audit fees would rise by some 10-20% (Table 5.5) above that assumed by the initial RIA. Discussions with business groups suggested that retaining existing common law in lieu of “due and careful enquiry” and removing either the requirement for auditors to consider both the process directors follow in preparation of the OFR and consistency with any other matters arising in the course of the audit could reduce assurance costs by 60% (Table 5.5)

Table 5.4. Summary of costs by option

Option number	Option	Total per annum cost in sterling (millions)
1	Do nothing	0
2	Implement the Modernisation Directive only	103.7
3	Implement the Modernisation Directive and a non-assured statutory OFR for quoted companies	107.9
3a	Extend OFR to large private companies	142.9
3b	Narrow OFR to large Quoted companies	107.4
4	Implement the modernisation directive and a statutory OFR for quoted companies with a three stage assurance regime	179.3
4a	Implement the modernisation directive and a statutory OFR for quoted companies with a two stage assurance regime NB If extended to large private companies (247.5	137.2

Source: Final Regulatory Impact Assessment, Table 6, DTI, London.

Table 5.5. Impact of changes to directors' care and auditors' role on audit review costs

	Audit fees (sterling)	Option 4	Option4	Option 4a	Option 4a
		Best case (10% times fees)	Worse case (20% times fees)	Best case (10% times fees) Discount 60%	Worse case (20% times fees) Discount 60%
Average quoted company	272k	27k	54k	11k	22k
FTSE 100 company	2.34m	234k	468k	94k	187k

Source: Final Regulatory Impact assessment, Table 5, DTI, London.

Another key feature of the RIA was explicit consideration of enforcement and sanctions together with a cost estimate of 500 000 pounds per annum for the Financial Reporting Review Panel (FRRP). The same criminal sanctions for directors would apply to the OFR as to financial accounts but with respect to the administrative aspect of enforcement (a court order obliging the company to prepare revised accounts) there was a great deal of concern about whether the FRRP would seek to second guess directors. The role of the FRRP was therefore clarified.

The RIA also contained a Small Firms Impact test, a Competition Assessment, a Market Structure and Company Growth assessment and an assessment of the Competitive Disadvantage for reporting companies *vis-à-vis* those that do not report. The potential effect on competition is recognised as an important issue by the OECD.[vii] However, while supplementing a benefit-cost study with sectional impacts has become common (see SG/GRP(2006)3, pp. 9-13, for a list), the OECD has warned about this proliferation which has the potential to fragment and dilute a coherent economic analysis (Box 5.1).

Box 5.1. The widening analytical scope of RIA: Potential problems

In an increasing number of cases around the world, regulatory impact analysis of quite specific issues is being called upon to make statements about macroeconomic benefits (*e.g.* innovation, growth, income distribution and poverty, aggregate or regional employment). This development appears to be pushing RIA methodology beyond its limits and into areas where it can be simply misused. For example, (OECD, 2006) quotes the case of a RIA in Victoria, Australia where regulation was justified by its supposed effects on GDP (through import substitution) and through its positive employment effects (more labour intensive products). No mention was made of allocative efficiency questions and potential regulatory costs were ignored. Where policy proposals are wide ranging such as a big bang deregulation of financial markets, RIA is inappropriate and a full assessment of supposed macroeconomic effects requires sophisticated economic modelling based on a general equilibrium framework.

Where RIA is most useful is for less far reaching regulatory proposals (OECD, 2006) but this is inappropriate for considering macroeconomic effects. Indeed, one practitioner argues that macroeconomic variables "are not the result of a single government intervention or regulation, and there is no analytical technique for assessing these impacts in a RIA" and, more generally, "no method is capable of determining the macroeconomic impacts of isolated microeconomic interventions, except in the most static and short term dimension. To this practitioner, the additional requirements to consider macroeconomic benefits reflect "fundamental confusion about the purpose and limits of RIA".[1]

1. See OECD (2006), *Determinants of Quality in Regulatory Impact Analysis*, Section 2.3, SG/GRP(2006)3 and for the quotation, Jacobs, S. (2006), "Regulatory Impact Analysis in Regulatory Process, Method and Co-operation: Lessons for Canada from international Trends". *Government of Canada Policy Research Initiative, Working Paper*, p. 26.

Reporting by non-listed companies and rights issues

Difficult reporting and disclosure issues have been the subject of two RIAs in Australia. In Australia, rights issues must be accompanied by a prospectus but placement of shares to large institutional investors is exempt. As a result, there are few rights issues, with most placements going direct to institutional investors. At the same time, Australia has a well developed continuous reporting regime for companies so that the question arises whether this additional prospectus should be simplified or abolished.

The Regulatory Impact Statement described in Table 5.6 covered a number of alternatives and was used to solicit answers to three questions in a manner similar to the UK's OFR study discussed above:

- Are there additional costs and benefits for the above options, which are not listed?
- Are the suggested relative ratings appropriate?
- Information to assist with quantification of costs and benefits was sought for inclusion in the final regulation impact statement.

Table 5.6. Qualitative assessment of costs and benefits: Prospectus for rights issues

Option A: Do nothing	Benefits	Costs
Consumers		Retail investors would continue to be disadvantaged as other forms of fundraising were used by companies to avoid the cost of preparing a prospectus.
Industry	Would avoid imposing any additional compliance costs on industry as they could continue to raise funds through methods not requiring prospectus disclosure.	The regulatory system would preserve a bias in favour of fundraising methods that do not require prospectus disclosure, without a fundamental policy reason for doing so.
Government		

Option B: Require a prospectus for all fundraisings	Benefits	Costs
Consumers	All forms of fundraisings would be treated on an equal footing, by having to provide a prospectus. (+2) Retail investors would be able to participate in share placements (+2)	Additional compliance costs would be imposed on listed entities through having to provide a prospectus in cases where none is currently required. Such costs may be significant depending on the amount of funds raised. Minimum costs for a small fundraising may be estimated at approximately AUD 30 000, largely in legal, accounting and other professional services fees, but would be much higher where larger amounts were raised. (-2)
Industry		The imposition of additional compliance costs on fundraisings that currently do not require a prospectus could reduce the amount of funds raised in the Australian market. Larger entities may, for instance, be able to access the international capital markets at a lower cost. This could ultimately have a detrimental effect on the development of the capital markets and the financial services industry in Australia as a whole, with negative effects across all sectors of the economy. (-3)
Government		This proposal would require increased oversight by ASIC, due to the larger number of prospectus lodged by the market. ASIC vets prospectuses for infringements of the contents requirements, and has the power to

		issue stop orders where such infringements are found. The increased costs would take the form of additional personnel and time spent on vetting prospectuses and taking regulatory action where necessary. (-3)
Sub-rating	+4	-8
Overall rating	-4	
Option C: Remove the prospectus requirement for rights issues subject to the obligation to provide certain defined information to the market	Benefits	Costs
Consumers	This proposal would remove the bias in favour of placements done without a prospectus, leading to an increased use of rights issues. This would benefit retail investors who are unable to participate in placements to institutional investors, but would also benefit the fundraising market as a whole, as issuers would choose the most efficient means of raising the funds they require. (+3)	There will not be a reduction in the amount of information provided to investors as all relevant information will have to be disclosed either under the continuous disclosure requirements or through the provision of the cleansing notice. There may however be some loss of convenience to investors in accessing the information in comparison to the current situation, where all relevant information is summarised in the prospectus. (-1)
Industry	The requirement to provide an appropriate 'cleansing' notice would ensure that investors were fully informed about key information relating to the rights issue, in particular where there was a potential effect on the control of the company. (+2) Listed entities would no longer need to produce a prospectus for a rights issue. As mentioned above, the minimum cost of a prospectus may be estimated at about AUD 30 000, but could be much more where larger amounts are raised. (+2)	Listed entities would have to provide a 'cleansing' notice to the market prior to launching the rights offer. This would be done through the ASX's company announcements platform, which is a computerised system through which announcements by listed entities are transmitted to the ASX and published. The marginal cost of providing announcements using this system is small. (-1)
Government		
Sub-rating	+7	-2
Overall rating	+5	

Source: Corporate and Financial Services Regulation Review Proposals 2006, Regulation Impact Statement: Fundraising, *www.treasury.gov.au*.

Table 5.6 indicates that, on balance, option c is the preferable course of action unless major changes to the costs and benefits would be noted during consultations.

Another typical corporate governance issue and a sensitive one in some jurisdictions concerns reporting obligations for non-listed companies. Australia requires a proprietary company with no more than 50 shareholders and that has not raised money from the public to prepare and lodge an audited financial report and a directors report if it is large (*i.e.* economically significant). A 1995 Act defined large as a company that exceeds two of three criteria covering consolidated gross operating revenue, consolidated gross assets and the level of employment. With the criteria 20 years out of date, nominal growth and inflation have contributed to increasing the number of firms covered but which may not be economically important. 3 900 proprietary companies are required to prepare and lodge annual reports and a further 1 750 are required to prepare but not to lodge annual reports. The total population of proprietary companies is 1.4 million.

The average incremental cost for preparing and lodging accounts was estimated to be on average AUD 60 000. The estimate includes the assumption that many companies must in any case prepare accounts for both tax and internal control reasons (*i.e.* it is an incremental regulatory cost as discussed above).

The impact analysis covered four options including not requiring proprietary companies to prepare an annual report. The options were thus evaluated against each other as well as the status quo. The benefits in terms of cost savings were relatively straight forward although there was no information about firms that were currently exempt. The costs in terms of users no longer being able to access annual reports (*e.g.* credit rating companies, employee negotiators, credit providers) and the indirect costs to the market as a whole if people no longer have confidence in knowing that annual reports are available were not estimated. The authorities did however request information which might allow an estimate to be developed. The final recommendation thus balanced cost savings (benefits) with an assumption/judgement as to what constituted an economically important proprietary company.

The RIA is interesting in that it shows an application of the incremental cost approach. On the negative side, there was little research into proxies such as assessing whether lodged reports are even used by many stakeholders.

Studies involving quantification of benefits

A major deficiency of the above studies is that they did not seek to quantify benefits, although they were still rigorous in specifying where the benefits might arise. This section focuses on two studies where there was a rigorous approach to quantification of benefits, one for the EC and another undertaken for the Ontario securities regulator.

Assessing the economic impacts of special rights for shares

An informative RIA study from the viewpoint of quantification and methodology was undertaken for the European Commission by consultants (Oxera) and also represents a systematic application of the FSA methodology concerning measuring benefits (discussed above). The study was intended to provide a systematic overview of special rights retained by public authorities in privatised companies in the EU ("golden shares"). The policy background was that the European Court of Justice had ruled in several judgements that the measures were generally incompatible with the EC Treaty. Before deciding how to respond *vis-a-vis* EU member countries, the European Commission commissioned a study to evaluate the

economic impacts of such restrictions on the performance of affected companies, direct and portfolio investment, and EU financial market integration. The choice of the latter two for assessment is important given the policy objectives and competencies of the Commission. Addressing the tendency to link everything into a RIA, which is problematic and often not supported by sufficient theory, the mandate excluded an assessment in any detail of the wider social benefits or costs that may arise from special rights. The study also avoided other macroeconomic issues such as the affect on the growth rate

Since the issue had not been empirically investigated, the study carefully listed the causal mechanisms in order to establish proxies that had already been studied or that could be studied in a new investigation. Four questions were identified that were directly relevant for the question at hand and that had been the object of empirical research: privatisation and the impact on firm performance; corporate control and the impact on firm performance; the voting rights premium and the valuation of block shareholdings; and restrictions on international direct and portfolio investment flows. In addition, they performed two other types of empirical work: an event analysis of the impact of the redemption of "golden shares" in the electricity and water sector and a comparison of companies with "golden shares" against their industry peers.

The first question of the four arises in the context of the companies in question having first been privatised – at least partially. It is therefore important to ask whether company performance increased following privatisation, and then to see what is implied for partial privatisation which is what "golden shares" amount to. A comprehensive review of the literature about changes in output, efficiency, capital investment and gearing following privatisations in the OECD area showed significant increases in the first three and significant declines in gearing (Megginson and Netter, 2001). However, a partial change from state ownership was found to have little effect on long run productivity growth and another study confirmed a negative relationship between state ownership and profitability.[viii]

The second question pointed to studies of the direct impact of "golden shares" for which only one study was located. In fact, the study looked at government ownership, suggesting a significant positive relationship between the percentage of shares held by the government and share price performance. The authors of the research attributed this to selection of only the best companies for privatisation.[ix] Importantly for the RIA, the positive relationship is attributed only to state ownership and not to the benefits of state control which is the issue at hand. The study in question showed that a "golden share" led to a decline in the three year buy and hold return and "supports the hypothesis that the failure to transfer complete control to the private sector, combined with uncertainty surrounding the exercise of the "golden share", has a detrimental effect on long run share price performance".[x]

The third question arises from tracing through the causality links: a "golden share" is often introduced to prevent hostile takeovers so that a proxy can be found in the extensive literature that addresses the relationship between the performance of companies and the likelihood of takeovers in private companies. The literature is extensive and the RIA study concluded that "while there is some conflicting evidence, overall the consensus among most authors in the literature is that a reduction in the probability of takeovers is likely to be associated with poorer corporate performance. It is also well-established that takeover restrictions prevent shareholders in potential target companies benefiting from takeover premia. To the extent that golden shares and other special rights influence the governance of firms and restrict changes in control, such arrangements are likely to have similar impacts".[xi]

The third issue for proxy indicators concerns the voting rights premium: the empirical regularity of shares with superior voting power having a higher price. Although existing studies concern private companies, the findings were judged to be of relevance to the RIA to the extent that they provide an explanation both theoretically and empirically, of the value of special rights and control powers in companies. Overall, the evidence confirms that the market does value control: premia are paid for shares

with greater voting rights and blocks of control. In linking the proxy back to the original question, the RIA concluded that "to the extent that special rights allow public authorities to influence manager's ability to govern firms and imply that control is not fully transferred to the private sector, the arrangements are likely to have a similar impact on firm valuation. Put differently, if public authorities withdrew the special rights and transferred control, a corresponding reaction can be expected in the market value of the companies affected by those rights" (page 12).

Finally, the study turned to the general literature on market segmentation to deal with the control of international direct and portfolio investment flows created by "golden shares". The evidence supports the case that stocks available to foreign investors are priced higher than the corresponding stocks available only to domestic investors.

The study also used another proxy which was to compare performance of companies subject to "golden shares" with comparator companies. The results were not conclusive but the study suffered from severe methodological issues: the choice of comparators was restricted to companies operating in other countries, subject to different regulatory regimes, or indeed still partly state-owned.

Investor confidence initiatives: Audit committees

A good example of applied regulatory impact assessment is provided by the Ontario Securities Commission's study of a proposal to strengthen audit committees by requiring that each committee member be independent together with a disclosure about whether there is a financial expert on the committee (*i.e.* financially literate) (Ontario Securities Commission, 2003). The study made an estimate of the number of additional independent directors required and used applied survey data to form general estimates of the total cost of implementation. Of perhaps even greater importance, the cost methodology leads to an informative analysis of likely side-effects such as a potential increase in directors and officers insurance costs. With respect to the much more demanding task of estimating potential benefits, the study uses the indirect approach similar to that of the FSA approach discussed above. They draw a connection between independent audit committees and the quality of accounting choices (earnings smoothing) and then link this to corporate valuations as reflected in economic value added. It is thus more rigorous than simply relating the decision variable (independent directors) to a market outcome, the causality chain being highlighted.

Cost methodology

The cost methodology is based on identifying those firms which already have independent audit committees and to estimate the additional costs associated with audit committee independence arising from committee member meeting fees, committee retainer fees, director meeting fees, director retainer fees and costs associated with D&O insurance. The study also investigated the supplementary costs associated with having an individual on the audit committee with financial expertise. The study was based on the knowledge that some companies already met the requirements of the proposed instrument. A sample of 306 companies was drawn from the population of 1 299 companies on the Toronto Stock Exchange (TSX) of which 154 companies met the 100% audit committee independence criteria. Information about board structure was used to calculate the number of new directors required. Using existing cost information, the sample means, medians and ranges of values for the cost criteria discussed above were calculated. To allow for size of company effects, the ranges were calculated for companies with assets greater than CAD 5 billion and for companies with less than CAD 500 million.

One-off costs such as search costs for new directors were separated from recurring costs and a present discounted value (PDV) over a ten year horizon was calculated using a discount rate of 7%. The time span raises the issue of assumptions about the potential increase of directors' fees as demand for independent

directors increases. With no reliable reference for a probable increase in director compensation, the study assumed that the cost would rise in line with the discount rate of 7% over ten years. However, they report a sensitivity analysis that even if director compensation increases by a factor of 500% over this time period, it would not erase the net benefit projected. The study investigated potential changes in D&O insurance costs by conducting a survey of the major insurance companies in Canada. They hypothesised, correctly in retrospect, that D&O costs would not increase because improving corporate governance would lower potential losses for the insurers. This hypothesis was confirmed by the survey.[xii]

The study did not consider either enforcement costs or the much discussed opportunity costs when company boards focus more on compliance rather than strategy. In line with practice in other countries, the study examined the effect on small firms and in particular whether they could face an excessive cost load.

An econometric approach to estimating benefits

The estimation of benefits uses the indirect approach discussed above since the objective of the proposed instrument – "strong, effective and independent audit committees enhance the quality of financial disclosure made by reporting issuers, and ultimately foster investor confidence in Canada's capital markets" – is not directly observable and measurable. The assumed mechanisms are, however, clear from the proposal which in addition to calling for financial literacy on the audit committee and independence, also calls for them to direct the relationship with the external auditor and to review the issuer's financial statements, MD&A and earnings press releases before the issuer publicly discloses the information.

An important feature of the RIA is that the authors identify an accounting practice that can be related to the objective to enhance the quality of accounting disclosure: earnings management. The reasoning in terms of market processes is that the loss of investor confidence and the regulatory response have been based on issues relating to aggressive accounting. The latter is in turn based on information asymmetry: insiders, among both issuers and intermediaries, have access to information not available to the retail investor. When this asymmetry leads to misleading information, investors might pay excessive prices and subsequently suffer large losses when more accurate information becomes available. The uncertainty caused by information asymmetry raises the risk premium and the cost of capital for the market overall and also serves to decrease market liquidity. One aspect of aggressive accounting covers earnings management, including earnings smoothing.

The RIA acknowledges that earnings management is only one aspect and that others could include earnings misstatements and fraudulent reporting. However, these latter two would be more difficult to quantify but their omission means that benefits will be underestimated.

A number of methods have been proposed and evaluated in the literature to examine the impact and frequency of the various methods for earning management, including the examination of discretionary accruals. The RIA concluded from a review of the literature that earnings smoothing reflects most of the widely used techniques and calculated it as the average volatility in cash flow over twelve quarters divided by the average volatility in earnings. If no earnings management has taken place, the ratio should be close to one. Insiders are hypothesised to benefit from earnings management but independent directors are less likely to do so. That is the basis for the proposal.

The key element is defining the benefit, which has several dimensions (cost of capital, avoidance of large losses etc). The RIA is explicit that the proxy is the value of the firm and that market values (Tobins Q, etc.) that are often used in empirical studies of the value of good corporate governance could be misleading. This is because they might be directly influenced by earnings management but in a spurious way (*i.e.* the short run relationship will not at all reflect any "true" longer run causal connection). Rather, they use economic value added (EVA) which has since become the measure preferred in a number of

recent corporate governance econometric studies. EVA takes into account the cost of acquiring capital, the returns generated from invested capital, and the amount of capital employed (Hall, 2002). The hypothesis is that audit committee independence impacts EVA through earnings management.

The RIA uses a two stage procedure: first, to estimate the impact of audit committee independence on earnings smoothing and second to determine the indirect effect of this independence on the average firm's EVA. The empirical work showed that independent audit committees lead to less smoothing of earnings by management and therefore improved financial disclosure. Increased earnings smoothing was found to have a negative effect on economic value added. Dollar amounts for audit committee independence were then calculated for the average firm using the estimated coefficient including a one standard deviation error.

In moving to an aggregate estimate for benefits, the RIA makes several assumptions to ensure that the estimates remain conservative and realistic. First, it is assumed that the company sample used for the regressions is representative and that a half of companies already have independent audit committees. Most importantly, with an adjusted R-squared of 0.52 (*i.e.* only 52% of the variation in EVA is "explained" by the econometric model) this number is used to scale down the total benefits estimate. This last adjustment is often overlooked in empirical work.

The study found benefits to EVA for investors of CND 1 billion to CND 9.2 billion, on a PDF basis. The lower end of the benefits range measured substantially outweighs the upper end of the estimate of costs, leading the RIA to conclude that there was no need for a further refinement of the estimate.

Improving information asymmetry: cost and benefits of internal controls and auditor attestation

One of the most controversial issues in recent years in corporate governance concerns attestation by management and auditors of internal controls. The most well known case is that of SOX404 reviewed in the following section on *ex post* analysis. Ontario has also introduced a similar requirement (hereafter s404) and conducted a full regulatory impact assessment (Ontario Securities Commission, 2004). The reasoning and the style of approach illustrate many issues found in other areas of corporate governance.

The RIA noted that even in the absence of regulatory mandates, management had private incentives to put in place some level of internal control. Internal controls have also been important in reducing the incidence of financial misstatements in the past (COSO, 1992). Moreover, even before discussion about s404, management in the US, Canada and in other countries was required to make materially accurate disclosure of publicly released information. Scandals in the US, Italy and in other countries led many policy makers to conclude that the existing self-interest and regulations were insufficient to prevent significant financial reporting mis-statements (*e.g.* fraud).

The economic rationale for intervention is to correct an identifiable market failure that would result in inadequate internal controls and poor financial reporting. There is market failure in that shareholders do not have as much information about the quality and effectiveness of internal controls as management and boards which might mean that they have a weaker incentive to maintain a sound system of internal controls. The market failure is asymmetric information and perhaps also a negative externality as good firms will also be penalised by an increase in the cost of capital. The study does not draw out the argument fully. Asymmetric information might lower the cost of capital for a period but bad news will result in a major reassessment and an increase in the cost of capital for all firms. Arguably, this is what happened after the Enron/Parmalat crisis so that there was a negative externality. The study recognises that the incremental cost of capital is a social cost that can potentially be reduced through regulatory intervention to correct market failure. But overregulation is also a possibility so that the policy question is whether the policy measure could generate sufficient added social benefits to offset the costs of intervention.

Unlike other studies and the idea behind RIA, the report only investigates a limited range of options: Attestation by management with and without attestation by auditors is considered. In the case of the OFR example above, the British authorities also considered a change in the type of audit statement in order to minimise costs. Other alternatives such as greater accountability by the board over internal control systems were also excluded. A possible reason for this is that the Ontario authorities wanted to retain mutual recognition with the SEC for Canadian listed companies, so that any serious deviation from the US implementation of SOX 404 could not be considered.

Measuring costs

The approach to costs covered both one-off and recurring costs distinguished by the size of company since studies in a number of jurisdictions points to cost burdens that fall disproportionally on smaller firms. Through interviews with a sample of companies and audit firms covering both internal costs and external costs the study was able to derive a regression equation that modelled total costs as a function of company size. The model was then used to calculate total costs for all listed companies using information about the total size distribution. Given the great differences between recurrent and initial cost it was important for the study to derive a net present value over a ten year period using a 7% discount rate. Finally, on the basis of interviews with companies and with audit firms, an estimate of audit attestation was calculated. Issuers estimated that removing the attestation requirement would reduce costs by 40% to 70%, though some of these savings might be due to a decrease in expenditure on internal controls in the absence of auditor attestation.

Measuring benefits

From the view point of RIA methodology, the most important aspect of the study is the calculation of benefits. In doing so the study followed the approach of Table 5.3. Following identification of the problem, four sources of benefits were noted: increased market liquidity leading to a low bid- ask spread (the negative externality noted above) and hence a lower cost of capital; overall improvement in the accuracy of financial reporting, allowing shareholder to more accurately determine the value of issuers resulting in enhanced incentives for management to increase true issuer value (another externality); and increasing the likelihood that the SEC would maintain mutual recognition. These benefits were not estimated. Rather the study focused on a fourth benefit, that the regulation would reduce the incidence of significant misstatements in corporation's financial reports that have led in the past to a significant decline in valuations. The study set out to measure this benefit.

As noted in Table 5.3 the indirect proxy method was used. The study used Ontario data on misstatements that were sufficiently large that they would have a detectible and important effect on the stock price of an issuer and combined this with research from the US on the stock price declines following misstatements (*i.e.* fraudulent financial reporting).The study derived benefits (*i.e.* the current expected cost of significant financial misstatements) by multiplying the probability of any issuer making such a misstatement by an estimate of the cost to shareholders of a significant financial misstatement. The study then estimated by how much expenditures on internal controls (including audit costs) reduced the probability of a significant financial misstatement and then calculated the expected value of the benefit. The reduction in the cost of capital for honest issuers in the form of reduced capital costs was also estimated. The probabilities were estimated using a regression technique and this also formed the basis for calculating the uncertainty about the results.

Interpreting results

The study is also useful since the initial results indicated that the measured costs exceeded the measured benefits (in present value terms). This led to further analysis about whether smaller firms should be exempt since a disproportionate share of the costs fall on them and about the cost/benefits of auditor attestation. It also forced a discussion about the likely size of the unmeasured benefits since at the end of the day the case for s404 largely depended on these.

Ex post regulatory impact assessments

The OECD (2006) notes that *ex post* evaluations can be of three types and proposed a three part taxonomy: *Content tests* assess RIA on the basis of whether they contain the elements specified in RIA requirements and, in some cases, assess the quality of these elements; *Outcome tests* assess RIA in terms of the degree of consistency between their *ex ante* assessments of regulatory impacts and actual (*i.e. ex post)* impacts and; *Function tests* assess RIA according to their outcomes- *i.e.* their ability to facilitate the regulatory process and produce efficient and equitable regulations. While a number of countries perform some form of content test, OECD 2006 noted that in general there is little evidence of the systematic adoption of *ex post* assessments of the *ex ante* conclusions about probable regulatory impacts made in RIA documents: outcome tests. Function tests are not performed very often with respect to a RIA but more generally with respect to the regulatory intervention and whether it appears to have met expectations. This section reviews several *ex post* follow-ups including consultations and formal econometric studies.

Content test: UK operating and financial review

An example of content testing is provided by the National Audit Office's (NAO) review of the UK's proposed operating and financial review (OFR) for companies, discussed above (National Audit Office, 2006). It should be noted that the NAO has statutory independence from the government, and, moreover, it has no responsibility for the initial assessment of the adequacy of the RIA. The NAO examined the OFR impact assessment using six criteria listed in Table 5.7 and while it found the quality of the analysis generally good, judged that there was room for improvement with respect to compliance and implementation monitoring and evaluation. They encouraged the responsible authorities to develop its post-implementation review process so as to judge whether the objectives of its regulations are being met. The Department of Trade and Industry has launched a research project to examine potential changes in methodology and processes. A content test was also undertaken in New Zealand of RIA studies in general, concluding that many RIAs were inadequate, the main areas of weakness being problem definition and the analysis of costs and benefits (NZIER, 2008).

Table 5.7. National Audit Office evaluation of the OFR impact assessment: Criteria

Criteria	Key tests
Scope and purpose	State objectives clearly, analyse the do nothing option, consider non-regulatory option
Consultation	Start consultation early, use appropriate techniques, include all relevant stakeholder groups
Costs and benefits	Quantify costs and benefits where possible, use a robust methodology, test sensitivity
Compliance	Consider risk of non-compliance, measure existing compliance, consider how to improve compliance
Implementation/ monitoring/evaluation	Prepare an implementation plan, Establish procedure for monitoring and evaluating how regulation will meet its objectives
Competition	Complete a competition assessment. Complete Office of Fair Trading (OFT) competition filter. Consult OFT as required.

Source: National Audit Office, 2006.

Ex post consultations

Several authorities have implemented some form of follow-up consultation and monitoring of changes to the corporate governance framework. Two similar approaches are discussed in this section. The first covers the case of a predominantly principles-based corporate governance framework, the UK, and its review of the 2003 amendments to the Combined Code. Other countries with elements of a principles-based approach have also initiated other forms of follow-up assessment For example, both the Dutch Tabaksblatt Code and the German Kodex have some form of permanent monitoring groups that report regularly and propose improvements to the standing bodies in charge of the codes. The second approach covers regulation and outlines the follow-up discussions conducted by the SEC in monitoring the impact of Sarbanes Oxley, especially Section 404.

The UK Combined Code

The Combined Code was revised in 2003 to incorporate recommendations with respect to the role of non-executive directors and new guidance on audit committees. In July 2005, the Financial Reporting Council (FRC) announced a review to look at progress in implementing the code and whether any practical issues had emerged. The review was overseen by a group including representatives of listed companies, investors and other stakeholders and they considered 59 submissions in addition to other information. A consultation document with draft amendments was then issued for public comment and 38 responses considered (FRC, 2006a). Finally, a simple RIA describing the reasoning behind the choice of alternative modifications to the Combined Code was completed (FRC, 2006b).

In terms of the approach to better regulation, the most interesting aspect of the *ex post* review was that it used several specific questions to elicit responses, including information from focused surveys of companies. The questions are directly related to the fundamental objectives of the Code and so is an approach to asking whether it is achieving its objectives in a cost efficient manner. The questions were:

- Has the code begun to have an impact on the overall quality of corporate governance in UK listed companies? Are there areas in which practice has notably improved?

- Have companies come up against any practical barriers to implementing the Code?

- How informative are the corporate governance statements in the annual reports, and has there been a change in the overall level of disclosure?

- Where companies are choosing to explain rather than comply with a particular provision, how informative are those explanations and are they being accepted by shareholders?

- Has the code had an impact on the level and quality of dialogue between boards and their shareholders?

- What impact has the code had on smaller listed companies, in particular those outside the FTSE 350?

The review assembled important information about the operation of the code and did not just focus on a summary figure for the level of compliance. Contrary to some opinion, there appeared to be no systemic difficulties in recruiting non-executive directors. According to survey data received, there was an increase of almost 5% in the total number of non-executive directors in FTSE 350 companies between 2003/4 and 2004/5 and 95% of the smaller listed companies had at least two independent non-executive directors as recommended in the Code. The review also elicited information from professional associations about how the objectives of the Code were being met. One large association of investment managers reported that "in recent years the level and quality of dialogue between boards and their shareholders has improved and the combined code has contributed to this…. Furthermore, company chairmen tend to be more proactive in meeting institutional investors" (FRC, 2006a). Evidence was also presented that the average voting level in AGMs had increased and across the FTSE All Share had reached 63% in 2005 (the FTSE 100 was lower at 59% but up from 54%).

However, a potential problem with audit committees was also highlighted by the *ex post* review. Several companies reported that they had experienced difficulties in finding suitably qualified candidates willing to serve as the audit committee member with "recent and relevant financial experience" as recommended by the Code. It was considered that this was in part because candidates were drawing parallels with the statutory requirements in the US for companies to identify a named individual as the "financial expert" that was felt to have increased those individuals potential exposure to liability. Some companies were choosing to explain rather than comply with the provision by stating that the audit committee as a whole had the necessary experience. The review highlighted this as an important issue when it comes to implementing the EU's 8th Company Law Directive that has requirements similar to those in the US.

The SEC follow-up about implementation of Sarbanes Oxley

Section 404 of Sarbanes Oxley has proved controversial from the start with strong criticism being directed to the SEC for its regulations and to the PCAOB for its audit standards. It is therefore important to note that the SEC has maintained a robust *ex post* monitoring stance and, within the limits of its authority,

has sought to control costs and to ensure that the ultimate objectives of the law are being met. This part briefly reviews the type of questions they posed and how they adjusted implementation in the light of the consultations that pointed to problems in achieving objectives (benefits) as well as issues of costs.

The SEC sought written feedback on the first year experience of implementation and convened a roundtable in April 2005. In their written response to the roundtable, they stated that two messages came through (SEC, 2005). First, compliance with the requirements related to internal control over financial reporting produced benefits, including a heightened focus on internal control at the top levels of management of public companies. Some argued at the time that this might be at a significant opportunity cost in terms of a reduced focus on strategy. Second, implementation in the first year resulted in significant costs. Some of these might be one-off, but the SEC concluded that other costs have continued and could continue, including some unnecessary costs due to excessive, duplicative, or mis-focused efforts.

In response, the SEC and the PCAOB provided additional guidance. The SEC's guidance focused on implementation areas that it believed needed further attention or clarification to reduce any unnecessary costs and other burdens of the new requirements. These areas included the importance of following a risk-based approach, the scope of testing and assessment, the evaluation of control deficiencies, the quality of disclosures about material weaknesses, and communications between auditors and management. The PCAOB's amended guidance focused on areas in which the efficiency of the audit could be substantially improved. Topics included the importance of an integrated audit, the role of risk assessment throughout the process, the importance of taking a top-down approach, and auditor's use of the work of others. The two institutions thus responded to accusations that "the petty cash funds were being controlled but not the high levels where the ledger entries are made".

The SEC followed up improvements in guidance with a second meeting in 2006 to assess whether processes were more efficient and effective in the second year, and whether impediments remained to reaching a sustainable process that is both effective and efficient (SEC, 2006). As in the discussion of the UK's review of its Code, it is informative to review the type of information the SEC was seeking in both soliciting written comments as well as in organising a second Roundtable on 10 May, 2006. They are summarised in Box 5.2. In brief, they sought to see whether adjustments at the end of the first year had proved to be effective, whether the approach had become more risk-based in the second year, the nature of remaining problems, how if at all the controls were improving management, whether investors were benefiting from internal control reporting and the specific amendments that may still be required to the rules and standards. In other words, they sought all the material that would normally be required for a RIA.

Box 5.2. Assessment questions posed by the SEC in implementing Section 404

For this review of the second year's experience with internal control reporting and auditing provisions, the SEC posed a number of questions including:

Overview of the Second Year

Have the requirements of Section 404 helped improve the quality of annual and quarterly financial statements? What are the countervailing costs of compliance?

What was the experience with the second year compared with the first year?

Management's Evaluation and Assessment

Was the additional guidance issued in 2005 helpful? Were processes for evaluating controls more risk focused in the second year? What are the biggest challenges in implementing a risk-based approach?

Were there instances where management believed that it had taken an appropriate, risk-based approach to assessing internal control over financial reporting, but modified that approach based on auditor demands?

What drove the high and costly level of documentation?

The Audit of Internal Control over Financial Reporting

What impact did the PCAOB's inspections of firm's first year internal control audits have on the audit process?

Were integrated audits performed in the second year?

Did the process of identifying significant accounts, significant processes, and major classes of transactions worsen or improve in the second year? If not, what is the primary difficulty in this area?

Are auditors tailoring the internal control audit to the complexity of the company?

The effect on the market

Do you believe that the goals of the Act are being met? Are they being met at a cost that is justified by the benefits delivered to shareholders? Is your view impacted by the size or complexity of the company?

Do investors benefit from internal control reporting? What is the source of the benefit?

Do investors and other market participants generally understand the existing definition of the term "material weakness"? Do companies' public disclosures about the existence of material weaknesses adequately inform investors and the market about the effect of those weaknesses on financial reporting?

Further steps

Are their specific amendments that could be made to either the Commission's rules or the PCAOB standards to improve the efficiency and effectiveness of management's assessment and the auditor's role?

Econometric studies: Selected examples

Ex post reviews of the costs and benefits of law and regulation are often carried out by academic research projects and are sometimes supported or commissioned by the authorities. In some cases, the

studies perform a valuable function by identifying unintended side-effects and open questions, and could form the basis for an *ex ante* RIA regarding regulatory changes. On the other hand, results of different studies are often conflicting and unless commissioned by the authorities, focus on investigating variables only of indirect or partial interest to the authorities' policy-making objectives. The purpose of this section is simply to describe what can be done and where additional work is often necessary, rather than to draw any substantive conclusions.

Studies of policy changes

In recent years, "event analysis" has been used to study policy changes and company behaviour linked to the corporate governance framework (*e.g.* tender offer regulation) (see Bhagat and Romano, 2005 for a review). Event analysis starts from the insight that equity prices are the discounted value of expected future cash flows. An "event" arises when new information arrives in the market place which leads investors to make a new valuation of this expected cash flow. Investor expectations might already include returns based on the market as a whole or a sub-set thereof so that these must be estimated and deducted from actual returns, the difference being "abnormal returns" due to the event or new information. Such returns, when converted from a rate of return to a change in the value of equity, reflect the private value attached to the action by investors and in principle would provide a net valuation of private (not social) benefits for the purpose of an *ex post* RIA of a relatively discrete change in regulation etc.

In practice, event analysis is much more difficult and as in all econometric techniques calls for caution. Three issues stand out.[xiii] First, defining the events must be done carefully and final results are sometimes sensitive to the choice. Adding an event with no new information (*e.g.* a signing event on something that was fully expected) will bias the result. Care is also needed to correct for other information, especially macro events affecting all companies and shareholders such as a change in interest rates on the same day. Second, a single date for an event is seldom possible since news might have been leaked before the official release/company announcement, and several days might be required till there is a full understanding of an event. This leads researchers to define an event window such as the day before (in case of leakage of information) and several days after an "event", the period being called an "event window". Results, and especially whether they are economically and statistically significant, will depend on this time frame.

Third, specifying an expected return is also far from simple with statistical and economic techniques sometimes leading to different results. It is the need to specify a baseline that leads to the need to keep an event window short. Thus even though it might be expected that markets might take some time to fully digest news, such an event window would leave the counterfactual even harder to define. In other words, as the event window is extended, the noise to signal ratio increases. A method used in practical work to deal with an extended event is to break down the periods into specific news carrying events each with a short window. The abnormal returns are then aggregated to produce cumulative abnormal returns (CAR).

Empirical work using event analysis is often complemented by cross-section regressions. Thus a study of a regulatory change using event analysis could take the abnormal returns of each event and investigate the size of the abnormal return for different types of firms, governance structures etc. The specification of the cross-section model presents all the usual issues arising with econometrics in the field of corporate governance: what is exogenous and what is endogenous. This issue is not relevant for event analysis since it is the impact of the event on the given firms which is being measured and not the potential effect on excluded firms.

Event analysis has been used, *inter alia,* to examine market integrity issues, fundamental to good corporate governance. Two case studies below cover the dissemination of corporate information and whether and to what extent information about takeovers might have been leaked ahead of the

announcement resulting in insider trading. Another event study is more speculative and asks whether investors reacted positively to news of Sarbanes Oxley legislation.

SEC Regulation Fair Disclosure (FD). Did it work?

Effective and efficient disclosure of information is a key feature of the Principles and principle V.E, states that "*channels for disseminating information should provide for equal, timely, and cost efficient access to relevant information by users*". Indeed, a number of jurisdictions have introduced continuous disclosure requirements. Apart from the US, there appear to be few follow-up studies. The introduction of Regulation FD (Fair Disclosure) by the SEC in 2000 represents an interesting area for *ex post* analysis since from the outset both benefits and costs were expected (or argued) to arise from the regulation. The thrust of Regulation FD is captured well in the final rule:

> Regulation FD is a new issuer disclosure rule that addresses selective disclosure. The regulation provides that when an issuer, or person acting on its behalf, discloses material non-public information to certain enumerated persons (in general, securities market professionals and holders of the issuer's securities who may well trade on the basis of the information), it must make public disclosure of that information.

The SEC stated that:

> We have become increasingly concerned about the selective disclosure of material information by issuers. As reflected in recent publicised reports, many issuers are disclosing important non-public information, such as advance warnings of earnings results, to securities analysts or selected institutional investors or both, before making full disclosure of the same information to the general public. Where this has happened, those who were privy to the information beforehand were able to make a profit or avoid a loss at the expense of those kept in the dark.

On the other hand, there were market participants who strongly opposed the rule, arguing that the regulation would reduce the quality and the quantity of data available to market participants and reduce the overall efficiency of the markets. From the point of view of applied *ex post* RIA and econometric studies four questions arise: have the objectives set out by the SEC been achieved; has market efficiency declined; what is the nature of any side-effects and; do the benefits exceed the costs.

Only a few studies have attempted to examine whether the SEC's objectives have been achieved. One study examines directly the concerns of the SEC by testing for signs of information leakage both before and after Regulation FD was implemented but excluding a period of "contamination" when it was known by the market to be under discussion (Gadaowski and Sinha, 2005). The study uses event analysis and focuses on voluntary disclosures by companies. If there is leakage of information, this would show up by a relation between abnormal returns on the first day of the event window and those later in the window. Consistent with the premise of Reg. FD, they find a positive correlation of what appears to be preannouncement information leakage with the subsequent public reaction to the information contained in these disclosures. Consistent with the notion that Reg FD improves fairness of the markets, they find evidence of a reduction in information leakage associated with these disclosures from before Reg FD to after its implementation.

A large number of studies examine market efficiency but define it in widely differing ways such as flows of information, volatility etc. The results are mixed. Another study examines side-effects and finds that costs to small firms from Reg FD have been significant: some small firms stopped being followed by analysts, and consistent with the investor recognition hypothesis, the cost of capital increased for those firms (Gomes *et al.*, 2006). It is not the place here to form a judgement, merely to note that if there are

some costs to Reg FD then an overall cost estimate similar to those for benefits would be possible although difficult given the various dimensions of market efficiency. To our knowledge this has not been attempted in the academic literature.

Market integrity: have new insider trading laws during takeovers been effective

Two event studies have been conducted in the UK examining insider trading and investigating whether new powers of prosecution introduced in 2001 appear to have had an effect on an indirect measure of insider trading, termed informed trading in the studies (Monteiro, 2007, FSA, 2006).[xiv] The studies were conducted by the market regulator (Financial Services Authority, FSA) to develop a measure of market cleanliness in order to help evaluate the authority's overall performance. Two types of transaction were investigated: normal periodic company disclosures and takeover announcements. In the case of the latter, the announcement of a takeover was taken as a significant event, since prices invariably jump quite significantly on the announcement. The most recent study (Monteiro, 2007) uses an event window of both 2 and 5 days before the announcement and a two day post-event window comprising the day of the announcement itself and the day afterwards. The estimated returns (the baseline) is also checked for changes in the sample, including the size of firms, stock price volatility, liquidity (*e.g.* less liquid stocks might be expected to show greater price movements than more liquid stocks), innovativeness for firms (*e.g.* greater R&D might make firms harder to value), and industry affiliation.

The results of the analysis raised a number of questions for the FSA leading them to investigate directly how many persons have access to insider information during takeovers. For takeovers, the study defined market cleanliness as the proportion of significant announcements (*i.e.* takeover announcement) where the announcement was preceded by an "informed price movement" (*i.e.* abnormal returns). They found a significant increase between 2000 and 2004 in the number of takeovers that were associated with informed price movements to nearly a third of takeover announcements. While the number declined to around a quarter in 2005 it was not statistically different from 2000, the year before the new law came into effect. They concluded that the "results suggest that leaks on insider information about public takeovers are higher than we would expect in a clean market". This could be due to the fact that the first enforcement was only in 2004 and that some time is still required for it to be effective. Nevertheless, the results for normal disclosures indicated very much lower abuse and a marked improvement since the first enforcement. The *ex post* analysis thus pointed to significant policy issues relating to whether the rules are effective in the takeover market and what makes this market special.

Changes in arrangements covering gate keepers: Sarbanes Oxley

Another area where cost assessments have been formed using event analysis is with respect to Sarbanes Oxley. One study that carefully defines events and expected stock returns comes to the conclusion that the cumulative abnormal returns during the passage and implementation of the Sarbanes Oxley Act were significantly negative. Put another way, investors expected that the provisions in Sarbanes Oxley would involve private costs that far outweighed private returns. It might also have resulted from an expectation that more perceived business unfriendly business legislation could be expected. Other studies have produced different results but appear to mis-classify some events and to confound days when there could have been other information impacting the market. It would be informative to examine the market reactions to the important changes in the implementation of SOX introduced by the SEC in 2005 and 2006.

Conclusion

This chapter finds that a number of authorities in the OECD area are using RIA methods to strengthen their evidence-based policy-making in the area of corporate governance. What at first appear to be insurmountable problems with implementing RIA techniques in the area of corporate governance

(especially in difficult areas such as transparency, voting rights and audit committee structure) can and have been overcome by the judicious use of proxies and qualitative techniques based on a clearly defined analytical framework. This is particularly so with regards to estimating potential benefits.

The chapter indicates that there is thus no good reason for other jurisdictions and perhaps policy areas to avoid improving policy making by using the available RIA techniques. Indeed, more and more securities regulators are now moving in this direction. Other policy-making bodies might be lagging and require assistance to improve. Such assistance is also necessary given indications that not all current RIA can be judged as satisfactory. Strong political endorsement is thus still necessary and this is particularly so in the corporate governance area where the political pressure to act following a scandal can be intense.

Experience in the corporate governance area confirms lessons from other policy areas: the sooner RIA considerations are introduced into the policy-making process the better which means identifying and keeping open a number of policy alternatives. This also makes the consultation process potentially more productive and informative. In some cases there might be a need to act quickly such as during the financial market turmoil in the course of 2008. However, best practice indicates that there should at least be an *ex post* analysis to determine whether the emergency or hastily introduced measures were indeed effective and efficient.

The OECD's Steering Group on Corporate Governance will continue to assist the diffusion of best practices in the future.

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[i]. The relevant policy making institution varies widely across OECD countries. In some it is the preserve of ministries of Economy and Finance (*e.g*. Australia, UK) while in others financial market regulators play a dominant role. Ministries of Justice might also play a key role. In other cases, the legal competence is held by sub-central governments (US, Canada). For the purposes of this paper, the term policy maker is used throughout to cover all institutional forms even though some like financial market regulators might have a greater predilection to use RIA techniques than might for example a Ministry of Justice.

[ii]. For further information please consult *www.oecd.org/daf/corporate-affairs.*

[iii]. These countries have formed the Standard Cost Model Network to discuss developments within the area and agree on future actions, see *www.administrative-burdens.com.*

[iv]. The RIA notes that the concurrent introduction of a Directors report under EU company law (the Modernisation Directive, 2003) for large companies would also cover quoted companies so that there was a potential overlap between these requirements and those of the OFR so that a quoted company potentially might have to do both. To remove such duplication, the RIA noted that that "the Government is proposing that quoted companies completing an OFR will not have to duplicate information in a separate directors Report". In the event, at the very last minute, the government cancelled the OFR citing cost savings of some 10 million pounds, small in comparison to the total costs listed in the RIA, and that it would not "gold plate" EU regulation.

[v]. There are a number of references in the RIA to stakeholders. Indeed, in a 2004 report by MORI quoted by the RIA, the strongest support for the OFR came from CSR experts and NGO's with institutional investors split with 41% supporting and 34% opposing an OFR. This finding might suggest the presence of other information systems. See OECD (2006a) for a description of some of the mechanisms covering the area of intellectual assets.

[vi]. For the purpose of estimation the RIA relied on a new census of "live companies": 36 000 large and medium sized UK registered companies plus 1 290 registered quoted companies. The FTSE 100 companies were treated separately since their audit costs were much higher.

vii. See "Competition Assessment Guidance", SG/GRP(2006)4/ANN1.

viii. See Oxera, *op cit.*, p. 7 for the list of references consulted.

ix. This raise the problem that privatisation is not an exogenous variable for the purpose of regressions but endogenous. Thus two equations would need to be estimated, one being the probability of privatisation. Unless the endogeneity issue is addressed, the estimated parameters purporting to show the independent affect of privatisation will be biased.

x. As quoted in Oxera, *op cit.* from Boardman, A.E. and Laurin, C. (2000).

xi. Oxera, *op cit*., p. 9. The econometric problems with a number of existing studies concerns simultaneity: the causation might run from poor performance to takeover defences, rather than the other way around. See Bhagat, S. and R.H. Jefferis, 2002.

xii. It is worth recalling that at the time one view was that the SOX Act would increase D&O costs (Foley Lardner, 2003). However, that study made the erroneous assumption that rising D&O costs were a function of SOX. In fact they had been rising for some time before the Act due to rising litigation and in the wake of Enron and Worldcom.

xiii. A fourth issue not discussed is the sample size: how many companies are included when calculating the value of abnormal returns. See Bhagat and Romano (2005), for an extended discussion.

xiv. The Financial Services and Markets Act (2001) introduced a civil regime for prosecuting market abuse making it quicker and allowing the FSA to take action against a broader range of conduct. The Disclosure Rules have also introduced unlimited fines for those firms which do not make timely, accurate and full disclosures to the market. However, the first enforcement action only took place in 2004.