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CORPORATE GOVERNANCE: RATING OF THE EU MEMBER STATES GUIDELINES

Krambia-Kapardis, M.* Psaros J.** and Solomon, J. F.***

Abstract

This paper presents a synthesis and analysis of corporate governance guidelines of the twenty-five European Union (EU) member states. The paper focuses on observable and quantifiable aspects of corporate governance including key aspects pertaining to the composition and operation of the board of directors, audit committee, remuneration committee, nomination committee, and other corporate governance policies. Using an Australian corporate governance ranking system, contained in the Horwath Report, the Corporate Governance (CG) Guidelines were analysed and rated. Based on the rating system, thirteen of the twenty-five EU countries had guidelines that were considered to be lacking in several key areas. In contrast, Ireland and the United Kingdom have the most detailed and rigorous corporate governance guidelines. Countries with less developed economic frameworks have the least detailed and rigorous corporate governance guidelines. Finally the specificity of corporate governance guidelines varies greatly between the various countries either due to the system used (one or two tier systems) or whether the country's legal system is predominately common or statutory law.

The aim of the paper is not to determine the compliance of individual companies on their company’s CG Code but to rate the Codes of the countries so as to assess whether there ought to be stricter regulatory measures by the EU on its member states.

Keywords: international corporate governance, ranking of European codes

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Introduction

While corporate governance (CG) is anything but a new area of enquiry it has taken on greater international significance since the mid 1990s due to the corporate collapses of Enron, WorldCom, Parmalat etc. An example of a nation waiting to implement CG after a corporate crisis or a stock exchange crash is Cyprus. In the 1990s while there was a boom in the stock exchange and everyone was “winning” there was no discussion of implementing a Corporate Governance Code. Once there was a crash in 1999, the Code was enforced. The United States has responded with the Sarbanes-Oxley Act and the European Union with the publication of the Winter Report of the High Level Group of Company Law Experts (Maasen et al., 2003)

For all countries, but particularly for countries with developing economies, international investment highlights the need to demonstrate the existence, or at least commitment, to the development of quality corporate governance practices. Respective regulatory authorities in most European Union (EU) countries have been pro-active in prescribing “best practice rules or guidelines”. As Spanos (2005) states “CG has significant implications for the growth prospects of an economy. Proper CG practices diminish risk for investors, attract investment capital and improve corporate performance” (p.16). Maher and Andersson (1999) have stated that corporate governance affects the industrial competitiveness of countries due to increasing competition and capital mobility. Johnson et al. (2000) and Mitton (1999) have drawn inferences between weak corporate governance and currency crisis. It is important therefore that there is an effective corporate governance code to avoid fluctuations in the market, protect the investors and the overall country’s economy.

“A corporate governance rating could be a powerful indicator of the extent to which a company is currently adding, or has the potential
to add in the future, to shareholder value. This is because a company with good corporate governance is generally perceived as more attractive to investors than one without” (Editorial, Corporate Governance: An International Review, 2001, Vol 9, Number 4, p. 257).

Literature Review

As Solomon and Solomon (2004) state the “system of corporate governance presiding in any country is determined by a wide array of internal factors, including corporate ownership structure, the state of the economy, the legal system, government policies, culture and history” (p. 147). In addition, the same authors argue that there are also externalities such as the global economic climate, cross-border institutional investment and the extent of overseas capital inflows which too affect the corporate governance system of a country. As Prowse (1994) notes there are two main corporate governance systems, the Anglo-Saxon model1 or the institutionally-based model2. Solomon et al. (2002), and Solomon, et al. (2003), state that for developing countries to be internationally competitive and attract foreign capital, they need to adopt “commonly accepted standards of corporate governance” (p. 235).

Countries however have unique cultural, legal and economic characteristics and therefore most countries have their own corporate governance guidelines. According to the European Corporate Governance Institute there are more than 107 codes introduced since 1992 in 35 countries and in Europe alone more than 55 codes have been introduced in 19 countries (Gregory, 2002).

Research into corporate governance systems internationally has been carried out. Shleifer and Vishny (1997) focused on the influence of countries’ legal systems on corporate governance while La Porta et al. 1997 explored the links between legal systems and corporate governance. Schmidt and Spindler (2002) have compared the German (insider control) to the US (outsider control) system while Charkham (1994) compares the corporate governance systems of five countries, traces their origins, and shows that they all fit national history and political preferences. Conyon and Schwalbach (2001) compare remuneration and compensation practices in different European countries while Witt (2004) compares the US, German and Japanese governance systems.

Solomon et al. (2002) note that both the OECD and CalPERS emphasise the need to recognise the different cultural, legal and economic characteristics and how these have engendered the individual corporate governance systems of each country. However, some other writers are not as sympathetic to the cause of developing economies and their idiosyncrasies. For example Webb, cited in Mertzanis (2001) states:

People who defend bad corporate governance on the grounds of … some cultural differences are talking nonsense. I think it is a reflection on an ownership structure that gives people the ability to abuse public shareholders and perhaps the mentality that the public is fortunate to be owning shares and providing finance for a company, but not be part-owner of the business. (p.100)

As Solomon and Solomon (2004) state “corporate governance standardization is one way of building confidence in a country’s financial markets and of enticing investors to risk funds. (p. 153)” In an attempt to globalise corporate governance the Organization for Economic Co-operation and Development (OECD, 1999 and 2004) issued a set of principles designed:

- To achieve the highest sustainable economic growth and employment and a rising standard of living in member countries, while maintaining financial stability, and thus to contribute to the development of the world economy.
- To contribute to sound economic expansion in member as well as non-member countries in the process of economic development; and
- To contribute to the expansion of world trade on a multilateral, non-discriminatory basis in accordance with international obligations.

The OECD principles have been endorsed by the OECD Ministers in 1999 and were revised in 2004 to take into account recent developments and experiences in OECD member and non-member countries. The guidelines have provided an international benchmark for policy makers, investors, corporations and stakeholders. The Winter Report reviews a number of issues in reference to corporate governance and recommends that listed companies disclose more information on the role of non-executive and supervisory directors, management remuneration and the responsibility of management as far as financial statements and auditing practices. The European Commission on May 2003 presented an Action Plan on corporate governance and as Spanos (2005) and (European Shadow Financial Regulatory Committee, (2002) and Soderstrom et al. (2003) state, this initiative demonstrates the fact that “there is pressure to harmonize the national regulatory frameworks and perhaps ultimately create a single European market for corporate control (p.17). Doidger et al. (2004) have found that compliance to governance depends on how developed a country is.

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1 This model is also referred to in the literature as the Anglo-American model, the outsider model, or the market model.
2 This model is also referred to in the literature as the Bank-based model or the insider model.
There is no uniformity in the EU member States CG Guidelines. As Ugeux (2004) states in the last decade there have been a number of initiatives due to the fact that there is no global regulatory framework. These initiatives were the Lyons G7 meetings which looked at the possible ways to achieve some form of regulatory framework for global financial institutions and capital markets.

To date there has been little attempt to compare and contrast the various corporate governance codes of practice. The main study was carried out by the European Union (Weil, Gotshal & Manges LLP, 2002) and a smaller scale study by Collier and Zaman (2005) who have looked at convergence of audit committees of 20 European countries. The former study presented the findings of a detailed content analysis which examined the Guidelines at the time. However, there has been a proliferation of codes of practice and best practice corporate governance guidelines throughout the European Union, since this study, as well as enlargement of the European Union membership.

The purpose of this paper however is not to compare the European corporate governance guidelines and aim to determine whether they are in line with the OECD principles. The primary aim of the paper is to utilise a corporate governance rating system to rate and rank EU countries according their best practice corporate governance guidelines. This constitutes a significant extension from the more common approach of simply comparing the corporate governance practices of individual corporations and entities (Witt, 2004; Ugeux, 2004; Buck and Shahrim, 2004; OECD survey 2004).

In conjunction with the prominence and increased public reporting and harmonization of corporate governance there has also been a corresponding evolution of corporate governance rating systems in several different Western Countries. By way of example some of the more prominent rating reports in Australia include the Horwath Report7, RepuTex5, Governance Metrics International6 and the Ethical Investor6. They all differ in their respective methodologies, but all have the similar goal of trying to measure and rank entities on the basis of their corporate governance.

It needs to be acknowledged that the results of the present study will be indicative rather than conclusive. The key reason for this is that best practice guidelines are not necessarily synonymous with actual practice. To illustrate the tentative nature of the ratings based on the best practice guidelines of the various countries may differ significantly from actual to corporate practice. The secondary aim of the present paper is to provide a rich description and summary of the corporate governance guidelines of the EU countries.

Methodology

The corporate governance rating system that is used in this paper is the rating system that is used in the Australian “Horwath Corporate Governance Report”. There are several rating systems that could have been used, but the decision to use the Horwath Report was based on pragmatic issues to do with cost and availability. Most (possibly all) rating systems sell data bases emanating from their rankings, but do not make their specific research design available. However, one of the authors of this paper is a principal researcher of the Horwath Report. Accordingly, he is able to make use of the research design employed in the Horwath Report to the analysis of this paper.

With the same philosophy and justification as Collier and Zaman (2005) the present authors chose to carry out a comparative analysis of the European countries since there are “countries with varying traditions of corporate governance, and second, the European Commission has been actively addressing the issue with an Action Plan aimed at delivering the integrated and modern company law and corporate governance framework which businesses, markets and the public are calling for” (EU Institutions Press Release, IP/03/716 21 May 2003).

The corporate governance guidelines of each of the EU countries were obtained from the European Corporate Governance Institute web site in July of 2004. The web site as Collier and Zaman (2005) state has an academic integrity and its role is to undertake commission and disseminate research on corporate governance. The full titles and references to the Guidelines are contained in the bibliography.

The Horwath Corporate Governance Model

The specific detail of the model used to derive the ratings is proprietary information. The model has been used annually since 2002 to rank Australia’s largest 250 companies on the basis of their corporate

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8 http://www.ecgi.org/codes/all_codes.php
9 The Horwath Report is copyright by the University of Newcastle (Australia) and is based on research by Jim Psaros (one of the authors of this paper) and Michael Seamer from the University of Newcastle’s School of Business and Management.
governance mechanisms. While no model could claim to cover all aspects of good governance, the Horwath Corporate Governance Model does appear to have reasonable credibility in the Australian financial press and academic community. The report, which is released annually, has been reported in all the major Australian financial press and has been the basis for ongoing academic research. Linden and Matolcsy (2004) described the Horwath Report as the “best-known Australian corporate governance scoring system”. One further indication that the Horwath Report is making a useful contribution to the corporate governance debate in Australia is the fact that it forms the basis for research papers from academics from several leading Australian universities. For example, research papers based on Horwath Report data were written by leading accounting and finance academics at several Australian universities (eg West Australia Business School, The University of New South Wales, The University of Technology Sydney, and The Melbourne Business School). Papers include Linden and Matolcsy (2004) and Beekes and Brown (2006). No model would claim to capture all dimensions of corporate governance. Certainly the Horwath Report does not. However, it does provide a quantifiable and objective measure of corporate governance structures.

In short the Horwath model considers objective factors based on publicly disclosed information pertaining to the existence and structure of a company’s Board of Directors and associated committees, the level of perceived independence of the company from the external auditors, and disclosures relating to the existence of a code of conduct, risk management and share trading policy. A brief discussion and justification of each of these factors follows.

Components Tested

1. Board of Directors
The Board of Directors is the ultimate decision making body of an organisation and thus plays a crucial role in many areas including corporate governance (Garratt, 1996; Jensen, 1993; Yermack, 1996; Higgs Report 2003). However, an effective board will contain ethical, skilled and critically thinking individuals who contribute special expertise to the company. Solomon (2007) suggests that a whole host of diverse factors are being recognised as influencing board effectiveness and stresses the importance of ethics in the boardroom, as an essential ingredient to ‘good’ corporate governance. Nicholson and Kiel (2004) conceptualise the board as a ‘social phenomenon’ with an effective board achieving an appropriate fit between elements of intellectual capital and board functions. They argue that the human dimension, as well as other complex factors, means that board dynamics cannot be analysed purely in an agency theory framework. Garratt (2005) suggests that future boards should be genuinely altruistic, driven by ethics and professionalism.

More specifically the Board is responsible for determining, implementing, maintaining a culture of integrity (ICGN, 2005). The Board will also have an “appropriate” level of independence. For a listed public company there needs to be a balance between internal, non-independent “finger on the pulse” expertise, and external, independent representation (Mace, 1986; Alkhafaji, 1989). While there is no one-size-fits-all formula for all organisations, it seems well established internationally (eg. ASX Corporate Governance Council, Australian Investment and Financial Services Association, New York Stock Exchange Governance Rules, US Blue Ribbon Report, Felton and Watson, 2006), that there needs to be a majority of independent members and including the Chair. In addition a board needs to meet on sufficient occasions to be effective in meeting its oversight role (Useem and Zelleke (2006).

For the purposes of the Horwath model the most desirable outcome will be for a company to have:
- a board with the majority of independent directors;
- an independent chairperson; and
- met at least 6 times annually.

The least desirable outcome will be for a company to have:
- a board with no independent directors;
- the CEO as chairperson; and
- met less than 6 times annually.

2. Audit Committee
The importance of the audit committee to effective corporate governance has been well established in the literature for some time now (Cadbury Committee, PricewaterhouseCoopers 2001). Recent research also confirms empirically some of the advantages that result from a properly constituted and independent audit committee. Abbot, Parker and Peters (2004) find that companies that have independent audit committees are less likely to be associated with restated financial statements (i.e. correcting prior year errors) and fraud, than companies that do not have independent audit committees.

An audit committee is also a crucial component of effective corporate governance. It serves to strengthen the auditor’s independence by providing an independent forum where issues relating to the audit, can be referred on a timely basis. An audit committee should be in a position to discuss matters with the external and internal auditor in the absence of management and non-independent directors (Collier and Zaman, 2005).

Most authoritative reports recommend that either

With respect to best practice on the regularity with which audit committees should meet there is less guidance. However, the Blue Ribbon Report (1999) states that “… the (audit) Committee shall meet at least four times annually, or more frequently as circumstances dictate” (p.68). Relevant to this point Abbot, Parker and Peters (2004) find that companies that had audit committees that met frequently were less likely to be associated with restated financial statements (ie. correcting prior year errors) than companies that had audit committees that did not meet frequently.

Therefore for the purposes of the model the most desirable outcome will be for a company to have:
- an audit committee with all the members, including the chair, to be independent;
- a chairperson, who is not the chair of the main board;
- at least one member with professional or educational accounting qualifications;
- at least 3 members; and
- met at least 4 times annually.

Of course, the least desirable outcome will be for a company not to have an audit committee.

3. Remuneration Committee

A remuneration committee is responsible for reviewing the remuneration of the directors and senior management and advising the Board whether the amounts are reasonable in comparison with industry and corporate yardsticks. A remuneration committee can be a more efficient mechanism than the full board for focusing the company on appropriate remuneration policies to enhance corporate and individual performance. The Higgs Report (2003) recommends that the Board should establish a remuneration committee; however the Australian Stock Exchange (ASX) Corporate Governance Council extends this and states that this committee should consist of a majority of independent directors, have an independent chairperson, and have at least three members. Whilst, Cadbury Report (1992) suggested that the Composition of the Remuneration Committee be wholly or mainly of Non-Executive Directors, Greenbury (1995) suggested that the members of the set committee be exclusively Independent Non-Executive Directors.

Consequently, for the purposes of the model the most desirable outcome will be for a company to have a remuneration committee with:
- all the members, including the chairperson, independent;
- At least 3 members.

The least desirable outcome will be for a company not to have a remuneration committee.

4. Nomination Committee

As was the case with a remuneration committee, the Cadbury Committee, Higgs Report as well as the ASX Corporate Governance Council recommends that the Board of Directors appoint a nomination committee. A nomination committee is responsible for proposing new nominees to the Board and advising the Board on the core competencies required of new directors. An independent director should chair the nomination committee and at least a majority of the committee should be independent. Further, the nomination committee should contain at least three members. Therefore for the purposes of the model the most desirable outcome will be for a company to have a nomination committee with:
- all the members, including the chairperson, independent;
- at least 3 members.

The least desirable outcome will be for a company not to have a nomination committee.

5. External Auditor Independence

While the empirical evidence remains mixed with respect to whether non-audit fees impact on audit judgements, there is little doubt that when the proportion of non-audit fees dwarfs the audit fee, the perception of audit independence is questioned. Whether this leads to sub-optimal judgements by the auditor is a vexed question.

Internationally, most regulators and accounting professional bodies have tread cautiously in terms of prohibiting the provision of non-audit services. In the USA the Sarbanes-Oxley Act (2002) greatly restricts the ability of the auditor to provide non-audit services. In Australia, the Corporations Act contains some provisions which give some prominence to the need for audit independence. Notwithstanding the above arguments, it is irrefutable that the auditor needs to be beyond reproach with respect to both the reality and perception of independence. Against this backdrop, it is likely that at least the perception of independence is clouded by an audit firm providing substantial
amounts of non-audit services to their client. Consequently, for the purposes of this study a weighting is placed on a limit on the proportion of non-audit fees (relative to audit fees) paid by a client to their auditor.

6. Code of Conduct and Other Policy Disclosures

A weighting is also included for disclosures relating to the existence and substance of a company’s code of conduct, policy on risk management and policy on share trading. Brief discussion on each of these issues follows.

6.1 Code of Conduct – It is interesting that Cadbury (1992) “said virtually nothing about the application of ethics and responsibility in the boardroom... despite events... such as Zeebrugge ferry disaster” which had been affected by Board decisions (Keasey et al. 2005, p. 29). Intuitively it is to be expected that a quality organisation would engage in proper ethical behaviour at all levels of their operation. Consistent with this approach, it would also be expected that the organisation would document its policies on appropriate behaviour. Accordingly, a code of conduct is an effective way to guide the behaviour of directors and key executives and demonstrate the commitment of the company to ethical practices. Obviously the existence of a code of conduct does not guarantee ethical behaviour, but it is a start.

6.2 Policy on risk management – Up until recent times, the general theme was that risk (and risk management) was an issue that, in an ad hoc manner, floated onto the agenda of the audit committee, the internal audit function, the external auditor function, and the main board. In essence, while all parties had a concern for risk, there wasn’t always a clear understanding, in specific circumstances, of where responsibility lay. A small, but concrete way of helping to eliminate duplication and/or over-looking of risk management responsibilities is to have clear policies on risk management.

A recommendation of the ASX Corporate Governance Council requires that the board, or appropriate committee, should establish policies on risk oversight and management. Implied within this recommendation is the possibility that a specific committee (eg. Audit committee or risk management committee) may oversee the risk function of an organisation. Even if the task is not delegated to a specific committee, the minimum is that a company should clearly document their policies on risk management. This should comprise more than a blanket statement of the kind that “the board has policies in place to consider risk management”.

6.3 Policy on share trading – While in most countries the law prohibits insider trading per se, there is clearly a greater moral obligation for company directors and executives when trading in company shares. Simply they should only trade in their own company’s shares in specific circumstances and during specific periods. Public confidence in a company can be eroded if there is insufficient understanding about a company’s policies governing trading by “potential insiders”. As a minimum, companies should disclose of the trading in company securities by directors, officers and employees. While disclosure is important, it is equally important that the policy on share trading has some rigour, and ideally restricts the trading of shares to selected limited time periods when the “potential insider” is less likely (or perceived to be less likely) to have privileged information.

6.4 “Soft” Governance Measures

There are other issues that impact on corporate governance that are not included in the Horwath model. Of course corporate governance is much more than independence levels, committee structures, and other policies. In addition to the above factors there are other issues that impact on corporate governance, including the ethical and corporate culture of the organisation and the skills and characteristics of the senior management and directors (i.e. “soft measures”). These “soft” difficult to measure attributes are clearly important.

No doubt soft governance measures are an important part of the overall corporate governance framework. However, by definition there is a significant measurement problem. As it is not possible to objectively measure these factors, they are not included in the model. No model, including that used in the Horwath Report, is absent of all subjectivity. However, the authors of the Horwath Report believe that the inclusion of other softer characteristics of governance into the model would overly water down the objectivity of the model and its findings. Without discounting the importance of “soft” governance measures, it seems hard to believe that the “hard” measures as examined in the Horwath model don’t add some value to good governance. If that is not the case, then all the international best practice guidelines have got it completely wrong. Furthermore, it seems reasonable to presume that in the majority of occasions, quality “hard” measures of governance will facilitate quality “soft” measures of governance. Therefore, the Horwath model used in the research only considers objective, quantifiable and publicly available information.

Findings

Based on the model described previously, an overall corporate governance assessment and ranking was
performed for each of the 25 EU countries on the basis of their corporate governance guidelines. As noted previously in this paper, this constitutes a significant extension from the more common approach of analysing the corporate governance practices of individual corporations and entities. Quite possibly national best practice guidelines are not necessarily synonymous with individual corporate practice. In any event the results of the ranking are contained in Table 1.

INSET TABLE 1 HERE

In aggregate the results are quite disappointing. Of the 25 EU countries, it is felt that the corporate governance guidelines of at least 13 of them are seriously lacking. In essence a one or two star rating meant that corporate governance guidelines were seriously lacking in most key areas. In particular, there appeared to be few (if any) requirements for an independent Board of Directors or any associated committees. In aggregate the corporate governance requirements were scanty in most if not all areas.

In contrast five countries (Ireland, the United Kingdom, Finland, Sweden and Slovakia) had corporate governance guidelines that could be described as “good or better”. Their corporate governance guidelines were rigorous, and met best practice standards. These countries recommended independence in all key areas including the Board of Directors, audit committees, remuneration committees and nomination committees, as well as prescribing other important corporate governance policies.

Star Ratings Explanations

5 stars (0 countries, 0%) Corporate governance guidelines were rigorous and incorporated all best practice standards. There were requirements for unequivocal independence in all key areas including the Board of Directors, audit committees, remuneration committees, and nomination committees. The Board and related committees were required to meet regularly. There was a requirement for policies with respect to the provision of non-audit services by the external auditor, risk management, share trading, and a code of conduct.

4.5 stars (2 countries, 8%) Corporate governance guidelines were rigorous and met all best practice standards other than in relatively minor circumstances.

4 stars (3 countries, 12%) Corporate governance guidelines were very good and met the vast majority of best practice standards.

3.5 stars (4 countries, 16%) Corporate governance structures were generally good and met most of the best practice standards.

3 stars (3 countries, 12%) Corporate governance guidelines were adequate and met some of the best practice standards. Most of the trimmings of good corporate governance were present but usually there was no requirement that the Board and associated committees had a majority of independent members. There were also non-trivial short-falls in some other areas.

2 stars (10 countries, 40%) Corporate governance guidelines were lacking in some key areas. There was no requirement that the Board and associated committees had a majority of independent members and there were significant corporate governance short-falls in several other areas.

1 star (3 countries, 12%) Corporate governance guidelines structures were either totally lacking or inadequate in most key areas.

Descriptive Statistics

As mentioned in the methodology above the second purpose of the paper is to provide a rich description and summary of the corporate governance guidelines of the EU countries

INSET TABLE 2

Using the SPSS package the details of each legislation were coded so as to determine a general overview of Corporate Governance Code’s expectations. As stated in Table 2 the majority of the CG’s in the member states are one-tier and 24% of the Guidelines state that the maximum number of board members should be sufficient whilst 28% do not make any mention of that. The number of CG Guidelines that do not mention the proportion of non-executive directors (NED) and executive directors (ED) is also alarming at 72% and 92% respectively. Regarding the number of independent non-executive directors (INED) on the Board 32% of the Guidelines state that the majority should be independent whilst 92% do not state if the Chair should be INED or if he/she can be the CEO.

Regarding Audit Committees (AC) 76% of the Guidelines state that an AC should exist and 24% go as far as to state that the majority of the AC members should be INED, while only 12% of the Guidelines state that the AC Chair should be independent. A further issue regarding AC is that only 28% of the Guidelines state that AC member(s) should have some formal accounting experience.

Another issue that was looked at was the Remuneration Committee (RC), its composition and
its independence. 68% of the Guidelines stated that there should be an RC, whilst only 12% stated that it should comprise 100% of INED and only 8% stated that it should be chaired by an INED.

Another limb of Corporate Governance is of course the Nomination Committee, whereby 72% of the Guidelines specifically stated that there should a NC, and 16% had gone as far as to state the majority of the members of the NC should be independent.

Other issues that were looked at were: (a) as to whether risk management committee and written policies exist (0%); written policies but not formal committee existed (16%); (b) whether the code specifies the requirement for a Code of Conduct (8%); (c) whether the Code provides a restriction on the length of director tenure (40%) and (d) whether there was a policy on share trading requirements (no requirements were found in any of the EU Guidelines).

Regarding the issue of who qualifies to be considered as an independent non-executive director there is no uniformity in the Guidelines. The UK Code is the most exhaustive in its list but the rest of the other country Guidelines need further clarification. An example is the definition of independence provided in the Combined Code⁹ to that in the Greek Code¹⁰.

**Concluding Comments and Caveats of the Research**

The importance of corporate governance for all countries, but particularly for countries with an emerging economy has been well established in the literature (Doidger et al. 2004). While it might not appear “fair” or appropriate, many will be judged against traditional Anglo Saxon principles of corporate governance. Based on an Australian corporate governance ranking system (i.e. the Horwath Report) this paper ranks and rates EU country on the strength of their corporate governance guidelines.

In aggregate the results were disappointing, 13 of the EU countries provided corporate governance guidelines that were lacking in some key areas. Further, based on the ranking system, not one country achieved a 5 star rating for its corporate governance guidance. While the findings are interesting, care needs to be taken with their interpretation. Therefore the following caveats are noted.

First, the rating is based on the guidelines that apply in each country. In some circumstances the guidelines may exceed the practices of most (or all) entities in a particular country. As such they are held to be the “ideal” and entities will do well to follow some of the guidelines. Alternatively, in other circumstances the guidelines may be seen to be the “minimum” and actual practice will exceed it on a regular basis. Second, the legal framework or financial markets of some countries might not be not well geared to enforcement of some key governance principles. Consequently having rigorous, but not enforceable guidelines may not be that useful. Third, the rating system only considers observable and quantifiable aspects of corporate governance such as independence levels, committee structures, and other policies. In addition to the above factors there are other issues that impact on corporate governance, including the ethical and corporate culture of the organisation and the skills and characteristics of the senior management and directors (i.e. “soft measures”). These “soft” difficult to measure attributes are clearly important but are not factored into the model. Fourth, the model is based primarily on Australian measures and indices of good governance. Notwithstanding the reasonably non-contentious nature of them there is the prospect that some of them may not be suitable or appropriate for some EU countries.

It is obvious however, that the EU must either move towards harmonizing the CG Guidelines like it has done with the IFRs and is in the process of doing with the auditing standards or it should implement a regulatory body to enforce and ensure better CG guidelines are in place in emerging economies. As demonstrated in this paper some countries have major deficiencies in their CG Guidelines which in turn could jeopardise investor confidence.

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⁹ Which is defined as a) not employee of the company, b) has or has had last 3yrs relationship with company, c) receives or received additional remuneration from company, d) has close families ties with any advisers or directors or employee of shareholders of the company, e) holds cross-directorships or links other directors through involvement in other companies or bodies, f) served on the board more than 9 years, g) represents a significant shareholders, h) independent to character and judgment.

¹⁰ Which is defined as a) not employee of the company, b) has close families ties with any advisers or directors or employee or shareholders of the company.


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Directorate General, January, Table K, 73, citing Company Reporting (2000) “Issue of the Month”.


Appendices

Table 1. Corporate governance guideline rank

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>RANK</th>
<th>NUMBER STARS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ireland</td>
<td>= 1st</td>
<td>4.5 stars</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>= 1st</td>
<td>4.5 stars</td>
</tr>
<tr>
<td>Finland</td>
<td>= 3rd</td>
<td>4 stars</td>
</tr>
<tr>
<td>Sweden</td>
<td>= 3rd</td>
<td>4 stars</td>
</tr>
<tr>
<td>Slovakia</td>
<td>5th</td>
<td>4 stars</td>
</tr>
<tr>
<td>Belgium</td>
<td>6th</td>
<td>3.5 stars</td>
</tr>
<tr>
<td>Hungary</td>
<td>7th</td>
<td>3.5 stars</td>
</tr>
<tr>
<td>Holland</td>
<td>8th</td>
<td>3.5 stars</td>
</tr>
<tr>
<td>Slovenia</td>
<td>9th</td>
<td>3.5 stars</td>
</tr>
<tr>
<td>France</td>
<td>10th</td>
<td>3 stars</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>11th</td>
<td>3 stars</td>
</tr>
<tr>
<td>Cyprus</td>
<td>12th</td>
<td>3 stars</td>
</tr>
<tr>
<td>Italy</td>
<td>13th</td>
<td>2 stars</td>
</tr>
<tr>
<td>Denmark</td>
<td>= 14th</td>
<td>2 stars</td>
</tr>
<tr>
<td>Spain</td>
<td>= 14th</td>
<td>2 stars</td>
</tr>
<tr>
<td>Malta</td>
<td>16th</td>
<td>2 stars</td>
</tr>
<tr>
<td>Poland</td>
<td>17th</td>
<td>2 stars</td>
</tr>
<tr>
<td>Lithuania</td>
<td>18th</td>
<td>2 stars</td>
</tr>
<tr>
<td>Austria</td>
<td>19th</td>
<td>2 stars</td>
</tr>
<tr>
<td>Germany</td>
<td>20th</td>
<td>2 stars</td>
</tr>
<tr>
<td>Greece</td>
<td>21st</td>
<td>2 stars</td>
</tr>
<tr>
<td>Portugal</td>
<td>22nd</td>
<td>2 stars</td>
</tr>
<tr>
<td>Estonia</td>
<td>= 23rd</td>
<td>1 star</td>
</tr>
<tr>
<td>Latvia</td>
<td>= 23rd</td>
<td>1 star</td>
</tr>
<tr>
<td>Luxemburg *</td>
<td>25th</td>
<td>1 star</td>
</tr>
</tbody>
</table>

* Luxemburg at the time of the research did not appear to have a Corporate Governance Code.
### Table 2. Corporate governance – calculation of scores

<table>
<thead>
<tr>
<th>TYPE OF BOARD</th>
<th>One-Tier</th>
<th>Two-Tier</th>
</tr>
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<tbody>
<tr>
<td>Min or Max Number of directors</td>
<td>- 1-7</td>
<td>20%</td>
</tr>
<tr>
<td></td>
<td>- 7-10</td>
<td>12%</td>
</tr>
<tr>
<td></td>
<td>- 11-15</td>
<td>12%</td>
</tr>
<tr>
<td></td>
<td>- +15</td>
<td>4%</td>
</tr>
<tr>
<td></td>
<td>- sufficient</td>
<td>24%</td>
</tr>
<tr>
<td></td>
<td>- not mention</td>
<td>28%</td>
</tr>
<tr>
<td>Proportion of ED</td>
<td>- 1/3</td>
<td>8%</td>
</tr>
<tr>
<td></td>
<td>- majority</td>
<td>82%</td>
</tr>
<tr>
<td></td>
<td>- at least 1/2</td>
<td>92%</td>
</tr>
<tr>
<td></td>
<td>- not mention</td>
<td>92%</td>
</tr>
<tr>
<td>Proportion of NED</td>
<td>- 1/3</td>
<td>4%</td>
</tr>
<tr>
<td></td>
<td>- majority</td>
<td>16%</td>
</tr>
<tr>
<td></td>
<td>- at least ½</td>
<td>12%</td>
</tr>
<tr>
<td></td>
<td>- all NED</td>
<td>8%</td>
</tr>
<tr>
<td></td>
<td>- sufficient</td>
<td>72%</td>
</tr>
<tr>
<td></td>
<td>- not mention</td>
<td>72%</td>
</tr>
<tr>
<td>BOARD OF DIRECTORS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Independence</td>
<td>- majority</td>
<td>32%</td>
</tr>
<tr>
<td></td>
<td>- at least 25% independent</td>
<td>32%</td>
</tr>
<tr>
<td></td>
<td>- at least one independent</td>
<td>4%</td>
</tr>
<tr>
<td></td>
<td>- no independence requirement</td>
<td>4%</td>
</tr>
<tr>
<td></td>
<td>- no mention</td>
<td>32%</td>
</tr>
<tr>
<td>Board Chair</td>
<td>- must be independent</td>
<td>8%</td>
</tr>
<tr>
<td></td>
<td>- need not be independent but cannot be CEO</td>
<td>8%</td>
</tr>
<tr>
<td></td>
<td>- can be CEO</td>
<td>12%</td>
</tr>
<tr>
<td></td>
<td>- no mention</td>
<td>80%</td>
</tr>
<tr>
<td>Board Meetings</td>
<td>- less than 6</td>
<td>8%</td>
</tr>
<tr>
<td></td>
<td>- 6 or more</td>
<td>12%</td>
</tr>
<tr>
<td></td>
<td>- regularly</td>
<td>36%</td>
</tr>
<tr>
<td></td>
<td>- no mention</td>
<td>40%</td>
</tr>
<tr>
<td>AUDIT COMMITTEE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AC Exists</td>
<td>- yes must have</td>
<td>76%</td>
</tr>
<tr>
<td></td>
<td>- need not have one</td>
<td>12%</td>
</tr>
<tr>
<td></td>
<td>- no mention</td>
<td>12%</td>
</tr>
<tr>
<td>AC Independence</td>
<td>– 100% independent</td>
<td>16%</td>
</tr>
<tr>
<td></td>
<td>- majority independent</td>
<td>24%</td>
</tr>
<tr>
<td></td>
<td>- no majority independence</td>
<td>8%</td>
</tr>
<tr>
<td></td>
<td>- no mention</td>
<td>52%</td>
</tr>
<tr>
<td>AC Chair</td>
<td>- must be independent</td>
<td>12%</td>
</tr>
<tr>
<td></td>
<td>- need not be independent but cannot be CEO</td>
<td>12%</td>
</tr>
<tr>
<td></td>
<td>- independent but also board chair</td>
<td>12%</td>
</tr>
<tr>
<td></td>
<td>- CEO</td>
<td>12%</td>
</tr>
<tr>
<td></td>
<td>- no mention</td>
<td>88%</td>
</tr>
<tr>
<td>AC Number Meetings</td>
<td>- less than 4</td>
<td>24%</td>
</tr>
<tr>
<td></td>
<td>- 4 or more</td>
<td>24%</td>
</tr>
<tr>
<td></td>
<td>- no mention</td>
<td>76%</td>
</tr>
<tr>
<td>AC Size</td>
<td>- less than 3</td>
<td>16%</td>
</tr>
<tr>
<td></td>
<td>- 3 or greater</td>
<td>36%</td>
</tr>
<tr>
<td></td>
<td>- no mention</td>
<td>48%</td>
</tr>
<tr>
<td>AC Financial Expertise</td>
<td>– yes at least some formal accounting experience required</td>
<td>28%</td>
</tr>
<tr>
<td></td>
<td>- no</td>
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</tr>
<tr>
<td>REMUNERATION COMMITTEE</td>
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</tr>
<tr>
<td>RC Exists</td>
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<td></td>
<td>- no</td>
<td>12%</td>
</tr>
<tr>
<td></td>
<td>- no mention</td>
<td>20%</td>
</tr>
<tr>
<td>---------------------------</td>
<td>--------------</td>
<td>-----</td>
</tr>
<tr>
<td>RC Independence</td>
<td>- 100% independent</td>
<td>12%</td>
</tr>
<tr>
<td></td>
<td>- majority independent</td>
<td>20%</td>
</tr>
<tr>
<td></td>
<td>- no majority independence</td>
<td>12%</td>
</tr>
<tr>
<td></td>
<td>no mention</td>
<td>56%</td>
</tr>
<tr>
<td>RC Chair</td>
<td>- independent</td>
<td>8%</td>
</tr>
<tr>
<td></td>
<td>- not independent but not CEO</td>
<td>12%</td>
</tr>
<tr>
<td></td>
<td>- CEO</td>
<td>56%</td>
</tr>
<tr>
<td></td>
<td>no mention</td>
<td>36%</td>
</tr>
<tr>
<td>RC Size</td>
<td>- less than 3</td>
<td>20%</td>
</tr>
<tr>
<td></td>
<td>- 3 or greater</td>
<td>8%</td>
</tr>
<tr>
<td></td>
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</table>

**NOMINATION COMMITTEE**

<table>
<thead>
<tr>
<th></th>
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<th>72%</th>
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<tbody>
<tr>
<td></td>
<td>- no</td>
<td>4%</td>
</tr>
<tr>
<td></td>
<td>no mention</td>
<td>24%</td>
</tr>
<tr>
<td>NC Independence</td>
<td>- 100% independent</td>
<td>4%</td>
</tr>
<tr>
<td></td>
<td>- majority independent</td>
<td>16%</td>
</tr>
<tr>
<td></td>
<td>- no majority independence</td>
<td>16%</td>
</tr>
<tr>
<td></td>
<td>no mention</td>
<td>64%</td>
</tr>
<tr>
<td>NC Chair</td>
<td>- independent</td>
<td>8%</td>
</tr>
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<td></td>
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<td>8%</td>
</tr>
<tr>
<td></td>
<td>- CEO</td>
<td>8%</td>
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<td>no mention</td>
<td>84%</td>
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<td>- less than 3</td>
<td>16%</td>
</tr>
<tr>
<td></td>
<td>- 3 or greater</td>
<td>12%</td>
</tr>
<tr>
<td></td>
<td>- no mention</td>
<td>72%</td>
</tr>
</tbody>
</table>

**EXTERNAL AUDIT**

| Non-audit Fees            | - less than 10% audit fees | 8% |
|                           | - between 10 – 100% | 92% |

**OTHER**

| Risk management committee (separate from main board) and written policies | - no mention | 16% |
| Written policies but no formal committee to consider | 84% |
| Requirement for Code of Conduct | - no mention | 8% |
| No requirement for Code of Conduct | 92% |
| Restriction of length director tenure (eg. > 10 or 20 years) | - no mention | 40% |
| No restriction of length director tenure | 60% |
| Requirement for Share Trading policy | - no mention | 100% |
SOME THOUGHTS ON PERFORMANCE-BASED PAY, EARNINGS MANAGEMENT AND CORPORATE LAW FROM AN ANTIPODEAN PERSPECTIVE

Eu-Jin Teo*

Abstract

[Performance-based remuneration theoretically is an effective way of aligning the interests of company management with those of shareholders. However, ‘earnings management’ is a phenomenon that has been well documented by accounting researchers. Empirical studies suggest that corporate officers who are subject to performance-based remuneration may manage company accounting figures to improve their remuneration. This paper contends that such practices are inconsistent with the duties of loyalty to which these officers are subject, and concludes by identifying a corporate governance role for legal advisers in light of such conduct.]

Keywords: Performance-based pay; earnings management; legal duties

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1. Introduction

There has been an explosion in academic research on executive compensation.1 Performance-based remuneration in particular raises corporate governance issues.2 As Rehnert and Ramsay observe, accounting figures can be manipulated to suggest good company performance.

It is … the … rule that they [fiduciaries] cannot exercise … powers for … personal … gain … These principles … are so … fixed … they are not open to discussion, and so familiar … authorities declaring them need not be cited.

Collin J (Pollitz v Wabash R Co, 207 NY 113, 124 (1912))

Self interest is only one, though no doubt the commonest, instance of improper motive.

Lord Wilberforce (Howard Smith Ltd v Ampol Petroleum Ltd [1974] AC 821, 835 (‘Howard Smith’))


performance, thereby influencing remuneration accordingly. For example, Chalmers, Koh and Stapledon note that:

Major Australian companies, such as AMP, Commonwealth Bank and Western Mining Corporation, have recently suspended executive share option plans, at least partly in response to the perceived potential for options to provide management with perverse incentives (eg to engineer the company’s accounting procedures so as artificially to improve the company’s financial performance, and thus enhance the value of options or the likelihood of them being in-the-money at the vesting date). 4

Implicit in the foregoing appears to be an assumption that such practices, although potentially morally questionable, are less certainly legally problematic. However, this paper queries the legality of such practices, based on an analysis of the duties owed by those preparing company financial statements. Corporate officers who utilise ‘earnings management’ to increase their performance-based remuneration are using their positions for self gain in a way that these positions were not intended. 6 It is argued that this use of ‘creative accounting’ also is inconsistent with the duties to act bona fide in the best interests of the company, and for proper purposes.

An economic analysis of the reasons for performance-based pay follows in Part II of this paper. Such an analysis has largely been absent from the legal pay for performance literature, but is crucial in understanding the theory behind earnings management, which is dealt with in Part III. Part IV discusses the practice of earnings management in an Australian context, with Part V then analysing this practice in the context of various general law and statutory duties. Finally, Part VI concludes by noting a possible corporate governance role for legal advisers in light of such conduct.

II The Role of Performance-Based Pay In Corporate Governance
A Agency Theory

Listed companies are an economic force in capitalist societies, and these companies are traditionally characterised by the separation of ownership from management. According to neo-classical economic theory, rational individuals will act to maximise their personal utility by acting in a way that is consistent with their perceived self interest. This view of the world is not without its critics, but has also been


5 In the words of Charles Yablon and Jennifer Hill, ‘Timing Corporate Disclosures To Maximize Performance-Based Remuneration: A Case of Misaligned Incentives?’ (2000) 35 Wake Forest Law Review 83, 89: ‘all but the most egregious examples of such conduct are either legal or, even if technically illegal, are insulated from effective legal redress as a practical matter.’


7 See, eg, the absence of similar discussion in Adenwala, above n 3; Griffiths, above n 3; Parkinson, above n 3; Booth, above n 3; Bogus, above n 3; Barris, above n 3; and Vagts, above n 3. Cf Shaun Clyne, ‘Modern Corporate Governance’ (2000) 11 Australian Journal of Corporate Law 276.


shown to generally explain human behaviour.\(^{11}\) With the separation of ownership and management that occurs in many companies, it has been recognised since Adam Smith wrote his Inquiry Into the Wealth of Nations in 1776 that managers who run companies will not necessarily act in the best interests of the company’s members.\(^{12}\)

Despite its critics,\(^{13}\) the ‘agency theory’ propounded above and as popularised by Jensen and Meckling\(^ {14}\) repeatedly finds empirical support.\(^ {15}\) It is true that managers experience utility from the satisfaction that follows a job well done,\(^ {16}\) but managers’ utility also increases from generously consuming executive perquisites and from exerting less rather than more effort at a fixed salary. These last two examples may be seen as manifestations of managerial self interest that, all other things being equal, reduce the actual or potential wealth of the company.\(^{17}\) As long as managers own less than 100 percent of the company, they avoid the full cost of their ‘shirking’ but still benefit from such behaviour.\(^ {18}\) However, non-manager shareholders are worse off as their share of the company’s actual or potential wealth diminishes without attendant benefit.\(^ {19}\)

\section{Performance-Based Pay As a Potential Interest Aligning Mechanism}

Themselves potentially rational self-interested utility maximisers, shareholders foresee that managers may act in a self-interested way that is inconsistent with the interests of shareholders.\(^ {20}\) Shareholders might therefore be expected to act to preserve their own interests.\(^ {21}\) For example, Simunic and Stein argue that managers who do not implement measures that appear to align their interests with those of shareholders could

\begin{itemize}
  \item See especially Godfrey, Hodgson and Holmes, above n Oшива! Закладка не определена., 292, 295; Godfrey et al, above n Oшива! Закладка не определена., 260–3; Christie, above n Oшива! Закладка не определена., 25; Ng, above n Oшива! Закладка не определена., 197–9; and W Kinney Jr and D Martin, ‘Does Auditing Reduce Bias In Financial Reporting? A Review of Audit-Related
\end{itemize}
be paid less than what they would be paid if such measures were introduced. Managers accordingly institute such ‘bonding mechanisms’ in order to preserve their own interests, and one such mechanism is performance-based pay. Performance-based pay in theory seeks to align the interests of managers and shareholders, by linking managerial utility to company performance. 

Pay for performance, company performance directly influences pay. Incentive pay therefore makes it in managers’ best interests to minimise ‘shirking’ and to maximise instead their efforts to increase the wealth of the company. Pay for performance can take the form of cash, shares, warrants or combinations of these. 

C The Role That Accounting Numbers Can Play In Performance-Based Pay

Accounting numbers may play an important role in performance-based pay arrangements, or ‘bonus plans’. Managerial performance is not usually measured solely by the change in the value of a company’s shares, even though such changes clearly have an impact on shareholder wealth. Share prices can be influenced by economy and industry-wide factors and by the actions of competitors, all of which can impact on shareholder wealth. 


which managers might have little or no control over.\footnote{Sloan, above n 28, 7.}

A company’s performance as reported in its financial statements can be expected to be used in pay for performance arrangements\footnote{See, eg, Rehnert, above n 5, 1151; Clyne, above n 23; and Smith and Watts, above n 26, 141, 149–50.} because producing financial information is costly. Understanding all the data required to create the final accounting figures requires much time and effort.\footnote{Godfrey et al, above n 5.} Listed companies (ie companies where the separation of ownership and management can be expected to be most pronounced)\footnote{Rehnert, above n 5, 1163.} are legally required to produce a set of financial statements.\footnote{Under Corporations Act 2001 (Cth) ss 111AC(1), 111AE(1), 286(1) and 292.}

These financial statements can be used to ascertain the performance of a company for pay for performance purposes,\footnote{See, eg, Rehnert, above n 5, 1163.} avoiding considerable costs in producing a separate set of figures just for this purpose.\footnote{See Godfrey et al, above n 5.} The Corporations Act 2001 (Cth) requires the financial statements of listed companies to be audited.\footnote{Ross Watts and Jerold Zimmerman, Positive Accounting Theory (1986) 208.} Together with the considerable cost and effort involved in going behind these statements and ‘unravelling’ their numbers,\footnote{See Godfrey et al, above n 5.} this has meant that the reported figures have mostly been used unchanged for bonus plan purposes,\footnote{Cf E Hirst, ‘Auditors’ Sensitivity To Earnings Management’ (1994) 11 Contemporary Accounting Research 405.} even with the involvement of compensation committees.\footnote{Cf S Liberty and J Zimmerman, ‘Labour Union Contract Negotiations and Accounting Choices’ (1986) 61 Accounting Review 692; Linda DeAngelo, ‘Managerial Competition, Information Costs and Corporate Governance: The Use of Accounting Performance Measures In Proxy Contests’ (1988) 10 Journal of Accounting and Economics 5; and Linda DeAngelo, ‘Accounting Numbers As Market Valuation Substitutes: A Study of Management Buyouts of Public Stockholders’ (1986) 61 Accounting Review 400.}

III Earnings Management

A The ‘Bonus Plan’ Hypothesis

The use of accounting numbers to determine company performance for the purposes of performance-based pay means that the amount of such pay may potentially be increased through ‘management’ of the accounting numbers so that the company’s financial statements suggest good company performance.\footnote{See, eg, Merton Miller and Myron Scholes, ‘Executive Compensation, Taxes and Incentives’ in W Sharpe and C Cootner (eds), Financial Economics: Essays In Honor of Paul Cootner (1980) 170; Bengt Holmstrom, ‘Managerial Incentive Problems’ in Swedish School of Economics (ed), Essays In Economics and Management In Honour of Lars Wahlbeck (1982) 209; and W Llewellen, C Loderer and K Martin, ‘Executive Compensation and Executive Incentive Problems: An Empirical Analysis’ (1987) 9 Journal of Accounting and Economics 287.} All other things being equal, it could be expected that ‘managing’ the numbers would involve less effort than actually increasing the wealth of the company to bring about positive change to the financial statement figures.\footnote{Paul Healy, ‘The Effect of Bonus Schemes On Accounting Decisions’ (1985) 7 Journal of Accounting}


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‘bonus plan hypothesis’ is now said to be so well established that a further 46 studies with insignificant results are required in order to discount its extremely high explanatory power.45

B The Contingent Nature of Accounting Numbers

‘Earnings management’ through the management of accounting figures is possible and, for the most part, legal because of the fluidity of accounting numbers.46 Accounting brings about a ‘contingent’ reality, not a natural one.47 What this involves is best illustrated by an example.

Picture a vibrant esplanade. Now, equate this to the physical realities facing a business: its assets, actual transactions and commercial environment. Imagine accounting as a ‘black box’ with many coloured lenses which must be looked through in order to see the esplanade.48 Each ‘lens’ represents an accounting method or treatment that is consistent with generally accepted accounting principles.49 How one sees the esplanade depends on which lens or lenses one looks through. Similarly, how the monetary value of the assets of a business and the profitability of its activities are reported in the financial statements depends on which professionally accepted accounting methods or treatments are used to construct the statements.50 Choosing between such treatments does not necessarily entail any falsification or conduct in the nature of what might be regarded as a ‘sham’.51

47 Cf Frank Clarke, ‘Creative Accounting: Standards Compliance and Absent Spirits’ (1988) 59 Chartered Accountant In Australia 64; Healy, above n 44, 89; and Watts and Zimmerman, Positive Accounting Theory, above n 36, 204–5, 207.
The accounting profit of a business may be ‘managed’ in various ways without changing the underlying ‘reality’ of that business. Provided that the requirements of Australian Accounting Standard AASB 108 are met, one way in which profit may be managed is to change from one acceptable accounting treatment to another.52 With inflation (and with all other things being equal), inventory which is bought later in time will be more expensive than inventory that is bought earlier in time. If stock at the end of the financial year is valued on the basis that the inventory of the business is sold in the order in which it is acquired (ie ‘first in, first out’), the (reported) cost to the business of the inventory that it has sold will be lower than if the cost of inventory sold were calculated as an average of the price paid for inventory at the beginning and at the end of the year.53 This would bring about a relative increase in the profit of the business as reported in its financial statements. A change to the method under which the fixed assets of the business are depreciated which reduces the yearly depreciation expenses of the business will also bring about a relative increase in reported profit.54

The accounting profit of a business may also be managed through the use and classification of discretionary items and accruals.55 Reducing the provision for doubtful debts is one example of the former.56 As far as classification is concerned, accounting performance measures that are used in bonus plans have often been calculated on the basis of ‘operating profit’.57 Prior to the introduction of Australian Accounting Standard AASB 101, ‘extraordinary’ gains and losses were not taken into account in determining operating profit as such gains and losses were not regarded as arising from the ordinary operations of the business.58 Managerial discretion does play a part in the decision on whether a particular item should be classified as ‘extraordinary’, for example in the delineation of the scope of the ordinary operations of the business.59

By exercising their discretion in accounting matters, managers may therefore influence the level of their remuneration when they are subject to performance-based pay. The use of pre-existing accounting numbers and the disincentives to ‘unravelling’ or modifying these numbers for the purposes of bonus plans have previously been discussed. Pay for performance arrangements that are based in whole or in part on movements in the company’s share price may still create an incentive for ‘management’ of the accounting numbers, as research has shown that reported accounting figures can have an impact on the price of a company’s shares.60

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56 See especially M McNichols and G Wilson, ‘Evidence of Earnings Management From the Provision For Bad Debts’ (1988) 26 *Journal of Accounting Research* 1; and Becker et al, above n 55, 19.

57 Smith and Watts, above n 26, 141; and Healy, above n 44, 93–4.


60 See, eg, Ray Ball and Philip Brown, ‘An Empirical Evaluation of Accounting Income Numbers’ (1968) 6(2) *Journal of Accounting Research* 159; Philip


63 Zoltan Matolcsy, ‘Executive Cash Compensation and...
This finding may explain the results observed by Defina, Harris and Ramsay, whom samples were taken from a period of recession and a period of ‘soft landing, recession and flat recovery’. Recent research by Matolcsy and Wright reveals some evidence of the use of performance-based pay among companies with shares listed on the Australian Stock Exchange, at least as far as their directors and five most highly remunerated officers are concerned.

Although the precise make up of bonus plans may vary between companies across industry sectors and from firm to firm, Deegan has noted that accounting numbers do play a part in determining company performance for the purposes of performance-based pay.

### B Bonus Plan Hypothesis Behaviour In Australia

Australian evidence is consistent with the bonus plan hypothesis developed by Healy, namely that managers may be expected to in general adopt accounting treatments that for the most part increase the reported profit of the company when they are subject to performance-based remuneration. Godfrey and Adi and Godfrey and Jones have documented that managerial remuneration does have an impact on the accounting choices adopted by a company, and in particular on decisions in relation to discretionary accruals. Walsh, Craig and Clarke point out that extraordinary items appearing in the profit and loss statements of Australian companies have been predominantly negative in nature, meaning that there has been a tendency to classify losses as extraordinary. Conversely, Hoffman and Zimmer reveal that companies with highly remunerated chief executive officers (‘CEOs’) have been more likely to classify gains as operating, rather than extraordinary.

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65 Defina, Harris and Ramsay, above n 61, 349 themselves admit that their study does not deny ‘the existence of … bonus plans that tie remuneration to … accounting earnings.’ For other shortcomings of this study, see Izan, Sidhu and Taylor, above n 62, 39–40.


69 Healy, above n 44.

70 Godfrey and Adi, above n 41; J Godfrey and K Jones, ‘Political Cost Influences On Income Smoothing Via Extraordinary Item Classification’ (Working Paper, University of Tasmania, 1998). The use and classification of discretionary accruals for the purposes of managing the reported accounting profit of a company has previously been discussed.


72 Tony Hoffman and Ian Zimmer, ‘Managerial Remuneration and Accounting For Recurring Extraordinary Items’ (1994) 34(2) Accounting and
The above is consistent with the behaviour predicted by the bonus plan hypothesis, bearing in mind that Smith and Watts have noted that accounting measures used in bonus plans in Australia have often been based on operating profit (rather than operating profit after extraordinaries), and that Easton, Eddey and Harris have demonstrated that, as might be expected, managers in Australia do act in ways consistent with their own self-interest. In the words of Hoffman and Zimmer:

[R]emuneration schemes ... typically in place ... provide incentives to manage earnings ... such contracts are ... in ... operating rather than total earnings ... providing incentives to classify losses as extraordinary rather than operating. ... [H]igh ... remuneration is likely ... the result of ... performance based ... remuneration ... this ... is associated with accounting choices ... maximising operating rather than total earnings.

Hoffman and Zimmer specifically control for the effect of other factors which could be expected to influence remuneration (such as company size, 'political exposure' and interest coverage), and further show that there is not a general tendency (ie absent a likely bonus plan) to classify gains as operating and losses as extraordinary:

An expectation that ... all managers tended to classify recurring losses as extraordinary but recurring gains as operating ... predicts ... the sign of ... 'recurring' should be significantly negative. However this was not significant (t = 0.045, p = 0.965).

V  Earnings Management and Legal Duties
A  The Power To Prepare Financial Reports

As previously noted, the Corporations Act 2001 (Cth) requires listed companies to prepare financial statements. The power to prepare financial statements thus is, in many cases, a power conferred by statute. The directors of a company are required to take all reasonable steps to ensure that the company complies with its reporting obligations. The power to prepare financial statements is also said to fall within the general management power exercised by a company’s board of directors under the Replaceable Rules and under many company constitutions.


73 Smith and Watts, above n 26, 141. See also Deegan, above n 68, 27–8; Godfrey and Adi, above n 41, 279; and Healy, above n 44, 93–4. Australian Accounting Standard AASB 101 now specifically prohibits the classification of any items of income or expense as extraordinary items.


75 Hoffman and Zimmer, above n 72, 39. Australian Accounting Standard AASB 101 now specifically prohibits the classification of any items of income or expense as extraordinary items.


77 Hoffman and Zimmer, above n 72, 35–6, 38–9, 42–3, 45–6.

78 Ibid 42–3 (emphasis added).

79 Corporations Act 2001 (Cth) ss 111AC(1), 111AE(1), 286(1) and 292.


81 See Corporations Act 2001 (Cth) ss 344(1) and 1317DA and cf ss 1308 and 1309; Australian Securities Commission v Fairlie (1993) 11 ALC 669; and Dwyer v Fairlie (Unreported, Supreme Court of Tasmania, Crawford J, 9 June 1995).

82 Namely s 198A(1) of the Corporations Act 2001 (Cth). Companies whose shares are listed for quotation on the Australian Stock Exchange cannot be governed solely by the Replaceable Rules, as Australian Stock Exchange Listing Rule 15.11 provides that such companies must have a constitution.

83 See J Corkery, Directors’ Powers and Duties (1987) 39–40, 44–8; Hanrahan, Ramsay and Stapledon, above n 4, 111, 116; and Johnston, Jager and Taylor, above n 50, 23. Cf White v Lincoln (1803) 8 VES Jun 363; Re City Equitable Fire Insurance Co Ltd v Shepherd (1887) 36 CH D 787; Gray v...
The Working Group on Corporate Practices and Conduct has observed that, in practice, directors largely entrust managers with ensuring that the company complies with its reporting obligations.\(^84\) Frequently, senior management finalise the financial statements and CEOs ultimately present these statements for inclusion in the company’s financial reports.\(^85\) The financial statements must give a ‘true and fair view’ of the financial position and performance of the company.\(^86\) However, this rider may in fact be empty as the phrase ‘true and fair view’ awaits authoritative definition\(^87\) and apparently means performance of the company.\(^86\) The Working Group on Corporate Practices and Conduct, Corporate Practices and Conduct (3rd ed, 1995). See also Geoff Stapledon, Institutional Shareholders and Corporate Governance (1996) 7–8; Hanrahan, Ramsay and Stapledon, above n 4, 116–7, 119, 182, 202, 436; AWA Ltd v Daniels (t/a Deloitte Haskins & Sells) (1992) 7 ACSR 759, 832–3, 865–6 (Rogers CJ) (‘AWA’); and Re City Equitable [1925] 1 Ch 407, 426–7 (Romer J). This delegation is said to occur because boards focus on strategic matters rather than on recurring management issues like financial reporting. Even if boards are involved in the preparation of financial statements, it is likely that executive directors will play a greater role in this process than non-executive directors, as the former possess greater knowledge of the company’s day to day operations and this knowledge facilitates the preparation of the financial statements. Cf R Tomasic and S Bottomley, ‘Corporate Governance and the Impact of Legal Obligations On Decision Making In Corporate Australia’ (1991) 1 Australian Journal of Corporate Law 55, 67.


\(^85\) Cf Royal Commission into the Tricontinental Group of Companies, Final Report of the Royal Commission Into the Tricontinental Group of Companies (1992) paras 19.56; and Entwells Pty Ltd v National & General Insurance Co Ltd (1991) 5 ACSR 424, 427 (Ipp J). The financial report contains the company’s financial statements but also contains other material, such as the directors’ declaration about the financial statements and the notes to the financial statements.


\(^87\) See especially R Baxt, ‘True and Fair Accounts: A Legal Anachronism’ (1970) 44 Australian Law Journal 541, 550; and A Slater, ‘The Accounts Provisions and complying with generally accepted accounting principles,” which is what the Australian Accounting Standards are already intended to reflect.\(^89\)

As previously discussed, the Standards allow considerable discretion by enabling apparently similar business facts to be portrayed in different ways for accounting purposes.\(^90\) This flexibility in theory exists in order to accommodate the diverse environments in which businesses operate.\(^91\) It has been noted that managers accordingly are required to use their ‘professional skill and specialised knowledge’ when choosing between available accounting treatments, so as to choose the treatment that most appropriately reflects the circumstances of the company.\(^92\)

Boards of directors therefore for the most part effectively give senior company managers like CEOs the ability to select between different accounting treatments under the Accounting Standards for the purposes of satisfying the company’s reporting obligations.\(^93\) As noted above,\(^94\) the accounting performance of the company as reported in its financial statements can be expected to be taken into account in the pay for performance arrangements under which these managers may be remunerated.\(^95\)

It can be argued from the research previously

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Baxt, ‘True and Fair Accounts’, above n 87, 548; and Slater, above n 87, 109. See, eg, Marra Developments Ltd v B W Rofe Pty Ltd [1977] 2 NSWLR 616, 629 (Mahoney JA). Cf Pacific Acceptance Corporation Ltd v Forsyth (1970) 92 WN (NSW) 29; and Cambridge Credit Corporation Ltd v Hutcheson (1985) 3 ACLC.

Rowland, above n 46, 548, and Slater, above n 87, 109. See, eg, Marra Developments Ltd v B W Rofe Pty Ltd [1977] 2 NSWLR 616, 629 (Mahoney JA). Cf Pacific Acceptance Corporation Ltd v Forsyth (1970) 92 WN (NSW) 29; and Cambridge Credit Corporation Ltd v Hutcheson (1985) 3 ACLC.

Rowland, above n 46, 109; and Yablon and Hill, above n Ошибка! Закладка не определена., 121.


The board’s potential liability for possible misconduct by managers in the exercise of this delegated power is discussed in the text accompanying nn 154–164, below.

In the text accompanying nn 27–41.

Executive directors may also be subject to performance-based pay.
discussed that the preparers of financial statements who are subject to pay for performance arrangements that draw on the accounting performance of the company as reported in its financial statements can often be said to have prepared these financial statements in ways that might generally be expected to maximise the remuneration of the preparers under these arrangements, in large part by choosing accounting treatments that would increase the reported profit of the company over treatments which would have the opposite effect. This conduct will now be discussed in the context of the duty to act bona fide in the best interests of the company, the duty to act for proper purposes and the prohibition against making an improper use of position.

B Acting Bona Fide In the Best Interests of the Company

It is well established that the directors of a company must act bona fide in the best interests of the company. While this does not mean that a court will closely scrutinise the merits of board decisions, it does mean that directors generally may not benefit themselves at the expense of the company. This prohibition might be said to extend not just to directors, but to all fiduciaries of the company who exercise discretionary powers in this capacity.

Senior company managers like CEOs would stand in a fiduciary relationship as compared to their company as a result of their top level ‘decision-making discretion and responsibility’ over management matters. One such discretion is the power to select

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96 Although this paper focuses on senior managers as they are often the ones responsible for preparation of the financial statements, the principles discussed are equally applicable to executive directors who are subject to performance-based pay and who engage in ‘earnings management’.


between alternative accounting treatments, which they have as a result of the responsibility often delegated to them by the board for the preparation of the company’s financial statements. Senior managers like CEOs also arguably are ‘officers’ of the company, bound by s 181 of the Corporations Act 2001 (Cth), as the financial statements that they (effectively) prepare can significantly affect the financial standing of the company.

When managers choose accounting treatments that would increase the reported profit of the company over treatments which would have the opposite effect and do so in order to increase their remuneration under pay for performance arrangements, the question arises as to whether such choices are being made bona fide in the best interests of the company.

It would firstly appear that such choices would probably not be ‘genuine’ (and therefore not bona fide) choices, if one borrow from notions of relevant and irrelevant considerations from public law. As discussed above, the flexibility that the choice of different accounting treatments provides exists in order to accommodate the diverse environments in which businesses operate. When managers choose between available accounting treatments not so as to most appropriately reflect the circumstances of the company but instead to maximise the reported profit of the company so as to maximise their performance-based remuneration and thereby gain a personal financial benefit, there is an issue as to whether they are ignoring relevant considerations and instead having regard to improper considerations.

Secondly, it can also be said that conduct of this kind is not in the best interests of the company. Increasing reported profits through accounting choices with the aim of maximising performance-based remuneration has negative implications for shareholder wealth. When managers choose between available accounting treatments not so as to most appropriately reflect the circumstances of the company but instead to maximise the reported profit of the company so as to maximise their performance-based remuneration, they may end up receiving by way of remuneration more than what they would otherwise have received had they not made such choices. The company’s enhanced performance (albeit potentially consistent with the Accounting Standards) exists only on paper, whereas real wealth flows out of the company to managers in the form of managerial compensation. This would appear to be

Hanrahan, Ramsay and Stapledon, above n 101; and Austin, ‘Fiduciary Accountability’, above n 101, 141, 172.

Discussed in the text accompanying nn 84–85, above.


They might also be de facto or shadow directors under s 9 of the Act, if the board uses their figures unchanged. See generally Harris v S (1976) 2 ACLR 51, 63 (Wells J) and 71 (Sangster J); Australian Securities Commission v A S Nominees Ltd (1995) 18 ACSR 459, 509; Re Laline Electric Motors Ltd (1988) 4 BCC 415, 421; Mitzmorn Pty Ltd (in liq) v Tasseen (1996) 21 ACSR 173; and Deputy Commissioner of Taxation v Austin (1998) 28 ACSR.


Cf Gevurtz, above n 51, 1276–7.

Performance under pay for performance arrangements may also be measured in terms of upward movement in the company’s share price, but research has shown that a company’s reported accounting profit can have an impact on the price of the company’s shares. See n 60 above, and accompanying text.

See generally P Dechow, R Sloan and A Sweeney, ‘Causes and Consequences of Earnings Manipulation: An Analysis of Firms Subject To Enforcement Actions By the SEC’ (1993) 13(1) Contemporary Accounting Research 1; and Robert Holthausen, ‘Accounting
contrary to the rationale underlying performance-based remuneration, namely that such remuneration is premised on an increase in the wealth of the company.\textsuperscript{113}

All other things being equal, it would therefore be hard to see how an intelligent, honest CEO could genuinely consider the accounting choice in question to be in the best interests of the company.\textsuperscript{114} It is at least arguable that no fiduciary acting reasonably could consider this to be the case,\textsuperscript{115} as fiduciary relationships exist to align the interests of fiduciaries with those of the beneficiaries of the fiduciary relationship.\textsuperscript{116} In particular and as discussed above, pay for performance arrangements are aimed at aligning the interests of company management with those of the company (practically, the company’s members).\textsuperscript{117} As previously noted,\textsuperscript{118} when managers choose between available accounting treatments not so as to most appropriately reflect the circumstances of the company but in order to maximise the reported profit of the company so as to maximise their performance-based remuneration, they are furthering their own interests at the expense of the company.\textsuperscript{119}

It would not appear to be relevant that the pay for performance arrangements themselves might not expressly prohibit choosing between available accounting treatments not so as to most appropriately reflect the circumstances of the company but so as to maximise the performance-based remuneration in question.\textsuperscript{120} Chief Justice Cardozo has observed that a laissez-faire, free-market philosophy only has a limited role to play in fiduciary relationships,\textsuperscript{121} as the obligations imposed under such relationships in general exist in order to curb the potential for self-interested exploitation of contractual opportunities by the fiduciary.\textsuperscript{122} In particular, Duggan suggests that fiduciary obligations represent ‘default contracts’, in that if equity did not impose such obligations, the parties to the relationship would expressly agree to them in any event.\textsuperscript{123}

It might be said that this argument gains support from the view that fiduciary obligations safeguard the integrity of socially beneficial relationships in cases where there may be a divergence in the interests of the parties to the relationship.\textsuperscript{124} As noted above, listed

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\textsuperscript{113} Cf Rehnert, above n 5, 1157, 1168.
\textsuperscript{115} On this requirement of reasonableness see, eg, Shuttlesworth v Cox Bros & Co (Maidenhead Ltd) [1927] 2 KB 9, 23–4 (Scrutton LJ) (‘Shuttlesworth’); Hutton v West York Railway Co (1883) 23 Ch D 654, 671 (Bowen LJ); and Wayde v New South Wales Rugby League Ltd (1985) 61 ALR 225, 232 (Brennan J). An example of the application of this reasonableness requirement in a recent, high profile case is Re HII Insurance Ltd; Australian Securities and Investments Commission v Adler (2002) 168 FLR 253.
\textsuperscript{116} Hospital Products Ltd v United States Surgical Corporation (1984) 156 CLR 41, 68–9 (Gibbs CJ) and 96–7 (Mason J). This alignment of interests is discussed in Patricia Loughlan, ‘The Historical Role of the Equitable Jurisdiction’ in Patrick Parkinson (ed), The Principles of Equity (1996) 3, 38; and Patrick Parkinson, ‘Fiduciary Obligations’ in Patrick Parkinson (ed), The Principles of Equity (1996) 342, 361–77.
\textsuperscript{117} As A Barnea et al, Agency Problems and Financial Contracting (1985) 61–79; and Healy, above n 44, 85 recognise.
\textsuperscript{118} In the text accompanying nn 110–113, above.
\textsuperscript{123} See generally J Coffee, ‘No Exit? Opting Out, the Contractual Theory of the Corporation and the Special

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companies are an economic force in capitalist societies and such companies are traditionally characterised by the separation of ownership and management.

C Proper Purposes
It is well established that corporate powers must be exercised for proper purposes. This principle has predominantly been considered in the context of hostile takeovers but is one of general application. Further, while the principle has mostly been applied to directors, they are not the only ones who are bound by this rule. As Corkery and Worthington point out, the principle is applicable to all donees who exercise limited powers. As previously noted, the power of a company’s board to prepare financial statements can be said to arise from statutory disclosure provisions, the board’s general management power over the company and the duties of care, skill and diligence imposed on directors. The common delegation of this power to senior management in practice has also been discussed.

Disputes in relation to proper and improper purposes have predominantly arisen in the context of the issuing of shares, and the purposes for which the power to prepare financial statements may or may not be exercised do not appear to have been judicially considered. It has been said that the nature and sources of a power will determine the purposes for which the power may or may not be used. As has been observed, the considerable discretion that is available in the exercise of the power to prepare financial statements is present in order to accommodate the diverse environments in which businesses operate, which requires managers to use their ‘professional skill and specialised knowledge’ when choosing between available accounting treatments so as to most appropriately reflect the circumstances of the company.
It is therefore arguable that choosing accounting treatments with the aim of maximising performance-based remuneration represents an exercise of the power to select between different accounting treatments for an improper purpose. As Lord Wilberforce has observed, self-interest is ‘the commonest instance of improper motive’. When managers choose between available accounting treatments in order to maximise the reported profit of the company so as to maximise their performance-based remuneration, accounting choices ostensibly are not being made so as to best reflect the performance of the company. The fiduciary position occupied by senior managers who in practice are largely charged with the preparation of the financial statements has been noted above, and arguably reinforces the view that the power to select between different accounting treatments must be exercised for the benefit of the company and not for managerial self gain.

D Improper Use of Position

Section 182 of the Corporations Act 2001 (Cth) proscribes the making of improper use of a corporate position. When managers choose between available accounting treatments not so as to most appropriately reflect the circumstances of the company but instead to maximise the reported profit of the company so as to maximise their performance-based remuneration, it can be argued that they are in contravention of the prohibition in s 182. As previously discussed, such conduct arguably involves a breach of the equitable duties to act bona fide in the best interests of the company and for proper purposes. The cases suggest that such wrongs would constitute impropriety for the purposes of s 182, and the terms of the section apply the prohibition against improper use of position to everyone from the directors of the corporation to its employees.

Under s 184(2) of the Corporations Act 2001 (Cth), an officer or employee of a corporation commits a criminal offence if he or she uses his or her position dishonestly with the intention of:
- directly or indirectly gaining an advantage for himself or herself;
- causing a detriment to the corporation.

It is arguable that dishonesty potentially is present when the preparers of financial statements knowingly make accounting choices in the preparation of these statements with the intention of maximising their performance-based remuneration. As noted above, when managers choose between available accounting treatments not so as to most appropriately reflect the circumstances of the company but instead to maximise the reported profit of the company as to maximise their performance-based remuneration, they may end up receiving by way of remuneration more than what they would otherwise have received had they not made such choices. The company’s enhanced performance under pay for performance arrangements...
performance (albeit potentially consistent with the Accounting Standards) exists only on paper, whereas real wealth flows out of the company to managers in the form of managerial compensation. Deliberately making accounting choices with the intention of bringing this scenario about arguably would suggest that there has been a breach of s 184(2).

Under s 184(1) of the Corporations Act 2001 (Cth), an officer of a corporation also commits a criminal offence if he or she is intentionally dishonest and fails to exercise his or her powers, or to discharge his or her duties:
- in good faith in the best interests of the corporation; or
- for a proper purpose.

As previously discussed, when managers choose between available accounting treatments not so as to most appropriately reflect the circumstances of the company but instead to maximise the reported profit of the company so as to maximise their performance-based remuneration, it can be argued that they are potentially in breach of their duties to act bona fide in the best interests of the company and for proper purposes. When managers deliberately increase the real wealth that flows out of the company to managers in the form of managerial compensation, such conduct may potentially be regarded as dishonest and therefore arguably also a breach of s 184(1).

See text accompanying nn 98–140, above.

As previously noted, it is not unusual for the board of directors of a company to delegate the responsibility for preparation of the company’s financial statements to senior managers of the company. The question then arises as to what extent the board may be liable, under s 190 of the Corporations Act 2001 (Cth) and under the duty to exercise care, skill and diligence, for the potentially wrongful conduct by managers as discussed above and as predicted by the bonus plan hypothesis.

The many studies which appear to confirm the incidence of the behaviour predicted by the bonus plan hypothesis might mean that boards may lack to have been judicially considered.

In the text accompanying nn 84–85, above.

Read together with s 198D. For a discussion of these sections, see Baxt et al, above n 106, 29–30; and Hanrahan, Ramsay and Stapledon, above n 4, 202–3.


A similar question also arises where the board of directors delegates this responsibility to some of the directors on the board and conduct of the same kind is engaged in by the directors in question. A detailed discussion of the conflict of interest issues that may arise in relation to managers and directors and their performance-based pay can already be found in Hill and Yablon, above n 25.

See, eg, Healy, above n 44; Christie, above n 45;
reasonable grounds to believe that managers who are charged with preparing the company’s financial statements will make the accounting choices that are available in the preparation of these statements bona fide in the best interests of the company and for proper purposes,\(^{159}\) where these managers are subject to pay for performance arrangements under which their remuneration might be determined at least in part by the performance of the company as reported in its financial statements.

The above could therefore be one example of a situation where boards might have to monitor management with a great degree of care and diligence.\(^{160}\) However, the same potential lack of detailed familiarity by the board with the day to day operations of the business which can make the delegation of the financial statement preparation function to management efficient\(^{161}\) could also mean that boards and non-executive directors might find it difficult to effectively question senior management or that boards and non-executive directors might find it difficult to effectively question senior management or executive directors on the dominant reasons for the choice of certain accounting treatments over others.\(^{162}\)

It could be the case that exercising due care and diligence under these circumstances might require the board to refrain from delegating to management the responsibility for preparation of the company’s financial statements.\(^{163}\) However, as Rehnert points out, a board dominated by executive directors who are subject to performance-based pay under which remuneration is potentially influenced by the accounting profit of the company as reported in its financial statements\(^{164}\) may, in the preparation of these financial statements could still end up making accounting choices that ultimately are primarily aimed at increasing the remuneration of these directors.\(^{164}\)

### F Problems Practical and Legal

It would appear that the very nature of the breaches of the legal and equitable duties potentially arising from the practice of ‘earnings management’ as discussed above (eg an apparent failure to act bona fide in the best interests of the company or for proper purposes)\(^{165}\) would likely preclude the application of a defence that is based on the ‘business judgment rule’.\(^{166}\) However, as will be discussed below, litigating the potential breaches of duty that might be associated with ‘earnings management’ could prove to be difficult in practice.\(^{167}\)

#### 1 Proving Actual Bad Faith

It is one thing to infer from the results of relevant academic studies\(^{168}\) that managers who are subject to pay for performance arrangements under which their remuneration is potentially influenced by the accounting profit of the company as reported in its financial statements\(^{169}\) may, in the preparation of these financial statements,\(^{166}\) a detailed discussion of the conflict of interest issues that may arise in relation to managers and their performance-based pay can already be found in Hill and Yablon, above n 1150, 1165. A detailed discussion of the conflict of interest issues that may arise in relation to managers and their performance-based pay can already be found in Hill and Yablon, above n 1150, 1165.

\(^{159}\) As required under s 190 of the Corporations Act 2001 (Cth). Cf Metropolitan Fire Systems Pty Ltd v Miller (1997) 23 ACSR 699.

\(^{160}\) On the board’s monitoring role see, eg, AWA (1992) 7 ACSR 759, 865–6 (Rogers CJ). What is required by the duty to exercise due care and diligence is considered in Dovey v Cory [1901] AC 477, 485–6 (Halsbury LC) and 492–3 (Lord Davey); Dorchester [1989] BCLC 498, 502 (Foster J); Re City Equitable [1925] Ch 407, 426–9 (Romer J); Marquis of Bute’s Case [1872] 2 Ch 100, 109 (Stirling J); Dean (1878) 10 Ch D 450, 454 (Jessel MR); Brazilian Rubber [1911] 1 Ch 425, 437 (Neville J); Land Credit (1870) LR 5 Ch App 763, 770–2 (Hatherley LC); Denham (1883) 25 Ch D 752, 766–8 (Chitty J); Friskakis (1993) 11 ACSR 162, 215 (Ipp J, with whom Malcolm CJ agreed); and Overend & Gurney Co v Gibb (1872) LR 5 HL 480, 486–7, 495 (Lord Hatherley).

\(^{161}\) See Rehnert, above n 5, 1150, 1165.

\(^{162}\) As required under s 190 of the Corporations Act 2001 (Cth). Cf Metropolitan Fire Systems Pty Ltd v Miller (1997) 23 ACSR 699.

\(^{163}\) See Rehnert, above n 5, 1167; and Slater, above n 87.

\(^{164}\) See especially Rehnert, above n 5, 1167; and generally Malcolm, above n 100, 67–9.

\(^{165}\) See, eg, Baxt et al, above n 106, 29.
statements, choose between available accounting treatments not so as to most appropriately reflect the circumstances of the company but instead to maximise the reported profit of the company so as to maximise their performance-based remuneration. It is another thing to actually prove that this has taken place in individual cases.

The Accounting Standards allow for the exercise of a significant amount of discretion in the preparation of the financial statements. Even if managers are subject to pay for performance arrangements under which their remuneration may be influenced by the accounting profit of the company as reported in its financial statements, and the accounting treatments employed in the preparation of these statements in general are those that would increase the reported profit of the company rather than those which would have the opposite effect, it still does not necessarily follow (whether on the balance of probabilities or beyond reasonable doubt) that managers have managers as they are often the ones responsible for preparation of the financial statements, the principles discussed are equally applicable to executive directors who are subject to performance-based pay and who engage in ‘earnings management’. On the drawing of inferences from broad ‘context’ evidence see, eg, Winthrop Investments Ltd v Winns Ltd (1979) 4 ACLR 1, 12 (Waddell J) (‘Winthrop’); and Justice Alex Chernov, ‘The Role of Corporate Governance Practices In the Development of Legal Principles Relating To Directors’ in Ian Ramsay (ed), Corporate Governance and the Duties of Company Directors (1997) 33, 47.

On the relevant requirements of proof in litigation raising issues of bona fides and proper purposes see, eg, Gordon v Australian & New Zealand Theatres Ltd (1940) 40 SR (NSW) 512, 517 (Jordan CJ); Southern Resources Ltd v Residues Treatment & Trading Co Ltd (1990) 3 ACSR 207, 217, 221, 223 (Jacobs ACJ, Prior and Mullighan JJ); Smith [1942] Ch 304, 306, 308 (Lord Greene MR); Hindle (1919) 56 Scots LR 625, 630–1 (Viscount Finlay); and Richard Brady (1937) 58 CLR 112, 135 (Latham CJ), 138 (Rich J) and 144–5 (Dixon J). Cf J D Hannes v M J H Pty Ltd (1992) 7 ACSR 8, 12 (Sheller JA); Grant v John Grant & Sons Ltd (1950) 82 CLR 1, 46 (Fullagar J); and Ampol Petroleum Ltd v R W Miller (Holdings) Ltd (1972) 2 NSWLR 850, 858 (Street J) (‘Ampol’).

See discussion in the text accompanying nn 46–59, above.

Performance under pay for performance arrangements may also be measured in terms of upward movement in the company’s share price, but research has shown that a company’s reported accounting profit can have an impact on the price of the company’s shares. See n 60 above, and accompanying text.

Cf Briginshaw v Briginshaw (1938) 60 CLR 336; Rejek v McElroy (1965) 112 CLR 517; and Neat Holdings Pty Ltd v Karajan Holdings Pty Ltd (1992) 110 ALR 449. Section 1317L of the Corporations Act chosen these treatments out of self-interest in order to maximise their performance-based pay. Without other evidence which might suggest actual bad faith, too much will depend on the credibility of the individual in question.

2 ‘Mixed Purposes’

The problem of ‘mixed purposes’ presents itself if the proper purposes doctrine is invoked in the context of ‘earnings management’, as it would appear to be unlikely that a manager would choose one accounting treatment over another solely for the purpose of potentially increasing his or her remuneration under a pay for performance arrangement. As noted above, listed companies are legally required by the Corporations Act 2001 (Cth) to prepare financial statements. Compliance with this obligation requires the making of choices between different accounting treatments, as the Accounting Standards allow for the exercise of a significant amount of discretion in the preparation of the financial statements. The phenomena of ‘earnings management’ could therefore be said to reflect the combination of the need to choose accounting treatments in the first place, and the actual selection of treatments that in general have the relative effect of...
increasing the accounting profit of the company as reported in its financial statements.

It might therefore be said that conduct amounting to ‘earnings management’ may potentially be motivated by mixed ‘compliance’ and ‘remuneration increasing’ purposes. If this is the case, it would appear that the conduct in question would fall foul of the proper purposes doctrine only if the desire to potentially increase the amount of performance-based remuneration was the ‘substantial reason’ for choosing some accounting treatments over others, or this desire was a significant reason ‘but for’ which the relevant accounting treatments would not have been chosen. It could prove to be very hard to establish the existence of either of the above in individual cases. As previously noted, the Accounting Standards allow the preparers of financial statements to exercise a significant amount of discretion in the process of preparing these statements. The significant amount of discretion allowed for by the Standards in the exercise of preparing the statements could mean that the treatments ultimately chosen for the purposes of preparing the statements might generally be those that have the relative effect of increasing the accounting profit of the company, even absent ‘substantial’ or ‘significant’ bad faith on the part of the statement preparers. Again, too much could depend on the credibility of the individuals in question.

3 The Loss or Profit From Earnings Management May Be Difficult To Prove

It could be said that managers who deliberately increase the paper wealth of the company with the intention of increasing the real wealth that flows out of the company to them in the form of managerial compensation are furthering their own interests at the expense of the company. However, quantifying the amount of this gain which has occurred at the company’s expense would appear to rest on the answer to the following question: if managerial self-interest had not coloured the selection of the relevant accounting treatments, what treatments might have been chosen?

Unfortunately, the answer to this question does...
not appear to readily present itself, because the same accounting choices could still have been made. As previously noted, the accounting treatments chosen for the purposes of preparing the company’s financial statements might generally be those that have the relative effect of increasing the accounting profit of the company, even absent a desire on the part of the preparers of these statements to potentially increase their performance-based pay in instances where they are subject to pay for performance arrangements under which their remuneration is influenced by the accounting profit of the company as reported in its financial statements. The Accounting Standards give the preparers of financial statements a not insignificant degree of discretion in the choice of the accounting treatments used in the preparation of these statements. It could therefore be said that choosing treatments that have the relative effect of increasing the reported profit of the company itself would not appear to be improper, unless this choice was motivated by reasons other than the desire to most appropriately reflect the circumstances of the company (eg the desire to increase the amount of remuneration influenced by the performance of the company). As discussed above, establishing the presence of the latter intention as one of the reasons for the accounting choices made could prove to be difficult in practice as it appears that, absent direct evidence of managerial bad faith, too much would depend on the credibility of the individuals in question.

The loss to the company and the gain to the manager from ‘earnings management’ can be said to be the increase in the amount of the remuneration paid to the manager as a result of the accounting treatments that were chosen out of self interest, compared to the amount of remuneration that would have been paid if self interest had not motivated the selection of these treatments. As previously noted, the significant amount of discretion allowed for by the Accounting Standards in the exercise of preparing the financial statements could mean that the treatments ultimately chosen for the purposes of preparing the statements might generally be those that have the relative effect of increasing the accounting profit of the company (and accordingly the amount of the remuneration that is influenced by the company’s accounting performance), even absent ‘substantial’ or ‘significant’ bad faith on the part of the statement preparers. The significant discretion given by the Standards to the preparers of the financial statements in terms of the accounting treatments that may be utilised in the preparation of such statements might also carry with it the result that the ‘objective circumstances’ surrounding the exercise of the discretion (eg the presence of pay for performance arrangements under which remuneration is influenced by the performance of the company as reported in its financial statements, and the actual selection of treatments that in general have the relative effect of increasing the reported profit of the company) could conceivably be said to be of less evidentiary assistance here when compared to disputes over bona fides and proper purposes that occur in other contexts.
Conduct amounting to ‘earnings management’ as discussed of itself also might not in fact end up bringing about a loss to the company or a gain to those who engage in such conduct. The effect on the amount of performance-based remuneration of a relative increase in the accounting profit of the company as reported in the company’s financial statements may be overshadowed by the results of other, non-accounting indicators of the company’s performance. Lambert and Larcker have observed that, when the accounting profit of a company might have a not insignificant influence on the amount of remuneration ultimately provided under a pay for performance arrangement, this profit figure is unlikely to be the only measure of company performance used for the purposes of determining the level of performance-based pay.

4 The Economic Incentive To Litigate May Be Small

The preceding discussion has noted what appear to be some of the considerable difficulties associated with establishing the actual presence of bad faith in the context of earnings management that has performance-based pay as its catalyst, and in proving some of the considerable difficulties associated with ‘earnings management’ as previously discussed, stamping out this practice through the courts might end up costing more in economic terms than the cost wrought by the practice of earnings management of itself on the company, its shareholders and society. Arguably, the suggested existence of considering that complex litigation of this kind could be expected to involve high direct and opportunity costs but nevertheless carry with it a real likelihood of failure, those who might otherwise take action against the perpetrators of earnings management that is motivated by the presence of pay for performance arrangements may reasonably come to the view that the resources that might otherwise be spent on such an exercise could be better utilised. With the practical and legal difficulties that have been explored in relation to litigating the potential breaches of the law that may be associated with ‘earnings management’ as previously discussed, the complex ‘counterfactual’ inquiry that arguably would inevitably become necessary could mean that successfully taking action against those involved in earnings management might prove to be just as difficult as succeeding in actions against those who engage in ‘insider trading’, if not more.

193 See the discussion in the text accompanying nn 46–59, above.


195 Cf Whincop, ‘Directors’ Statutory Duties’, above n 141, 143; Blanchard, above n 141, 11–2; and Whincop, ‘Developments In Directors’ Statutory Duties’, above n 141, 170.


197 In the text accompanying nn 167–192, above.

198 Cf Rehnert, above n 5, 1163–4. The general approach to cost–benefit analysis is discussed in Richard Johnstone, ‘Economic and Sociological Approaches To Law’ in Rosemary Hunter, Richard Ingleby and Richard Johnstone (eds), Thinking About Law:
the practice of earnings management as noted above could by definition unfortunately indicate that non-litigious methods of policing earnings management might not always potentially be effective or efficient. If all else is going well in the company, it could very well be that earnings management that is driven by performance-based pay might simply be acknowledged begrudgingly as a potential ‘agency cost’ of corporate life.

VI Conclusion: A Note On a Potential Corporate Governance Role For Legal Advisers

This paper has sought to query what appears to be an assumption to the effect that the practice of ‘earnings management’, while potentially morally questionable, is not legally problematic. Beginning with an economic analysis of performance-based pay and earnings management that for the most part appears to have been absent from the legal pay for performance literature to date, it has attempted to demonstrate that earnings management that is motivated by the presence of a pay for performance arrangement would appear to contravene the equitable and statutory duties to which the preparers of financial statements are subject. Difficulties of proof and disincentives to litigation affect not the conclusion that company managers who exercise their accounting discretions with the aim of maximising their performance-based remuneration could arguably be said to be misusing their position and contravening their duties to act bona fide in the best interests of the company and for proper purposes.

It is in this respect that legal advisers may have a corporate governance role that Ramsay and others appear to have overlooked. Ingleby and Johnstone point out that lawyers perform a ‘gatekeeper’ function in relation to the legal system, and Yablon has alluded to the potential influence that legal advice may have in terms of shaping the making of corporate decisions. As the suggestion is that earnings management that is motivated by the presence of a pay for performance arrangement would appear to contravene the equitable and statutory duties to which the preparers of financial statements are subject, it may be that far-sighted lawyers who truly are acting in the best interests of their clients would conduct themselves so as to alert those concerned to this possibility in as tactful and diplomatic a manner as possible, especially in light of the research that appears to suggest that company managers might be expected to exercise their accounting discretions with the aim of maximising their performance-based remuneration. As noted above, difficulties of proof and disincentives to litigation affect not the conclusion that such conduct would amount to a misuse of position and a contravention of the duties to act bona fide in the best interests of the company and for proper purposes.


204 As the absence of discussion in Ramsay, ‘The Corporate Governance Debate’, above n 4, 6 would suggest. See also Hanrahan, Ramsay and Stapledon, above n 4, 123.


206 Yablon, ‘Overcompensating’, above n 203, 1867, 1870.
THE RELATIONSHIP BETWEEN EXECUTIVE COMPENSATION AND DIVIDEND POLICY, PERFORMANCE, AND CORPORATE GOVERNANCE IN CLOSELY-HELD FIRMS

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Abstract

This paper examines how profitability, dividend policy and the corporate governance of closely-held companies are related to executive compensation. The main finding is that in spite of the fact that controlling shareholders, and the executives they nominate to represent them, have the ability to exploit firms' resources at the expense of minority shareholders, their incentive to do so is lower when their ownership exceeds 75% of the voting power. Specifically, in closely-held firms in which the controlling shareholders hold more than 50% and less than 75%, the incentive to prefer higher compensation and avoid paying dividends is greater than that in companies in which major shareholders hold more than 75% of the firm's equity. For the latter, since they the vast majority of firm's shares is held by them, the firm is to a large extent more private than public. In such case, the incentive to exploit minority shareholders is small. Indeed, in companies in which the voting power of controlling shareholders exceeds 75%, their profits are higher, the compensation paid to their executive is lower, and they appear to have the tendency to share more dividends in comparison with other companies.

Keywords: executive compensation, dividend policy, firm performance

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1. Introduction

To what extent executives' compensation of public companies is related to economic principles that ensure the interests of all their shareholders? This issue has been addressed in many papers but only few papers addressed this issue in closely-held firms (Closely-held firms in this paper are those in which major shareholders hold more than 50% of firm's equity. 90% of the firms whose shares are listed on the TASE are closely-held firms. This phenomenon is the norm in most capital markets such as: Hong Kong, Taiwan, New-Zealand and many others, and in many small firms in developed capital markets including the USA, Japan and Germany. See also Ang, Hauser and Lauterbach (1997, 1998), Hauser and Lauterbach (2004)).

The purpose of this paper is to examine the relationship between profitability, dividend policy, corporate governance and executive compensation of closely-held firms. During the last three decades, most studies have argued that the ability to explain what drives executive compensation is related to accounting and stock prices measures (see e.g., Jensen and Meckling (1976), Myers (1977), Easterbrook (1984), Morck, Shleifer and Vishny (1988), Gaver and Gaver (1993), and Smith and Watts (1992)).

In this paper we add to this analysis the corporate governance characteristics of closely-held firms. The main hypothesis examined here is that the compensation paid to executives is affected by their ability and their and incentive to exploit firm resources at the expense of minority shareholders. This hypothesis is examined using unique and comprehensive data on public firms listed on the Tel Aviv Stock Exchange (TASE). The unique characteristic of these firms is being closely-held by a small group of controlling shareholders that own more than 50% of firm's equity. This means that in most of these companies, the ability of these controlling shareholders to push for corporate decisions as they please, to their own benefit, is at least seemingly, almost unlimited which enables them, for example, to withdraw unjustifiably high salaries and benefits that might result in lower profitability and dividend payments. In contrast, what is really the
incentive of these executives to do so, given the fact that inappropriate corporate manners may refrain investors from investing in these firms causing share prices to decline. For example, the need to raise additional capital in the future and to sustain the value of their own shares might lead the controlling shareholders to adopt corporate manners consistent with economic principles to the benefit of the entire body of shareholders. In other words, the ability of controlling shareholders to exploit firm resources at the expense of shareholders might be refrained by their incentive to avoid it.

The main finding of this study is that there appear to be some relationship between executives' compensation and firm's performance and that this relationship is related to the corporate governance structure of the firm. Specifically, in firms whose controlling shareholders hold between 50% to 75%, executives' incentive to exploit firms resources at the expense of minority shareholders is significantly higher than that in firms whose controlling shareholders hold over 75% of firm's equity (See for example, Morck, Shleifer and Vishny (1988), Smith and Watts (1992), Gaver and Gaver (1993)). Accordingly, it appears that executives' compensation are considerably higher in companies that refrain from paying dividends, than those that do pay dividends.

Most of the studies published to date have focused on the relationship between executive compensation and firms' performance. Some of these studies focused on Executives' compensation and agency costs stemming from the fact that their interests are not necessarily aligned with all other shareholders. For example, if executive compensation determined by firm performance, they may avoid investment that may have some risk in spite of the fact that the expected returns for the firm worth the risk taken.

Other studies dealing with this topic, argue that such relationship may be more significant if executive contracts are based on accounting and market prices performance measures (for example, Lambert and Larker (1987), Sloan (1993), Kim and Suh (1993), Healy (1985), Dechow and Sloan (1991), Jensen (1989), and Rappaport 1990). The quest for such relationship relies on the search for contracts with executives that might lead to greater alignment of executives' interests with those of minority shareholders. In such case, a stronger link between the interests of all shareholders is expected that will lead to an efficient resource allocation in firms (see Jensen and Murphy (1990), and Coughlan and Schmidt (1985)).

The paper consists of five sections. Section 2 discusses the main factors affecting the executive's compensation and presents the research hypotheses. Section 3 describes the data used. Section 4 presents and discusses the empirical results. Section 5 presents the summary and conclusions.

2. Factors Affecting Executives Compensation

2.1 Background

In most of companies listed on the TASE, a small group of controlling shareholders retains above 50% of the company's voting power and equity. This may create situations in which the interests of controlling shareholders may not be aligned with those of external minority shareholders resulting with agency costs increase. Baumol (1967), For example, claimed that executives usually operate in favor of shareholders, but might sometimes seek for the 'minimal' net profit that pleases them, and beyond that, use any additional profits for their own personal gain.2

Hence, the question raised by a number of studies is, what should be the driving force in contracts of executives' compensation to ensure a grater alignment of interests between external shareholders and controlling shareholders that nominate the executives. One possible is through outside directors from the public that monitor managerial decisions. One of the concerns with this solution was raised by Hermalin and Weisbach (1991) who argue that managerial involvement in selecting these directors frequently leads to a lack of public directors that properly represent external shareholders. They claim that the fact that some studies found a significant relationship between the structure of the directorate and the company's performance (See for example, Brickley and James (1987), Mace (1971)) while other studies found no significant relationships (see Baysinger and Butler (1985)), implies that additional factors should be considered. One such

1 For comparison, a sample of 370 companies taken from the “Fortune 500” list showed that in more then 90% of the companies, controlling shareholders hold less then 50% (See Morck, Shleifer and Vishny (1988)).

2 In Paragraph 1 of the “Securitie s Act” 1968, an “interested party was defined, among other things, as someone who retains, directly or indirectly, five percent or more of share capital or of voting power. An interested party is also someone who is authorized to nominate director(s) or a general manager. This clause also defines control as the power to direct operations of the corporation. Paragraph 37 of the act states that public corporations must include also details in their report about the securities (bonds) retained by the interested party. According to paragraph 123a dealing with the Company Ordinance, a company whose securities are held by the public and were offered according to a forecast, must report annually about benefits for chief executives. Notably, recent restrictions were applied concerning conflicts of interest of controlling shareholders who also served as company employees, in accordance with Amendment No. 4 of the Company Ordinance. In addition, in Paragraph 56d of Amendment No. 11 of the Securities Act, approval was given to set amendments concerning the restrictions on conflicts of interest between controlling shareholders and the companies under their control that are listed for trading.
factor is the corporate governance structure. Hermelin and Weisbach (1991) reported that the directorate structure had no effect on company's performance.

Some recent studies have focused on detecting the relationship between executives' compensation and firms' performance. The majority focused on seeking objective measures of firm's performance, particularly accounting and market measures that are based on share returns. Among other things, they examined the relative importance of accounting measures in comparison to market ones under the assumption that an executive contract that includes such performance measures might contribute to the alignment of interests between executives and all shareholders. 3

### 2.2 Hypotheses

Our study is based on unique and comprehensive data of closely-held firms listed on the TASE. We raise three hypotheses:

**Hypothesis 1** – Executives compensation depends only to a limited extent on firm's performance. The Examination of this hypothesis is problematic due to the difficulty in evaluating the complexity of managerial functions on the one hand, and their effect on the business performance, on the other hand. Namely, even if their compensation is determined in accordance with their contribution to company's performance, a problem still remains in measuring their specific contribution to the company, particularly when one takes into account that the performance of these firms is largely affected by external economical factors in the capital market.

A number of accounting and market-based measures have been proposed in economic literature to evaluate the business results of a company. A survey conducted by Gibbons and Murphy (1990) found that more than 50% of chief executives believed that it is necessary to base the salary contract in accordance with accounting results since market-based measures rely on share prices that depend on uncontrollable external forces. O'Byrne (1990) and Lambert (1993) claimed that share prices reflect only the expectations for the firms' performance, and therefore a salary contract should be based on accounting measures that represent both expected and unexpected earnings4. In contrast to these claims, Kim and Suh (1993) argued that optimal contracts specifically depend on how much benefit is linked to market-based measures. 5


5 See also discussion in Diamond and Verrecchia (1982), Jensen Kim and Suh (1993), Holmstrom (1982), Jensen and Murphy (1990) and others, show a high correlation between the salary levels of chief executives and excess returns.

**Hypothesis 2** - Executives nominated by controlling shareholders holding more than 50% of the equity, have the ability to exploit firms resources at the expense of external shareholders. Yet, the higher the rate of equity owned by controlling shareholders, the lower the relationship between executives' compensation and firms' performance. On one hand, the higher is the ownership rate held by controlling shareholders, the more aligned their interests with those external shareholders, and therefore their incentive to do so would diminish. This hypothesis is consistent with Morck, Shleifer and Vishny (1988) finding that the relationship between firm performance and insiders holdings is not monotonic. They are also consistent with the findings of Jarrel and Poulson (1998) that in companies with managerial holdings of 30% to 50%, firm's performance is lower then in other firms.

**Hypothesis 3** - In closely-held firms, executives' compensation is lower in companies that share dividends than with those that do not. This stems from the fact that while cash dividends is paid to all shareholders in the company's earnings, compensation to executives via bonuses, options and alike, enables controlling shareholders to avoid the partaking of the entire group of shareholders in the earnings. Support for this claim is given by Gaver and Gaver (1993) who found that for companies with a relatively high growth rate, the dividend rate is relatively low and the salary level is relatively high, in comparison to those of long-standing companies. Moreover, Mace (1971), Easterbrook (1984), Roeff (1982) and Smith and Watts (1992) claimed that all costs in contract agreements, such as salaries of chief executives, depend on general financial policies, such as: the capital structure of the company, dividend policy, salary, etc. Consequently, there are two contradictory factors that may affect the relationship between firm's performance and executives' salary. On one hand, high-growth firms, which are in many cases relatively younger and smaller, would reduce dividend payments in order to use the funds for additional investments in the company. This would lead to a future growth in earnings. Such companies would seek qualified

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executives and would be prepared to pay relatively high salaries for the success of their investment policy. On the other hand, under the prevailing governance structure of closely-held firms, avoiding payout of cash dividends increases the ability of controlling shareholders to exploit firm's resources at the expense of the external shareholders.

3. Data and Methodology

3.1 Data
The sample includes all companies traded on the TASE, for which full data are available. The data were collected during the years 1992-1994 and are based on the companies' reports in accordance with Paragraph 123a of the Company Ordinance and according to Paragraph 64, Securities Regulations, 1993 (keeping of financial statements). Data include the following: the highest salary in the company, the average salary of the company's top five earners (as reported according to Paragraph 123a of the Company Ordinance), operating profit, net profit, return on equity, capital structure, annual rates of return on stocks, rates of return on market indexes, total assets and percent of equity owned by controlling shareholders, by the general manager and chairman of the board-of-directors, dividends payout, and the total compensation to executives, including options and other benefits.

After excluding companies with incomplete data, 463 companies remained in the sample. In 60 of them the compensation included options or shares. Finding the value of stock options is problematic since in many cases, the options are not tradable and in some cases, information such as the exercise price, time to maturity were not reported. In cases where the time to maturity was absent, a period of 3 years was assumed, as this is the most common period for options in Israel. For all other cases, information concerning options and shares was excluded. We also gathered information of the market value of these companies as published by the TASE. The options' worth was calculated as the viable minimum value for Call options: $Max(O,S-Xe^{-rT})$ where $S$ is stock price, $X$ is exercise supplement for the option, $r$ is interest rate, and $T$ is time to maturity; and according to the model of Black and Scholes (1973).

3.2 Definition of Variables
The list of variables is based on the following four groups: accounting and market indexes to measure the business results used in literature; variables that describe the chain of command in the company; variables that describe financial policy; and other variables that might affect the results (Confounding Factors).

The first group includes five variables that were calculated based on information provided by financial statements and aimed at measuring business results. The first variable is return on equity (NI/EQUITY). The second variable is the change in return on equity between the years 1993 and 1994 (%NI/EQUITY). The third variable is the gross return on equity (O/EQUITY) defined as the ratio between operational income, and changes in gross return on equity (%O/EQUITY). The fifth variable is earning per share (EPS). In addition, excess rates of return on shares according to the following market-model:

$$ER_i = R_i - \alpha - \beta R_m$$

Where $R_i$ measures the rate of return on share $i$, $R_m$ is the market rate of return (the general stock index). Similar measure were proposed by Murphy (1985), Gibbons and Murphy (1990), Coughlan and Schmidt (1985).

The second group of variables describes the ownership structure within the company. The first variable is the total voting percentage of the controlling shareholders (%INSIDE), that include all interested parties. Due to the fact that almost all companies are closely-held firms, we assume that there is no distinction between the group of controlling shareholders and the executives nominated by them. In order to examine the latter assumption we include also two additional variables: the rate of equity owned by the manager and/or the chairman of the board (%CEO), and the second is the holding rates of all directors (%DIREC).

The third group of variables includes those that represent the financial policy of the company. Three policy variables were used. The first variable is related to dividend policy represented by a dummy-variable that was set to 1 for a company that paid dividends and 0 for a company that did not (DIV). This variable was used since only 180 of the companies in our sample paid cash dividends. The second variable is dividend per share (DPS). The third variable is the financial leverage that represents the capital structure of the company and is calculated as the ratio between debt and total assets (D/V). The importance of the company's capital structure stems from that high financial leverage, as well as dividend payout, sends signals to investors related to company's performance by way of its ability to pay their debts, and forecast its growth (See Smith and Watts (1992)).

The forth-variable group includes a list of variables that were found in many studies to affect the relationship between executives' compensation and firms performance. The first is the size of the firms (SIZE). For example, Gaver and Gaver (1993) found that in young growing companies, the dividends are lower and the salary level is higher, in comparison to other companies. However, once the size effect is eliminated, these differences disappear. The second variable is risk as measured by the standard deviation of return on shares.
of the excess rates of return. The need to distinguish between these two variables is important, particularly since it was found that smaller companies are usually riskier (higher standard deviation). The third variable is a dummy-variable set to 1 for an old company and to 0 for a new company (OLDNEW). An old company is one whose shares were listed for trade before 1992, i.e., companies whose shares have been traded for at least three years. This variable is important since the number of traded companies on the TASE has virtually doubled during these 3 years and since relatively high growth rates are expected during the first years of such companies (see the findings of Gaver and Gaver (1993)). Thus salaries and dividend policy of new companies are expected to differ from old companies.

3.3 Methodology

In order to examine the research hypotheses, a number of tests were conducted. In the first test we examined the effect of size and risk on the various variables. Due to the high variability in company size, we divided the sample companies into smaller companies (2/3) and larger companies (1/3). Larger companies are those that their assets for 1994 over 100 million NIS. In light of the findings of this test, as to the dependency between company size and executive salary levels, and in order to neutralize the size effect, the ratio between executive salaries and book value of equity was calculated. The following two tests are based on that ratio.

In the second test, we compare companies in which controlling shareholders hold less then 75% of the voting power with companies whose controlling shareholders hold more then 75% of the voting power. This division was made after examining the relationship between executive executives compensation policy and the ownership rate by controlling shareholders in intervals of 5% (i.e., up to 50%, 55%, 60%, 65%, etc.). In all cases we find a non-monotonic relationship between these variables. To assess if it is possible to define a specific range of ownership rates that enable to identify any meaningful systematic relationship between salary levels and controlling structure, the groups were assembled into larger intervals of share holding rates – up to 75% and more than 75%. Similarly, we conducted a test that uses another division of the sample of voting power in the hands of the general manager and chairman of the board-of-directors with one group having up to 10% of the voting power and the other group having above 10% of the voting power. The comparison between the groups was carried out using a one-way analysis of variance.

In the third test, the comparison was carried out using a one-way analysis of variance in which variables of policy, profitability and prevailing ownership structure between companies that paid dividends and companies that did not.

The forth test aimed at examining the relative effect of each variable on executive compensation is conducted in a few stages. In the first stage we examine the correlation between variables that represent executives' salaries of the chief executive and the top 5 chief executives, and various variables. In each group, variables having a significantly non-zero correlation coefficient with a significant level of 5% were selected. In the second stage, due to the finding that the size variable could be correlated to most of the independent variables, the following regression was executed:

\[
SIZE = a + a(SIZE) + a(N/EQUITY) + a(ER) + a(DIV) + a(DPS) + a(OLDNEW) + a(INSIDERS) + a(CHAIR) + a(D/V) + \eta.
\]

The residuals of this regression, \(\eta\), are not correlated with all the variables and therefore represent the size variable beyond its effect on other variables, where SIZE signifies the natural logarithm of total assets.

Stepwise regression was implemented in the third stage in order to examine the relative contribution of each single variable to the explanation of variability of the chief executive salary. Finally, we analyze the contribution of each group of variables to explaining the variance of executives’ compensation using a procedure proposed by Theil (1972) that enables examination of the marginal effect of each group of variables. Specifically, measuring the effect of firm’s performance which are measured using market and accounting parameters, the effect of a group of variables that describes the ownership structure, the effect of the group of variables that describe dividend policy, capital structure policy, and the effect of other factors that include: size, risk and seniority of the company.

According to Theil (1972), the first stage is evaluated by estimating the following equation:

\[
SALARY = a + \sum_{i=1}^{n} a_i X_i + e,
\]

where \(R^2_m\) is based on \(n\) variables, \(X_i\). Then, the following equation is estimated:

\[
SALARY = b + \sum_{i=1}^{n} b_i X_i + e,
\]

We estimate \(R^2_{n-j}\), where \(h\) represents the number of independent variables in group \(j\). The regression parameter estimation in this way was conducted for each of the groups of variables mentioned above, in order to calculate the difference:

\[
R^2_i - \sum_{j} R^2_{n-j}.
\]

Finally, we measure common effects, for all independent variables.
4. Empirical Results

The empirical results are presented in three sections. The first section describes findings regarding executives’ compensation, including stock options and other benefits. In the second section, we examine the proposed hypotheses using the differences between various groups of companies that differ from each other by their ownership structure, financial policy, size, risk, industry sector, etc. The third section examines the effect of group of variables on executives’ compensation, and particularly its relationship to policy variables, such as: dividends, capital structure, etc.

4.1 Description of Variables

Table 1 provides some summary statistics. The salary of top executives, including related benefits, was on average, around 630,000 NIS per year. The growth in top executive salaries during this year was around 14% compared to the previous year. The average salary of the top five executives was around 408,000 NIS with a growth rate of around 17%. During this period, profitability and share prices of the companies dropped. We also find that the return on equity dropped by an average rate of around 1.5% (the median was raised by 1.7%) and share prices fell by a rate of around 40%.

Table 1. Average Salary and Related Benefits for Chief Executives, Return of Capital and Return on Shares

Compensations for chief executives include salary and benefits in accordance with Paragraph 123a of the Company Ordinance, as well as the value of share options calculated by \( \max(O, S-Xe^rT) \), which represents the minimum value of an option and according to the Black and Scholes model of 1973. \( S \) spot price; \( r \) is the interest rate, and \( T \) is the time to maturity.

<table>
<thead>
<tr>
<th></th>
<th>Standard Deviation</th>
<th>Median</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salary of Top Executive</td>
<td>630,260</td>
<td>527,000</td>
<td>442,250</td>
</tr>
<tr>
<td>Rate of Growth</td>
<td>0.139</td>
<td>0.138</td>
<td>0.340</td>
</tr>
<tr>
<td>Salaries of the Top Five Executives</td>
<td>408,269</td>
<td>340,667</td>
<td>261,411</td>
</tr>
<tr>
<td>Rate of Growth</td>
<td>0.168</td>
<td>0.138</td>
<td>0.380</td>
</tr>
<tr>
<td>Options and Shares (NAIV Model) (^A)</td>
<td>198,834</td>
<td>101,990</td>
<td>417,555</td>
</tr>
<tr>
<td>Options and Shares (Black and Scholes Model)</td>
<td>379,571</td>
<td>203,200</td>
<td>669,918</td>
</tr>
<tr>
<td>Capital Return</td>
<td>-0.015</td>
<td>0.027</td>
<td>0.231</td>
</tr>
<tr>
<td>Rate of Change in Capital Return</td>
<td>-0.680</td>
<td>-0.690</td>
<td>1.109</td>
</tr>
<tr>
<td>Rate of Return on Shares During year t</td>
<td>-0.398</td>
<td>-0.086</td>
<td>0.382</td>
</tr>
<tr>
<td>Rate of Return on Shares During year t-1</td>
<td>0.370</td>
<td>0.071</td>
<td>0.214</td>
</tr>
</tbody>
</table>

\(^A\) The calculation is based companies, which provided complete data relating to options presented to chief executives, excluding one company with abnormal values - around 10,000,000 NIS according to the model of Black and Scholes, and around 3,500,000 NIS according to using the lower bound of options value.

In addition, we find that while around 43% of the companies experienced a drop in profitability, salaries were raised in about 82% of them. In 60 firms executives received options as part of their compensation. The value of these options benefit package in these companies averaged around 200,000 NIS more than other companies.

Table 2 presents the differences in salary levels and changes in salary for various Sectors. According to these findings, it appears that the salary level of chief executives in commercial banks and insurance companies are significantly higher, than those in other sectors. It also appears that salaries vary a lot among companies. This may explain the difficulties to relate salaries to firms’ performance.
Table 2. Compensation for Chief Executives by Industry Sector
(Reporting in Accordance to Paragraph 123a of the Company Ordinance)

<table>
<thead>
<tr>
<th>Industrial sector</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>KW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Companies</td>
<td>7</td>
<td>6</td>
<td>50</td>
<td>13</td>
<td>102</td>
<td>89</td>
<td>194</td>
<td></td>
</tr>
<tr>
<td>Top Executive Salary Average</td>
<td>783,066</td>
<td>602,724</td>
<td>655,257</td>
<td>953,659</td>
<td>566,095</td>
<td>643,534</td>
<td>626,970</td>
<td>11.91</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>382,335</td>
<td>232,092</td>
<td>636,631</td>
<td>495,785</td>
<td>278,249</td>
<td>368,318</td>
<td>480,427</td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td>832,383</td>
<td>601,487</td>
<td>471,000</td>
<td>999,650</td>
<td>488,500</td>
<td>580,545</td>
<td>517,500</td>
<td></td>
</tr>
<tr>
<td>Growth Rate</td>
<td>0.219</td>
<td>0.204</td>
<td>-0.019</td>
<td>0.213</td>
<td>0.136</td>
<td>0.156</td>
<td>0.168</td>
<td>9.460</td>
</tr>
</tbody>
</table>

A 1- Commercial banks.
2- Mortgage banks and other financial institutions.
3- Investments and maintenance companies.
4- Companies and insurance agencies.
5- Commercial and services.
6- Real estate, construction, development and agriculture.
7- Industrial companies

**KW** represents the statistics of the Kruskal-Wallis, non-parametric one way analysis of variance. **"*** signifies significant differences in salary between the various industrial sectors at 5% significance level.

4.2 Factors Affecting Executives Compensation

In this section, we examine the effect of a number of factors presented in literature and found to have significant effect on executives' compensation. Table 3 presents the effect of company size on executive salary policy. As expected, we find that the total compensation paid to executives is significantly higher in large companies compared to that in small companies. On possible explanation is that in large companies, the complexity of management is higher and therefore, executives in these companies, may be faced with more complicated problems than those found in smaller companies, and hence entitled to higher salaries and benefits. Unexpectedly, we find that the change in salary level in small companies is insignificantly from that seen in larger companies. This point is further discussed below.

Furthermore, Table 3 also implies that the discernment between large and small companies is important for the comparison of other variables used in this work. For example, return on equity and earnings per share, are significantly higher in large companies compared to small companies. Also, it appears that in large companies, the financial leverage and the dividends payout are significantly higher than those in small companies. In addition, the percentage of equity held by the controlling shareholders as a group, the holding rate by the general manager and chairman of board of directors, and the risk measured by the standard deviation, are lower for small companies in comparison to larger ones. These findings suggest, among other things, that examination of what affects executives' compensation should take into account the size effect.

In order to account for the size effect, the salary of chief executives was divided by the equity (in millions NIS. Table 4 shows the differences between chief executive salaries in companies where controlling shareholders hold up to 75% of the voting power, and those in companies where they hold above 75% of voting power. The results show that executives' salaries are significantly lower in companies where the voting percentage of controlling shareholders exceeds 75% of the voting power.

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Many studies have shown that when neutralizing the size effect, differences become blurred (For example see Gaver and Gaver (1993)).
### Table 3. A Comparison of Executive Salaries, Company Profitability, Ownerships Structures, and Dividend policies - By Size

The return on equity is the ratio between net profit and equity. Excess rates of return shares are based on the market model. The financial leverage is calculated using the ratio between long-term liabilities and total assets according to the balance. The F-test is a test for comparing the mean of each variable using one-way analysis of variance.

<table>
<thead>
<tr>
<th></th>
<th>Small Companies</th>
<th>Large Companies</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top Executive Salary</td>
<td>522,177</td>
<td>847,129</td>
<td>62.93*</td>
</tr>
<tr>
<td>Top Five Executive Salaries</td>
<td>330,033</td>
<td>565,250</td>
<td>101.27*</td>
</tr>
<tr>
<td>Return on equity</td>
<td>-0.042</td>
<td>0.039</td>
<td>12.46*</td>
</tr>
<tr>
<td>% change in return on equity</td>
<td>-0.833</td>
<td>-0.395</td>
<td>14.18</td>
</tr>
<tr>
<td>Operating return on equity</td>
<td>0.006</td>
<td>0.020</td>
<td>2.12*</td>
</tr>
<tr>
<td>% change in return on equity</td>
<td>-0.021</td>
<td>0.049</td>
<td>10.39*</td>
</tr>
<tr>
<td>Excess Rate of Return – year t</td>
<td>0.423</td>
<td>0.032</td>
<td>3.41*</td>
</tr>
<tr>
<td>Excess Rate of Return – year t-1</td>
<td>-0.060</td>
<td>0.049</td>
<td>19.94*</td>
</tr>
<tr>
<td>Earning per shares</td>
<td>-0.060</td>
<td>1.238</td>
<td>2.65*</td>
</tr>
<tr>
<td>Financial Leverage</td>
<td>0.265</td>
<td>0.674</td>
<td>113.71</td>
</tr>
<tr>
<td>% Companies sharing Dividends</td>
<td>0.263</td>
<td>0.418</td>
<td>13.31*</td>
</tr>
<tr>
<td>Dividend Per Share</td>
<td>0.136</td>
<td>0.308</td>
<td>7.07*</td>
</tr>
<tr>
<td>% Voting held by controlling shareholders</td>
<td>76.75</td>
<td>77.23</td>
<td>0.13</td>
</tr>
<tr>
<td>% Voting held by General Manger + Chairman</td>
<td>27.41</td>
<td>12.36</td>
<td>37.54*</td>
</tr>
<tr>
<td>Risk (Standard Deviation of rate of stocks return)</td>
<td>0.100</td>
<td>0.083</td>
<td>30.40*</td>
</tr>
</tbody>
</table>

### Table 4. Chief Executive Salaries - By Controlling Structure

In this table, executives' salaries were calculated as the ratio between salary and firm's equity (in million NIS). F-test compares the mean of each variable using one-way analysis of variance.

<table>
<thead>
<tr>
<th></th>
<th>According to Voting % held by controlling shareholders</th>
<th>According to Voting % held by General Manager and Chairman</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Up To 75% And Up</td>
<td>75%</td>
</tr>
<tr>
<td>Chief Executive Salary</td>
<td>23.05</td>
<td>17.43</td>
</tr>
<tr>
<td>Return on Equity</td>
<td>-0.037</td>
<td>-0.007</td>
</tr>
<tr>
<td>% Change Return on Equity</td>
<td>-0.754</td>
<td>-0.654</td>
</tr>
<tr>
<td>Operating Return on Equity</td>
<td>0.006</td>
<td>0.006</td>
</tr>
<tr>
<td>% Change In Operating Return on Equity</td>
<td>0.011</td>
<td>-0.015</td>
</tr>
<tr>
<td>Excess Rates of Return on Shares at t</td>
<td>0.005</td>
<td>-0.036</td>
</tr>
<tr>
<td>Excess Rates of Return on Shares at t-1</td>
<td>0.176</td>
<td>0.092</td>
</tr>
</tbody>
</table>

A similar result was also found in a comparison of companies in which the general manager and the chairman hold less than 10% of firm's equity, with companies in which the general manager and the
chairman hold more than 10%. Note, however, there is a significant difference between these two results. The first, relates to the hypothesis concerning ability versus the incentive of controlling interests and executives to exploit firms resources at the expense of the external shareholders. According to these results, it appears that in spite of their ability to do so, their incentive to do so is lower, the higher is the percentage of voting power held the controlling shareholders. In such case, there is a greater similarity of interests between the controlling shareholders and external shareholders. On the other hand, the second result relates to argument raised by Jensen and Meckling (1976) and others, that when executives hold a small percentage of ownership, the interests of all shareholders is more aligned. Combining these two findings suggests that the relationship between executives’ compensation and firms' performance is not monotonic. Moreover, similar to Morck, Shleifer and Vishny (1988), when holding rates of the general manager and chairman are relatively low, the similarity of interests between them and the external shareholders is higher. However, when their holdings increase, the extent to which their interests and those of external shareholders is aligned, diminishes. One explanation for the different results is that in closely-held firms managers are almost always part of the controlling shareholders group (see, for example, Ang, Hauser and lauterbach (1997)). The results presented in Table 4 indicate that there seems to be relatively higher agency costs in companies where the chief executive and chairman of the board retain less than 10% of the voting power. In such firms, the performance measured by the net income and by the excess rates of return is relatively higher than in firms in which they hold more than 10% of the voting power.

Table 5. Executive Salaries - by Dividend Policy and Company’s Age

This table compares executives’ salaries, firm’s performance, and ownership structure, according to the dividend policy of the company and its age. Company’s age is used as an index for growth vs. non-growth companies (see also Gaver and Gaver (1993)). The return on equity represents the ratio between net income and equity. The excess rates of return on shares represent the rates of return on shares net of market return in accordance with the Market model. Financial leverage is calculated using the ratio between long-term liabilities and total assets. Executive salaries here presented as the ratio between salary and equity (in Million NIS). F-test compares the means of each variable using one-way analysis of variance.

<table>
<thead>
<tr>
<th>Cash Dividends Payout</th>
<th>F</th>
<th>New and Old Companies</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Chief Executive Salary</td>
<td>13.30</td>
<td>22.76</td>
</tr>
<tr>
<td>Rate of Growth</td>
<td>0.177</td>
<td>0.121</td>
</tr>
<tr>
<td>Top Five Chief Executive Salaries</td>
<td>8.47</td>
<td>14.52</td>
</tr>
<tr>
<td>Rate of Growth</td>
<td>0.150</td>
<td>0.177</td>
</tr>
<tr>
<td>Return on Equity</td>
<td>0.091</td>
<td>-0.062</td>
</tr>
<tr>
<td>% Change Return on Equity</td>
<td>-0.426</td>
<td>-0.799</td>
</tr>
<tr>
<td>Operating Return on Equity</td>
<td>0.021</td>
<td>0.006</td>
</tr>
<tr>
<td>% Change In Operating Return on Equity</td>
<td>-0.010</td>
<td>0.003</td>
</tr>
<tr>
<td>% Voting held by controlling shareholders</td>
<td>80.89</td>
<td>74.95</td>
</tr>
<tr>
<td>% Voting held by General Manager&amp;Chairman</td>
<td>14.64</td>
<td>25.64</td>
</tr>
<tr>
<td>Voting held by Directors</td>
<td>9.31</td>
<td>12.37</td>
</tr>
<tr>
<td>Excess Rates of Return on Shares at t</td>
<td>0.022</td>
<td>-0.038</td>
</tr>
<tr>
<td>Excess Rates of Return on Shares at t-1</td>
<td>0.086</td>
<td>0.147</td>
</tr>
</tbody>
</table>

Addition support to these findings for is found in the results presented in Table 5, when we compare executive salaries in companies that pay dividends to those that do not. Specifically, these results support the hypothesis that executives in companies that do not pay dividends get significantly higher salaries, than those in companies that do pay dividends.

Similarly, we also find that the net income and excess rates of return are considerably higher in companies that paid dividends, and that ownership structure has a significant impact on executive salaries. Another important result, which relates to the findings of Gaver and Gaver (1993), is that salaries, dividend policy and ownership structure differ significantly between new
companies and older ones. In new companies, characterized by higher growth rates, the rate of ownership held by controlling shareholders, executives and chairmen of the board are higher than those found in older companies. However, new companies tend not to pay dividends and pay relatively higher salaries than in older companies.

4.3 Effect of Profitability, Dividend Policy and Ownership Structure on Executive Compensation Policy

To examine the effect of each variable, three tests were carried out. In the first test, the correlation coefficient between each if the independent variables and parameters that represent salary was calculated. The results, presented in Table 6, indicate that these correlation coefficients are significantly non-zero for the following parameters: dividend policy represented by dividend per share and a dummy variable that receives the value of 1 if the firm pays dividend and 0 otherwise, EPS, return on equity and excess rates of return in 1994, voting power held by controlling shareholders, chief executives and chairman of the board, financial leverage and additional variables representing size, risk and company seniority.

Table 6. Correlation Coefficients between Factors Affecting Executives’ Compensation and Executives’ Salaries

<table>
<thead>
<tr>
<th>Factors Affecting Salaries</th>
<th>Correlation Coefficients of Salaries with factors affecting them:</th>
<th>Change in Mean Executive Salary</th>
<th>Change in Mean Executive Salary</th>
<th>Change In Mean Executive Salary</th>
<th>Change In Mean Executive Salary</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Size ^</td>
<td></td>
<td>0.280*</td>
<td>0.017</td>
<td>0.324*</td>
<td>0.010</td>
</tr>
<tr>
<td>2. Risk (standard deviation for rate of return on share)</td>
<td></td>
<td>0.249*</td>
<td>0.033</td>
<td>0.273*</td>
<td>-0.052</td>
</tr>
<tr>
<td>3. Earnings per Share</td>
<td></td>
<td>0.115*</td>
<td>0.070</td>
<td>0.100*</td>
<td>0.080</td>
</tr>
<tr>
<td>4. Net Profit per Share</td>
<td></td>
<td>0.077</td>
<td>-0.023</td>
<td>0.124*</td>
<td>0.006</td>
</tr>
<tr>
<td>5. Change in Return of Capital</td>
<td></td>
<td>0.030**</td>
<td>0.018</td>
<td>0.010</td>
<td>-0.050</td>
</tr>
<tr>
<td>6. Operating Profit of Capital</td>
<td></td>
<td>0.002</td>
<td>-0.038</td>
<td>-0.003</td>
<td>-0.041</td>
</tr>
<tr>
<td>7. Change in Operating Profit of Capital</td>
<td></td>
<td>0.136*</td>
<td>-0.032</td>
<td>0.116*</td>
<td>0.034</td>
</tr>
<tr>
<td>8. Surplus Return for 1994</td>
<td></td>
<td>-0.056</td>
<td>-0.092</td>
<td>-0.049</td>
<td>-0.063</td>
</tr>
<tr>
<td>9. Surplus Return for 1993</td>
<td></td>
<td>-0.249*</td>
<td>-0.077</td>
<td>-0.209*</td>
<td>0.033</td>
</tr>
<tr>
<td>10. Dividend Sharing</td>
<td></td>
<td>0.158</td>
<td>0.076</td>
<td>0.056</td>
<td>-0.093**</td>
</tr>
<tr>
<td>11. Dividend per Share</td>
<td></td>
<td>0.187</td>
<td>0.194</td>
<td>0.257*</td>
<td>0.049</td>
</tr>
<tr>
<td>12. New - Old Company</td>
<td></td>
<td>-0.049</td>
<td>0.103</td>
<td>0.065</td>
<td>-0.054</td>
</tr>
<tr>
<td>13. % Voting of interest groups ^B (dummy-variable)</td>
<td></td>
<td>-0.092*</td>
<td>-0.067</td>
<td>-0.091*</td>
<td>0.065</td>
</tr>
<tr>
<td>14. % Voting of interest groups</td>
<td></td>
<td>-0.049</td>
<td>0.104</td>
<td>0.065</td>
<td>-0.054</td>
</tr>
<tr>
<td>15. % Voting of executive and chairman</td>
<td></td>
<td>-0.049</td>
<td>0.103</td>
<td>0.065</td>
<td>-0.054</td>
</tr>
<tr>
<td>16. % Voting of Executive and Chairman ^C (dummy-variable)</td>
<td></td>
<td>-0.049</td>
<td>0.103</td>
<td>0.065</td>
<td>-0.054</td>
</tr>
<tr>
<td>17. % Voting of Directors</td>
<td></td>
<td>-0.088</td>
<td>0.058</td>
<td>-0.123*</td>
<td>0.005</td>
</tr>
<tr>
<td>18. Financial Leverage</td>
<td></td>
<td>0.016</td>
<td>0.013</td>
<td>-0.003</td>
<td>0.067</td>
</tr>
</tbody>
</table>

A "*" and "**" denote that the correlation coefficient significantly differs from 0 at 5% and 10%, respectively.

B The dummy-variable for voting power held by controlling shareholders is set to 0 in companies which hold less then 75% and set to 1 in companies which they hold above 75%.

C The dummy-variable of the voting percentage of the general manager and chairman of the Board of Directors is set to 0 in companies in which the general manager and chairman hold less then 10% of the voting power and set to 1 in companies which the general manager and chairman hold above 10%.

Based on these findings, variables that were found to have a significant correlation coefficient with executives' salaries were chosen to be examined in the second test for their relative contribution in explaining the variance of salary policy, using stepwise regression. Findings in Table 7 represent the results for those variables in order of contribution to explaining the variability of salaries.
Table 7. Contribution of Independent Parameters According to Importance, Using Stepwise Regression

\[ SALARY = a_0 + \sum_{i=1}^{n} a_i X_i + \epsilon_i. \]

Stepwise regression was carried out between the dependent variable, executive salaries, and the following independent variables: size, risk, return on equity, excess rates of return on shares, dividend payout, dividends per share, company seniority, voting power held by controlling shareholders, voting power held the chief executive and chairman of the board, and financial leverage.

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>ɛ</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dependent Variable - Chief Executive Salary</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dividends</td>
<td>-0.424*</td>
<td>-0.424*</td>
<td>-0.337*</td>
<td>-0.362*</td>
<td>-0.343*</td>
<td>-0.335*</td>
</tr>
<tr>
<td>Size</td>
<td>0.179*</td>
<td>0.179*</td>
<td>0.179*</td>
<td>0.179*</td>
<td>0.179*</td>
<td>0.179*</td>
</tr>
<tr>
<td>Risk</td>
<td>-3.600*</td>
<td>-3.600*</td>
<td>-3.770*</td>
<td>-3.630*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Leverage</td>
<td>0.381*</td>
<td>0.350*</td>
<td>0.320*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Excess Rates of Return</td>
<td>0.260*</td>
<td>0.230*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Company's age</td>
<td>0.098**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>R2</strong></td>
<td>10.37</td>
<td>17.74</td>
<td>21.90</td>
<td>24.11</td>
<td>25.74</td>
<td>26.21</td>
</tr>
</tbody>
</table>

| **Dependent Variable - Mean Salary of 5 Chief Executives** |    |    |    |    |    |    |
| Risk                          | -5.72* | -5.72* | -4.47* | -4.22* | -4.26* | -4.38* |
| Size                          | 0.196* | 0.196* | 0.196* | 0.196* | 0.196* | 0.196* |
| Dividends                     | -0.317* | -0.301* | -0.323* | -0.312 |       |       |
| Company's age                 |       |       |       |       | 0.207* | 0.102* |
| Financial Leverage            |       |       |       |       | 0.168* |       |
| Excess Rates of Return        |       |       |       | -0.29* | -0.28* | 0.17** |
| **R2**                        | 13.74 | 24.26 | 30.42 | 33.51 | 35.03 | 35.69 |

The most important and significant parameter is the policy of dividend payout. This finding supports the two central hypotheses of this. Absence of parameters describing the ownership structure may be explained by the correlation between control structure and dividend policy (-0.244), which is significantly non-zero.

The next two variables (according to importance) are size and risk. As stated, size is a proxy used to represent managerial complexity. Risk was found to have a negative correlation with executives' salaries. Specifically, executive salaries were lower in less risky companies. This may have a number of explanations. The first being is that the standard deviation of shares rates of return is not a suitable proxy for risk estimation. The second possible explanation is that small firms are riskier than large ones (see Table 3). Indeed, we find that the correlation...
correlation between size and risk is -0.339. The third possible explanation is that executives receive compensation for their ability to stabilize company profits and thus reduce the risk involved in investing in these companies.

The fourth most important factor is financial leverage of a company, which represents firm's capital structure policy. The fifth parameter is company's age. These findings can also be related to that of Gaver and Gaver (1993), who found that in growth-companies, executive pay was relatively higher and dividend sharing was relatively lower than in non-growth companies. This result conforms to the findings of Gaver and Gaver (1993).

The last variable is excess rates of return on shares, which is one of the parameters that enable the creation of the required link between executive compensation and firm's performance. The advantage of this parameter over accounting ones is that when the latter are used executives may refrain from optimal long-term investment decisions that may raise doubts on firm's performance in the short term. That is, assuming that share prices reflects market expectations regarding the company's success, a rise in share value may serve as a good proxy to the direct contribution of executives to the welfare of the general shareholders. However, it should be noted that the use of share prices is also problematic, specifically due to the fact that rates of return account for risk taken and they tend to equal out according to market conditions. In such case, executives would be inclined to avoid the possibility that external financial forces not under their control, would affect their salaries. The way to overcome this problem is by measuring excess rates of return on shares which measures company's specific risk and return.

Our findings appear to indicate that despite the fact that excess rates of return was found to be more significant than accounting parameters, it is relatively less important than, dividend policy and capital and structural policy.

Finally, in the third test, whose results are presented in Table 8, the relative contribution of each group of variables was examined using the Theil procedure (1972). The results indicate that the most significant group of parameters that explains what determines salaries is that of size, risk and company seniority. The second most important group is policy variables. The third group includes parameters that measure firms' performance. The fourth most important group is that of parameters representing the corporate governance structure. We emphasize, however that the role of corporate governance is a lot more pronounced vis-à-vis the fact that there is significant correlation between ownership structure and dividend policy. Specifically, we find that in closely-held firms, salaries and accompanying bonuses are lower in companies that paid cash dividends to shareholders, compared to those that do not. This result supports the first hypothesis, that executive salaries are related to firms performance, to a limited extent and the second hypothesis according to which the incentive of executives to exploit firms resources at the expense of external shareholders lessens the higher is the holdings rates of controlling shareholders (over 75%), despite their ability to do so.

Table 8. Analysis of Variance Using the Theil Procedure

This table analyzes marginal contribution of each variable to describe the contribution of each group of variables to the explanation of salaries using the Theil procedure (1972). Lines 1 to 5 are the contribution rate of a group of variables to the description of the total variance in salary and benefits, excluding the effect of all other independent factors. The calculation was performed in three stages: (1) Calculating $R^2_n$ using linear regression between the dependent variable and all independent variables. (2) Calculation of $R^2_{n-hj}$ by using linear regression between the dependent variable and all independent variables apart from the variable group $h_j$. (3) Calculation of the relative contribution of a group of variables by subtracting $R^2_{n-hj}$ from $R^2_n$. Line 7 is the $R^2_n$ of the linear regression between the level or change in salary and benefit, as an independent variable, and between all independent variables. Line 6 is the difference between line 7 and the sum of proportions from line 1 to 5 (See Theil (1972)).

<table>
<thead>
<tr>
<th>Variable Group</th>
<th>The Chief Executive</th>
<th>Mean Top 5 Executives</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Accounting Indexes (Return and Rate of Return of Capital)</td>
<td>0.2%</td>
<td>0.1%</td>
</tr>
<tr>
<td>2. Excess rates of Returns</td>
<td>1.1%</td>
<td>0.6%</td>
</tr>
<tr>
<td>3. ownership (% controlling shareholders. G. M. &amp; Chairman)</td>
<td>0.8%</td>
<td>0.3%</td>
</tr>
<tr>
<td>4. Policy Variables (Dividend and Financial Leverage)</td>
<td>6.7%</td>
<td>6.0%</td>
</tr>
<tr>
<td>5. Other Factors (Size, Risk and Compan's age)</td>
<td>12.4%</td>
<td>19.2%</td>
</tr>
<tr>
<td>6. Common Effects</td>
<td>5.6%</td>
<td>9.8%</td>
</tr>
<tr>
<td>7. $R^2$</td>
<td>26.81%</td>
<td>36.0%</td>
</tr>
</tbody>
</table>
5. Summary

This study raises the hypothesis that in closely-held firms, executives' compensation is affected by the ability and the incentive of executives to exploit resources at the expense of shareholders. According to this hypothesis, the ability of controlling shareholders in general, and especially of chief executives, to make investment decisions as they please in closely-held firms, when they control over 50% of the voting power, is theoretically almost limitless. This allows them, among other things, to draw high salaries and benefits in a way that is not based on the economic principals that may benefit external shareholders as well. As a result, controlling shareholders and managers tend to refrain from paying dividends and increase compensation instead. In contrast, their incentive to do so if one takes into account their long-term considerations, such as the need to raise additional capital in the future and the preservation of the value of their shares, causing controlling shareholders to adopt corporate manners that will signal to external shareholders that they have similar interests at stake.

The main findings are: (1) executives' compensations depend only to a limited extent on the company's performance; (2) in spite of their ability to exploit firms resources at the expense of external shareholders, their incentive to do so is relatively small. Specifically, we find that in companies where controlling shareholders hold less than 75% of firm's equity, the ability motive dominates the incentive motive. But, it is the other way around when the controlling shareholders hold more than 75% of voting power; (3) in large companies, chief executive salaries and accompanying benefits are higher than in small companies; (4) in older companies, executive salaries are smaller than in younger companies, and there is a greater tendency to payout dividends; (4) companies in which controlling shareholders hold more than 75% were more profitable, the rates of return on their shares were higher, executive salaries were lower and the tendency to payout cash dividends was greater in comparison to other companies.

References

LEGAL INSIDER TRADING, CEO’S INCENTIVES, AND QUALITY OF EARNINGS

Joshua Ronen *, Joseph Tzur**, Varda (Lewinstein) Yaari***

ABSTRACT

The recent accounting scandals brought into light the failure of corporate governance mechanisms to curbing earnings management. This study focuses on the insiders who design the managers’ compensation contracts. The contract designers are seen as lacking the financial expertise to correctly uncover the true outcome. However by virtue of their knowledge of the contract details, they can discern the likelihood that the firm’s public report is not truthful. Modeling the firm as a principal-agent contract, we show that insiders induce earnings management and make trading gains by designing suboptimal incentives. Given that our results are driven largely by the lack of these directors’ financial expertise, our study has the policy implication that inclusion of financial experts in compensation committees can contribute to transparencies under the current insider trading rules in place.

Keywords: legal insider trading, quality of earnings, principal-agent contract, bluffing

1. Introduction

Firms are not required to disclose the precise details of their managers’ compensation (the compensation function: the exact specification of how pay is determined, what factors affect it and how do these factors affect the pay level). Since accounting earnings may be managed to increase bonuses, an opportunity arises for profitable trading by non-executive insiders such as board or compensation committee members who are knowledgeable about the relationship between the publicized accounting reports (earnings) and the true earnings. Profitable insider trading is thus made possible because of the insiders’ superior ability to interpret the public financial reports. Presumably, this superior ability is gained as a result of knowing the details of the compensation contracts and the implication thereof for the incentives to manage earnings.

Seyhun (1998) writes:

If insiders cannot trade on corporate announcements, what sort of information can they trade on? Insiders can clearly trade on the basis of their understanding and interpretation of public information outside the moratorium periods. For instance, assume that the stock price of the firm goes down sharply. The decline of stock price is, after all, public information. Now suppose that insiders do not know anything about their firm that would justify such a price decline. Insiders in this case can comfortably buy stock of their firm (and support the market) without worrying about insider-trading regulations.

[Emphasis added.]

In this study, we examine the relationship between earnings management and legal insider trading by insiders who know the manager’s compensation contract, but otherwise lack the expertise or ability to know the magnitude of the true earnings. We analyze the effect of the motif and opportunity for such insider trading on the firm’s value and the quality of its accounting earnings.

Modeling the firm as a principal-agent contract with an unobservable outcome, we find that insider trading affects the shape of the contract and hence the firm’s value and quality of earnings. Specifically, the optimal compensation schedule first increases and then levels off (see Figure 2 below). The increasing part has a steeper slope than that of a standard principal-agent contract. The cap (upper bound)—the report that maximizes the manager’s compensation -- becomes the manager’s target report. That is, the manager will attempt to manage earnings by reporting
the target outcome.

The contract incentivizes the manager, at a cost. The incentive effect is created by imposing risk on the risk-averse, work-averse manager. It induces the manager to exert a higher level of effort, which increases the firm’s gross expected value. The cost is twofold: one is that the more risky contract necessitates the payment of a premium to the risk-averse manager, thus decreasing the shareholder’s residual share. The other is the compromised transparency of the accounting earnings.

Transparency is compromised because the manager attempts to inflate the report, and because the target report is known only to insiders. Suspecting earnings management, the market adjusts downward the inferred outcome even when the true outcome is reported. This weakens the association between stock price and reported earning. To sharpen this point, consider, by contrast, the case in which the market knows the magnitude of the target outcome. In this case, the market will adjust downward only the target report (outcome) and accept as truthful any other report.

Despite the extensive research on governance, there is only a handful of analytical studies in this area (see the literature review by Becht, Bolton, and Roell, 2002, and the citations in Ronen, Tzur, and Yaari, 2006), most are unconcerned with the link between governance and transparency of earnings. This paper is part of our recent research effort directed at understanding why earnings management has prevailed the US capital markets (Ronen and Yaari, 2006, and Ronen, Tzur, and Yaari, 2006). In Ronen and Yaari, 2006, we are concerned with the question of why the board of directors does not design truth-inducing contracts. The answer there is that the limited-liability of the manager might render such contracts too costly. In this study, however, we have unlimited liability; rather, directors choose to not design the most efficient contract, because they can gain from reduced transparency of the reports. In Ronen, Tzur, and Yaari, 2006, we show that rational shareholders should provide the board of directors with incentives to design an efficient contract with management, and that such incentives, in turn, induce the directors to collude with management in earnings management, in order to make insider-trading gains on the firm’s stock they hold by virtue of their incentives package. There are a few differences between the above paper and the current study: First, in this study, we focus on two players only, ignoring the conflict of interests between shareholders and their delegates -- the board of directors. Second, In this paper, we are concerned mainly with compensation committee members who lack the financial expertise uncover the true earnings, but who by the virtue of designing management’s incentives, are able to infer the management’s target report. Hence, their insider trading activity is not illegal. In this regard, our findings suggest that the inclusion in the compensation committee of financial experts (who can uncover the true outcome) can improve transparency in the presence of extant insider trading rules. Third, this study characterizes the social value of the firm and price distortions.

The paper is organized as follows. In Section 2, we present the model. Section 3 contains a characterization of the optimal contract, and in Section 4 we analyze the quality of the accounting earnings. We conclude in Section 5. The proofs are relegated to appendices.

2 There exists an accounting literature that studies earnings management in principal-agent relationships (see Ronen and Yaari, 2007). For example, an earlier paper that links the disclosure of contracts to earnings management is Dye, 1988. Using an overlapping generations model, he shows that when contracts are not public knowledge, each generation of sellers induces the manager to manage earnings to increase the price obtained from the next generation -- the buyers. His results are based on ‘signal jamming’ dynamics. Since outsiders are unable to undo the manager’s report to discover the firm’s true value, they (correctly) postulate that the report is prepared with intent to inflate the price, and they respond by discounting it. Insiders respond by inflating the report (see Chapter 1 in Ronen and Yaari, 2007. Note that this type of earnings manipulation has no effect on the transparency of earnings if the discount is estimated correctly by outsiders). This study differs from Dye’s in two regards. First, Dye restricts his analysis to the case in which the contract designers sell their shares (for a further discussion of this point, consult Demsiki, 1998). Thus, it is obvious that shareholders would like to manage earnings to maximize the expected price. In our study, owners can either sell (where an inflated price is preferable) or buy (where a deflated price is preferable). Second, we inject misrepresentation differently, allowing for some reports to be truthful (see details below), which, in turn, affects the shape of the contracts.

3 Earnings management is defined as “the practice of distorting the true financial performance of the company. [SECURITIES AND EXCHANGE COMMISSION 17 CFR Parts 210, 228, 229, and 240. Release No. 34-42266J].

2. The Model

The firm is a one-shot, principal-agent game. The economic earnings of the firm, x, are the joint outcome of the manager’s unobservable effort, a, firm-specific parameter, e, e ∈ [¬e, e], and a general stochastic variable.

At the beginning of the period, the risk-neutral insiders (the principal) and the manager (the agent) observe the firm-specific parameter, e. Their prior beliefs on the distribution of outcomes is given by the

4 As Scott (1997) and others have noted, earnings management refers to a plethora of strategies. The study of the firm as a one-shot game implies that the earnings management strategy is maximization (overstating income). In a multi-period horizon, the manager may engage in income smoothing (see, e.g., Sankar (1999)) or in taking a bath (Healy (1985)). We discuss these issues below, but, in general, our modeling of the effect of earnings management cum insiders’ trading on the quality of accounting earnings in a one-shot game does not affect the results qualitatively.
density function of outcome \( f(x|a,e) \), with the associated cumulative distribution function, \( F(x|a,e) \), with support \([0,X]\) (the assumption that minimum earnings are zero is innocuous).

Thereafter, the insiders design the risk-averse, work-averse manager's compensation schedule \( S \), basing it on the imperfectly audited, end-of-the-period report, \( m \), \( S: m \rightarrow R^+ \). The contract is private information between insiders and the manager. In what follows, we denote the report that rewards the manager with the maximum payment, \( s_{max} \), by \( L \). (\( L \) might be neither unique nor different from the truth.)

The manager then makes unobservable production-investment decisions that require effort, \( a \).

At the end of the period, nature chooses the general parameter, and the actual outcome, \( x, x \geq 0 \), is realized (the assumption of profitable outcomes eases presentation only and is thus innocuous). The manager alone observes \( x \) and communicates an outcome that may or may not equal \( x \) to the firm’s auditor. The manager may inflate reported earnings but whether he succeeds to misrepresent depends on factors beyond his control, such as reversal of accruals from transactions made in the past (Ronen and Yaari, 2007, chapter 9); the willingness of suppliers and customers to cooperate

with him; and the probability that an imperfect audit discovers the truth. In what follows, we denote the probability of successfully inflating the report by \( \frac{1}{2} < q < 1 \).

After publicizing the audited report, \( m \), the manager receives compensation, \( s = S(m) \). The market price, \( P \), is set, and insiders may trade in the firm's shares. We assume that insiders lack the financial expertise necessary to infer the true outcome, \( x \), from the observable \( m \). So, effectively, the situation is similar to Demski and Sappington’s, 1987, wherein lack of expertise prevents the less informed party from eliciting the truth from the better-informed one – a blocked communication scenario that renders the revelation principle inapplicable. The market price might be different from the insiders’ valuation, \( P' \).

A new period begins, and after awhile the market receives additional information that eliminates the gap between the market's and the insiders' evaluations. This assumption guarantees that insider trading is profitable.

Figure 1 summarizes the time-line.

---

**Figure 1: A Timeline**

- **Insiders and the manager** observe the firm-specific parameter and contract.
- **The manager** exerts effort.
- **The outcome** is realized.
- **The firm releases** public reports. The manager is paid.
- **A market price** is set. Insiders trade.
- **A new period** starts and the truth about earnings filters to the market.

**Assumptions**

(i) Insiders and the manager alone know the firm-specific parameter, \( e \). The marginal density function of \( e, g(e) \), is common knowledge.

This assumption implies that outsiders cannot infer the shape of the compensation contract, so they are ignorant of the optimal (target) report.

(ii) All long-run considerations are summarized by a value function, \( V(x) \). \( V(x) \) is a linear increasing function of the actual earnings, \( x \).

This assumption reflects the expectation that the higher the firm's current earnings are, the higher future dividends will be. It implies that the firm's value to the insiders is \( V(x|m,S) \).

(iii) Outsiders wish to minimize prediction error, \( |P^M(E_x[V(x|m,S)])| \).

This assumption implies that the market price, \( P^M \), is the expected net value of the firm based on outsiders’ updating of their prior beliefs function, \( h(x) \), after observing the firm's report, \( m \), to \( h^P(x|m) \),

\[
P^M(m) = \int V(x-S(m))h^P(x|m)dx.
\]

(iv) The insiders hold \( N \) shares and limited wealth, \( W \). Their objective function is to maximize \( (1 - E_x[V(x-S(m)) + EG], \)

where \( i \) is the fraction of the shares to be held in the long run, and \( EG \) are the expected trading gains made either by selling \( N \) shares and investing \( W \) in a risk-free rate, \( i \), or by investing \( W \) by purchasing \( N \) shares, \( N=W/P(m) \). That is, if insiders believe that the price is higher than the firm’s fundamental, they will sell a proportion of their \( N \) shares when the market opens after the release of the financial reports and earn \( N[P(m)-\)] \)
EV(x)]. If insiders believe that the price is too low, they instead buy additional \( W/P(m) \) shares when the market opens after the publicization of the financial report and earn \( W/P(m)[EV(x) - P(m)] \). To ease notation, in what follows, we normalize \( N \) to 1 (the interpretation of this normalization is that all the arguments in the insiders' program are expressed as per share held by insiders).

(v) The risk-averse, effort-averse manager maximizes a von Neumann-Morgenstern utility function that is separable in monetary reward and effort, \( U(s_a) \), where \( U'>0 \), \( U''<0 \), and \( \sigma>0 \). The manager can obtain utility of \( \bar{U} \) by being employed in an alternative job. We assume that the manager is ethical, in that when a truthful message yields \( s_{\text{max}} \), the manager strictly prefers to report the truth.

This characterization implies that the manager’s preferences are lexicographic. His payoff over compensation and effort takes priority over his preference to report the truth.

(vi) The assumptions on technology are the following:

- (a) To ensure regularity, we assume that all functions are twice continuously differentiable.
- (b) The following standard assumptions hold:
  1. The Monotone Likelihood Ratio Condition (MLRC) holds; i.e., \( f_x/f_y \) is a an increasing function of \( x \), where \( f_x \) is the derivative of \( f(x,a,e) \) with respect to effort.
  2. The first-order approach is valid (either the CDF condition holds; i.e., \( F(x,a,e) \) is convex in effort (Rogerson (1985)), or the conditions of Jewitt's (1988) Theorem 1 hold
  3. The support of \( f(x,a,e) \) is independent of effort.
- (c) To avoid complicating the analysis with boundary conditions, we assume that when \( m=0 \), \( S(0)=s_0 \), and without loss of generality, we set \( s_{\text{f}}=0 \).

### 3. The equilibrium

Denote by \( E_z \) the expectation when the beliefs' function is \( z \), \( z=f(x) \). Table 1 summarizes the key elements of the model, which includes strategic players—the manager and the insiders—as well as outsiders. Publicly, all observe the firm’s report, \( m \), the outsiders’ prior beliefs, \( h(x) \), and the manager’s realized compensation, \( s \), and all know the accuracy of the audit, \( w \), and the marginal density function of the firm-specific parameter, \( g(e) \).

<table>
<thead>
<tr>
<th>Private Information</th>
<th>Strategy</th>
<th>Payoff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manager</td>
<td>( a,x,f(x,a,e) )</td>
<td>( a,M )</td>
</tr>
<tr>
<td>Insiders</td>
<td>( f(x,a,e) )</td>
<td>( S, \text{ buy/sell shares} )</td>
</tr>
<tr>
<td>Outsiders</td>
<td>none</td>
<td>( p^{\text{m}} )</td>
</tr>
</tbody>
</table>

Note that we assume away insider trading by the manager. This assumption is innocuous because corporate articles allow insiders a given window of trading. Since managers and other insiders are likely to trade at the same time, the impact of the disclosure of management’s trading (within two days after the trading) on the price takes place after the insiders’ trade. The impact of the trade on the price is negligible if the market-price setter cannot identify the trader as management. We characterize the sequential rational equilibrium: The players choose the strategy that maximizes their payoffs in the remainder of the game, given their beliefs, and their beliefs are consistent with the strategies through Bayes’ rule when it is applicable. Specifically,

(a) The manager chooses effort, \( a \), that maximizes his expected utility and, conditional on the realized outcome, \( x \), he chooses the report, \( m \), that maximizes his expected bonus.

(b) The insiders design the contract by solving an optimization program given their beliefs, \( f(x,a,e) \). (See details in Section 3.1.) Their sell/buy strategy depends on their valuation of the firm relative to the market,

if \( P^*(m) < P(m) \), the insiders sell and gain \( [P(m) - P^*(m)] \), and

if \( P^*(m) > P(m) \), the insiders buy and gain \( [P^*(m) - P(m)] \).

(d) Outsiders update their prior beliefs on the outcome to \( h^{P^*(x|m)} \) after observing the report, \( m \), through Bayes’ rule given the strategies of the manager and insiders.
3.1. The Optimal Contract
At the beginning of the period, the insiders design the contract by solving the following program:

$$\max_s (1 - \beta) E_x V(x - S(M(x))) + EG \quad \text{s.t.}$$

$$E_x U(S(M(x))) - a \geq \bar{U} \quad \text{(PC)}$$

$$a = \arg \max_{a \in \mathcal{A}} [E_x U(S(M(x))) - a] \quad \text{(IC.a)}$$

$$m = \arg \max_{m \in [0, X]} [(1 - \pi) U(S(m \mid x)) + \pi U(S(x) - a)] \quad \text{(IC.m)}$$

The insiders maximize their expected payoffs subject to three constraints. The first, (PC), states that the manager is willing to participate in the contract because it guarantees him his reservation utility, $\bar{U}$. The second and third, (IC.a) and (IC.m), are the incentive constraint with respect to effort and report, respectively.

**Proposition 1**
(a) The optimal contract is a non-monotonic function. For every $e$, there is a report $\hat{L}(e)$, such that the compensation schedule increases up to $\hat{L}(e)$, $S' > 0$ for $m < \hat{L}(e)$, and then flattens out, $S' = 0$ for $m \geq \hat{L}(e)$.
(b) If the outcome falls in the increasing part, $x < \hat{L}(e)$, the manager inflates the report, $M(x \mid e, x < \hat{L}(e)) = \hat{L}(e)$. If $x > \hat{L}(e)$, the manager reports the truth, $M(x \mid e, x > \hat{L}(e)) = x$.

The proof is based on the solution of the insiders' program. We sketch the proof of Part (a) here. [The proof of Part (b) is immediate from Part (a).] First, we partition the set of all outcomes into two types of compact sets: sets of reports that yield $s_{\text{max}}$, and compact subsets, which award the manager less than $s_{\text{max}}$, if he reports the truth. For example, the following hypothetical schedule has two subsets of the first type (the heavy lines) and three subsets of the second type.

![Figure 2. The Compensation Schedule](image2)

![Figure 3. A Hypothetical Contract](image3)
We show that the incentive contract must be an increasing function in the intervals where \( S \) does not reach a maximum. Hence, it is impossible to have a continuous contract with declining segments as in Figure 3. Moreover, the set of maximum payments must lie to the right of the subset of payments that are less than the maximum. That is, the manager’s compensation schedule first increases; and at some point \( \hat{L}(e) \), it flattens out.\(^5\) The contract is not a strictly increasing function because of trading gains. If \( \hat{L}(e) = X \), insiders cannot make trading gains when the firm reports a truth that is lower than \( X \), because every investor believes the report. To see this point, suppose that outsiders believed that \( X \) is the target report of the manager, \( \hat{L} = X \). Then, insiders can make speculative gains by shifting \( \hat{L} \) to the left by \( \hat{e} \) they thereby gain an information advantage: when the firm reports \( \hat{L} \), \( \hat{L} = X \), they alone know that the report is likely to have been managed and hence ignore it while the market believes it, and when the firm reports \( X \) they alone know that this is the truth, \( x = X \), valuing the firm at \( V(X-S(m)) \), while the outsiders adjust the value downward.

This schedule implies that the manager tries to report \( m = L(e) \) when the actual outcome, \( x \), is lower than \( \hat{L}(e) \), and the truth when the outcome, \( x \), exceeds \( \hat{L}(e) \).

The next proposition analyzes how insider trading affects the shape of the contract for \( x < \hat{L}(e) \).

**Proposition 2:**
Denote by \( S_0 \) the sharing rule when \( \beta = 0 \) and the insiders are not interested in making trading gains. Then, \( S' > S_0 \) for \( x < \hat{L}(e) \).

**Proof:** See Appendix.
The compensation schedule is an increasing function up to \( \hat{L}(e) \). Proposition 2 shows that, because the contract includes a flat region, the increasing part must be steeper to induce the manager to exert effort. The next proposition investigates the incentives effect of the contracts.

**Proposition 3:**
(a) The contract that is motivated by trading gains induces a higher level of effort.
(b) The contract induced by trading gains increases the gross expected value of the firm, \( E(x) \).
(c) Although the contract designed to generate trading gains increases the firm’s expected value, \( E(x) \), the shareholders’ residual receipts are lower than when insiders design \( S_0 \).

Comparison of our contract with one that is not motivated by trading gains shows that the former is more risky for outcomes below \( \hat{L}(e) \), and that this increased riskiness increases the effort exerted by the manager. Since greater managerial effort increases the expected profits, the trading gains might increase social welfare. Since a piece-wise contract is feasible when trading gains do not play a role, the increase in the firm’s value does not inure to the benefit of the shareholders; had this been the case, the optimal \( S_0 \) contract would have been this piece-wise contract.

Note that although capped compensation contracts are a well-documented phenomenon, they present a puzzle, because the principal-agent paradigm predicts a monotone-increasing sharing rule (Holmstrom (1979), Harris and Raviv (1979), and others). Propositions 1 and 3 explain this phenomenon as the equilibrium outcome of the principal-agent relationship between the firm’s manager and insiders, when the latter maximize trading gains.

### 4. The Quality of Accounting Earnings

It is commonly understood that the quality of accounting earnings is measured by their transparency in revealing the underlying economic earnings. Our results indicate that this definition encompasses two requirements: the firm reports the truth, and everyone believes the report. In what follows, we measure the quality of accounting earnings by the likelihood of making trading gains, \( \text{Prob}[G] \). Clearly, if the firm reports the truth for all outcomes and everyone realizes this is the case, \( \text{Prob}[G] = 0 \).

To characterize the market’s beliefs, we distinguish between the set of firm-specific variables \( e \) for which the firm’s report could be "the optimal report," \( \hat{L}(e) \), \( e(m) = \{ e | m = \hat{L}(e) \} \) with positive probability, and the set of firm-specific variables for which the report must be truthful, \( E(m) = \{ e | \text{Prob}[ m = \hat{L}(e) ] = 0 \} \). These sets are mutually exclusive, \( E(m) \cap \hat{L}(e) = 0 \).

The market’s beliefs are as follows:
If \( \text{Prob}(m = L) = 0 \), \( p^M = V(m-S(m)) \).
If \( \text{Prob}(m = L) \neq 0 \),
\[
p^M = V(m-S(m)) \int_{0}^{\hat{L}(e)} g(e)de + \int_{\hat{L}(e)}^{\infty} g(e)de \int_{\hat{L}(e)}^{\infty} (1-x) \int_{x}^{\hat{L}(e)} V(x-S(m)) \frac{d(x-S(m))}{dS(m)} dx \]

\[
xV(m-S(m)) \int_{0}^{\hat{L}(e)} g(e)de + \int_{\hat{L}(e)}^{\infty} g(e)de \int_{\hat{L}(e)}^{\infty} (1-x) \int_{x}^{\hat{L}(e)} V(x-S(m)) \frac{d(x-S(m))}{dS(m)} dx < V(m-S(m)). \]

(2)

The outsiders’ posterior evaluation is a Bayesian update of the prior. If they believe that there is no firm-specific variable that yields the observable \( m \) as...
the manager’s target optimal report, they believe that the report is truthful. Otherwise, they weight the probability that the report is truthful against the probability that it is the optimal report and the firm’s true value is lower.

Since the firm’s reporting strategy is to overstate low outcomes, \( x < \hat{L} \), and report the truth for higher outcomes, \( M(x) = \begin{cases} \hat{L} & \text{if } x \leq \hat{L}, \\ x & \text{if } x > \hat{L} \end{cases} \)

valuations is

\[
p^\ell = \frac{1}{P(m)} \int_{\hat{L}(x)}^{\ell} \left( V(m - S(m)) / f(x) \right) dx \quad \text{if } m = \hat{L}.
\]

Insiders know that the firm reports the truth whenever \( m \) is different from \( \hat{L} \). If \( m > \hat{L} \), then the firm reports the truth, because the manager does not wish to misrepresent. If \( m < \hat{L} \), the firm reports the truth because the auditor detected the truth. When \( m = \hat{L} \), the insiders know that the event of the firm reporting the truth has a probability of measure zero, so the firm must be misrepresenting its lower earnings.

The Wiererstrasse-Erdmann condition (see Hadley and Kemp (1971)) implies that \( G(x) = G(\hat{L}(e)) \). \( G(x) \) is the trading gain when the firm reports the truth, and \( G(\hat{L}(e)) \) is the trading gain for successfully reporting \( \hat{L}(e) \). This condition, together with Equations (2) and (3), implies that when the market is unsure about the report, \( V(m - S(m)) > P^\ell(m) > P^\ell(m) \). The implications for the quality of earnings and the market price are given in Proposition 4.

**Proposition 4:**

(a) In expectations over \( h(x) \), when \( m = \hat{L}(e) \), the market price overstates the firm’s value, and insiders sell their shares. When \( m \neq \hat{L}(e) \), the market price understates the firm's value, and insiders buy additional shares.

(b) Trading gains compromise the quality of the accounting earnings.

Proposition 4 describes the effect of the accounting earnings on the quality of the market price. When \( m \neq \hat{L} \), insiders, knowing that the report misrepresents the outcome, evaluate the firm at a lower price than outsiders, who are putting some weight on the event that the firm has reported the truth. When \( m = \hat{L} \), insiders know that the firm reports the truth, and their expected evaluation, \( P^\ell(m | m = x) \), is higher than the market’s expected evaluation, \( P^m \), since the market discounts the report.

The proof is immediate from the fact that if \( \hat{L}(e) \) is publicly known, whenever \( m \neq \hat{L} \), insiders and outsiders know that the firm reports the truth, so that \( G(x) = 0 \) for all truthful reports. Now, suppose that the insiders design \( \hat{L}(e) < X \). Since the outsiders are rational, they can infer the firm-specific parameter, \( e \), and the information asymmetry between the insiders and the outsiders disappears.

### 5. Conclusion

The law defines corporate insiders as officers (managers), directors, and beneficial owners. We analyze the effect of disclosure of the parameters of the manager's contract on the firm's value and market price through its effect on insiders' ability to make trading gains.

We study insider trading in a model that includes insiders, outsiders, the manager, and noise traders. Familiarity with the details of the manager’s contract provides insiders with an insight into the manager's choice of the reported outcome relative to the realized outcome. Insiders achieve an information advantage by designing a capped contract (the manager's compensation does not increase beyond a critical level), in contrast to the monotone-increasing schedule that is predicted by the standard principal-agent paradigm. The equilibrium is determined by a trade-off between a completely increasing compensation schedule, which would generate managerial incentives but induce misrepresentation, and a completely flat schedule, which would always endow insiders with perfect information but would diminish any managerial incentive to exert effort.

As insiders act upon public information and their information is accurate only when the firm reports the truth, outsiders cannot win a lawsuit against insiders, even if their private information was verifiable. Makers of accounting rules, however, can reduce the scope of this trading by requiring disclosure of the target report.

**References**


Appendix

We start with a general compensation function. Since the manager is not paid more than some maximum level, \( s_{\text{max}} \), we partition the interval \([0, \bar{X}]\) of possible messages into two types of connected subsets: the manager is either paid less than \( s_{\text{max}} \), \( m \in \hat{m}_i = \{ m \mid m \in (x_i, x_{i+1}) \text{ and } S(m) < s_{\text{max}}, \ i=1,2,3,..., \) or, the maximum, \( s_{\text{max}} \), \( m \in \hat{m}^{C} = \{ m \mid m \in [x_k, x_{k-1}] \text{ and } S(m) = s_{\text{max}}, \ k=1,2,3,..., \) That is, \( \hat{m}_1 \cup \hat{m}^{C} \supseteq (0, \bar{X}) \), and for i,k, \( \hat{m}_i \cap \hat{m}^{C} = 0. \) The thrust of the proof is that there is only one subset of each type and that because the compensation schedule is a strictly increasing, strictly continuous function on \( \hat{m}_i \), it must be the case that \( \hat{m}_i \) lies to the left of \( \hat{m}^{C} \).

The Speculative Gains

The realized gain per share at the end of the period, \( G \), is given by:
\[ G = \begin{cases} \frac{\beta + W}{P(m)} [P'(m) - P(m)] & \text{if } P(m) < P'(m) \\ \beta [P(m) - P'(m)] & \text{if } P(m) > P'(m) \end{cases}, \quad (A1) \]

where:

\[ P^0 = V(m - S(m)) \text{ if } m \in \hat{m}_t. \quad (A2) \]

\[ P^0 = E_{\mathcal{N}(x-S(m))} \int_{x_h \leq s < x_{h+1}} V(x - S(L)) f(x|m,e)dx \text{ if } m \in \hat{m}_{k}. \quad (A3) \]

(A2) states that the valuation reflects Insiders’ understanding that the message is truthful because the manager earns less than \( s_{\max} \), while (A3) reflects their understanding that the message yields the maximum payment, and hence may misrepresent the truth. We allow for \( f(x|m) \) to be degenerate since the optimal misrepresentation might coincide with the truth.

Characterization of the contract on \( \hat{m}_i \)

Preliminary:

Denote by * the equilibrium contract. Define a perturbation of \( S^* \) on an arbitrary \( \hat{m}_i \) as follows:

\[ S_i = S^* + \gamma q(.) \text{ where } q(x) = q(x_{i-1}) = 0, \forall m \in \hat{m}_i. \]

To find the optimal compensation, we derivate with respect to \( \gamma \), set the derivative to zero and evaluate it at \( \gamma = 0 \).

Denote by \( \omega(x|m) \) the posterior beliefs function of outsiders, and by \( D \) the dummy variable that takes the value of 1 when Insiders sell, Insiders solve the following program:

\[ \begin{align*}
(1 - \beta)\pi \int_{x_h}^{x_{i+1}} V(x - S^*(x) - \gamma q(x)) f(x|m,e)dx + \\
\pi(1 - D)\omega \int_{x_h}^{x_{i+1}} V(x - S^*(x) - \gamma q(x)) f(x|m,e)dx + \\
\beta [\beta(1D)]^\pi \\
\phi(V(x - S^*(x) - \gamma q(x) - \int_0^\chi V(x - S^*(x) - \gamma q(x)) h^r(x|m,m = x)dx + \phi V(x - S^*(x) - \gamma q(x)) - \int_0^\chi V(x - S^*(x) - \gamma q(x)) h^r(x|m,m = x)dx]^+ \\
\lambda \pi \int_{x_h}^{x_{i+1}} U(S^*(x) + \gamma q(x)) f(x|m,e)dx + \mu \pi \int_{x_h}^{x_{i+1}} U(S^*(x) + \gamma q(x)) f(x|m,e)dx 
\end{align*} \]

The first argument is the insiders’ maximization of the value of the firm. The next two expressions are the speculative gains for buying and selling. The final two expressions are the (PC) and (IC.a) constraints, respectively. Note that (IC.m) is incorporated into the program, since this subset is reached only upon discovery of the truth.

Taking the derivative with respect to \( \gamma \), evaluating it at \( \gamma = 0 \), and setting it to zero, yields the following pointwise equilibrium conditions:

\[ \forall x \in \hat{m}_i, \quad \pi(-\beta \omega^*(1 - D)\int_{x_h}^{x_{i+1}} P(m) - P'(m) P(m)^2) + 0. \]

\[ \frac{\beta \omega(1 - D)\int_{x_h}^{x_{i+1}} (V(x - P(x) - P'(x) P(x)^2)}{P(x)} - \lambda \mu \frac{\omega f(x|m,e)}{f(x|m,e)} - \gamma q(x) = 0. \]

Rearranging, we obtain:

\[ \frac{(1 - \beta)V'}{U'} + \frac{(1 - D)W' \cdot P'(x) - P(x)}{P(x)^2} = \lambda + \mu \frac{f(x|m,e)}{f(x|m,e)}. \quad (A5) \]

Suppose, by contradiction, that \( S \) is a decreasing function. Then, the left-hand-side (l.h.s) of (A5) is a decreasing function of \( x \)

(Note that the derivative of \( P'(x) \) with respect to \( x \) is:

\[ \frac{2P'(x) - P(x)}{P(x)^2} \frac{\partial P(x)}{\partial x} = - \frac{2\frac{\partial P(x)}{P(x)^2}}{P(x)^2}. \]

This inequality obtains because owners buy when \( P^0(x) - P(x) > 0 \), and by assumption of the proof \( \frac{\partial S}{\partial x} < 0 \). [Note: the derivative of \( P^0(x) - P(x) \) with respect to \( x \), is zero].

Since \( S(.) \) is a continuous function over a closed interval, all sets of maximum payments must be to the right of the sets with lower payments or else, the compensation would be a decreasing function, which contradicts our result that the compensation is a non-decreasing function. Consequently, all subsets of messages that yield payment lower than the...
maximum belong to one subset. In this case $S(m)$ is a piecewise function; it increases up to a cap, $\hat{L}$, and then it flattens off.

When the true earning fall below $\hat{L}$, $x < \hat{L}$, the manager attempts to report $\hat{L}$. If true earnings are higher, $x > \hat{L}$, the manager cannot gain from misrepresenting so he will communicate the truth to the auditor and hence, the firm reports the truth. Denote by $G(x)$ and $G(L)$ the speculative gains when Insiders believe and do not believe the report, respectively. To prove that $\hat{L} < X$, for some $e$, note that the contract must satisfy the Erdmann-Wierestrasse continuity condition, which is:

$$\left(1 - \frac{G(x)}{G(L)}\right) + \frac{G(L)}{G(L)} \geq \frac{G(x)}{G(L)}$$  \hspace{1cm} (A6)

Rearranging, at $\hat{L}$, $G(x) = G(L)$.

Proof of Proposition 2:

We compare our program with the following:

Max $E(f(V(X) - S(x)))$

s.t.

$E(U(S_0, a)) = E[f(U(X, a))]$  \hspace{1cm} (PC)

$a \in \arg \max E(U(S_0, a))$.  \hspace{1cm} (IC.a)

Denoting by $\lambda$ and $\mu$ are the Lagrange multipliers of (PC) and (IC.a), the associated Euler equation yields the following pointwise conditions:

$$V' = \lambda + \mu f(x|a,e)$$  \hspace{1cm} (A7)

Since condition holds for all $x$, this schedule is a strictly increasing function with no corners.

A comparison of (A5) and (A7) shows that either (a) $\lambda > 0$ and $\mu < 0$, or (b) $\lambda < 0$ and $\mu > 0$. Since $S$ includes a flat region which makes it a better risk-sharing arrangement, Case (a) holds only if $S$ is steeper for low values of outcomes. Case (b) is ruled out because the piecewise contract is feasible in the $S_0$ program, but (A7) holds pointwise. Q.E.D.

Proof of Proposition 3:

Denote the agent's effort and contract when the principal only maximizes the expected value of residual outcome by $a_0$ and $S_0$, respectively, and when he seeks speculative gains by $a_L$ and $S$, respectively. The expected utility of the manager under $S$ is:

$$\pi \int_0^L [U(S(x)) - U(S_{max})] f(x|a_L,e)dx + \int_L^\infty U(S_{max}) f(x|a_L,e)dx - a_L.$$  \hspace{1cm} (A8)

Rearranging,

$$\pi \int_0^L [U(S(x)) - U(S_{max})] f(x|a_L,e)dx - \int_L^\infty U(S_{max}) - a_L.$$  \hspace{1cm} (A9)

The corresponding (IC.a) is:

$$\pi \int_0^L [U(S(x)) - U(S_{max})] f(x|a_L,e)dx - 1 = 0.$$  \hspace{1cm} (A8)

Absent trading gains motive, the manager’s payoff is:

$$\pi \int_0^L W(S_0(x)) f(x|a_0,e)dx + (1 - \pi)W(S(X)) - a_0.$$  \hspace{1cm} (A9)

The corresponding (IC) is:

$$\pi \int_0^L W(S_0(x)) f(x|a_0,e)dx - 1 = 0.$$  \hspace{1cm} (A8)

The comparison of (A8) and (A9) shows that the argument that multiplies $f_e$ is negative in (A8) and positive in (A9). Since both arguments equal $1 > 0$, $f_e$ must be more negative in (A8), which by the MLRC assumption, implies that $a_L > a_0$.

The proofs of parts (b) and (c) follow. A higher effort increased outcome in a first-stochastic-dominance sense, but since this contract is feasible when the contract is not induced by trading gains, the shareholders’ share must be lower. Q.E.D.

Proof of Proposition 4:

The proof is immediate from the discussion in the test. At the kink, the market trusts the report while insiders fully discount it; and at any other report, insiders alone know that it is the truth. Q.E.D.

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Abstract

In this paper, we use event study methodology to examine the effect of two highly publicized accounting failures, at Enron and WorldCom both audited by Arthur Andersen, on the total stock returns of some companies in the UK also audited by Arthur Andersen. The results vary substantially between countries. We find no evidence of a significant impact in the UK or US. There is some evidence of negative abnormal returns at the time of the Enron scandal in Australia. However, this reaction was very short-lived and the negative abnormal returns on the stocks of Andersen-audited companies had been fully recovered within a week. Our results suggest that sharing an auditor with a firm that has issued corrections to accounts which have previously received an unqualified audit opinion does not significantly affect market perceptions of firms’ value, which suggests that the choice of auditor has little, if any, impact on market perceptions of the reliability of published financial information.

Keywords: Accounting scandals, Enron, WorldCom, Event study, International Stock Markets

1. Introduction

This paper examines the reactions of investors in different countries to apparent failures in the audit process or, more specifically, the changes in investors’ valuations of the shares of other companies audited by the firm allegedly at fault. Two cases will be examined in this paper in order to arrive at some tentative conclusions, in the hope that these will be further evaluated and expanded by the examination of a wider range of similar cases. The intention is to examine the international effects of these scandals, both of which involved US companies, in order to determine whether there were any differences between the reactions of investors in US companies and those of investors in companies elsewhere.

The two cases selected for this study are both well-known accounting scandals at US clients of the international firm Arthur Andersen, namely Enron and WorldCom. Investor reactions will be studied by examining the behaviour of the prices of large UK companies whose accounts were also audited by Arthur Andersen. By examining the effects of events in the US on markets in the UK and Australia, it will be possible to form a judgment on the effects of audit failures on the reputation of firms internationally.

Auditor reputation and branding is a widely recognized concept (Simunic and Stein 1987, Beatty 1989, Lee 1996, Mayhew 2001). The international aspect is important in assessing the extent to which the names of international accounting firms are worldwide brands. On the one hand, prior to Arthur Andersen’s disappearance as an independent firm, the remaining partners repeatedly insisted that it was unfair that their reputation should be damaged by the actions of partners and staff in other offices. In other words, they were seeking to dispel the perception that Arthur Andersen was a worldwide brand. On the other hand, it might easily be said that the partners in any international audit firm can always be regarded as trading on the reputation built up by other partners in other parts of the world, with or without having personally contributed to the firm’s standing, in order to market their own services. In other words, there should be a general expectation that a worldwide brand does exist, for better or worse.

In this paper, we are concerned with the US, UK and Australian market reactions to the Enron and WorldCom scandals. We investigate if there are any negative effects on three separate groups of companies audited by Arthur Andersen: the 8 firms in the FTSE 100 index audited by Andersen; 8 US firms audited by Andersen and included in the S & P 500 index; and 8 Andersen-audited companies included in the Australian Stock Exchange’s ASX 100 index. The rest of the paper is organized as follows. In Section 2, we review the background of the events and the prior
literature. In Section 3, we introduce the methodology, i.e. the event study applied to our particular setting. The data used for the study are described in Section 4. In Section 5, we present the empirical results. Further discussion and analysis are presented in Section 6. Finally, we conclude in Section 7.

2. Background and prior literature

2.1. The Enron event

The details of the Enron scandal have been often enough described (Callen and Morel, 2002, Asthana et al. 2003) to make it unnecessary to provide more than a basic outline here. Enron was and still is an energy company based in Houston, Texas that deals with the energy trade on an international and domestic basis. It was formed in 1985 when Houston Natural Gas merged with InterNorth. After several years of international and domestic expansion involving complicated deals and contracts, Enron was billions of dollars into debt. All of this debt was concealed from shareholders through partnerships with other companies, fraudulent accounting, and illegal loans.

At the heart of the Enron scandal was a group of exceptionally ambitious executives seeking to create a new kind of Energy Company. At its peak, Enron reported annual revenues of $100 billion and employed over 20,000 employees. Fortune ranked the company as high as seventh on its "Fortune 500" list. We now know, however, that this edifice was an intricate house of cards built on a foundation of sham transactions and accounting manipulations.

When the frauds surfaced during the fall of 2001, the structure quickly collapsed, leaving investors, employees, and customers with billions of dollars in losses. How could a company that was the poster child for innovation and entrepreneurial success fall so fast? How could so many people have been deceived?

It turns out that Enron was not unique. Since its fall, revelations of accounting impropriety and insider corruption at WorldCom, Tyco, Adelphia, and other companies continue to come to light. Major corporations are issuing earnings restatements at a higher rate than ever before, including 270 in 2001 alone.

Enron and other recent scandals reveal astonishing - perhaps unprecedented - levels of executive greed and dishonesty, but there is more to the story than that. Certain features of the current business and legal environment encourage management to raise share prices by any available means. Executive compensation practices heavily rely on stock options, giving top management a direct and immediate stake in price increases. In addition, the still prevalent threat of hostile takeovers creates a powerful incentive on the part of corporate management to boost stock prices in order to placate investors and discourage potential hostile bidders by raising acquisition costs. This culture of shareholder value maximization - currently interpreted to require short-term share price maximization - rewards efforts to boost share price whether or not the means are lawful. How corporate law might address this problem is certainly a question of great urgency.

As a result, Enron was forced to file for bankruptcy in December 2001. The investigation into the extent of the fraud committed by Enron is still ongoing, although the Chief Financial Officer, Andrew Fastow pleaded guilty to charges of conspiring to inflate profits and conceal debts in January 2004.

2.2. The WorldCom event

The accounting problems at WorldCom were quite different from those at Enron, except for two factors. Both companies had exaggerated earnings figures and both companies were audited by Arthur Andersen.

It might be said that if Enron collapsed because there was too little substance behind the big business façade, WorldCom’s problems stemmed from the fact that there was a bit too much – especially in terms of service capacity. WorldCom, now trading as MCI, is a major provider of internet communications services. According to the company’s own figures (MCI, 2003), it can claim over 20 million customers in 140 countries and employs 55,000 people. Founded in 1968, in the early days of internet technology, the company grew rapidly during the 1990s internet boom. However, by 1999, the company had started to run up excess capacity and was beginning to suffer financially due to the lack of demand. WorldCom was vulnerable to the downturn in demand because of its contractual agreements to pay line rentals to other network providers in return for access. By the year 2000, the obligation to pay for the right to use cables that the company did not need was becoming a problem. However, the company, under its flamboyant chief executive, Bernie Ebbers, used aggressive earnings management techniques to conceal the scale of the problem.

According to the complaint filed by the US Securities and Exchange Commission (Securities and Exchange Commission 2002), the company inflated its net earnings in two ways, capitalization of line rental costs and fraudulent use of reserves. For the year ended December 31st, 2000, according to the SEC, WorldCom reduced its reported expenditure and inflated its earnings by $1.235 billion by reducing balance sheet reserves without taking the amounts through the profit and loss account. A small amount of expenditure was similarly written off against reserves in the following year.

In June 2002, WorldCom revealed that it had wrongly capitalized $3.85 billion of current expenditure over the period from January 1st, 2001 to March 31st, 2002. The expenditure consisted of line costs. The combined effects of these reductions in reported expenditure were to inflate net earnings for
the year 2000 from $6.333 billion to $7.568 billion. For the year 2001, a profit of $2.393 billion was reported. According to the SEC, the company had in fact made a loss of $622 million. In the first quarter of 2001, the company reported a profit of $240 million instead of a loss of $578 million. As the company continued to reconsider its books in subsequent months, the probable overstatements of earnings eventually rose to over $9 billion—at least enough to wipe out any reported earnings since the start of the year 2000. On top of that, the company was to write off $80 billion in assets, including $45 billion of goodwill in acquired companies in the year 2003—assets which had been on the company’s books during the years 2001 and 2002, suggesting that the true level of losses had been even bigger than the company had admitted.

The company had now moved on from overstating profits to concealing increasing losses. On July 21st, 2002, the company filed for protective bankruptcy, allowing the company to continue trading in the interests of its creditors. Subsequently, on May 21st, 2003, the company agreed to settle the case brought by the SEC on behalf of investors with a payment of $500 million.

Six WorldCom employees, including the Chief Executive, Bernie Ebbers, and Chief Financial Officer, Scott Sullivan, were subsequently convicted of fraud and other charges in relation to the company and its filings. The auditors, Arthur Andersen, claimed that they had failed to spot the scandal because executives had concealed information from them.

A great deal of attention has been focused, both in the academic literature and in the press, on the impact of the Enron scandal on the stock market, popular attitudes to business and the reputation of the audit profession. Although WorldCom and other scandals have by no means passed without comment, the attention devoted to this much bigger corporate collapse has perhaps not been proportionate to the scale of the sums of money involved. It may also be fair to say that the implications of the WorldCom scandal for Arthur Andersen were much deeper than those of Enron. Enron at the time might have been seen as a one-off, a single major accounting scandal which the company’s directors had gone to some lengths to conceal from the auditor. By the time of the WorldCom scandal, Andersen were already trying to cope with the reputation damage caused by the Tyco and Global Crossing scandals, as well as smaller audit failures at Qwest and Arizona Baptist Foundation. There was therefore far more focus on the role of the auditor in a series of failures of accountability with which the firm was associated and which were becoming too numerous to be written off as just a run of bad luck. In these circumstances, it might be predicted that each new scandal would further shake the confidence of investors in any set of financial figures backed up by an audit opinion bearing Arthur Andersen’s signature.

A further factor is the extent to which the accounting problems could have been detected by normal audit procedures. The Enron case involved complex accounting methods and entities with unusual legal structures, partly intended to confuse internal and external users of financial information and likely to deter an auditor working under normal time pressure from making a thorough investigation. The auditor may have been perceived to be less at fault than the directors. At WorldCom, however, there were fairly transparent issues of asset valuation, which could have been expected to attract the auditor’s attention and the threat of a qualified opinion. There were good reasons for interested observers to place at least as much blame on the auditors as on the company’s directors. For this reason, WorldCom may have been seen as being a far worse reflection on Arthur Andersen’s judgment than Enron.

2.3. Prior literature

The Andersen indictment was the first ever criminal indictment of one of the big auditors and hence a unique event where the auditor’s reputation was clearly tarnished. It thus provides a clean laboratory to test the impact of auditor reputation and audit quality on firm value (Krishnamurthy et al., 2002). Chaney and Philipich (2002) investigate the impact on stock prices of various event dates related to the Enron-Andersen case. They found that the firms in the US audited by Andersen experienced a negative market reaction around the date Andersen admitted to shredding documents related to the Enron audit on January 10, 2002, and the reaction was more severe for clients of Andersen’s Houston office and for firms with high prior sales growth. In another recent paper on the stock market reaction to Andersen’s clients in the US by Krishnamurthy, Zhou and Zhou (2002), it is concluded that when news about Andersen’s indictment was released on March 14, 2002, the market reacted more negatively to Andersen clients than to clients of the other Big Four auditors in the US. They also found that the indictment period abnormal return is significantly higher when auditor independence is perceived to be high, i.e. the auditor firm provides fewer non-audit related services to the client. However, to the authors’ best knowledge, there is no paper examining the international effects of the Andersen accounting and auditing scandals. This paper aims to fill this gap by assessing the market reactions to the Enron and WorldCom scandals in two other countries with similar financial systems to the US, namely the UK and Australia. We investigate if there are any negative effects on the firms in the FTSE 100 and ASX 100 indices audited by Andersen.

3. Methodology

The event study has been widely used in finance. Using financial market data, an event study measures
the impact of a specific event on the value of a firm. Thus given our research purpose, it appears that the event study is the most appropriate technique to use.

Event studies have a long history (MacKinlay, 1997). Two seminal studies in the 1960s are worth mentioning: Ball and Brown (1968) and Fama et al. (1969) introduced the methodology that is essentially the same as that which is in use today. Ball and Brown (1968) considered the information content of earnings, and Fama et al. studied the effects of stock splits after the same as that which is in use today. Ball and Brown (1985) examined by applying the standard event study methodology as described in Brown and Warner (1985). Market and risk adjusted simple daily returns are calculated as follows:

\[ (\hat{\mu}, \hat{\sigma})_{it} = \text{normal returns for firm } i \text{ at day } t, \]

where \( \hat{\mu} \) and \( \hat{\sigma} \) are OLS estimates from the market model regression.

The general strategy in event studies is to estimate the abnormal returns around the date the new information about a stock is released to the market and attribute the abnormal performance to the new information.

In practice, the calculation is split into two steps. First of all, the coefficients \( \hat{\mu} \) and \( \hat{\sigma} \) for firm \( i \) in (1) are obtained by using share price data over the so-called estimation window, which is a period prior to the event date. Then the abnormal returns for firm \( i \) can be calculated over the event window, which is a period around the event date. It is typical for the estimation window and the event window not to overlap. This design provides estimators for the parameters of the normal return model which are not influenced by the returns around the event. Including the event window in the estimation of the normal window parameters could lead to the event returns having a large influence on the normal return measure. In this situation, both the normal returns and the abnormal returns would capture the event impact. To determine the statistical significance of the daily abnormal returns, we use the t-test recommended by Brown and Warner (1985) in the presence of event clustering to take into account cross-sectional correlation. Though other tests such as the nonparametric Wilcoxon signed test are available, we carry out only one test for the sake of simplicity.

One concern that complicates event studies arises from leakage of information in which the stock prices might start to increase or decrease days or weeks before the actual announcement date. Any abnormal return on the announcement date is then a poor indicator of the total impact of the information release. For this reason, it is better to use cumulative abnormal return (CAR), which is simply the sum of all abnormal returns over the time period of interest. The CAR thus captures the total firm specific stock movements for an entire period when the market might be responding to new information.

4. The Sample Data

This paper focuses on two significant events which have many similarities. November 8, 2001 was chosen as the event date for the Enron case for the US and UK. Because of time zone differences, the date for Australia is the next trading day after November 8, 2001. Although this was by no means the first date on which adverse information about Enron’s accounting practices and the quality of its financial statement figures became known to stock market participants, this was the date on which the company published concrete figures for the corrections needed to the accounts for the years 1996 to 2000, reducing earnings by a total of $586m. Before this date, the markets were already aware of the SEC’s investigation into Enron’s relationship with the special purpose vehicles and of the Andrew Fastow’s departure from his post as chief financial officer. However, the announcement on November 8 can be seen as the first formal admission by the company of any malpractice by any of its officers and the first admission of errors affecting the financial statements.

Daily closing stock prices from the London Stock Exchange were obtained for the entire period from October 11, 2000 to December 6, 2001 from Yahoo! Finance for three groups of 8 companies in different companies. All prices were pre-adjusted for dividends, share splits and consolidations, so that no further information was needed to calculate total shareholder returns. The three groups of companies were:

1. A group of 8 US companies within the S & P 500 audited by Arthur Andersen for financial years ending in 2001 (Table 1). These companies were chosen from a range of different industries. Closing prices are quoted in US Dollars. According to information contained in companies’ annual reports and Edgar filings, a total of 28 US companies presently included in the S & P 500 were audited by Arthur Andersen for financial years ending in 2001 and 2002. However, a number of these companies were affected by unusual factors. For example, Omnicom’s shares fell by 19.7% on June 13th 2002 (within the WorldCom event window), following a report in the Wall Street Journal (O’Connell and Eisinger 2002, Kirchgaessner and Grimes 2002) that...
they too had engaged in dubious accounting practices, by failing fully to account for liabilities arising on acquisition, while Allied Waste Industries dismissed Andersen as auditors on June 20, 2002. Shares in another Andersen-audited company, Wyeth, were affected by a separate issue involving the safety of their drugs in early July 2002 (Griffith and Bowein 2002). These companies have not been included in the US sample.

2. All companies included in the FTSE 100 index which were audited by Arthur Andersen for financial years ending between January 1 and December 31, 2001 (Table 2). The closing prices used were quoted in GB Pounds. 8 companies within the FTSE 100 were audited by Arthur Andersen during this period. However, these companies represent 11 components of the ASX 100, as two classes of News Corporation shares were included separately in the index. We have excluded News Corp’s non-voting shares, because their price movements can be expected to be closely correlated with their “B” voting shares, and because non-voting shares form a different class of shares from those included in the UK and US samples. We have also excluded two other companies, OneSteel and Alinta, which obtained their first Australian Stock Exchange listing in October 2000, because of the possible effects of unusual changes in the share price in the period immediately after first listing on the alpha and beta values used in calculating expected returns.

3. All companies included in the Australian Stock Exchange’s ASX 100 index which were audited by Arthur Andersen for financial years ending in 2001 (Table 1). The closing prices used were quoted in Australian Dollars. 10 companies within the ASX 100 were audited by Arthur Andersen during this period. However, these companies represent 11 components of the ASX 100, as two classes of News Corporation shares were included separately in the index. We have excluded News Corp’s non-voting shares, because their price movements can be expected to be closely correlated with their “B” voting shares, and because non-voting shares form a different class of shares from those included in the UK and US samples. We have also excluded two other companies, OneSteel and Alinta, which obtained their first Australian Stock Exchange listing in October 2000, because of the possible effects of unusual changes in the share price in the period immediately after first listing on the alpha and beta values used in calculating expected returns.

The event window for the Enron scandal is the period from June 25 to November 22, 2001, covering 10 working days either side of the event date. The estimation window is the period from one year prior to the event window. Normal returns were estimated for each firm on the basis of a market model, using the relevant market index as the market portfolio proxy to measure market returns. For UK companies, the FTSE 100 was used, for US companies, the S & P 500 and for Australian companies the ASX 100.

For WorldCom, the event date selected was June 26, 2002. June 25, 2002, was the date on which the company announced that an internal audit investigation had found that the company had not properly accounted for $3.8 billion in expenses and that cumulative profits had been overstated by that amount. However, due to the timing of news releases and timezone differences, the event date used is one day later on June 26. This, again, was by no means the first date on which the markets became aware of adverse information concerning possible problems at WorldCom’s accounting practices, although in this case, in contrast to Enron, this initial restatement was the beginning, rather than the end, of the story as far as accounting corrections were concerned. Once again, the event date selected is the date on which the company first formally admitted that its financial statements for previous years had been inaccurate, reflecting adversely on the performance of both the Chief Financial Officer, Scott Sullivan, and the auditors, Arthur Andersen.

The event window for the WorldCom scandal is the period from June 12, 2002 to July 11, 2002 (June 12 to July 10 for the UK, because of differences in public holidays) and the estimation window is again one year prior the event window. The source of information, the sample of companies selected and the market returns model used to estimate normal returns are the same as for the Enron scandal.

The following results provide some general indications of the attitudes of investors to companies which share an auditor with firms which have admitted to accounting problems. However, these results should be considered in the light of certain limitations.

Firstly, as MacKinlay (1997) observes, it is often extremely difficult in event studies to identify the most significant event date. This is especially true in the case of financial irregularities. By their very nature, financial irregularities are initially known to only a few individuals. Subsequently and for obvious reasons, news of irregularities is not disseminated to the markets through the official and public channels which good stock market practice demands. The fact first becomes a rumour, then the rumour becomes an allegation, later the allegation gives rise to an investigation and finally, often many years later, the investigation produces official findings. The amount of information available to each stock market participant and the amount of that information that each person believes at any given moment is highly variable and unknowable. We have selected the dates on which actual earnings corrections were announced. However, in both cases, official investigations were already underway and there was a probability, difficult to assess, that some previously published financial figures could be restated and financial irregularities discovered.

Secondly, there is a distinction between events which reflect on the competence of the auditors and events which reflect on their honesty. Chaney and Philipich (2002), for example, found that the negative effects on Andersen-audited firms’ valuations of the announcement of corrections to Enron’s accounts were short-lived and insignificant, whereas the effects of the Andersen’s admission that it had shredded audit documentation were significant and sustained over time.

Thirdly, we have only examined a small number of companies in this study. As a foreign firm and one
of the smaller Big 5 firms, Arthur Andersen had a relatively small share of the UK and Australian audit markets. We hope that further studies will allow our conclusions to be strengthened by examining the effects of overseas audit failures on a larger number of companies. We also note the possible effects of the attack on the World Trade Centre on September 11, 2001 on returns during the two estimation windows and the event window for Enron. However, the use of the market model is intended to isolate the effects of the two accounting scandals from the effects of this and other contemporaneous events.

A search of newspaper archives, including the Wall Street Journal, Financial Times, Times and Guardian was made for significant events concerning the companies in the sample. However, except as noted below, no significant events were found at the time of the two event windows.

5. The empirical results

The results of the event study for the three samples of Andersen auditees for the announcement dates of Enron and WorldCom are presented in Tables 4 to 6 and Figures 1 to 3.

5.1. US Companies

Table 2 and Figure 1 show the results for the US companies. The abnormal returns for the Enron event were positive, while the abnormal returns for the WorldCom event are negative. None of the one-day or multi-day abnormal returns for the Enron event window are significant and the overall cumulative returns for WorldCom are also insignificant. A search of broadsheet newspaper archives, using ProQuest journal database and including the Wall Street Journal, Financial Times, Times and Guardian newspapers found no news items of relevance to the companies included in the sample which would have explained the abnormal movements in their share prices.

However, in relation to the WorldCom event, the negative abnormal returns on Day +4 (July 2, 2002) were significant at the 10% level, with 7 of the 8 companies having negative abnormal returns (Simon’s abnormal returns being slightly positive). This was followed by further falls on Day +5, although this was less dramatic. On Day +10 (July 11), the negative returns were significant at the 5% level. These findings are not significant overall, because the effects do not exactly coincide with the announcement of accounting errors at WorldCom and because of the small number of days with significant results (only 2 out of 21, even at the 10% level, which is in line with expectations from a random distribution). However, it is noteworthy that over the entire event window, US Andersen-audited stocks exhibited negative abnormal returns of 4.8%, in contrast to the positive returns during the Enron event window. It therefore appears that the US market reacted more negatively to Andersen’s involvement in WorldCom than to their implication in Enron.

5.2. UK Companies

Table 3 reports abnormal returns in the event window [-10, +10] around the announcement dates of the Enron and WorldCom scandals for the UK companies. The results are similar to the US but the abnormal returns are not significant in either case. This implies that Andersen audited firms were not significantly impacted overall. Moreover, the market did not foresee the Enron event. It also appeared that the market responded slowly to the Enron scandal. Either market participants were not convinced that Andersen’s auditing practices were generally unsatisfactory or they did not treat the assurance provided by auditors’ opinions on company accounts as an important factor in company valuation. Our findings regarding the Enron event are consistent with the one by Chaney and Philipich (2002) who do not find any statistically significant cumulative abnormal returns for Andersen clients in the US as a result of Enron’s announcement on November 8, 2004.

5.3. Australian Companies

The Australian data, however, shown in Table 4 and Figure 3, tell a rather different story. Once again, the cumulative abnormal returns over 20 days are positive
for the Enron event and negative for WorldCom. This

time, however, there are no significant one-day or
multi-day gains or losses in the case of WorldCom.
The only highly significant movement is the abnormal
loss on the next trading day after the Enron
disclosures. Notwithstanding this, the abnormal return

for the entire event period is positive for Enron. The
Australian stock market reacted negatively to
Andersen’s auditees in the very short term in the
immediate aftermath of the Enron announcement but
quickly recovered. The losses were also concentrated
within a very short period of time. A search of the
Australian Stock Exchange News Service, companies’
own websites and newspaper archives did not reveal
any significant news releases which would explain this
pattern independently. News Corporation announced a
fall in quarterly profits on November 7 (Gow 2001),
leading to negative abnormal returns of 3.49% for
November 8. However, this merely reversed a 3.53%
abnormal gain the previous day and appears to be fully
explained by the reversal of speculative gains ahead of
the announcement. On November 12 (Day +1), News
Corporation showed abnormal losses of 1.14% - less
than the sample average – and therefore the significant
results for this day cannot be explained by News
Corporation’s performance. No other significant
events affecting companies in the sample were found.
It is therefore highly probable that the announcement
of accounting corrections at Enron had an effect – in
the very short term – on the prices of other companies
with the same auditor in Australia, while leaving
shares in US (and UK) companies largely unaffected.

[Insert Table 4 about here]
[Insert Figure 3 about here]

6. Discussion and analysis

Cumulative abnormal returns for Andersen-audited
companies for the 20 day period surrounding the
WorldCom announcement were negative in all three
countries. By contrast, cumulative abnormal returns
for the same stocks in the 20-day period surrounding the
Enron announcement were actually positive. The
Enron and WorldCom scandals involved US companies.
None of the major UK or Australian
companies audited by Arthur Andersen were
implicated in the series of accounting failures that led
to the demise of Arthur Andersen as a firm. However,
Australian-listed shares showed a significant but very
short-term negative reaction to the Enron scandal
which is not seen elsewhere.

The reaction to the Enron scandal in Australia
was markedly different to the reaction in the US and
UK, in that stocks in Australian companies audited by
Arthur Andersen fell sharply when the accounting
problems at Enron were announced but recovered
within a week, whereas the US and UK markets
showed little, if any reaction to the news. The effect
was very similar over a longer time period but reaction
in Australia was far more volatile.

This reaction is difficult to explain. However, it is
noteworthy that the three Australian companies with
the most negative abnormal returns on November 12
(Enron Day +2) were the pharmaceutical companies
Sigma-Aldrich (-6%), and CSL (- 4%) and the
software company Computershare (-5%). These
companies are all in sectors which are heavily reliant
on the quality of intellectual property, the valuation of
which is highly sensitive to earnings, as, unlike most
tangible assets, it lacks value outside the business.
This pattern was to some extent replicated in the UK,
where Shire Pharma exhibited a negative abnormal
return of 4% on November 9 (Enron Day +1), whereas
none of the other UK shares suffered abnormal returns
in excess of 1%.

It should be noted that the time zone differences
mean that reactions in Australia are likely to lag
behind the UK by one day, as Australian markets are
closed before UK markets open. No similar effects
were observed in the US sample, although it be
observed that US-listed shares in Sigma-Aldrich
Corporation did fall 5% on November 8 (the event
date) but recovered this loss by November 21 (Day
+8). Including Sigma-Aldrich in the US sample does
not materially affect the US results which become
slightly negative (the average abnormal return for
November 8 becoming -0.81%) but remain
insignificant. In the case of WorldCom, there was a
small but measurable effect on Andersen-audited
companies in all three countries. This cross-border
effect could have at least three explanations as
follows.

(i) There may have been a loss of confidence in the
level of assurance provided by an Andersen audit
(Beatty 1989, Simunic and Stein 1987, Asthana et al.
2003, Fuerman 2004) causing an increased risk that
the actual earnings of these companies were lower
than the published figures. This would only occur if
investors believed that the underlying character of the
audit firm was the same throughout the world. If this
was assumed to be the case, investors would be likely
to have lost confidence in the culture of the firm, its
recruitment strategy, its working practices and its
judgment on questions of what constituted a material
misstatement which is required to be either corrected
or reported to the markets by way of a qualified
opinion.

(ii) There may also have been a loss of
confidence in the auditor’s ability to pay
compensation to injured parties in the event of a
further audit failure. The additional insurance offered
by the deep pockets of auditors and their insurers is
generally acknowledged as part of the value of an
audit report from the investor’s point of view (Dye
1993, Asthana et al. 2003). If, however, an audit firm
is perceived to be facing an excessive number of
claims for compensation, it may be felt that the
partners personally will no longer be able to pay all of
the sums due, that the total claims on their
professional indemnity insurance will exceed the limits imposed in their policy and that, in addition, there is an increased risk that the terms of the insurance policy have been violated by serious professional misconduct.

(ii) A further issue is the costs of replacing the auditor. In the event of Andersen ceasing to be a viable auditor as a result of bankruptcy, disqualification of its partners or loss of reputation, their audit clients would be forced to hire a new auditor to replace them. This would involve advertising costs, the cost of holding an extraordinary general meeting and the additional cost of a first year audit, during which the auditor needs extra time to become familiar with the client’s business and financial systems and to create permanent audit files and systems notes. In addition to the visible cost of the auditor’s time, a first year audit will also place greater burdens on client staffs that will be required to answer more questions and provide more documentation than in subsequent years.

The other key observation is that the WorldCom scandal appears to have had a more negative effect on Andersen auditees’ shares than Enron. The effects were still small but they were consistent across all three markets. This may be explained by the number of accounting scandals in which Andersen were embroiled at this time, by the lesser complexity of the accounting misstatements at WorldCom or by the sheer scale of the accounting errors. Nevertheless, it must be emphasized that the effects are small.

This leads us to draw two conclusions. Firstly, that accounting scandals have only a limited impact on investors’ perceptions of other companies with the same auditor at a national or an international level. Secondly any sustained impact is magnified in proportion to the scale of the accounting corrections announced and in proportion to the number of preceding audit failures involving the same firm, explaining the more significant and more negative effects of the WorldCom event. It is also tentatively suggested that shares in companies which are heavily dependent on intellectual property are more vulnerable to bad news affecting auditors because market perceptions of these companies are more sensitive to perceptions of earnings quality.

7. Conclusions

This study has examined the effects of the Enron and WorldCom accounting failures on the market returns of companies listed on the UK, US and Australian stock exchanges and audited by Arthur Andersen. Returns on shares in Andersen-audited companies were modestly positive at the time of the Enron scandal but negative at the time of the WorldCom announcement. This suggests that the stock market does not penalize companies whose auditors have been involved in a single audit failure where there is good evidence of a deliberate attempt by company directors to mislead the public. However, the market tends to punish companies whose auditors have been involved in a long series of audit failures and takes an especially negative view of auditors who have failed to comment on misleading accounting policies – the classic method of earnings management. There is also an apparent size effect. Despite the much greater level of publicity given to the Enron story, the scale of earnings management at WorldCom was much greater.

Our results have a number of implications for future research in this area as follows. This study has examined the effects of US accounting scandals involving a US-based auditor on the total shareholder returns of UK companies. By no means all accounting scandals involve US companies or US-based firms. There have, in the last ten years, been major accounting issues at UK financial institutions including Barings Bank and Equitable Life, both of whom were audited by firms which had largely originated in the UK. It might be predicted from the effects of the WorldCom scandal on US companies that these domestic accounting scandals would have a bigger impact on UK stock prices than overseas accounting scandals such as Enron and WorldCom and this is a hypothesis which should be examined by further research.

Auditors, especially in the UK, have increasingly sought to limit their liability to pay compensation to investors in companies which have been affected by serious accounting failures, especially by forming limited liability partnerships or by structuring themselves as a number of associated partnerships instead of as a single firm, so that not all partners are liable for the debts of the entire firm. The effects of this on investors’ confidence in the extra insurance offered by the auditor require further study. In the ordinary course of events, it might be expected that limits on liabilities would reduce the perceived level of insurance offered. On the other hand, where an auditor is already facing a major compensation claim from an audit client and where some of the audit partners have little or no liability as a result of this claim, the issue is by no means as clear-cut. The effects could be positive for other clients, who will have a better prospect of being compensated if they pursue a claim of their own. They could be in a yet better position (and the client with the existing claim in a still worse position) if audit liability is capped by statute or by contract but neither of these possibilities presently exists in the UK. Further research is therefore needed into the effects of limiting auditors’ liability on companies whose auditors are already being sued by other clients.

Our research has examined the effects of accounting scandals on companies who share an auditor. However, sharing an auditor is by no means the only reason why other companies could be perceived to be at risk. In particular, an effect on companies in the same industry would be expected.
WorldCom’s accounting problems could easily have contributed to a negative perception of telecommunications stocks at a time when many were already suffering from the fallout from the collapse of the internet bubble. The collapse of two such major technology companies would also be likely to raise fears of heavy losses for other companies in the same industry who might be among their customers and suppliers, might be partly dependent on their relationship with these businesses and might already be creditors and potentially faced with non-payment of debts or non-delivery of services. Further research might reveal whether these scandals did have a serious impact on returns on other utility or telecom stocks.

Finally, the performance of Australian stocks is suggestive of an increased sensitivity of stock process to auditor-related issues for companies which are heavily dependent on intellectual labour and intellectual property, such as software and pharmaceutical stocks. This may be a result of an enhanced importance of the reliability of earnings and the problems of valuing intellectual property for balance-sheet purposes. Further research could be conducted to test whether there is a positive relationship between involvement in hi-tech or intellectually intensive lines of business and the sensitivity of equity prices to perceived audit quality.

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References

Appendices

Table 1. Sample of US, UK and Australian companies audited by Arthur Andersen

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<td>Pharmaceuticals</td>
</tr>
<tr>
<td>Tabcorp</td>
<td>Gambling and Entertainment</td>
</tr>
</tbody>
</table>

Abnormal returns (in %) and cumulative returns (in %) around the announcement date of Enron and WorldCom accounting scandals are obtained based on the OLS market model regression. Test statistics are the t-test adjusted for cross-sectional correlation as proposed by Brown and Warner (1985), denoted t-(BW). Significance levels are marked as: ***=1%, **=5% and *=10%.

Table 2. US Abnormal Returns around the two Events: Enron and Worldcom

<table>
<thead>
<tr>
<th>Event Period Daily Abnormal Returns</th>
<th>Get charts right</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAY</td>
<td>Abnorm</td>
</tr>
<tr>
<td>-----</td>
<td>--------</td>
</tr>
<tr>
<td>10</td>
<td>0.14%</td>
</tr>
<tr>
<td>9</td>
<td>-0.22%</td>
</tr>
<tr>
<td>8</td>
<td>-0.35%</td>
</tr>
<tr>
<td>7</td>
<td>-0.30%</td>
</tr>
<tr>
<td>6</td>
<td>-0.29%</td>
</tr>
<tr>
<td>5</td>
<td>0.08%</td>
</tr>
<tr>
<td>4</td>
<td>0.70%</td>
</tr>
<tr>
<td>3</td>
<td>0.10%</td>
</tr>
<tr>
<td>2</td>
<td>-0.24%</td>
</tr>
<tr>
<td>1</td>
<td>-0.15%</td>
</tr>
<tr>
<td>0</td>
<td>0.07%</td>
</tr>
<tr>
<td>-1</td>
<td>-0.23%</td>
</tr>
<tr>
<td>-2</td>
<td>1.30%</td>
</tr>
<tr>
<td>-3</td>
<td>0.50%</td>
</tr>
<tr>
<td>-4</td>
<td>0.44%</td>
</tr>
<tr>
<td>-5</td>
<td>0.54%</td>
</tr>
<tr>
<td>-6</td>
<td>0.49%</td>
</tr>
<tr>
<td>-7</td>
<td>-0.03%</td>
</tr>
<tr>
<td>-8</td>
<td>-0.04%</td>
</tr>
<tr>
<td>-9</td>
<td>-0.07%</td>
</tr>
<tr>
<td>-10</td>
<td>-0.38%</td>
</tr>
</tbody>
</table>
II. Multiday Abnormal Returns

<table>
<thead>
<tr>
<th>Event Window</th>
<th>Enron t-(BW)</th>
<th>WorldCom t-(BW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day -1 to Day +1</td>
<td>-0.31% -0.22</td>
<td>0.04% 0.04</td>
</tr>
<tr>
<td>Day -2 to Day +2</td>
<td>0.75% 0.41</td>
<td>-1.21% -0.89</td>
</tr>
<tr>
<td>Day -3 to Day +3</td>
<td>1.43% 0.67</td>
<td>-0.95% -0.56</td>
</tr>
<tr>
<td>Day -4 to Day +4</td>
<td>2.57% 1.06</td>
<td>-2.53% -1.39</td>
</tr>
<tr>
<td>Day -5 to Day +5</td>
<td>3.15% 1.19</td>
<td>-2.73% -1.35</td>
</tr>
<tr>
<td>Day -6 to Day +6</td>
<td>3.59% 1.18</td>
<td>-1.92% -0.87</td>
</tr>
<tr>
<td>Day -7 to Day +7</td>
<td>3.05% 0.97</td>
<td>-1.00% -0.42</td>
</tr>
<tr>
<td>Day -8 to Day +8</td>
<td>2.66% 0.80</td>
<td>-1.23% -0.49</td>
</tr>
<tr>
<td>Day -9 to Day +9</td>
<td>2.37% 0.67</td>
<td>-2.12% -0.80</td>
</tr>
<tr>
<td>Day -10 to Day +10</td>
<td>2.13% 0.57</td>
<td>-4.88% -1.75</td>
</tr>
</tbody>
</table>

Table 3. UK Abnormal Returns around the two Events: Enron and Worldcom

Abnormal returns (in %) and cumulative returns (in %) around the announcement date of Enron and WorldCom accounting scandals are obtained based on the OLS market model regression. Test statistics are the t-test adjusted for cross-sectional correlation as proposed by Brown and Warner (1985), denoted t-(BW). Significance levels are marked as: ***=1%, **=5% and *=10%.

I. Event Period Daily Abnormal Returns

<table>
<thead>
<tr>
<th>DAY</th>
<th>Enron t-(BW)</th>
<th>WorldCom t-(BW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>-0.59% -0.56</td>
<td>-1.03% -1.10</td>
</tr>
<tr>
<td>9</td>
<td>-0.61% -0.58</td>
<td>0.78% 0.83</td>
</tr>
<tr>
<td>8</td>
<td>0.21% 0.20</td>
<td>-0.61% -0.65</td>
</tr>
<tr>
<td>7</td>
<td>-2.40% -2.29</td>
<td>1.70% 1.02</td>
</tr>
<tr>
<td>6</td>
<td>-0.11% -0.11</td>
<td>-0.82% -0.88</td>
</tr>
<tr>
<td>5</td>
<td>0.01% 0.01</td>
<td>-0.70% -0.74</td>
</tr>
<tr>
<td>4</td>
<td>-0.01% -0.01</td>
<td>0.76% 0.81</td>
</tr>
<tr>
<td>3</td>
<td>1.08% 1.08</td>
<td>0.12% 0.13</td>
</tr>
<tr>
<td>2</td>
<td>0.07% 0.07</td>
<td>-0.46% -0.49</td>
</tr>
<tr>
<td>1</td>
<td>0.31% 0.30</td>
<td>-0.28% -0.30</td>
</tr>
<tr>
<td>0</td>
<td>0.26% 0.25</td>
<td>-0.02% -0.02</td>
</tr>
<tr>
<td>-1</td>
<td>-0.24% -0.23</td>
<td>-0.67% -0.72</td>
</tr>
<tr>
<td>-2</td>
<td>-0.71% -0.58</td>
<td>-0.03% -0.04</td>
</tr>
<tr>
<td>-3</td>
<td>0.08% 0.08</td>
<td>-0.44% -0.47</td>
</tr>
<tr>
<td>-4</td>
<td>1.32% 1.25</td>
<td>-0.13% -0.14</td>
</tr>
<tr>
<td>-5</td>
<td>1.11% 1.06</td>
<td>-0.55% -0.59</td>
</tr>
<tr>
<td>-6</td>
<td>0.41% 0.39</td>
<td>0.39% 0.41</td>
</tr>
<tr>
<td>-7</td>
<td>-0.11% -0.10</td>
<td>-0.22% -0.24</td>
</tr>
<tr>
<td>-8</td>
<td>-0.36% -0.35</td>
<td>-1.31% -1.40</td>
</tr>
<tr>
<td>-9</td>
<td>0.30% 0.26</td>
<td>-0.14% -0.14</td>
</tr>
<tr>
<td>-10</td>
<td>-0.84% -0.80</td>
<td>-0.55% -0.58</td>
</tr>
</tbody>
</table>

II. Multiday Abnormal Returns

<table>
<thead>
<tr>
<th>Event Window</th>
<th>Enron t-(BW)</th>
<th>WorldCom t-(BW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day -1 to Day +1</td>
<td>0.82% 0.45</td>
<td>-0.97% -0.50</td>
</tr>
<tr>
<td>Day -2 to Day +2</td>
<td>0.18% 0.08</td>
<td>-1.47% -0.70</td>
</tr>
<tr>
<td>Day -3 to Day +3</td>
<td>1.34% 0.48</td>
<td>-1.79% -0.72</td>
</tr>
<tr>
<td>Day -4 to Day +4</td>
<td>2.65% 0.84</td>
<td>-1.16% -0.41</td>
</tr>
<tr>
<td>Day -5 to Day +5</td>
<td>3.76% 1.08</td>
<td>-2.42% -0.78</td>
</tr>
<tr>
<td>Day -6 to Day +6</td>
<td>3.24% 0.85</td>
<td>-2.55% -0.84</td>
</tr>
<tr>
<td>Day -7 to Day +7</td>
<td>0.73% 0.18</td>
<td>-1.37% -0.38</td>
</tr>
<tr>
<td>Day -8 to Day +8</td>
<td>0.57% 0.13</td>
<td>-3.20% -0.95</td>
</tr>
<tr>
<td>Day -9 to Day +9</td>
<td>0.26% 0.06</td>
<td>-2.64% -0.64</td>
</tr>
<tr>
<td>Day -10 to Day +10</td>
<td>-1.17% -0.24</td>
<td>-4.22% -0.98</td>
</tr>
</tbody>
</table>
Table 4. Australian Abnormal Returns around the two Events: Enron and Worldcom

Abnormal returns (in %) and cumulative returns (in %) around the announcement date of Enron and WorldCom accounting scandals are obtained based on the OLS market model regression. Test statistics are the t-test adjusted for cross-sectional correlation as proposed by Brown and Warner (1985), denoted t-(BW). Significance levels are marked as: ***=1%, **=5% and *=10%.

I. Event Period Daily Abnormal Returns

<table>
<thead>
<tr>
<th>DAY</th>
<th>Enron</th>
<th>t-(BW)</th>
<th>WorldCom</th>
<th>t-(BW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>0.24%</td>
<td>0.32</td>
<td>-0.13%</td>
<td>-0.14</td>
</tr>
<tr>
<td>9</td>
<td>0.32%</td>
<td>0.42</td>
<td>-0.11%</td>
<td>-0.12</td>
</tr>
<tr>
<td>8</td>
<td>0.45%</td>
<td>0.14</td>
<td>-0.73%</td>
<td>-0.84</td>
</tr>
<tr>
<td>7</td>
<td>-0.65%</td>
<td>-0.85</td>
<td>-1.35%</td>
<td>-1.55</td>
</tr>
<tr>
<td>6</td>
<td>1.02%</td>
<td>1.33</td>
<td>-0.11%</td>
<td>-0.13</td>
</tr>
<tr>
<td>5</td>
<td>0.84%</td>
<td>1.10</td>
<td>0.15%</td>
<td>0.17</td>
</tr>
<tr>
<td>4</td>
<td>0.99%</td>
<td>1.29</td>
<td>0.93%</td>
<td>1.07</td>
</tr>
<tr>
<td>3</td>
<td>0.26%</td>
<td>0.34</td>
<td>-1.26%</td>
<td>-1.45</td>
</tr>
<tr>
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<td>0.66%</td>
<td>0.87</td>
<td>-0.49%</td>
<td>-0.56</td>
</tr>
<tr>
<td>1</td>
<td>-3.02%</td>
<td>-3.95***</td>
<td>0.80%</td>
<td>0.91</td>
</tr>
<tr>
<td>0</td>
<td>-1.69%</td>
<td>-2.21*</td>
<td>0.26%</td>
<td>0.30</td>
</tr>
<tr>
<td>-1</td>
<td>0.32%</td>
<td>0.42</td>
<td>-0.34%</td>
<td>-0.38</td>
</tr>
<tr>
<td>-2</td>
<td>1.14%</td>
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<td>-0.02%</td>
<td>-0.02</td>
</tr>
<tr>
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<td>-0.69</td>
<td>-0.35%</td>
<td>-0.40</td>
</tr>
<tr>
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<td>2.50**</td>
<td>0.14%</td>
<td>0.16</td>
</tr>
<tr>
<td>-5</td>
<td>0.53%</td>
<td>0.70</td>
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<td>-6</td>
<td>-0.26%</td>
<td>-0.37</td>
<td>0.06%</td>
<td>0.07</td>
</tr>
<tr>
<td>-7</td>
<td>-0.32%</td>
<td>-0.41</td>
<td>0.12%</td>
<td>0.13</td>
</tr>
<tr>
<td>-8</td>
<td>-1.32%</td>
<td>-1.73</td>
<td>-0.09%</td>
<td>-0.10</td>
</tr>
<tr>
<td>-9</td>
<td>0.56%</td>
<td>0.73</td>
<td>-0.46%</td>
<td>-0.53</td>
</tr>
<tr>
<td>-10</td>
<td>0.11%</td>
<td>0.14</td>
<td>0.09%</td>
<td>0.11</td>
</tr>
</tbody>
</table>

II. Multiday Abnormal Returns

<table>
<thead>
<tr>
<th>Event Window</th>
<th>Enron</th>
<th>t-(BW)</th>
<th>WorldCom</th>
<th>t-(BW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day -1 to Day +1</td>
<td>-4.39%</td>
<td>-3.31**</td>
<td>0.73%</td>
<td>0.48</td>
</tr>
<tr>
<td>Day -2 to Day +2</td>
<td>-2.68%</td>
<td>-1.51</td>
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<td>0.11</td>
</tr>
<tr>
<td>Day -3 to Day +3</td>
<td>-2.78%</td>
<td>-1.37</td>
<td>-1.39%</td>
<td>-0.60</td>
</tr>
<tr>
<td>Day -4 to Day +4</td>
<td>0.12%</td>
<td>0.06</td>
<td>-0.33%</td>
<td>-0.12</td>
</tr>
<tr>
<td>Day -5 to Day +5</td>
<td>1.50%</td>
<td>0.59</td>
<td>0.51%</td>
<td>0.17</td>
</tr>
<tr>
<td>Day -6 to Day +6</td>
<td>2.23%</td>
<td>0.81</td>
<td>0.45%</td>
<td>0.14</td>
</tr>
<tr>
<td>Day -7 to Day +7</td>
<td>1.26%</td>
<td>0.43</td>
<td>-0.78%</td>
<td>-0.23</td>
</tr>
<tr>
<td>Day -8 to Day +8</td>
<td>0.04%</td>
<td>0.01</td>
<td>-1.60%</td>
<td>-0.44</td>
</tr>
<tr>
<td>Day -9 to Day +9</td>
<td>0.92%</td>
<td>0.28</td>
<td>-2.17%</td>
<td>-0.57</td>
</tr>
<tr>
<td>Day -10 to Day +10</td>
<td>1.28%</td>
<td>0.36</td>
<td>-2.20%</td>
<td>-0.55</td>
</tr>
</tbody>
</table>
Figure 1. Cumulative abnormal returns around the Enron and WorldCom events – US
Andersen auditees

Figure 2. Cumulative abnormal returns around the Enron and WorldCom events – UK
Andersen auditees

Figure 3. Cumulative abnormal returns around the Enron and WorldCom events –
Australian Andersen auditees
THE AUSTRIAN TENT? A REJOINDER TO GALLAY AND VEDDER

Walter Block*, William Barnett II**

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** Chase Distinguished Professor of International Business and Professor of Economics Joseph A. Butt, S. J. College of Business, Loyola University New Orleans 6363 St. Charles Ave, New Orleans, LA 70118-6143 (504) 864-7950, wbarnett@loyno.edu

How do neoclassical economists reply to Austrian critiques of their work? Typically, although to be sure there are exceptions, they ignore them. That is, the former move mountains in an effort to avoid the arguments of the latter. Sometimes this occurs even when neoclassicals explicitly reply to Austrian critiques. A case in point is Gallaway and Vedder (2006). Ostensibly written as a critique of Barnett and Block (2006), this “Reply” manages to ignore every substantive criticism leveled at them by their critics. Instead, it focuses on a point irrelevant to the substantive issues, but an interesting one for all that.

What are the specifics? Barnett and Block (2006) took to task Gallaway and Vedder (1987, 1997 and 2000). Here are the criticisms launched by the former at the latter (B&B, 2006, 58):

“… what sets Austrians apart from mainstream economists is methodology and consequent analyses. It is thus with the methods and analysis of G&V that we take issue. To that end we pursue in part I six strands: 1) excessive aggregation, the meaning of ‘the wage rate,’ and the ‘adjusted real wage;’ 2 average v. marginal productivity and reality v. perfect competition; 3) consequences for unemployment of disequilibrium real-wage rates in the labor market and implications of perfectly inelastic labor supply; 4) the lack of clear documentation of data sources; 5) statistics, and ‘normal’ or ‘natural’ values; and, 6) exogenous shocks: inherent in the data or artifacts of the calculations. In part II we address some further questions concerning the classification status of G&V (2000) and claim that despite its ‘tipping of the hat’ in the direction of Austrian economics, it cannot be properly categorized as compatible with that school of thought.”

In other words, our main focus in B&B (2006) was in our part I (pp. 58-72), where we challenged them on substantive issues. Since they claimed to be Austrians we considered that claim in our part II (pp. 72-79). But even here in this second section of our paper we (B&B, 2006, 72) charged G&V with being “substantively erroneous.”

And what is the response of G&V (2006)? It is to completely ignore our substantive criticisms, every last one of them, and to focus, instead, on our characterization of them as mainstream economists, not Austrians. So be it. If they implicitly accept our substantive criticisms by not replying to them in their “Reply,” we are happy to acknowledge this concession. Let us, then, consider the points they do make.

They (G&V, 2006, 67) are concerned about the “economic taxonomy” in which we have categorized them. One defense of their Austrian “bona fides” is that they have “proceeded in good faith (G&V, 2006, 68).” But good faith is neither a sufficient nor necessary condition for being properly classified as an Austrian. Another defense is the letter written to them (G&V, 2006, 68) by Murray N. Rothbard, dated 11/21/83, accepting a paper of theirs for publication in the Review of Austrian Economics (G&V, 1987). We repeat it here:

“One criticism, for example is that Mises’ insight that unemployment is caused by excessively high wage rates in the labor market and implications of perfectly inelastic labor supply; 4) the lack of clear documentation of data sources; 5) statistics, and ‘normal’ or ‘natural’ values; and, 6) exogenous shocks: inherent in the data or artifacts of the calculations. In part II we address some further questions concerning the classification status of G&V (2000) and claim that despite its ‘tipping of the hat’ in the direction of Austrian economics, it cannot be properly categorized as compatible with that school of thought.”

In other words, our main focus in B&B (2006) was in our part I (pp. 58-72), where we challenged them on substantive issues. Since they claimed to be

1 Block, Westley and Padilla (unpublished) lists some 100 instances where the two schools of thought have tangled.
2 Hence, B&B and G&V
cycle theory is not all there is to Austrian economics). This Rothbard letter is mentioned (G&V, 2006, 68) to rebut our claim (B&B, 2006, 76, 80) that G&V (2006) “mangled” a Mises quote, and “condescended” to Austrians. But this letter simply cannot bear the weight G&V place upon it. Yes, to be sure, the “insight that unemployment is caused by excessively high wage rates is not uniquely Austrian” is true. It is also true that “Mises was one of the few people hammering away at this,” which makes it an Austrian concern, albeit not uniquely so. On this matter, all Austrians and many if not most neo-classicals overlap. But so what? B&B (2006) didn’t even come close to criticizing any of the publications of G&V on this particular ground. Merely because we did indeed take G&V to task for “mangling” and “condescending” does not mean we take issue with these authors on everything they ever said, let alone regarding this particular point.

The core of Austrian business cycle theory (ABCT), it cannot be denied, does indeed concern things like “monetary creation, interest rates and capital theory” (G&V, 2006, 68). Of course, unions, and minimum wage laws create unemployment, as do subsidies such as unemployment “insurance,” and, yes, some of these phenomena played a role in the events of the 1930s. But this still does not render them central to ABCT, or, indeed, even related to it. The Smoot-Hawley tariff also was instrumental in playing havoc with our economy during this epoch. But, surely, no one would go so far as to claim that protectionism is the essence of ABCT; or, even, that tariffs are part of the ABCT story. Thus, G&V (2006, 68, emphasis added) are wrong in their contention that “any action … that lead (sic) prices of factors of production to deviate from their ‘natural’ level determined by human action, sets the stage ultimately for a boom and bust condition that we call ‘business cycles.’” Perhaps that is a neoclassical view, but it is certainly not an Austrian one. Certainly, governmental intervention that mandates the blending of ethanol with gasoline, thereby distorting various relative prices; e.g., increasing those of ethanol and corn, cause misallocations of resources, but no Austrian would expect such regulations to give rise to a business cycle.

According to G&V (2006, 68-69), “In their analysis, Barnett and Block imply that at one point in time, the school is large and growing, and such expediencies are no longer needed.” In other words, we Austrians tolerated the likes of G&V in the early days, but, now that we no longer need them, it is time for the old “heave ho.” This is an interesting hypothesis, and perhaps one that G&V would care to test empirically, but none of it can be reconciled with what we actually said in B&B, 2006. Instead, we called it no less than an “intellectual fraud” (B&B, 2006, 80) to do any such thing, and this offense is a timeless one. State G&V (2006, 69): “Being somewhat libertarian inclined, we have always been uncomfortable with being identified by group characteristics.” Not only do these authors not understand Austrianism, this applies to their comprehension of libertarianism as well. Group characteristics that apply to G&V include white, male, economists, professors, of a certain age, etc. How and why libertarianism would mitigate against anyone, including themselves, ascribing such characteristics to them must surely be a mystery.

We, too, “have no desire to engage in a prolonged debate on” (G&V, 2006, 69) whether and to what extent these authors are Austrians. That much, at least, is clear. “Fellow travelers” will do quite nicely in describing them. However, we had indeed hoped for a reaction to our substantive economic points. In this, alas, we remain disappointed.

References


5 Card and Krueger (1994) would certainly be an exception at least with respect to low-wage jobs.
6 It is true, of course, that barriers to trade, and increases therein, can slow down the adjustment process during the post-crisis bust. Barnett and Block (unpub.) considers, inter alia, these and other factors affecting the reallocation of resources during the bust.
7 Come to think of it, if we may be so bold, these characteristics also apply to the present authors.
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