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‘To invite disappointment or worse’: governance, audit and due diligence in the Ferranti-ISC merger

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Abstract

Mergers and acquisitions frequently destroy shareholder value, and UK companies have a particularly poor record in US deals. But outcomes are rarely as calamitous as in the case of the British electronics group Ferranti which in 1987 entered into a significant merger with the US company ISC. The combined group had collapsed by 1993. Our analysis of the case, seen in the light of more recent corporate failures such as the Royal Bank of Scotland, leads us to question whether the UK's 'idiosyncratic mix' of corporate governance mechanisms can ever effectively constrain the flawed and dictatorial decision-making of dominant individuals.

Keywords: accounting scandals; corporate governance; due diligence; Ferranti; ISC.

1. Introduction

Business history is littered with corporate collapses, which are all the more shocking when unexpected. One of the most spectacular and surprising British corporate failures of the final quarter of the twentieth century was that of the electronics group Ferranti after its merger with the US company International Signal and Control Group (ISC), whose accounts concealed a massive and complex fraud.¹ The case represented an example of wider contemporary failures in corporate governance, financial reporting and auditing which were manifested in a series of well-known cases in the 1980s and early 1990s.² These scandals were a catalyst for efforts to improve governance, audit and accountability which began with the 1992 Cadbury Report.³

Numerous explanations are offered for corporate scandals and collapses, particularly in the wake of the wave of significant cases around the turn of the millennium in the USA and Europe. Some authors attribute the nature of corporate scandals to the characteristics of the countries in which they take place.⁴ Others emphasise common themes across countries, some of which resonate strongly with the Ferranti case: poor strategic decisions; over-expansion and ill-judged acquisitions; dominant senior executives; and internal control failures.⁵ Inadequacies in accounting and audit regulation, as well as accounting manipulation and fraud, are often regarded as key factors,⁶ and dominant individuals are frequently identified as perpetrators of fraud.⁷ Grant and Visconti's study of 12 major accounting scandals in the USA and Europe during the period 2001-2003 identifies two factors which we will encounter in the Ferranti case: a mismatch between strategy and the resources and capability of a company, particularly in the integration of new activities; and the riskiness of expansion into new markets, particularly via US acquisitions or mergers.⁸ A recent

article in this journal ‘provides a simple typology of failure’, and identifies ‘three types of failing firms ... (Icari, Fools and Rogues)’,⁹ and Ferranti could be argued to fall into all of these categories to some extent.

The finance literature sees the market for corporate control as a discipline on company managements, with dividends playing a key role in acting as a signal that cash flows are not diverted to personal use or negative net present value projects. Frequent use of capital markets is also identified as a constraint on managerial opportunism and ‘empire-building’.¹⁰ On the other hand, there is much evidence that mergers and acquisitions, particularly cross-border transactions, destroy shareholder value.¹¹ Roe suggests that companies exhibit too many post-merger financial and operational failures to suggest that takeovers are an effective corporate governance remedy.¹² It is also well-established that UK companies have a poor record in US deals in particular.¹³

In this article, while engaging with these literatures, our primary objective is to contribute to the debate about the relationship between governance and corporate scandals.¹⁴ We add to that literature by examining the workings and interaction between the various governance mechanisms available to companies.¹⁵ In particular, we use the Ferranti case to develop the argument that governance mechanisms aimed at protecting shareholders’ interests may prove ineffective even when viewed as ‘bundles’ rather than in isolation.¹⁶ We argue that the issue of corporate governance is, in fact, all about the management of conflicts by a company’s board of directors, as international corporate governance codes frequently reflect. There are potential conflicts between the shareholders of the corporation, the different classes of

stakeholders within the company, and with external agencies, such as the government. A governance regime that delivers shareholder primacy will require the board to promote shareholder interests above those of both other stakeholders such as employees, and above those of external parties such as the taxation authorities. The role of the board is to balance these conflicting interests, which leads us to highlight that the responsibility and accountability of the board is paramount.

In some respects Ferranti was, or appeared to be, an unexceptional company, but we argue that its fate was not a case of ‘bad luck’ in choosing the wrong merger partner, but reflected failings in its corporate governance arrangements. These appeared to conform to contemporary norms, and in formal terms to some extent anticipated the reforms which followed this and other major scandals, but we argue that on deeper examination the reality was different, as in other cases such as Enron, Parmalat and the Royal Bank of Scotland (hereafter, RBS). Above all, Ferranti’s corporate governance failed to constrain its executive decision-making, which by the time of its merger with ISC had become highly-centralised around Derek Alun-Jones, the managing director appointed after the company fell under government control after a cash crisis in 1974-75.¹⁷ Although Alun-Jones was determined to pursue the merger for apparently sound strategic reasons, Ferranti was handicapped by its inexperience in such transactions, and the minimal nature of and lack of independence in an inadequate due diligence process in an era marked by a dramatic increase in merger and acquisition activity. The ‘gatekeepers’ of corporate governance – executive and non-executive directors (NEDs), institutional investors, auditors and other advisers – were all present, and several pre-merger ‘red flags’ were offered to the board, but these failed to prevent the disastrous merger. Institutional shareholdings had been

widely dispersed when the government's stake was sold, while Ferranti's principal bankers (National Westminster), who had been represented on the board for several decades until the mid-1970s, no longer nominated a director. Ferranti relied heavily on ISC's professional advisers (Peat Marwick McLintock, hereafter PMM, and Robert Fleming) and largely accepted its own merchant bankers' (Barings) analysis of ISC's strength and potential, but all were fooled by a carefully-contrived fiction.

The article starts with a discussion of the theoretical underpinnings of this study in corporate governance. We proceed by explaining Ferranti's background, its merger with ISC and the aftermath, following which we examine its corporate governance arrangements, the due diligence process and the role of the various accounting firms involved, providing a discussion of our findings and how the case links to the corporate governance literature and contemporary and more recent corporate governance failures in the final section. Our research has benefitted from extensive access to both primary archival material and interviews with as many of those involved as possible.¹⁸ The case has practical relevance to corporate governance in developed countries where government ownership of commercial enterprise is limited and one-tier board structures dominate.¹⁹ Crucially, our analysis leads us to question whether corporate governance mechanisms, in isolation or combination, can ever effectively constrain the flawed and dictatorial decision-making of dominant individuals.

2. Theoretical background: corporate governance, the core problem and governance mechanisms

Corporate governance can be viewed broadly as a set of relationships between the board of directors, senior managers and shareholders.²⁰ Much of the debate on corporate governance follows from the observation that the modern corporation is characterised by a divorce between ownership and control, where the functions of ownership and management are typically separated, with equity ownership dispersed among a large number of shareholders and day-to-day control of the corporation delegated to professional managers.²¹ This separation is associated with a corporate governance problem, whereby managers do not share the shareholders' interests, which Jensen and Meckling define as an agency issue.²² Information asymmetry allows incumbent managers to pursue their own objectives, such as increasing corporate size, rather than the interests of shareholders, for example, maximising company value.²³

The agency problem, particularly in the publicly-traded corporations within an Anglo-Saxon model of governance where opportunism is well-established, has long troubled scholars and practitioners.²⁴ The agency model offers a variety of governance mechanisms that resolve or minimise any manager-shareholder conflict of interests.²⁵ One way of differentiating between governance mechanisms is to refer to them as 'internal' and 'external'. Internal mechanisms include managerial share ownership, which has two effects which can trade off against one another - the alignment of the interests of management with those of shareholders and the entrenchment of managers,²⁶ and oversight by a board of directors.²⁷ External mechanisms include managerial labour markets,²⁸ the existence of large external shareholders,²⁹ and the market for corporate control,³⁰ which acts as a mechanism of last resort.³¹ Dividends may also play a role, acting as a commitment mechanism to shareholders, signalling

the quality of a company's earnings and its ability to generate cash, particularly where 'true' earnings may be 'opaque', thereby constraining managers who might waste cash on 'empire-building' and forcing them to overcome a reluctance to incur debt.³²

A large body of theoretical and empirical literature on corporate governance exists, much of which focuses on the principal-agent relationship, leading to the development of hypotheses that explain how various governance mechanisms minimise agency costs. Much recent UK corporate governance research has tended to concentrate on the internal structural governance mechanisms, such as boards of directors and questions of board effectiveness.³³ The importance and prominence accorded to boards has also been visible in corporate governance reforms, as we discuss below.

Other scholars have focused on the interrelationship between internal and external mechanisms, suggesting that much more needs to be done to improve our understanding of how these governance mechanisms complement and/or substitute for one another. For example, Rediker and Seth propose that company performance is dependent not on any single governance mechanism but on mechanisms in combination,³⁴ adding that even if the overall combination of mechanisms is effective in aligning managerial and shareholder interests, the impact of any single governance mechanism may be insufficient to achieve such an alignment. Other authorities also highlight evidence which suggests that governance mechanisms are not independent of each other,³⁵ while Weir et al. argue that different combinations of both internal and external governance mechanisms are appropriate for different kinds of companies and at different points in their life cycles.³⁶ Roe further suggests that, alongside the

board of directors and shareholders, other actors such as accountants, lawyers, securities analysts and underwriters can monitor, verify and sometimes warrant information about a company, concluding that governance mechanisms act as complements and substitutes.³⁷

Ward et al. suggest that a company's (poor) performance can prompt external shareholders to monitor more carefully, thereby complementing internal monitoring.³⁸ They also assume that poor performance is likely to amplify the divergence of managerial and shareholder interests, thus increasing the need for external shareholder control and monitoring, rather than relying on incentives. Equally, if a company is doing well, there is little external pressure on the board to change the way it runs the company; shareholders are unlikely to be concerned about governance issues if their expected return on investment is not threatened, especially where ownership is widely dispersed, creating a 'free rider' problem. In such circumstances, the board of directors becomes crucial in establishing appropriate governance structures.

Grounded in these theoretical expositions, Ferranti represents an interesting case to examine, given its good performance, apparently sound strategic reasons for merger, and internal governance arrangements which seemed to adhere to contemporary good, or even best, practice. In the following sections, after presenting an account of Ferranti's merger with ISC and its aftermath, we outline the workings of, and interaction between, the internal and external governance mechanisms that contributed to its failure, benchmarking these against wider contemporary practice.

3. Ferranti background and strategy

3.1 The 'Ferranti spirit' and government control

Ferranti was a large, long-established and (until 1975) family-controlled firm which enjoyed remarkable longevity by the standards of British companies and illustrated 'the continuing commitment to personal capitalism in British industry' of which Chandler was so critical.³⁹ By the 1970s its main business was defence electronics, accounting for around 70% of its profits and 65% of its sales, having developed a range of avionic equipment that was used extensively in several generations of British and other military aircraft. While its civil businesses were never as successful commercially, Ferranti had a buoyant computer business that focused on real-time applications in manufacturing and traffic control. By the 1970s, Ferranti had a reputation for enduring technological innovation, driven on by a family that preferred to reinvest the bulk of the firm's earnings into research and development. This management tradition, 'the Ferranti spirit', which emphasised innovation and engineering excellence in a decentralised group structure, proved remarkably durable, and the founder's grandsons, Sebastian and Basil de Ferranti (hereafter referred to simply as 'Sebastian' and 'Basil') still held 56% of the equity in 1974.⁴⁰ Sebastian described the 'Ferranti spirit' as: '... managing innovative teams of engineers in separate product-based departments, with considerable independence'.⁴¹ This approach was reflected in the company's control and decision-making processes, although it would be incorrect to characterise Ferranti's internal reporting systems as unsophisticated.⁴² The 'Ferranti spirit' provoked mixed views: the *Economist* noted that 'Ferranti has frequently been criticised for lack of commercial bite, with too many professional engineers on the board but weak financial control. It has always known how to innovate, and which innovations to back. It has also known when to get out'.⁴³ The Ferranti family resisted all attempts to introduce more formalised structures,

arguing that financial controllers would inhibit their innovative tendencies,⁴⁴ despite crises earlier in the company's life: a financial crisis in 1903 which led to the family losing operational control until 1928; another crisis in 1956; and the Bloodhound scandal in the 1960s, when massive cost overruns on a missile project illustrated the difficulties of reconciling innovation and cost control.⁴⁵

Government control was accepted as a condition of financial assistance when Ferranti experienced a severe liquidity crisis in 1974-75, precipitated by the refusal of its main bankers, National Westminster, to increase its overdraft limit.⁴⁶ The government guaranteed £11 million of borrowings and took 50% of the voting shares and 62.5% of the equity in exchange for a total of £15 million, including a loan of £6.3 million, with its investment later transferred to the National Enterprise Board (NEB), a holding company established in 1975.⁴⁷ Sebastian and Basil, managing director/executive chairman and deputy managing director respectively, were obliged to move into non-executive positions, to be replaced by Derek Alun-Jones, a former executive at the oil company Burmah, who became chief executive in 1975 after a lengthy executive search exercise.⁴⁸ Given the firm's poor financial performance, 'the focus in the early days on financial ratios, cash flow and short-term financial performance was inevitable'.⁴⁹ Maurice Elderfield joined from the Post Office as Ferranti's first finance director in November 1976, introducing stronger accounting and financial controls in the highly devolved business. In addition, apart from selling the loss-making Canadian subsidiary for £7 million in 1979, new funding sources were sought. The largest of these was an £18 million syndicated loan arranged by Chase Manhattan which was used to repay the NEB loan and reduce the National Westminster overdraft.⁵⁰

Ferranti was refloated on the London Stock Exchange (LSE) on 28 September 1978, by which time it had returned to making reasonable profits. Although the NEB retained its 50% holding, this stake was eventually widely distributed in August 1980, when it ‘disposed of almost all of its 50 per cent stockholding in the company by means of a placing with more than one hundred institutional shareholders’.⁵¹ This form of disposal might not have maximised the NEB’s proceeds, but was deliberately undertaken to avoid the threat to Ferranti’s independence that might have come from a concentration of large block shareholders or sale to a single buyer.⁵² The sale was accompanied by a rights issue which raised nearly £21 million and left Ferranti virtually debt-free, a status it retained until the 1987 merger with ISC.

Ferranti’s escape from state control significantly enhanced Alun-Jones’ reputation, both across the City and especially within the firm. By 1980 his fellow-directors regarded him as Ferranti’s ‘saviour’, which strengthened his hold over its decision-making processes and effectively ensured that he had total control over resources and strategy. In spite of its solvent position in 1980, Ferranti’s small size relative to other electronics and defence companies represented a major strategic challenge, even though it was an important but not top-tier defence contractor.⁵³ This prompted extensive internal fears of a possible takeover by major British companies such as the General Electric Company (GEC), Racal and Standard Telephone and Cables (STC), especially when another potential predator, Plessey, was itself being threatened by GEC.⁵⁴ This fear of being taken over was a principal motivation behind the strategy that Alun-Jones devised in the mid-1980s, using his powerful position within the board to persuade his fellow-directors to follow his lead. His preferred

solution was to develop a stronger position in the USA, devoting considerable management and financial resources (amounting to \$50 million) to ‘The US Strategy’.⁵⁵ However, with Ferranti’s sales in the USA and Canada less than 10% of total sales in 1986-87,⁵⁶ Alun-Jones pursued the more radical option of merger with ISC.

3.2 The ISC merger

ISC was created in 1971 as an American corporation, based in Lancaster, Pennsylvania, where its principal figure, James Guerin, built an extensive reputation for philanthropic activity. It was floated on the LSE in 1982, a year that also marked its first collaboration with Ferranti on various joint products. Its merger with Ferranti was announced on 21 September 1987 and completed on 16 November 1987 as an all-share offer to ISC shareholders, who received approximately 41% of the combined entity.⁵⁷ The resulting company, Ferranti International, was a substantial operation, with employee numbers peaking at 24,818 and annual turnover approaching £1 billion by 1987-88.⁵⁸ Ferranti believed that ISC would be an entrepreneurial partner in the rapidly-changing defence market which provided most of Ferranti’s revenues. Smaller than Ferranti, ISC certainly appeared to be a good strategic fit, offering access to geographical (the Middle East) and product (guided missiles) markets in which Ferranti was either weak or from which it was absent at a time when changes in UK defence procurement threatened to undermine its business.⁵⁹

Market and investor reactions to the merger were generally favourable to its representation as an excellent combination of American marketing and British engineering expertise, offering shareholders the potential for rich rewards as long as

the existing management was retained.⁶⁰ Sebastian, however, no longer a Ferranti director but still a major shareholder with 3.6% of the company, opposed the deal.⁶¹ He commissioned an independent report that was sceptical of ISC's structure, product range and operations,⁶² even though the City of London regarded the merger as highly credible.⁶³ While Sebastian failed to make this report available to the Ferranti board, it is unlikely that it would have prevented the merger, given the total support Alun-Jones had from his fellow-directors.⁶⁴ After the merger Ferranti granted a high degree of autonomy to ISC, and specifically to Guerin. Moreover, Ferranti was obliged to allow the continuation of 'shadow board' arrangements for the ISC business to overcome possible US objections to the merger of a defence contractor with a larger foreign company. While this could be interpreted as a further manifestation of the 'Ferranti spirit' of allowing entrepreneurial managers to develop businesses,⁶⁵ Guerin was able to run ISC much as he had done prior to the merger. The board of the merged company expanded to include six ISC directors, two of whom were NEDs, and unusually, included the finance director of a subsidiary (ISC's Zillgen).⁶⁶

3.3 Aftermath of the merger

In spite of the plaudits Alun-Jones received for arranging the merger, extending his City reputation even further and reinforcing his internal power base, it proved to be a disaster and by 1993 the group had been dismantled through restructuring and trade sales. This crisis started in 1989, when a massive fraud at ISC was exposed.⁶⁷ At the root of this fraud was a series of missile contracts, some real but others wholly fictitious, on which false and/or premature revenues had been booked prior to the merger, thereby boosting ISC's reported performance. Integral to the fraud were 'front companies' and offshore private bank accounts in the Bahamas, Panama and

Switzerland, through which cash was churned to create the appearance of legitimate contracts, a charade that took Ferranti management over two years to unravel. Guerin received a fifteen-year jail sentence in the USA in 1992 for both masterminding the fraud and illegal arms trading, all of which he denied.⁶⁸ His ‘veil of integrity’, created by his apparently successful business activities and his local philanthropy, is common to many fraudsters, from Donald Coster of McKesson & Robbins to Parmalat’s Calisto Tanzi.⁶⁹ When Ferranti International’s 1989 accounts were revised to reflect the effects of the fraud, shareholders’ funds were nearly halved from the initially-reported £369 million to £193 million, after writing off the carrying value of suspect contracts, the fictitious profits which had been recognised, and other adjustments.⁷⁰ Alun-Jones left Ferranti in 1990.

In the short term, Ferranti International was able to secure adequate bank support to withstand an immediate liquidity crisis, but a condition of these loans was substantial asset sales. The most important was GEC’s acquisition of the Ferranti Defence Systems business and half the Italian operation for £300 million in 1990, with the price reduced by £33 million in 1992 due to an overvaluation of stock.⁷¹ This deal had political approval, because Ferranti was supplying advanced equipment for the European Fighter Aircraft.⁷² A rights issue in August 1990 raised £43.5 million after expenses, while an out-of-court settlement with PMM yielded £40 million.⁷³ Nevertheless, the remaining operations were absorbing these cash inflows and the company was in a downward spiral, struggling to repay its debts, meet redundancy and other restructuring costs, and settle contractual claims. The group fell into receivership in 1993, providing GEC with the opportunity to acquire the remaining assets in 1994.⁷⁴ Ferranti’s failure led to precisely the situation it had sought to avoid, with

GEC able to ‘cherry pick’ its most important businesses, arguably an appropriate industrial solution but without the need for a full takeover and avoiding intense scrutiny from the competition authorities.

Alun-Jones had defended the merger decision, claiming that:

... no warning of any irregularities, or even of suspicions of irregularities, in relation to the conduct of ISC’s business prior to the merger was given by any official source either in the UK or USA or by City interests. Nor was anything known by the company of any investigations, actual or pending, of ISC or any individual connected with ISC.⁷⁵

Any pre-merger doubts that Ferranti may have had about ISC appear to have been limited to concerns about ‘aggressive accounting’ over revenue recognition (effectively the ‘front-ending’ of profits on contracts), rather than outright fraud.⁷⁶ But notwithstanding the statement of Alun-Jones, Ferranti’s management had ignored numerous pre-merger ‘red flags’ about ISC. Viewed in combination these ought reasonably to have raised serious doubts over the wisdom of the transaction, or at the very least suggested the need for Ferranti to assert its control over ISC at an early stage. One ‘red flag’ was ISC’s LSE-listing, given that there were many defence technology companies listed in the USA, with its much broader and deeper stock markets, which were arguably more heavily regulated by the Securities and Exchange Commission.⁷⁷ Of course, ISC would not have been alone among London-listed defence and electronics companies in producing opaque accounts in this period. For example, both editions of Terry Smith’s well-known book identify British Aerospace,

another PMM audit client, as one of the heaviest users of ‘creative accounting’ techniques in the early 1990s, and the annual reviews of financial reporting practice published by the Institute of Chartered Accountants in England and Wales (ICAEW) use this company to illustrate the difficulties in accounting for areas such as launch costs and contingencies.⁷⁸ These same sources give no indication of accounting problems at Ferranti before the merger.⁷⁹

Other ‘red flags’, however, were waved and ignored. Ferranti’s own internal review of ISC showed that it lacked managerial and engineering depth and highlighted two key risks: ‘Dominance of a small number of major customers/contracts ... [and] Dependence on outside suppliers’.⁸⁰ There were also verbal warnings from a junior defence minister and a senior civil servant, mostly in relation to the Middle East customers on which ISC relied for the bulk of its income and profit.⁸¹ Finally, United Chem-Con, a company with links to Guerin and ISC, was under investigation for fraudulent management of state contracts before the merger, while the absence of an American predator for ISC could also have been considered a negative signal.⁸²

4. Corporate governance arrangements at Ferranti

Sir David Walker’s review of governance in financial institutions in the wake of the 2007-08 financial crisis comments that the ‘idiosyncratic mix’ of ‘arrangements for corporate governance in the UK reflect an amalgam of primary legislation, prescriptive rules, “comply or explain” codes of best practice, custom and market incentive’.⁸³ Corporate governance standards in the 1980s were weaker, and improvements came only after the ISC fraud. There were also fewer constraints on accounting manipulation, while financial reporting and auditing standards were much

less well-developed, and the regulation of the accounting and auditing professions was largely in the hands of the relevant professional bodies. The Financial Reporting Council and its main subsidiary bodies, the Accounting Standards Board and the Financial Reporting Review Panel, were only created in 1991.

A series of reports focused on governance mechanisms in publicly-listed companies⁸⁴ and the Combined Code on Corporate Governance (now the UK Corporate Governance Code⁸⁵) eventually emerged, with an initial emphasis on board structures which later evolved to emphasise independence and then behaviour.⁸⁶ International corporate governance recommendations attach similar importance to the board of directors. The current UK Corporate Governance Code suggests that ‘the board should set the company’s strategic aims, ensure that the necessary financial and human resources are in place for the company to meet its objectives and review management performance’ and emphasises the need ‘to ensure effective engagement with key stakeholders ... in order to deliver business strategy’.⁸⁷

Ferranti’s formal board structure anticipated the major recommendations of the first UK governance report, the Cadbury Report: the roles of chairman and chief executive were separate; the number of NEDs exceeded the recommended minimum of three; and an audit committee existed.⁸⁸ On the other hand, this apparent compliance with contemporary best practice did not extend to the later emphasis on independence, behaviour, and accountability – aspects of governance which are harder to codify or regulate. Other governance mechanisms which might have compensated for these shortcomings were bypassed or absent.

4.1 The board: composition, internal shareholdings and audit committee

Five of Ferranti's nine directors when the company refloated in September 1978 remained at the time of the merger, averaging 17 years' experience as Ferranti directors (or 14 years' if Basil is disregarded). Alun-Jones was a relatively long-serving chief executive with 12 years' service, more than double the average tenure at that time.⁸⁹ The executive directors, two of whom had only just joined the board, were mostly divisional 'barons' averaging over 20 years' service with the firm.⁹⁰

Directors' shareholdings at Ferranti prior to the merger were untypically low for UK-listed firms. One study, which excluded financial institutions, privatised and regulated companies, found that mean ownership by directors and their immediate families was 13.34% in 1988.⁹¹ Another study, based on a random sample of 460 publicly-traded industrial companies in the period 1989-92, revealed average top executive share ownership of 2.23% and board ownership of 10.7%.⁹² Table 1 shows, however, that the personal shareholdings of Ferranti's executive directors were small until Guerin joined the board after the merger, and Alun-Jones never held as much as 0.5% of the equity after 1980.

[INSERT TABLE 1 HERE]

It is important to stress that the principal function of NEDs is to ensure that the executive directors pursue policies that are consistent with shareholders' interests.⁹³ The Cadbury Report recommended that: 'the calibre and number of non-executive directors on a board should be such that their views will carry significant weight in the board's decisions'.⁹⁴ Abdullah and Page argue that:

The concern for corporate governance that gave rise to the Cadbury Committee ... was not so much that companies were performing inadequately but that there were unacceptable risks if boards controlled by executive directors or dominant CEOs were not balanced by the presence of non-executive directors.⁹⁵

Ferranti's problem was that there was no effective counter-balance to Alun-Jones's dominance. The four NEDs at the time of the merger were Basil, Robin Broadley, Sir John Hoskyns and Gavin Boyd. Broadley was a director of the company's merchant banking advisor, Barings, as well as a NED at Royal Insurance (as was Alun-Jones) and Blue Circle.⁹⁶ His professional relationship with Alun-Jones dated back to the latter's days at Burmah.⁹⁷ Sebastian considered that Broadley represented 'City interests', leading him to oppose Broadley's appointment to the board in 1981. This was one factor in Sebastian's isolation which led to his departure shortly afterwards and his replacement as chairman by Basil.⁹⁸ Boyd had been a NED since the mid-1970s crisis, while Hoskyns was a recent arrival on the board. Ferranti's NEDs were certainly of sufficient 'calibre and number', but other than the well-known, respected and politically-connected Hoskyns they either lacked independence or in Basil's case had been marginalised.⁹⁹ Institutional investors and bank lenders were not directly represented on the board.

Although there is no legal distinction between executive directors and NEDs, the roles of the latter and the company chairman have evolved considerably since the 1980s and are now well-defined. In that respect, Basil did not offer the kind of board

leadership currently envisaged from the chairman, largely because Alun-Jones ensured that he was marginalised. NEDs are expected to contribute to the development of strategy, the monitoring of performance and the management of risk. In particular, the audit committee, a board sub-committee consisting of NEDs expected to oversee, amongst other things, the audit process, is now a well-established governance mechanism, but was less common in the 1980s.¹⁰⁰ Pressure on listed companies to establish audit committees was exerted by PRONED ('Promotion of Non-executive Directors'), an organisation established in 1981 and supported by the Bank of England and various City institutions, including the LSE.¹⁰¹ Ferranti's Annual Reports are silent on the existence of an audit committee until 1988, after which they show its existence and membership, but do not discuss why it was established, its activities or the frequency of its meetings. The Joint Disciplinary Scheme report on PMM notes that two of the major fictitious contracts featured in memoranda from PMM to the audit committee in 1988 and 1989,¹⁰² but we can find no other evidence of the committee's activities.¹⁰³ This is consistent with Collier's broader conclusion from the mid-1990s, 'that there is little evidence to show that audit committees are effective, and ... the widespread adoption of audit committees in the UK might well reflect no more than an attempt to avoid legislative solutions to deficiencies in corporate governance'.¹⁰⁴

The Bank of England conducted a series of studies on the composition of boards of directors in support of PRONED. The 1988 study, based on questionnaires sent to the *Times 1000* companies, was conducted closest to the date of the merger, providing a useful benchmark against which to compare the Ferranti board (see Table 2). These studies suggest that Ferranti's board was not unusual in size and

composition, with a typical balance between executive and non-executive directors, while it was quite common to have an audit committee and a chairman with executive responsibilities. There were only 199 directors with professional connections in 549 companies surveyed. We have no data to show how many were merchant bankers, but it seems reasonable to presume that only a small proportion would have been, indicating that while Ferranti may not have been unusual in having a merchant banker as a NED, it was not the norm. A separate academic study produced broadly similar results on the composition of boards of listed companies in 1988, and revealed a clear shift towards meeting the Cadbury recommendations by 1993.¹⁰⁵

[INSERT TABLE 2 HERE]

4.2 Audit and due diligence

While corporate failures frequently prompt the cry ‘where were the auditors?’, such events do not necessarily imply ‘audit failure’, which is considered to be relatively rare.¹⁰⁶ The presence of a major audit firm is typically regarded as a signal of quality in a company’s financial statements, although the direction of causality can be difficult to establish - those clients which choose major audit firms may be those less likely to practise accounting manipulation, rather than major firm auditors being more effective at detecting and preventing manipulation.¹⁰⁷ Nor does the presence of a major audit firm guarantee that the auditor will counter accounting manipulation when aware of it.¹⁰⁸ Indeed, we note that virtually all of the major corporate scandals around the turn of the millennium featured major firm auditors.

Grant Thornton (Thornton Baker before a 1986 merger), Ferranti’s long-standing auditor, was sometimes referred to (in a slightly condescending way) as ‘the

Manchester firm', but remained auditor until the final collapse in 1993. At times, other large accounting firms were involved at Ferranti: Price Waterhouse acted with Thornton Baker as joint reporting accountants for the 1978 listing, while after the merger PMM were joint auditors in 1988 and 1989. Grant Thornton regained the role as sole auditor from 1990 after PMM's resignation, following the publication of reissued financial statements to reflect the ISC fraud, after extensive work by Coopers and Lybrand.¹⁰⁹ The profession's investigation noted that: 'Grant Thornton conducted a thorough review of PMM's audit work [for 1988] and were satisfied with it', concluding that PMM's 'audit work was reasonable ... [and] that PMM were among those comprehensively deceived by a fraud which was designed and executed with extraordinary skill and care'. The report noted that PMM were familiar with ISC's use of front companies prior to ISC's 1982 flotation,¹¹⁰ but the firm was not subject to the criticism and penalties extended to auditors in some other UK scandals of the period.¹¹¹

While auditor responsibility in relation to fraud was established in the nineteenth century,¹¹² 'the importance of fraud detection as an audit objective was steadily eroded' and professional standards were tightened to impose greater responsibilities on auditors in this area only after the Ferranti case.¹¹³ It is also important to distinguish financial statement audits from other types of work which auditing firms might undertake, such as due diligence and forensic audits.

The Ferranti case illustrates the risk in corporate transactions: 'Not to look carefully behind the accounts, as opposed to merely looking at them, is to invite disappointment or worse'.¹¹⁴ In hindsight, it is clear that Ferranti lacked sufficient

knowledge of its target and the due diligence undertaken in respect of the merger proved inadequate. One should also stress that Ferranti had little experience of major corporate transactions, lacking the skills and structure to assess and absorb ISC effectively. Prior to the merger, which valued ISC at £411 million, Ferranti's single largest acquisition had been of TRW Controls in 1984 for \$10 million. Ferranti had fewer than 50 managers at the centre and 'no audit teams or financial analysts at the centre ready to go out on assignment'.¹¹⁵ Although Ferranti created a team at its corporate headquarters in Millbank Tower, London, this was composed mostly of engineers and lacked the financial expertise to unravel a highly sophisticated accounting fraud. This contrasted to the resources that acquisitive British companies in the 1980s such as Hanson Trust would deploy in 'a few months of hands-on transitional management' in the integration process.¹¹⁶ The Anglo-Dutch multinational Unilever, a very different type of company, also demonstrated the importance of organisational learning, developing its skills to become 'a formidable acquirer of firms'.¹¹⁷

Ferranti's due diligence prior to the merger appears to have consisted of its own internal review,¹¹⁸ which was made up of around a dozen pages, plus copies of three pages of information from ISC's financial statements, and a forty-page research report prepared by ISC's merchant bankers, Robert Fleming & Co, in September 1986. Specialist guides cite the Ferranti case as a turning point in due diligence practice,¹¹⁹ but the questions of what constitutes due diligence and what would have been reasonable in the Ferranti-ISC merger are not straightforward.

Guidance issued by the ICAEW described due diligence as ‘an investigation into the affairs of an entity ... prior to its acquisition, flotation, restructuring or other similar transaction’, falling into three overlapping categories: financial, legal and commercial.¹²⁰ Howson sees financial and commercial due diligence as complementary, offering a strategic view of due diligence based on three key aspects: ‘an understanding of market attractiveness, ability to compete and management’s ability to deliver’.¹²¹ Beattie et al., based on interviews with finance directors and audit engagement partners in 1996-97, reinforce the impression given in the ICAEW’s guidance that due diligence practice varies greatly.¹²² They found that it is at times a joint effort by an acquirer and its auditor, often undertaken by only one of these, and that its extent depended on factors such as the size of target, the speed with which a transaction is to be completed, and whether a target is listed, in which case only publicly available information might be used, particularly in a ‘hostile’ transaction.¹²³

Evidence from companies other than Ferranti tends to reinforce these impressions. For example, Jones’s study of Unilever found that: ‘In practice, acquisitions remained an instinctive and subjective affair’.¹²⁴ The official report on the failure of RBS noted in relation to its acquisition of part of the Dutch bank ABN Amro that ‘there are no codes or standards against which to judge whether due diligence is adequate, and given that, the limited due diligence which RBS conducted was typical of contested takeovers’.¹²⁵ It is relatively rare, however, for due diligence processes to generate issues which obstruct a takeover or merger, the case of the bid for Pergamon Press by Leasco in 1968 being a particularly well-known example.¹²⁶

The ‘friendly’ nature of the Ferranti-ISC merger suggests that there were conflicting influences on the nature and extent of due diligence - the potential for easier access to information but less need for due diligence due to ISC’s listed status and the companies’ experience of one another. On the other hand, Ferranti’s approach certainly seemed less robust than that of GEC, which targeted the key issue: ‘Guerin had first approached GEC as a potential partner. The deal was examined by [managing director Arnold] Weinstock’s number two ... who had the good sense to send Guerin packing after he failed to disclose details of ISC’s main contracts’.¹²⁷

4.3 The City, dividend pressures, equity investors and debtholders

The Ferranti case must, of course, be examined in the context of the environment in which the scandal took place. The City of London changed in the 1980s with the changes to the LSE referred to as ‘Big Bang’, the take-off of derivatives trading on the London International Financial Futures Exchange (LIFFE), and the dramatic increase in initial and secondary equity offerings and merger and acquisition activity from 1983 to 1989, partly driven by the government’s privatisation programme and a large number of aggressive contested takeovers.¹²⁸ In each of the years from 1985 to 1988, the number of initial offerings exceeded 100, a level not reached in any other year after World War One, having recovered from single-figure numbers in several years in the 1970s.¹²⁹ In this feverish atmosphere scandals emerged, as did complaints of City investors’ short-termism, and the inadequacy, or excessive cost and bureaucracy, of the new self-regulatory regime.¹³⁰

Toms and Wright have suggested that during this period ‘shareholder voice’ was enhanced by ‘... the development of global capital markets, secondary tier capital

markets and developments in the market for corporate control ... increases in institutional share ownership and activism and the development of venture capital firms and management buy-outs'.¹³¹ In the UK institutional shareholdings continued their long-term rise through the 1980s: personal ownership of shares fell from 39.8% in 1975 to 23.4% in 1989, while ownership by financial institutions and overseas investors rose from 48.1% to 58.7% and 5.6% to 12.4%, respectively.¹³² At Ferranti Sebastian and Basil were the largest shareholders, but both reduced their holdings significantly in the 1980s (see Table 1) and the wide dispersal of Ferranti shareholdings amongst financial institutions remained the major feature of its ownership structure.

Dividend policy, as a signal of corporate performance, can be regarded as particularly important in a company such as Ferranti, with long-term contracts of sometimes uncertain value, a concentration of customers, uncertainties over technology and a history of financial instability. Average dividend pay-out ratios for UK-listed companies returned to around 45% of post-tax profits in the 1980s, similar to the 1960s, having fallen to around 30% in the inflationary 1970s.¹³³ Indeed, the 1980s showed the highest real dividend growth (4.8% per year) since the 1950s and the highest real annual returns on UK equities (15.4%) for any decade in the twentieth century.¹³⁴

It is important to highlight the role played by merchant banks in fashioning both dividend and investment policies, as this was a prominent feature of the British business scene.¹³⁵ In the Ferranti case, the merchant bank influence appears to have been felt through Broadley's presence on the board, rather than Barings' influence as

an investor. Broadley encouraged a progressive dividend policy to retain shareholder loyalty and minimise the possibility that Ferranti would be a potential bid target.¹³⁶ Although Ferranti's dividend pay-out ratio was not high compared to the UK average, its dividends grew rapidly (see Table 1). Effectively, Ferranti was raising dividends at a rate sufficient to satisfy shareholders, while signalling its financial conservatism by paying out a smaller proportion of profits than the typical UK-listed company and carrying relatively little debt.

The emphasis in UK governance regulation on the role of shareholder intervention, particularly active shareholder engagement with investee companies, originated in the 1992 Cadbury Report,¹³⁷ and is now reflected in the Stewardship Code,¹³⁸ a product of the recent financial crisis. Such investor engagement appears to have been absent at Ferranti, yet Ferranti's shareholders had no reason to challenge the merger with ISC. The 'exit, voice, or loyalty' question therefore never arose,¹³⁹ given that there was no slow or steady decline to signal difficulties and no additional cash was raised to fund the merger. As no significant share issues took place after the sale of the NEB stake in 1980, shareholders had therefore not been asked to provide any new money for several years. The largest shareholder at the time of the merger, and the only one with more than 5% of Ferranti's issued share capital, was the non-executive chairman, Basil.¹⁴⁰ Ferranti's ownership was widely dispersed, even by the standards of Britain's 'outsider' system, and lacked the institutional block shareholdings of the size identified by various authors.¹⁴¹ Overall, the Ferranti case does not appear to reflect investor 'short-termism', but represents another example of investors' arm's length approach in the face of apparently satisfactory corporate performance. This was also a feature of two other notable British industrial failures in

the 1960s and 1970s, British Motor Corporation and Rolls Royce,¹⁴² and various UK official reports have reinforced this argument.¹⁴³

Another important factor in the Ferranti case was the company's use of syndicated loan and leasing facilities. This reflected wider trends in corporate finance, but could be considered to have weakened lender influence in a manner comparable to the fragmentation of the shareholder base. In addition, Ferranti's main bankers had been represented on the board for decades,¹⁴⁴ but were noticeable by their absence by the 1980s. Although National Westminster had been criticised as an ineffective monitor before the 1970s crisis,¹⁴⁵ the bank could have provided some constraint on the company, given that by 1987 the absence of any lender representation on the board offered none.

5. Discussion and conclusions

In the light of recent and persistent corporate failures and corporate governance scandals, this article is offered as a timely contribution to scholarly research and practical interest in understanding the workings of corporate governance mechanisms, and specifically how they can lead to failures to constrain poor executive decision-making. We contribute to the literature that recognises the complexity associated with corporate governance structures and arrangements, especially focusing on the workings of, and interrelationship between, internal and external governance mechanisms, including the relatively unexplored area of due diligence.¹⁴⁶ Rediker and Seth have argued that even if the overall combination of governance mechanisms is effective in aligning managerial and shareholder interests, the impact of any one governance mechanism may be insufficient to achieve such an alignment.¹⁴⁷ Similarly,

Ward et al. propose that if a company is doing well, there is little external pressure on the board for any changes in the way it functions.¹⁴⁸ Shareholders are unlikely to be concerned about governance issues if their expected return on investment is not threatened. In such circumstances, the role of the board of directors becomes crucial in establishing appropriate governance structures.

We find that Ferranti's case reflects this scenario: the company's performance was reasonable, it had apparently sound strategic reasons for merger and its governance arrangements seemed to adhere to contemporary norms. The widely-dispersed shareholders therefore had no reasons to monitor and challenge the board's strategic decisions. This in turn gave the board discretion over establishing appropriate due diligence processes and governance arrangements, even if these proved to be dysfunctional.¹⁴⁹

Of course, it would be possible to analyse the Ferranti case as a story of two dominant individuals: Alun-Jones and Guerin. However, many of the corporate governance issues prominent in this case have been the focus of criticisms in recent official reports - the regulatory report on RBS; a House of Commons report; and Sir David Walker's review of governance in financial institutions.¹⁵⁰ Indeed, Alun-Jones's 1989 defence of the merger quoted earlier echoes the reaction of banking witnesses to the House of Commons enquiry, who 'betrayed a degree of self-pity, portraying themselves as the unlucky victims of external circumstances'.¹⁵¹

Ferranti's desire, or even desperation, to retain its independence, and to a lesser extent sustain 'the Ferranti spirit' in a changing market, was instrumental in its

downfall. Above all, Alun-Jones wanted to shift the strategic direction of the company to the USA, and he drove through the switch to US acquisitions, as well as the sell-offs of the traditional Ferranti meter, transformer and microelectronics businesses, decisions that the board ratified unanimously.¹⁵² Moreover, the consolidation of power around a professional manager, rather than family owners, appears to have made Ferranti a US-style company with an entrenched chief executive, a situation which contributed significantly to its demise. While previous crises had effectively given control of the company for various periods to its bankers and the government, the wide dispersion of share ownership after 1980 left most shareholders with little incentive to monitor management decisions. The shareholders who knew the company best, Sebastian and Basil, had been marginalised by the time of the decision to merge with ISC. Indeed, Sebastian had been manoeuvred into resignation from the board, while Basil had no executive role, Alun-Jones having persuaded the other directors, who had virtually no 'skin in the game' through their own share ownership, to support his strategies.¹⁵³

Although Ferranti avoided becoming a direct victim of the financialisation for which the UK is often criticised,¹⁵⁴ the firm suffered a different fate with Alun-Jones able to exert his dominance over the company and its board. This contrasts with the views expressed in the 'law and finance' literature, which, while subject to severe criticism, argues that the UK's system to protect the interests of investors is strong.¹⁵⁵ Consequently, the Ferranti case offers support for both those who would argue for greater emphasis on board accountability and responsibility to monitor the chief executive and those who would prefer the market to take a more active role. While the Cadbury Report and later reforms appear to have had an impact on governance

arrangements in listed companies, very similar problems to those evident at Ferranti played a major part in Britain's 2007-08 financial crisis after a decade and a half of reforms.

Our analysis of the Ferranti case therefore resonates with several current corporate governance debates: the appointment, expertise, independence and role of NEDs; the need to curb authoritarian chief executives; the monitoring role of institutional shareholders; the expectations placed on auditors; and the reputational role of 'big' audit firms. Ferranti's failings share various elements with recurring critiques of the effectiveness of governance mechanisms. As Jensen has argued, 'few [chief executives] will accept, much less seek, the monitoring and criticism of an active and attentive board',¹⁵⁶ compounding factors such as the chief executive's ability to determine the flow of information to the board and its agenda, the lack of substantial equity interests of executive and non-executive board members, the combination of chairman and chief executive roles, and the absence or curbing of active investors with sufficiently large positions to monitor and influence a company. In the wake of the financial crisis, the House of Commons Treasury Committee and the Walker Review were particularly critical of both the failure of NEDs to exercise effective oversight and challenge managers, and the failure of institutional investors to hold boards and managements to account.¹⁵⁷

The chairman of the Financial Reporting Council has claimed that: 'The UK Corporate Governance Code ... has made a big difference to corporate governance standards and practice in the UK ... [and] has a history of success in pushing out the boundaries of best practice'.¹⁵⁸ On the other hand, over the past twenty-five years we

have also seen an unending stream of criticism of corporate culture, financial markets and indeed capitalism itself; reports and codes of practice have proliferated, but there is very little to show for all this activity, particularly in relation to board responsibility and accountability.

The Ferranti case and more recent experiences reinforce our view that corporate governance mechanisms, whether code-based or not, and whether in combination or isolation, might never effectively constrain the flawed and dictatorial decision-making of dominant individuals. Such cases therefore lend further weight to the need to develop greater understanding of how governance mechanisms interrelate and impact in particular circumstances. In other words, a particular governance structure may be appropriate for a given company in one situation, but not in others.¹⁵⁹ We consequently concur with Hannah's succinct assessment, that 'ensuring that companies are governed by wise, honest, trustworthy, reputable, transparent, professional, informed, shrewd, and correctly motivated directors is not a simple problem to which we know the answer'.¹⁶⁰

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Table 1. Ferranti: shareholdings, gearing and dividends, selected years.

	1978	1980	1981	1982	1985	1986	1987	1988
Panel A: Percentage of issued shares held								
Directors' shareholdings ¹								
All directors	27.77	18.76	14.72	7.47	5.85	5.45	5.42	7.62
Sebastian and Basil de Ferranti ²	27.07	18.39	14.46	7.24	5.69	5.29	5.25	3.01
All non-executive directors	27.08	18.41	14.47	7.26	5.70	5.31	5.27	3.03
All executive directors	0.69	0.35	0.25	0.21	0.15	0.14	0.15	4.59
Derek Alun-Jones	0.63	0.32	0.23	0.18	0.14	0.13	0.13	0.07
All ex-ISC directors								4.50
James Guerin								4.40
Non-director shareholdings greater than 5%								
National Enterprise Board	50.00	50.00						
Abercorn Nominees Ltd ³	6.36							
Sebastian de Ferranti ²				6.60				
Guardian Royal Exchange plc								5.40
Panel B: Financial ratios								
Gearing (%)	30	32	23	-1	-4	13	14	10
Dividend payout ratio (%)	10	17	33	19	26	23	27	27
Index of ordinary dividends paid	100	132	159	149	299	358	395	445

Notes:

Shareholdings as at the financial year-end, 31 March in each year, except for 1978 where 1 September.

1 Including non-beneficial holdings.

2 Sebastian de Ferranti left the board on 16 March 1982.

3 Abercorn were nominees of Chartered Consolidated Limited.

Definitions of financial ratios:

Gearing = $\text{net debt} \times 100\% / (\text{shareholders' funds} + \text{net debt})$; negative figure denotes net cash held.

Dividend payout ratio = $\text{ordinary dividends for year} \times 100\% / \text{profit for year after extraordinary items and taxation}$.

Index of ordinary dividends paid adjusted for share issues, 1978 = 100.

Sources: Authors' calculations from: Ferranti, *Introduction*; Ferranti, *Annual Report and Accounts*, various years.

Table 2. Board size and composition.

Coverage of companies	Times 1000 (source: Bank of England)			Quoted companies (source: Conyon)		Ferranti plc	Ferranti International Signal plc
	1983	1985	1988 (Times 250)	1988	1993	31 March 1987	31 March 1988
Average (Ferranti: actual) number of directors	9.4	9.0	8.9 (10.9)	8.94	8.72	11	15
Average (Ferranti: actual) number of NEDs	3.1	3.2	3.2 (4.17)	3.51	3.86	4	6
Average (Ferranti: actual) percentage of NEDs	33%	35%	36% (38%)	38%	44%	36%	40%
Percentage of companies with audit committees	-	-	38% (56%)	35%	90%	-	-
Percentage of companies with full-time chairman with executive responsibilities	-	-	40% (44%)	-	-	-	-
Percentage of companies with chairman and chief executive roles split	-	-	-	57%	77%	-	-
Total number of NEDs	-	-	1,764	-	-	-	-
Number of NEDs who were former executives of the same company	-	-	235 ¹	-	-	-	-
Number of NEDs with professional connection to company	-	-	199 ¹	-	-	-	-
Number of companies responding	'over 700'	344	549	281-293 ²	297-301 ²	-	-

Notes:

NEDs = non-executive directors.

¹There was some (unquantified) overlap between NEDs who were former executives of a company and those who had some professional connection to it.

² Number of companies providing usable responses depended on question.

Sources: Bank of England, “Composition of Company Boards”: 243, Table B, 244, Tables D, E and G; Conyon, “Corporate Governance Changes”: 91, 93–94, Tables 1, 2, 3; Ferranti, *Annual Report and Accounts*, 1987, 1988.

¹ See Wilson, *Managers, Mergers and Fraud*, for a detailed analysis of this failure.

² These cases included Bank of Credit and Commerce International (BCCI), Barings, Blue Arrow, British and Commonwealth/Atlantic Computers, Coloroll, Guinness, Lloyd's of London, Mirror Group/Maxwell, Polly Peck, and Queen's Moat House Hotels.

³ Cadbury Committee, *Report*.

⁴ Coffee, "Corporate Scandals"; Melis, "Corporate Governance Failures."

⁵ Argenti, *Corporate Collapse*, 45–46, 140, 144; Hamilton and Micklethwait, *Greed and Corporate Failure*.

⁶ Clarke and Dean, *Indecent Disclosure*; Clarke, Dean and Oliver, *Corporate Collapse*; Jones, *Creative Accounting*; Matthews, "London and County."

⁷ Argenti, *Corporate Collapse*, 123–124; Baxter, "McKesson & Robbins"; Jones, *Creative Accounting*, 473–474; Lee, Clarke, and Dean, "The Dominant Corporate Manager."

⁸ Grant and Visconti, "Strategic Background.."

⁹ Van Rooij, "Sisyphus in Business", 203.

¹⁰ Jensen, "Agency Cost."

¹¹ Conn et al., "Impact on UK Acquirers."

¹² Roe, "Institutions of Corporate Governance."

¹³ Seth, Song, and Pettit, "Cross-Border Acquisitions."

¹⁴ De Jong et al. "Royal Ahold"; Drennan, "Mirror Group and Barings"; Gwilliam and Jackson, "Creative Accounting"; Hogan, "Lessons from Barings"; Melis, "Corporate Governance Failures."

¹⁵ Agrawal and Knoeber, “Firm Performance”; McKnight and Weir, “Agency Costs”; O’Sullivan and Diacon, “Governance Mechanisms”; Roe, “Institutions of Corporate Governance”; Weir, Laing, and McKnight, “Governance Mechanisms”; Weir, Laing, and Wright, “Incentive Effects.”

¹⁶ Ward, Brown, and Rodriguez, “Governance Bundles.”

¹⁷ See Wilson, *Family Firm*, 45–58.

¹⁸ The Ferranti Archive is in the Museum of Science and Industry, Manchester, access to which has been extensive. The authors have also benefitted from interviews with all of the principal Ferranti directors involved in the merger, as well as the board minutes relating to this period and some private material held by several directors.

¹⁹ Ward, Brown, and Rodriguez, “Governance Bundles.”

²⁰ Roe, “Institutions of Corporate Governance.”

²¹ Berle and Means, *The Modern Corporation*.

²² Jensen and Meckling, “Theory of the Firm.”

²³ Fama and Jensen, “Separation.”

²⁴ Berle and Means, *The Modern Corporation*; Ward, Brown, and Rodriguez, “Governance Bundles.”

²⁵ Fama, “Agency Problems”; Fama and Jensen, “Separation”; Jensen and Meckling, “Theory of the Firm.”

²⁶ Jensen and Meckling, “Theory of the Firm”; Jensen and Warner, “Distribution of Power.”

²⁷ Baysinger and Butler, “Corporate Governance”; Fama, “Agency Problems”; Fama and Jensen, “Separation.”

²⁸ Fama, “Agency Problems.”

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- ²⁹ Shleifer and Vishny, “Large Shareholders.”
- ³⁰ Hirschey, “Mergers.”
- ³¹ Grossman and Hart, “One-Share One-Vote”; Jensen, “Agency Cost.”
- ³² Easterbrook, “Agency-Cost Explanations.”
- ³³ McNulty, Zattoni, and Douglas, “Developing Corporate Governance Research”; Weir, Laing, and McKnight, “Governance Mechanisms.”
- ³⁴ Rediker and Seth, “Boards of Directors.”
- ³⁵ Agrawal and Knoeber, “Firm Performance”; McKnight and Weir, “Agency Costs”; O’Sullivan and Diacon, “Governance Mechanisms”; Weir, Laing, and McKnight, “Governance Mechanisms.”
- ³⁶ Weir, Laing, and Wright, “Incentive Effects.”
- ³⁷ Roe, “Institutions of Corporate Governance.”
- ³⁸ Ward, Brown, and Rodriguez, “Governance Bundles.”
- ³⁹ Chandler, *Scale and Scope*, 239. For a recent assessment of research on family business see Colli, Haworth, and Rose, “Long-term Perspectives”. For further detail on Ferranti, see Wilson, *Building a Family Business; Family Firm; Managers, Mergers and Fraud*.
- ⁴⁰ Wilson, *Family Firm*, 380.
- ⁴¹ *Ibid.*, xv, and interview with Sebastian de Ferranti.
- ⁴² Wilson, “Ferranti and the Accountant.”
- ⁴³ “The Ferranti Domino” *Economist*, Sept. 21, 1974, 97.
- ⁴⁴ Interviews with Sebastian de Ferranti.
- ⁴⁵ Wilson, *Family Firm*, 1.
- ⁴⁶ *Ibid.*, 30.

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- ⁴⁷ Ibid., 425. The NEB also held the taxpayers' stakes in companies such as British Leyland, ICL and Rolls Royce.
- ⁴⁸ Interview with Derek Alun-Jones.
- ⁴⁹ Goold and Campbell, *Strategies and Styles*, 144.
- ⁵⁰ Wilson, *Family Firm*, 336, 347–348.
- ⁵¹ Ferranti, *Annual Report*, 1981, 7.
- ⁵² “Ferranti: The Scots get their Way” *Economist*, July 5, 1980; Wilson, *Family Firm*, 352–355.
- ⁵³ Hartley, “Defence Economy”, 226, Table 9.8.
- ⁵⁴ Plessey was taken over by GEC and Siemens in 1989 after it had merged its telecommunications business with GEC's in 1987.
- ⁵⁵ In the firm's newsletter, *Ferranti News*, Alun-Jones talked about ‘The US Strategy’ as a core feature of his policies. Also see Goold and Campbell, *Strategies and Styles*, 137–138.
- ⁵⁶ Ferranti, *Annual Report*, 1987, 30.
- ⁵⁷ Ferranti, *Listing Particulars*, 5.
- ⁵⁸ The UK's fiftieth largest employer in 1992 had 24,600 employees (Jeremy, *Business History*, 574).
- ⁵⁹ Interviews with Derek Alun-Jones, Charles Scott and Albert Dodd.
- ⁶⁰ Wilson, *Managers, Mergers and Fraud*, 94–98.
- ⁶¹ He became a NED of GEC within six months of his acrimonious departure from Ferranti in 1982 (Wilson, *Family Firm*, 67).
- ⁶² Lazard Brothers Report on ISC, August 1987.

⁶³ “Defence Combination has Pentagon Appeal” *Financial Times*, September 22, 1987.

⁶⁴ Interviews with Alun-Jones, Scott and Dodd.

⁶⁵ Interview with Alun-Jones.

⁶⁶ Wilson, *Managers, Mergers and Fraud*.

⁶⁷ The fraud was fully explained in a report Ian Ball of Ferranti wrote for the Federal Bureau of Investigation (FBI) in December 1989.

⁶⁸ See Wilson, *Managers, Mergers and Fraud*, for a detailed account, especially 115–123.

⁶⁹ *Ibid.*; Baxter, “McKesson & Robbins”; Melis, “Corporate Governance Failures.”

⁷⁰ Ferranti, *Annual Report*, 1989 revised, 7. The revised accounts, dated 16 November 1989, replaced those dated 13 July 1989.

⁷¹ Brummer and Cowe, *Weinstock*, 214–216.

⁷² Aris, *Arnold Weinstock*, 204.

⁷³ Ferranti, *Annual Report*, 1991, 27.

⁷⁴ Brummer and Cowe, *Weinstock*, 221–223.

⁷⁵ Ferranti, *Annual Report*, 1989 revised, Chairman’s Statement.

⁷⁶ Wilson, *Managers, Mergers and Fraud*, 123–130. Although accounting standards have become clearer and more prescriptive in this area, revenue recognition is a perennial problem in long-term contracts with uncertainties and a feature of numerous accounting scandals (Beasley et al., *Fraudulent Financial Reporting*; Jones, *Creative Accounting*, 461–462, 469).

⁷⁷ Guerin ‘reckoned [the LSE] was more respectful of his business’s need for confidentiality’ (“The Better Kept Secret”, *Economist*, September 26, 1987).

⁷⁸ Smith, *Accounting for Growth*, first edition, 5, 66, 186; second edition, 180–182; Skerratt and Tonkin, *Financial Reporting 1987-88*, 133–134; *Financial Reporting 1988-89*, 86–87.

⁷⁹ Neither edition of Smith’s book mentions Ferranti, although the British and Commonwealth, Coloroll, and Polly Peck scandals are discussed (Smith, *Accounting for Growth*, first and second editions). Skerratt and Tonkin, *Financial Reporting* (various years), contain few mentions of Ferranti, none of which are relevant to the scandal.

⁸⁰ Scott-Bardsley Report. *The Commercial Background of International Signal & Control Group PLC*, 2.

⁸¹ Interview with Sir Donald McCallum.

⁸² Wilson, *Managers, Mergers and Fraud*, 143–144.

⁸³ Walker Review, *Review of Corporate Governance*, 23–24.

⁸⁴ Cadbury Committee, *Report*; Hampel Committee, *Report*; Higgs, *Review*.

⁸⁵ Financial Reporting Council, *UK Corporate Governance Code*.

⁸⁶ Nordberg and McNulty, “Creating Better Boards.”

⁸⁷ Financial Reporting Council, *UK Corporate Governance Code*, 2, 7.

⁸⁸ Cadbury Committee, *Report*. Institutional investors considered these to be Cadbury’s most significant corporate governance improvements (Solomon et al., “Institutional Investors’ Views”, 220, Table 1).

⁸⁹ Dedman, “Determinants of UK Board Structure”, 138.

⁹⁰ Wilson, *Family Firm*, 366–372.

⁹¹ Short and Keasey, “Managerial Ownership”, 91.

⁹² Dahya, McConnell, and Travlos, “Cadbury Committee”, 467.

⁹³ Fama, “Agency Problems.”

⁹⁴ Cadbury Committee, *Report*, 22.

⁹⁵ Abdullah and Page, *Corporate Governance and Corporate Performance*, 8.

⁹⁶ Ferranti, *Annual Report*, 1987, 40. Alun-Jones was also a NED at two other listed companies by 1987: GKN and Reed International. Broadley was a member of the Takeover Panel and chairman of the Issuing Houses Committee from 1983 to 1985, and was also among the more than 200 individuals and institutions who commented on the draft Cadbury Report (Cadbury Committee, *Report*, 86).

⁹⁷ Broadley and Alun-Jones had also been educated at the same institution.

⁹⁸ Wilson, *Family Firm*, 59–67.

⁹⁹ The Cadbury Committee (*Report*, 22) recommended that NEDs ‘should be independent of management and free from any business or other relationship which could materially interfere with exercise of their independent judgement’. Only Hoskyns would have been considered ‘independent’ under the provisions of the current version of the *UK Corporate Governance Code* (Financial Reporting Council, 2014).

¹⁰⁰ Financial Reporting Council, *Guidance on Board Effectiveness*; Financial Reporting Council, *UK Corporate Governance Code*; Spira and Bender, “Compare and Contrast.”

¹⁰¹ Charkham, “The Bank and Corporate Governance”, 388.

¹⁰² Joint Disciplinary Scheme, *Investigation*, 12–13.

¹⁰³ The audit committee minutes have not survived in the Ferranti Archive.

¹⁰⁴ Collier, “Audit Committee”, 135.

¹⁰⁵ Conyon, “Corporate Governance Changes.”

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- ¹⁰⁶ Francis, “Audit Quality”, 360.
- ¹⁰⁷ Chung, Firth, and Kim, “Auditor Conservatism.”
- ¹⁰⁸ Nelson, Elliott and Tarpley, “How Are Earnings Managed?”
- ¹⁰⁹ Ferranti, *Annual Report*, 1989 revised, 2.
- ¹¹⁰ Joint Disciplinary Scheme, *Investigation*, 8, 11–14.
- ¹¹¹ Notably in the cases of BCCI, Mirror Group and Polly Peck (see Gwilliam and Jackson, “Creative Accounting”).
- ¹¹² Chandler and Edwards, “Recurring Issues”; Chandler, Edwards, and Anderson, “Changing Perceptions.”
- ¹¹³ Porter, Simon, and Hatherly, *External Auditing*, 220.
- ¹¹⁴ Argenti, *Corporate Collapse*, 146–147.
- ¹¹⁵ Goold and Campbell, *Strategies and Styles*, 114 and 117.
- ¹¹⁶ *Ibid.*, 124.
- ¹¹⁷ Jones, *Renewing Unilever*, 320.
- ¹¹⁸ Scott-Bardsley, *Commercial Background*.
- ¹¹⁹ Howson, *Commercial Due Diligence*; Rankine, Stedman, and Bomer, *Due Diligence*.
- ¹²⁰ ICAEW, *Financial Due Diligence*, 1.
- ¹²¹ Howson, *Commercial Due Diligence*, 31
- ¹²² Beattie, Fearnley, and Brandt, *Behind Closed Doors*.
- ¹²³ *Ibid.*, 121, 130, 186, 188.
- ¹²⁴ Jones, *Renewing Unilever*, 301.
- ¹²⁵ Financial Services Authority, *Royal Bank of Scotland*, 8.
- ¹²⁶ Wearing, *Cases*, 26–28.

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- ¹²⁷ Brummer and Cowe, *Weinstock*, 214.
- ¹²⁸ Augar, *Gentlemanly Capitalism*; Kynaston, *The City of London*; Michie, *London Stock Exchange*; Roberts, *The City*, 42–44, 46–50; Toms and Wright, “Corporate Governance”, 99–100; Wilson, *British Business History*, 194–204.
- ¹²⁹ Chambers and Dimson, “IPO Underpricing”, 1423–1424.
- ¹³⁰ Roberts, *The City*, 51, 54–55.
- ¹³¹ Toms and Wright, “Corporate Governance”, 115.
- ¹³² Central Statistical Office, *Share Ownership*, 5, Table 1. Ferranti was not included in this survey.
- ¹³³ Toms and Wright, “Corporate Governance”, 105.
- ¹³⁴ Dimson, Marsh and Staunton, *Triumph*, 153, Figure 11–4, 303, Table 32–3.
- ¹³⁵ Bowden, “Ownership Responsibilities”, 55–56.
- ¹³⁶ Ferranti Board Minute 10835, Sept. 24, 1980; Wilson, *Family Firm*, 352–355, 388.
- ¹³⁷ Cadbury Committee, *Report*, 48.
- ¹³⁸ Financial Reporting Council, *Stewardship Code*.
- ¹³⁹ Hirschman, *Exit, Voice and Loyalty*.
- ¹⁴⁰ Ferranti, *Annual Report*, 1987, 4.
- ¹⁴¹ Goergen and Renneboog, “Strong Managers”, 274; Stapledon, *Institutional Shareholders*, 334–335. Parallels can be found in other corporate scandals, for example Ahold, where management shareholdings were small, family and blockholder oversight were eliminated or negated, and management control of the board secured (De Jong et al., “Royal Ahold”).
- ¹⁴² Bowden and Maltby, “Underperformance”; Bowden, “Ownership Responsibilities.”

¹⁴³ Committee to Review the Functioning of Financial Institutions, *Report*; Kay, *Kay Review*; Myners, *Institutional Investment*.

¹⁴⁴ Wilson, *Family Firm*, 344.

¹⁴⁵ *Ibid.*, 15–20.

¹⁴⁶ Agrawal and Knoeber, “Firm Performance”; McKnight and Weir, “Agency Costs”; Roe, “Institutions of Corporate Governance”; Weir, Laing, and McKnight, “Governance Mechanisms”; Weir, Laing, and Wright, “Incentive Effects.”

¹⁴⁷ Rediker and Seth, “Boards of Directors.”

¹⁴⁸ Ward, Brown, and Rodriguez, “Governance Bundles.”

¹⁴⁹ A possible alternative interpretation is that mechanisms such as the inclusion of NEDs on the board and the establishment of an audit committee were intended as ‘symbolic actions’ in response to the concerns of stakeholders, particularly shareholders – see, for example, Westphal and Zajac, “Symbolic Management of Stockholders”. We rule out this interpretation in the Ferranti case as there is no evidence that shareholders or other stakeholders expressed concerns about the company’s corporate governance.

¹⁵⁰ Financial Services Authority, *Royal Bank of Scotland*; Treasury Committee, *Banking Crisis*; Walker Review, *Review of Corporate Governance*.

¹⁵¹ Wilson, *Managers, Mergers and Fraud*, 202–208; Treasury Committee, *Banking Crisis*, 107.

¹⁵² Wilson, *Family Firm*, 47–50 and 356–365.

¹⁵³ *Ibid.*, 58–67.

¹⁵⁴ Froud et al., *Financialization*.

¹⁵⁵ La Porta et al., “Law and Finance”; for a recent critique, see Mussachio and Turner, “The Law and Finance Hypothesis.”

¹⁵⁶ Jensen, “Modern Industrial Revolution”, 863–867.

¹⁵⁷ Treasury Committee, *Banking Crisis*, 108; Walker Review, *Review of Corporate Governance*, 6.

¹⁵⁸ Financial Reporting Council, *Developments in Corporate Governance 2012*, 1.

¹⁵⁹ Weir, Laing, and Wright, “Incentive Effects.”

¹⁶⁰ Hannah, “Book Review”, 877.