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Corporate governance and board accounts: exploring a neglected interface between boards of directors and management

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Abstract There is an absence of research about what information boards of directors have access to and how they use that information. The purpose of this paper is to explore and theorize about the content and use of information to boards of directors. The paper introduces and elaborates on the concept of 'board accounts', which is defined as the information supplied to boards of directors by top-management. The paper locates the board accounts in the Swedish institutional setting and demonstrates how the concept can be operationalized in an empirical setting. On the basis of a unique material of archived board records in a Swedish company, the paper explores the board accounts over a period of 10 years (1989–1998). It is found that while use of the board accounts in the case study company changes considerably over time, the content of the board accounts remains largely unchanged. This raises questions about where and when directors receive information, the reliability of the information in the board accounts, and recent attempts to integrate corporate governance and management accounting (CIMA, Performance reporting to boards: a guide to good practice, 2003; CIMA strategic scorecard: boards engaging in strategy, 2005; Seal, Management Accounting Research 17(4):389–408, 2006). Finally, the paper discusses the merits of historical archive-based approaches in this field and possibilities for future research.

Keywords Corporate governance · Boards of directors · Management · Board accounts · Management accounting · Corporate strategy · Archive-based approach

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1 Introduction

In the past decade or so, the structures and operations of boards of directors have received increased interest from both academics and practitioners. Problems of corporate control at the highest level of organizations have been brought together under the broad concept of corporate governance. Basically, the corporate governance problem originates from the separation of ownership of an organization and control over that organization's operations. Assuming a separation of ownership and control and a divergence of interests between shareholders and managers, there is a need to monitor and control managers (Jensen and Meckling 1976; Fama and Jensen 1983).

The board of directors is paramount in the context of good corporate governance and in avoiding the corporate failures that have so often been cited in the business press. Academic research on boards of directors is nowadays abundant in financial economics (Hermalin and Weisbach 2003) as well as management research (Daily et al. 2003; Pye and Pettigrew 2005). Much of this research has drawn on agency theory and examined the impact of specific board variables, such as board composition and board size on corporate performance (Baysinger and Butler 1985; Yermack 1996). Other studies have examined board composition in relation to discrete board tasks often operationalized by specific events. Examples include occurrences of stockholder suits (Kesner and Johnson 1990) and takeover bids (Brickley et al. 1994).

Contemporary corporate governance research has shown little interest in information issues relating to boards of directors. This is surprising, because seminal studies on boards of directors rated lack of information as one of the main factors that prohibits the work of boards of directors (Estes 1973; Lorsch and MacIver 1989). Adequate information is often assumed to be essential for decision-making. Conversely, lack of high-quality information is an obstacle for boards of directors to detect problems and irregularities in organizations. Furthermore, given the increased responsibility placed on the board of directors, both through legislation and codes of best conduct, it seems likely that board members will need increasingly more and better information to fulfill these duties.

Accounting researchers, on the other hand, have been increasingly concerned with corporate governance, although usually from a financial accounting perspective (Bushman and Smith 2001). The focus on financial accounting has led to research questions oriented towards the board of directors as the sender of financial accounts. Examples include studies of board composition in relation to earnings management or the likelihood of financial statement fraud (Beasley 1996; Klein 2002). Variables such as the audit process and the impact of audit committees have also been examined in the context of corporate governance (Cohen et al. 2002; Karamanou and Vafeas 2005).

However, the board as the receiver and user of accounting information has been a neglected topic for research. It is difficult to say whether this lack of research is caused by the implicit assumption that the board only uses financial accounting information. Despite the absence of interest from researchers, there is a growing interest from practitioners and regulatory agencies about the role of information in the work of the board. The corporate governance principles of the OECD state that it is a basic right of the board to receive relevant information about the company on a timely basis (OECD 2004). Furthermore, the Chartered Institute of Management Accountants has started to address reporting issues to boards of directors (CIMA 2003, 2005).

The purpose of this paper is to explore and theorize about the content and use of information to boards of directors. In particular, the paper focuses on the board's use of information in performing a strategic role. The focus is consistent with calls for studies that go beyond the use of accounting information by general managers to examine how other actors interface with management accounting (Shields 1997; Seal 2006). It is also consistent with the expressed need for approaches that go beyond the outer structural characteristics of boards of directors and examine what really goes on inside boardrooms (Eisenhardt 1989; Hill 1995; Pettigrew and McNulty 1995, 1998; Huse 2005; Roberts et al. 2005). It is interesting to note that in spite of the preoccupation of these writers with opening up the black box of the board, limited attention has been given to the role of information in board processes. The availability of accurate and relevant information should be viewed as an integral part of efficient governance by the board of directors.

The paper is organized as follows. Section 2 presents a framework for analyzing the board as receiver and user of information. Section 3 describes the institutional context of the Swedish board model and outlines the archive-based method to collect the empirical data. The case study evidence is then presented and analyzed in Sect. 4. Section 5 sums up the main findings of the case study and discusses further on the basis of those findings. Finally, Sect. 6 concludes by summarizing the main implications of the paper and possibilities of future research.

2 Conceptual and theoretical framework

In this section, a framework is presented that integrates insights from both mainstream corporate governance research and accounting research. With respect to the governance literature the paper draws on agency theory, but broadens the perspective by drawing on the more recent literature about boards and corporate strategy. As regards accounting, the paper draws on the mainstream literature on management accounting systems (MAS), but supplements this framework with the emergent literature about strategic management accounting (SMA).

Section 2.1 starts by theoretically deriving the board functions of control and strategy. These functions are central in the paper for later theorizing about the use of information by the board. Section 2.2 introduces and elaborates on the concept of board accounts, which provides a basis for analyzing the content of the information supplied to boards of directors. Section 2.3 contains a discussion of the data and information concepts and provides a set of categories ('information characteristics') for coding and operationalizing the content of the board accounts. Section 2.4 then provides a set of concepts for analyzing information use. This section also ties together the previous sections by discussing the interrelationship of board functions, information use and information content. Finally, the main dimensions of interest for the empirical case study are summarized.

2.1 Functions of boards of directors

The main functions of boards of directors in the corporate governance literature derive from different theoretical perspectives (Zahra and Pearce 1989; Daily et al. 2003). The control function of boards relates strongly to agency theory, which states that the company's internal decision system is an important instrument for dealing with the agency problems between managers and shareholders (Fama and Jensen 1983). Within this framework, companies deal with the problems arising from the separation of ownership and control by separating the functions of the board from the functions of management.[1] The ratification and monitoring functions are allocated to the shareholders (the board), whereas the initiation and implementation functions are allocated to top-managers. However, agency theory has overall been rather silent on boards in the context of strategy and viewed issues of strategy as belonging to the domain of management. This is likely a consequence of the exclusion of the board in the early initiation phase of decision-making. The position taken in this paper is that the strategically involved board must also be active in generating and initiating strategy.

Strategic restructuring research took an early interest in the role of the board in corporate strategy. Baysinger and Hoskisson (1990) have provided an important link between the board of directors and strategy by applying the typology of financial versus strategic control. Within a system of financial controls, managers are primarily evaluated on the basis of their performance (ex post) in relation to financial performance criteria (Goold and Campbell 1987). Within a system of strategic controls, on the other hand, decisions are evaluated on the basis of their strategic desirability before the decision has been ratified (ex ante). A basic prerequisite for strategic controls is that the board has at least some knowledge about the company's business operations. The contribution by Baysinger and Hoskisson (1990) is important in the context of this paper, because it is one of few corporate governance studies that provide an indication as to what information boards would use in performing a role in corporate strategy. In practice, the use of strategic controls means that short-term budgetary controls are supplemented with longer term performance measures (Goold and Quinn 1990). These measures are often non-financial and sometimes compare performance in relation to competitors. Concrete examples include market share and product quality. The use of financial versus strategic controls by boards of directors has subsequently been applied to different empirical settings such as technology-intensive companies (Marianna et al. 2006), the market for corporate control (Hitt et al. 1996) and companies in declining industries (Filatotchev and Toms 2003).

Much of the other research on corporate boards and strategy has focused on examining various contingency factors of the board's involvement in strategy. Judge and Zeithaml (1992) found that the board's strategic involvement was positively related to company age, but negatively related to the size of the board and the level of diversification. Other studies have examined the board's strategic involvement in

[1] In this paper, a conventional definition of management as consisting of a company's senior officers is followed (Mizruchi 1983). Management is used to refer to members of the company's executive team.

relation to for example interlocking directorships (Carpenter and Westphal 2001) and a decrease in company performance (Johnson et al. 1993).

In the British context, a number of board studies have adopted a different approach that attempts to come close to the object of study by examining processes in and around the boardroom (Hill 1995; Pettigrew and McNulty 1995, 1998; Stiles 2001). Some of those studies have taken an interest in the board members' role in corporate strategy. On the basis of data from interviews with UK directors, McNulty and Pettigrew (1999) concluded that non-executive directors shape both the content and processes of corporate strategy. A rather similar picture was drawn by Stiles (2001, p. 646), who concluded that: "The board is largely responsible for setting the strategic parameters within which strategic activity can take place."

2.2 The concept of board accounts

Agency theory is often based on the assumption of information asymmetry (Baiman 1990). Agency problems become an issue when there is information asymmetry, in combination with diverging interests between the principal and the agent. In situations where ownership is separated from control, managers are assumed to have access to more information than outside shareholders. The position of the corporate board in this setting of information asymmetry is quite unclear in the literature (Sansing and Stocken 2007). Nevertheless, under the plausible assumption that the board receives at least some information from management that is not accessed by outside shareholders the simple expression below would hold.

$$[\mathrm{I(S)} < \mathrm{I(B)} < \mathrm{I(M)}]$$

where I(S) is the information set of the shareholders, I(B) is the information set of the board and I(M) is the information set of management. From an agency theoretical perspective, the extent to which more information to the board can reduce information asymmetry becomes an important issue.

However, the main focus of this paper is on the content and use of information by corporate boards, rather than information asymmetry per se. For this purpose it is more useful to conceive of the information in terms of the sending and receiving of different types of accounts. The concept of 'board accounts' was developed as a response to the lack of studies and terminology with respect to information to boards of directors (Johanson 2006). Board accounts are defined as the information supplied by top-management to the board of directors. The concept is taken to include information supplied to the board members prior to the board meetings and supplementary information provided at the board meetings.

In theorizing about the content of the board accounts (BA), it is useful to introduce two other types of accounts. Firstly, the financial accounts (FA) which are defined as the aggregated information contained in a company's external financial reports. Thus, the FA represent the information communicated to outside stakeholders. Secondly, the management accounts (MA) which exist in the management accounting system and can be used for decision-making and control at various hierarchical levels within a company.

Management is commonly viewed as the producer of external financial reports. Nevertheless, the board members sign the annual report. Corporate scandals in the US and elsewhere have drawn attention to issues of both increased management and board responsibility with respect to the financial accounts (Klein 2003). This has had an impact on the discussion also in smaller countries, such as Sweden. Thus, both top-management and the board should be viewed as senders of the FA.

Corporate boards in most legal contexts have a right to receive relevant information about the company from management. In a company with an organizational structure based on business areas, the executive team receives MA from the business areas and in turn transmits BA to the board of directors. Although it is useful for analytical purposes to distinguish between BA, FA and MA, they likely overlap as illustrated in Fig. 1. The Venn diagram below is only for the purpose of highlighting the three important concepts. The size and position of the circles are issues for empirical research.

The research literature on managerial work has stressed and provided evidence that managers often base their decisions on unofficial information and informal discussion (Mintzberg 1973; Russ et al. 1990). Hypothetically, this also applies to the members of corporate boards. More specifically, management could communicate information to board members outside the boardroom on informal occasions, such as coffee breaks, e-mail etc. In an early conceptualization of informal communication, Earl and Hopwood (1980) referred to such information as 'unofficial accounts'. Furthermore, board members likely obtain information from external sources. Examples include newspapers and information obtained by holding board seats in other companies. This information can be referred to as 'externally obtained information'. Finally, the board members could also obtain information from other internal sources such as board committees, or in special situations even directly from sources at lower levels of the organization. If the total set of information that a board member has access to is referred to as the 'board information set', this information set is usually larger than the information contained in the board accounts. Following the discussion above, the board information set (BIS) can be defined as:

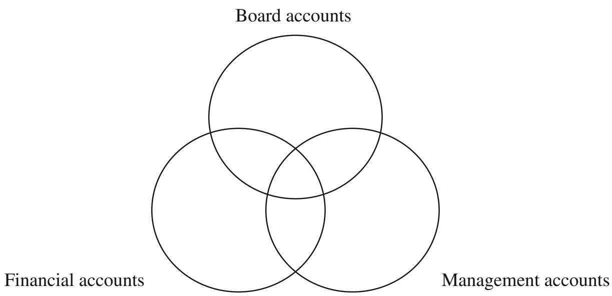

Fig. 1 Three types of accounts

$$\left[\mathrm{BIS} = \mathrm{BA} + \text{unofficial accounts} + \text{externally obtained info} \\ + \text{other internally obtained info}\right]$$

Figure 2 summarizes the discussion by illustrating the multiple information sources that board members have access to. In addition to the board accounts, unofficial accounts are communicated by management outside the boardroom. The board members can also obtain information from other internal sources and/or from external sources.

2.3 Content of the board accounts

2.3.1 Data and information

The established main objective of an information system is to provide information that supports the decision-making process. However, how information is defined and the point at which data become information is a controversial issue. A common definition in management research as well as financial accounting is that data are information only to the extent that they have the potential to affect choice (Wildavsky 1983; Scott 2006). Thus, more data do not necessarily mean more informed decisions (Braendle and Noll 2005). Because not all the material provided to the board members is likely to influence their decisions, it could certainly be argued that the data concept should be preferred to the information concept in this setting.

Nevertheless, there are some strong reasons for preferring the information concept to the data concept. Computer science and infology also relate information strongly to action. However, it is being stressed that informing may occur without any decision or informed action taking place (Langefors 1995). The receivers of the data are informed as soon as they interpret or process the data. Thus, the point at which processing takes place is critical for turning the data to information.

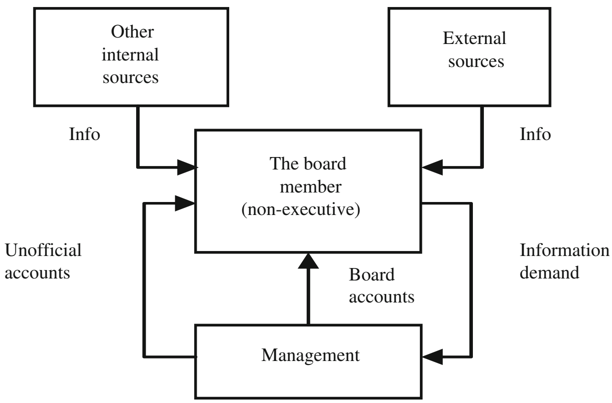

Fig. 2 A model of the board member's information sources

The material supplied to the board is not raw data. It has been processed and interpreted by the CEO, the CFO and other members of top-management. This is generally a sufficient criterion for referring to the material as information (Langefors 1995; Zins 2007). In fact, according to many definitions in information science the data in the board accounts would become information even before being processed by management. This would occur at the point when the data is contextualized by being recorded by the organization and made part of its information or accounting system (Capurro and Hjørland 2003).

Furthermore, the board accounts are produced and transmitted to the board with the most likely intention of affecting board decisions. Consistent with common definitions in financial accounting, the intention and potential of influencing decisions are sufficient for using the information concept. Whether the board accounts are biased and influenced by managerial discretion is less relevant to its classification as information. Thus, consistent with arguments and definitions in both information science and accounting this paper conceptualizes the board accounts as information.[2]

2.3.2 *Information characteristics*

Research about management information systems (MIS) and management accounting systems (MAS) have for a long time analyzed information in terms of its underlying characteristics (Gorry and Scott Morton 1971; Chenhall and Morris 1986; Lederer and Smith 1988; Chia 1995; Bjørnenak and Olson 1999; Chenhall 2003).

The scope of information systems has been defined in terms of the three underlying dimensions of ‘focus’, ‘quantification’ and ‘time horizon’ (Chenhall and Morris 1986). These dimensions have been used to distinguish between ‘traditional’ and ‘broad scope’ information systems, where the latter also comprises information that is ex ante, external and non-financial. Furthermore, subjective non-financial information has been used as a concept that refers to information that is not only non-financial, but also qualitative and judgemental (Ittner et al. 2003; Van der Stede et al. 2006).

Another commonly used information characteristic is ‘aggregation’. The aggregation characteristic relates to the summation of information around specific descriptive objects such as products, functional areas or time periods (Chenhall and Morris 1986; Datar and Gupta 1994; Bjørnenak and Olson 1999). Finally, in discussing the lifetime of information systems, a distinction has been made between ‘continuous’ and ‘temporary’ information systems (Bjørnenak and Olson 1999). A continuous system reports on a permanent basis and has a long lifetime, whereas a temporary system reports on an ad hoc basis and is terminated when a specific problem has been solved.

[2] Because the information concept is almost always preferred in both accounting and management research, there is also a practical reason for referring to the board accounts as information.

2.4 Use of the board accounts

2.4.1 The board functions and accounting information

The two main roles of accounting information systems in the mainstream literature are decision control and decision management (Zimmerman 1997; Horngren et al. 1999). Decision control systems are implemented to ensure that individuals act in the best interest of the organization. Information is provided primarily ex post to measure and correct organizational performance. Within the decision management role, accounting information supports for example the formulation and implementation of strategy. The value of the information depends largely on the extent to which it reduces ex ante uncertainty. The problems in empirically distinguishing between use of information for decision management or control have been stressed for a long time (Demski 1969; Baiman and Demski 1980). Nevertheless, the distinction has prevailed in mainstream management accounting research (Narayanan and Davila 1998; Horngren et al. 1999).

The relationship between managerial activities and accounting information systems has been a reoccurring theme in management accounting research for more than 30 years (Anthony 1965; Gorry and Scott Morton 1971). It has for example been argued that the desirability of measuring costs accurately depends on the use of the cost system (Merchant and Shields 1993). Accuracy and precision are important when strategies are developed, but less so when implementing strategies. The usefulness of information in the end depends on its ability to relate to what managers in fact do (Mintzberg 1973; Jönsson 1998). In the context of boards of directors, information becomes useful for board members to the extent that it supports the board functions.

The decision control and decision management roles in accounting relate strongly to the control and strategy functions of boards. Table 1 matches the board functions of the corporate governance literature with the roles or uses of information in the MAS literature.

Functions, use and content are interrelated. The board functions determine how board members will use information and in turn what information the board demands from management. In the mainstream literature, financial and ex post information has for a long time been viewed as the most useful for the purpose of decision control (Ijiri 1975). Conversely, it has been argued that more broad scope information should be used for decision management. For some time now, traditional financial information has been criticized for being reactive and too aggregated as a basis for decision-making within organizations (Johnson and Kaplan 1991; Kaplan and Norton 2005).

Table 1 Board functions and information use

Board function (governance literature)	Use of information (accounting literature)
Control	Decision control
Strategy	Decision management

Nevertheless, it could also be argued that there is a causal chain in the reverse direction. The information supplied to the board by management determines what information is used, and the functions that board members can and will perform. Cyert and March (1963, p. 106) have argued that the information preserved will: "… determine in large part what aspects of the environment will be observed and what alternatives of action will be considered." Thus, in conclusion, the relationship between use and content of the board accounts is assumingly bi-directional and complex.

2.4.2 Strategic management accounting and the board

If the board plays an increasingly important role in corporate strategy as argued by for example process studies on boards of directors (McNulty and Pettigrew 1999; Roberts et al. 2005), it raises the important question of what information directors need. Strategic management accounting (SMA) integrates insights from the literatures of management accounting and marketing management (Hart and Roslender 2002). The development of SMA is often seen against the background of the debate around the lost relevance of accounting (Johnson and Kaplan 1991; Johnson 1994). Although SMA is an ambiguous concept, SMA techniques are often distinguished by their external orientation (Roslender and Hart 2003). Examples of specific techniques or measures are attribute costing, competitive positioning monitoring and customer profitability analysis. Empirical evidence on the adoption rate of such techniques by companies is, however, rather disappointing (Guilding et al. 2000). There is also a lack of comprehension among practitioners of the term SMA. Furthermore, although the information may exist in companies, it could be present on operational levels of management and may not involve management accountants (Lord 1996).

More recently, Seal (2006) has made a contribution in discussing the intersection of corporate governance and management accounting. Seal perceives an enhanced role for SMA as resulting from the convergence of two narratives: the corporate governance narrative and the relevance lost narrative. Post Enron, non-executive directors have an increased need for information about risks and the strategic direction of the company. The paper by Seal proposes an institutional theory of agency (ITA) to accommodate the more extensive role played by management accounting in corporate governance. From a practical perspective, CIMA (2003) also extends reporting to boards far beyond what is contained in the external financial reports to include for example a 'strategic scorecard'.

2.5 Summary

This section has presented a conceptual and theoretical framework. On the basis of this framework, a number of interesting and specific research questions can be raised for the empirical case study. From an agency theoretical perspective, the content of the board accounts is important because of its potential to reduce information asymmetry. What information does the BA contain? As suggested by the governance literature on boards and strategy as well as the more recent embryonic literature on SMA and boards, the board will need other information for strategy than for control. What information does the board really use to perform its functions and why? In terms of use of the BA, how important are financial accounts in comparison with management accounts, and in particular SMA information? Furthermore, the likely complexity of the relationship between board functions, use and content was discussed. How are these concepts related to each other and why? Finally, the model in Fig. 2 raises the question of what role other sources of information play. What role does for example the unofficial accounts play in relation to the board?

3 Research method

The case study was based on the archived board records of a Swedish public limited company (PLC) over the period 1989–1998. The archived material was complemented with unstructured interviews of four board members and the company secretary. The interviews took place from December 2002 to April 2004 and facilitated the interpretation of the board records.

This section starts by describing the main features of the Swedish corporate governance model. This is useful for positioning the role of the board accounts in a larger institutional context, and for explaining why the Swedish context is particularly interesting for empirically studying the board accounts. This is followed by a discussion of important issues relating to the archive-based research approach and more specific problems relating to the archived board records.

3.1 The Swedish model of corporate governance

Corporate boards are regulated in the Swedish Companies Act (SFS 2005). The Swedish board model follows the unitary or one-tier board structure. Thus, there is no complete separation between the board (governance) and management as in for example Germany (Goergen et al. 2008). However, the CEO is usually the only executive that serves as a member of the board. This means that the lack of board independence in Anglo-Saxon countries that results from having executives as board members is much less of a problem in the Swedish context. Furthermore, Swedish company law does not allow the same individual to be both CEO and chairman (CEO duality).

By international standards, ownership concentration is high in Sweden and historically two business groups have dominated Swedish industry (Collin 1998, Lubatkin et al. 2005).[3] There is a tradition in Sweden of strong owners with a strategic and long-term interest in industrial development. This is reflected in the composition of Swedish boards, as large shareholders are often present or at least directly represented at the board level. Furthermore, employees have a legal right to be represented on Swedish boards. The number of employee representatives on the board of directors is usually three. Thus, in total, there are four main categories of

[3] The use of shares with multiple voting rights serves to further increase concentration of control.

board members on Swedish boards: the CEO, the chairman, the non-executive directors and the employee representatives.[4]

Strong and active owners present on the boards of directors implies that the non-executive directors may be highly involved in issues of strategy. Thus, the Swedish context may be particularly interesting for examining the role of board members in corporate strategy. Furthermore, although the importance of external equity markets has increased during the past two decades, the market for corporate control is underdeveloped in comparison with the Anglo-Saxon systems of governance (Tson Söderström et al. 2003). In this institutional context of weaker external control mechanisms, internal control mechanisms such as large blockholders directly represented on corporate boards become important. However, an active board usually needs accurate and relevant information to perform its functions. Finally, the dominance of non-executive directors on Swedish boards would imply a larger distance between the board and management, which is usually associated with higher information asymmetry. To reduce this information gap, management information to boards could be assumed to play an important role.

3.2 The archive-based approach

The role of archival material has been a much debated topic among accounting historians.[5] The 'new accounting historians' have criticized traditional accounting historians for a narrow focus on the evolution of technical practices of accounting, divorced from their context (Miller and Napier 1993). Conventional historians have met the criticisms by arguing that the new accounting historians are not dedicated to archival research and retelling the past 'as it really happened' (Tyson 1995; Keenan 1998). The prevailing view in contemporary research is more nuanced and stresses the importance of plurality (Chua 1998). Furthermore, there are examples of studies that draw heavily on archived material, but yet locate accounting in a wider socio-economic context (Bhimani 1993; Bryer 2006).

The position in this paper is that company archives can be useful in accounting studies and business research more generally. In particularly with respect to the topic of boards of directors and information, where there is a lack of a grounded body of research. However, there are some considerations and problems with historical archival research as it relates to this research topic.

Firstly, the archival case study was subject to problems of restricted access, a problem not uncommon in the study of company archives (Armstrong 1991). However, in this study it was experienced that the problems were also caused by the object of study. Generally, it seems to be the case that levels high up in the organizations are more difficult to access for researchers. As discussed by Pettigrew (1992), access difficulties remain a source of constraint on all studies of elites because of strong norms of privacy.

[4] Thus, in the stricter sense of independence stressed by the more recent literature and codes of corporate governance (Keasey et al. 2005), Swedish boards are far from independent.

[5] Archival research is commonly used to refer to the collection of a range of data types. Here, archival research is confined to the study of genuine historical documents obtained in for example company archives. This is the meaning that historians usually attach to archival research (Tosh 2002).

Information to boards of directors involves legally sensitive information that is subject to insider regulation. Furthermore, because many of the board members in large companies often figure in the business press, it is possible that this type of studies would be of particular interest to news media. This could make companies reluctant to grant researchers access to the board records. Access to the material in this case study was enabled by the use of material that dated some years back in time. It is well known that once a given material reaches a ‘historical age’, the sensitivity of the material tends to diminish (Tosh 2002). Access was also facilitated by the fact that Company Z was acquired by another company in 1999, and no longer existed as an independent entity.

Shortly after having established contact with company officials, access was granted to the board records. However, a problem was that company officials imposed some restrictions in the contract signed. The contract prescribed that neither the name of the company nor the name of the board members should be disclosed in any officially available report.[6] Furthermore, access to all interviewees was to be mediated by the company officials and the former CEO should be allowed to read the final manuscript before publication.

Archival research is a circular process (Hill 1993). What you find determines what you can analyze and what you analyze structures what you will look for the next time you visit the archive. In total, the company archive was visited four times.

3.3 The board records

The board records consisted of two distinct parts: the minutes of the meeting (‘protokollen’) and the appendices (‘styrelseinlagorna’). The minutes of the meeting were chronologically arranged and basically followed the board agenda. The appendices contained the formal material provided to the board in advance of the meetings.[7] This material was usually provided to the board members one week before the meetings. Thus, the board accounts were visible in both the appendices and the minutes of the meeting. Although the appendices contained the formal material supplied to the board, valuable information was also passed on to the board members at the meetings through face-to-face interaction. This information was reflected in the minutes of the meeting.

The minutes were also important for studying the use of the information by board members. The use of a specific information item can be identified through the documented board discussion and decisions made in relation to the specific item. However, information sometimes has more subtle uses than instant decision-making. Information can result in board members revising their strategic beliefs without leading to an immediate decision. Those revised beliefs may be reflected in future decisions (Langefors 1995). Thus, what essentially can be obtained from a study of archived board records is the use as it is captured in the minutes of the

[6] Whether or not the identity of the company can be found out by an attentive reader is irrelevant to the contract. Thus, the publication of this paper does not violate the contract.

[7] This part of the board records corresponds to what is referred to as the ‘board pack’ in the CIMA (2003) guide to performance reporting to boards.

meetings. Further knowledge about use must be obtained through other sources, such as interviews with board members.

In historical research, the distinction between primary and secondary sources is often based on whether the source is contemporary with the specific event (McDowell 2002). A main advantage with primary sources, such as the board records, is that they are not subject to new interpretations of existing facts. However, the findings may not be readily transferable to current conditions. Thus, some caution is warranted in drawing inferences about boards of directors and their information today on the basis of archived board records.

Essential to the modern study of history is a critical attitude towards the sources and a collection of rules to find out what is likely true (Weibull 1964). A source is considered tendentious where it cannot be dismissed as authentic, although there is considerable bias. A source can be biased by for example promoting a particular perspective (Hill 1993). However, the minutes were not generally made available to the public. Thus, there seems to be few incentives to consciously manipulate the minutes to promote a particular perspective or interest.

The company secretary kept the minutes of the meetings and therefore played a particularly important role with respect to this part of the board records. A problem with this part of the board records is that everything that was said at the board meetings was not recorded in the minutes. In some cases, the minutes only stated that a discussion took place, without specifying the content of the discussion. Furthermore, board members could request that some statements should not be recorded in the minutes.[8]

A problem relating to the interviews is that the period of the study dates back many years. The interviewees may have a tendency to repress uncomfortable events, idealizing their own roles and providing ex post justifications for poor decisions. However, access to primary sources in the form of the board records provided an important counter check on the validity of the statements from the interviews.

4 The board accounts in Company Z

The case study company was a typical large Swedish company that was representative of the strong industrial tradition of the Swedish business sector. For reasons of confidentiality the company is referred to as ‘Company Z’. The industry of Company Z’s main product was characterized by local operations, high capital intensity and investments with a long payback period. The market structure of the industry can be referred to as an international oligopoly, where the largest eight companies controlled about 75% of the market. Company Z was controlled by one of the major Swedish business groups and was among the 20–30 largest Swedish companies in terms of employees and revenues.

The case study report contained 34 information items, which are described and analyzed in Johanson (2006). The total amount of information in the appendices of

[8] According to the company secretary such requests were rare, but were occasionally made by board members.

the board records was much larger. However, because much of the information was standardized in format and reappeared on subsequent board meetings, it was deemed sufficient to illustrate them once. The 34 information items were selected on the basis that they were considered representative of the overall content of the board accounts.

The information characteristics that were considered relevant for coding and analyzing the information in the board accounts were 'descriptive object', 'measure', 'quantification', 'focus', 'time horizon' and 'lifetime'. The information characteristics of the 34 information items are summarized in Appendix A. This paper is confined to illustrating a few information items, selected on the basis that they highlight the most interesting findings of the case study.

This section is broadly structured as follows. The first four Sects. 4.1–4.4 present general evidence about the overall content of the board accounts and what information the board members used. Sections 4.5 and 4.6 provide evidence of two special examples of the complex and ambiguous relationship between content and use of the board accounts. The evidence in Sects. 4.7 and 4.8 is more dynamic in describing and analyzing how a change in board functions impacted on the board accounts. The dynamic focus in these sections is useful for tracing the relationship between content and use over time.

4.1 Financial accounts and external regulation

Generally, four board meetings were held in Company Z in the period of the study case study: (1) March; annual report meeting. (2) May; constitutional meeting and first quarter report. (3) August; half-year report. (4) November/December; budget meeting and third quarter report. Extra board meetings were held only when a board decision was required with respect to a specific issue, such as for example a merger.

Financial accounting considerations had a significant influence on the agenda of the board meetings. Each board meeting started with a presentation of the group's key financial statements.[9] More importantly, however, the ordinary board meetings were always held shortly before the release of a financial report. This reflects the legally mandated control role of the board with respect to the financial accounts, and is consistent with the classic argument that reporting periods are influenced by the reporting cycles of financial accounting systems (Johnson and Kaplan 1991). Thus, the board meetings were usually held as a response to external regulation. This could act as a constraint on information use, because the release of a financial report may not coincide with important economic events, such as an unexpected decrease in performance. However, the timing of board meetings with the release of financial reports also meant that there was a minimum threshold for the number of board meetings held each year.

The board was on a regular basis supplied with traditional financial statements, such as the balance sheet, income statement and cash flow statement. The important

[9] Although the CFO attended most board meetings to present the statement of accounts, he was not a member of the board and had no right to vote.

role of the board with respect to the financial reports is evidenced by frequent board discussions about the principles underlying the financial accounts.

> The issue of how to account for credit losses was raised by one of the board members. Referring to the credit losses of MSEK 40 in 'Nyckeln Holding' and 'Mobilia', he questioned from a technical point of view the appropriateness of accounting for the losses as extraordinary costs. (February, 1991)

At the board meeting in February 1989, the CFO presented a summary of Company Z's main products as illustrated in Table 2.

This item has the characteristics of 'traditional scope' accounting information. A summary of products and income in the format above was presented to the board at almost every board meeting. It can therefore also be viewed as part of a continuous information system. With the exception of the last column, this information was also disclosed in the financial reports.

4.2 Disaggregated and ex ante information

At the board meeting in December 1995, the budget for 1996 was presented to the board. The CFO initially stated that it was mainly three factors that had impacted on the budget. These were an appreciation of the Swedish currency, improved operating margins and an increase in the burden of taxation. An extract of the budget for 1996 is shown in Table 3.

The budgets were an important part of the management accounts contained in the board accounts. By providing information on the basis of each country, the level of aggregation was lower than in the financial accounts. The financial reports only disclosed income at the level of each region. Thus, it seems that even at the high hierarchal level of the board it was perceived that less aggregated information was useful. This is consistent with criticisms of the high level of aggregation of financial accounting and calls for improved board reporting (CIMA 2003).

Table 2 Summary of products and income (item 3)

Summary of the group's products	Operating income/income after financial items (in MSEK)				
	1987	1988	Change in MSEK	Change in %	Deviation from estimate 3rd quarter
Product A	806	1,080	+274	+34	+21
Product F	151	182	+31	+21	+3
Product U	99	72	−27	−27	−3
Other products	59	1	−58	−98	−28
Operating income	1,115	1,335	+220	+20	−7
Net interest	−61	−102	−41	−67	+27
Exchange rate adjustment	−40	−83	−43	−108	−20
Income after financial items	1,014	1,150	+136	+13	0

Table 3 Budget per country (item 26)

Budget for the group per country	Operating income (in MSEK)			
	1994	Estimate 1995	Budget 1996	Change 1995–1996
Sweden	533	600	619	20
Denmark	54	73	76	3
Finland	164	212	247	35
Norway	162	189	177	−11
Cryo	25	48	46	−2
Other companies	−3	16	4	−12
Indirect costs	−13	−26	−20	6
Sum Nothern Europe	923	1,111	1,150	39
Germany	294	324	337	13
Netherlands	69	45	43	−2
United Kingdom	−33	−20	−12	8
…	…	…	…	…
Sum Continental Europe/US	775	871	997	126
Brazil	276	160	202	42
Mexico	35	−1	−11	−10
Venezuela	−44	37	34	−3
…	…	…	…	…
Sum Latin America	455	383	394	11
Costs common to the group	−460	−437	−515	−78
Sum group	1,693	1,928	2,026	97

Budgets were naturally not disclosed in Company Z's financial reports. Fear of litigation and commercial value to competitors generally deter management from disclosing this type of information (Johnson et al. 2001). Thus, board members' access to ex ante financial information in the form of budgets highlights an important information asymmetry between the board and the external stakeholders.

This information was often used for decision control by comparing budgets with actual results (Baiman and Demski 1980; Narayanan and Davila 1998). The board members used the information to ask probing questions about causes of deviations from the budget. At the board meeting in December 1996, it had become clear that the budget for 1996 would not hold. The budget deviation was large (MSEK 461) and this triggered a number of questions and comments by the board members.

> … one of the non-executive directors remarked that it should have been possible for management to anticipate the increase in depreciation costs in the forecasts. Finally, the chairman concluded the discussion by stating that this was not an acceptable result. However, because large cuts in costs had already been made, it is not possible to further press down the cost level. Therefore, it seems necessary to consider the overall structure to improve the result.

4.3 Subjective non-financial information

The written information provided to board members before the meetings was supplemented with verbal information at the meetings. This information, although not captured in the information items, often gave meaning to the written information and led to board discussions.

Examples include statements about the expected development on various markets and the expected performance of company's main competitors. Because the verbal information often contained management's expectations, it was highly subjective. Verbal information was important both in relation to information from the financial accounts and the management accounts. The importance of the verbal information points towards the necessity of defining information to boards of directors broadly.[10]

At the board meeting in February 1989, the presentation of the group's income statement was followed by comments from the CFO.

> The CFO referred to the entry 'exchange rate adjustment' and remarked that the increase from MSEK −40 to MSEK −83 was mainly the result of changes in the exchange rate for US-dollars. The entry 'extraordinary items' consisted of a capital gain of MSEK 115 resulting from the sale of real estates in Finland and Austria. Furthermore, the value of two German companies had been written down by MSEK 40.

The importance of verbal accounts is also evidenced by the board members' reliance on the judgement of management, in particularly with respect to risks. This is exemplified by the two extracts from the minutes below.

> One of the non-executives asked about the risk of further decreases in the price level. The CEO explained that the risk was low, because only a few of Company Z's products were price sensitive. (March 1992)

> Before the investment was ratified by the board, one board member asked how the CEO assessed the future economic and political development of the country. The CEO replied that the development seemed stable. The economy was strong and the level of inflation was comparatively low. The investment proposal was subsequently ratified by the board. (May 1990)

At the board meeting in May 1994, the situation in Eastern Europe and Russia was discussed against the background of the acquisition of shares in the Russian company BKZ. Interestingly, there was no material in the appendices that related to the acquisition. However, one of the non-executives expressed some concern about risk exposure in Russia. This board member argued that risk exposure in Russia would increase from MUSD 1.5 to MUSD 10 after the acquisition of BKZ. Subsequently, the chairman asked the regional manager how he assessed the risk situation in Russia. The manager gave an answer which indicated high risks on the Russian market.

[10] This is an important reason for preferring the more inclusive concept of 'board accounts' to alternative concepts, such as 'board accounting information'.

> There is a great potential, but uncertainty about the future and not least the political development is so considerable that it is barely meaningful to make forecasts about the risks. To somewhat limit the risks, Company Z should not invest further east than Moscow.

In spite of the uncertainty, the board accepted that Company Z acquired 89% of the shares in the Russian company BKZ.

Thus, in terms of the board members' use of the board accounts, qualitative and judgemental information was important. This information is commonly referred to as subjective non-financial information (Ittner et al. 2003). The importance of trust as a parameter in the work of the board has also been stressed by process-oriented governance studies (Pye and Pettigrew 2005; Roberts et al. 2005). As was illustrated by the example above, the board often relied on the judgement of management in reaching a decision.[11]

4.4 Corporate strategy and the board of directors

At the board meeting in August 1995, information was provided to the board about Company Z and its competitors on different markets in Europe. This information related only to Product A and is illustrated in Table 4.

The information item is external and shares characteristics with the type of information commonly referred to as strategic management accounting (SMA) information. Competitor overviews like item 25 were supplied rather frequently to the board. Some of the competitor overviews contained financial information such as costs, P/E ratios and EPS, whereas others contained non-financial information such as market shares. The abundance of competitor overviews can at least partly be explained by the industry of Company Z. The market structure of the industry was characterized by a small number of large actors. This meant that it was highly important to scan the environment and consider the positions and actions of the competitors.

The CEO supplemented the information in item 25 with remarks about the current situation of the competitors.

> Concerning the first quarter, Company AQ had not reported any increase in sales and Company MG had reported substantial losses outside its home market of Germany. Company BC had increased sales by 10%, but still reported a decrease in the result. Company PX had decided to return to the market for Product Group PA. Company PX had shown an impressive development of the result. The CEO summarized the situation by stating that, so far this year, Company Z and Company PX showed the best result of the large companies in the industry of Product A.

After the presentation, the vice chairman raised the issue of a possible expansion in Asia. Thus, this board member used the information as input in the strategic decision-making process. The use of such information is consistent with recent

[11] In Sects. 4.7 and 4.8, it will become clear that trust and the board members' reliance on subjective non-financial information varied considerably over time in Company Z.

Table 4 Market for Product A in Europe (item 25)

Sales 1994 (MSEK)	Company AQ	Company BC	Company PX	Company AM	Company Z	Company MG	Company D
>500	DE, BE, FR, ES, IT 90%	UK 89%	SP, IT 67%	UK, DE, NL, FR 89%	SE, FI, NO, DE, FR 76%	DE 76%	DE, NL, AT, GR 84%
300–500	SE, DK 5%			BE 10%	NL, AT 13%	UK, FR 12%	SP 4%
100–300	NL, GR, PO, FI 5%	IR, DE, POL 9%	DE, BE, FR 31%		DK, CH 6%	AT, HU, GR, BE 10%	UK, FR, HU, POL, IT 10%
<100	UK, AT, LU <1%	NL, BE, IT 2%	NL 2%	NO, AT, IR, GR 2%	IL, HU, UK, GR, BE, SP, EST, IT, LAT, POL, LIT, RUS 6%	NL, IT, POL 2%	NO, BE, GT, PO 2%
No. of companies	14	7	6	9	21	10	14
Total sales	16,325	5,900	2,211	4,509	7,368	6,974	8,918

attempts to integrate corporate governance and management accounting (CIMA 2005; Seal 2006) as well as the literature on boards and strategic controls (Baysinger and Hoskisson 1990; Goold and Quinn 1990). Interestingly, however, traditional scope information in the financial accounts was also extensively used for decision management. It was not uncommon that board members referred to entries in the income statement or the balance sheet when proposing for example expansions into new products or markets.

In the case above, the CEO was in favor of concentrating resources to markets where Company Z was established. At the subsequent board meeting in December, the possibility of entering the Asian market was once again discussed. This time the issue was raised by another board member, although the CEO expressed limited interest. In fact, the CEO probably never considered investing in Asia a viable alternative for Company Z. In the business press, the CEO expressed lack of history and knowledge as obstacles (DN 1993; SvD 1993). In the interview with the chairman of the board, he commented on the suggestions by board members to enter the Asian market.

> Despite the good intention of these board members, they did not really understand the efforts required in this industry when operations have to be built from scratch. It is immensely costly and difficult to establish oneself on a new market.

The above statement by the chairman points towards the special roles on the board played by the chairman and the CEO, as compared with other board members. The chairman had a long career in Company Z as first CFO and later CEO.

At the board meeting in August 1992, the possibility of cooperating or perhaps even merging with the British Company BC was discussed. As evidenced by the records, the CEO had discussed the possibility of a merger with the two board members representing the main shareholder. After a longer board discussion, the board was in agreement that for the time being, it did not seem possible to merge with Company BC. One of the interviewees stressed that communication and anchoring of decisions outside the boardroom sometimes took place.

> A common procedure was that the CEO first went to the chairman. Then, the chairman went to the two representatives of the HB-Group (the main shareholder).

4.5 Signaling value and the board accounts

At the board meeting in August 1989, the CEO presented a proposal to acquire some operations from the American Company CU. The CEO presented an estimate of the impact of the acquisition as shown in Table 5.

Additional information about the capital structure and earnings per share was also provided by management. After some discussion, the board decided that the project should be further investigated. Interestingly, however, this project was later cancelled and did not reappear on the board agenda. In the interview with the chairman, he provided the following explanation.

Table 5 'Project N' (item 8)

	1990		1995	
	Before (in MSEK)	After (in MSEK)	Before (in MSEK)	After (in MSEK)
Sales	11,900	22,800	18,000	33,000
Operating profits	1,715	3,000	2,800	5,200
Net income	1,500	1,300	2,800	3,800
Interest coverage ratio	3.7	1.7	–	3.0

Table 6 Operating income in Subsidiary F (item 21)

	1989	1990	1991	1992	1993	1994 (estimate)
Process systems	96	74	55	11	41	65
Services	57	92	147	119	234	221
Total	153	166	202	130	275	286
Share of Company Z's operating income (%)	14	11	14	10	17	16

> I never considered Project N a realistic alternative for two reasons. Firstly, the operations of Company Z and Company CU did not complement each other well. Secondly, it seemed too good to be true. I knew that Company CU would demand something very valuable from us in return. However, sometimes you have to let the CEO drive his ideas for awhile.

At an extra board meeting in April 1994, the issue was the distribution of a large subsidiary ('Subsidiary F') to Company Z's shareholders. The CEO argued that an important reason for disposing of Subsidiary F was that its products had an uneven and different pattern in the financial results than Company Z's main product (Product A). To support this argument, the CEO provided information about how operating income had developed over the last years. This information is illustrated in Table 6.[12]

The CEO also provided material that showed how Company Z's balance sheet and income statement were expected to develop up until 1996, both with and without Subsidiary F. This information also indicated that Company Z should dispose of Subsidiary F. However, one of the non-executives was not convinced as shown by the following extract from the minutes.

> … one of the non-executives took a somewhat critical stance towards the distribution of the company to the shareholders. He meant that the distribution of Subsidiary F could be interpreted by the market as Company Z no longer perceiving any opportunities for expansion. The CEO replied that this conclusion was incorrect, because it would probably be easier to raise capital on the market after the distribution of Subsidiary F. However, this board

[12] The large increase in operating income in 1993 with respect to 'Services' was explained by an acquisition.

> member went on by questioning the argument about different patterns in the financial result of Company Z and Subsidiary F. He did not find the CEO’s argument convincing.

Another board member argued that a quantitative assessment should be made of how much the shareholders had earned from Company Z’s involvement in Subsidiary F. However, in spite of the doubts raised by some board members, the decision was ratified by the board.

The first case of Project N illustrated a decision where information in the board accounts was not the determining factor. On the basis of the presented information, the acquisition was clearly favourable. However, the statement by the chairman indicated that there were other important aspects involved that could not easily be quantified. This raises the question about the signaling or information value of the board accounts. Sometimes, the relationship between information signal and decision-making seemed to be at most weak. In the case of Subsidiary F the decision was ratified by the board, although with substantial discussion and doubts raised by board members. Both cases provide evidence that management constructed information to support its proposals and that the board members anticipated this. Thus, the board members did not always trust the information produced and supplied by management.

However, there was to at least some extent a reciprocal relationship between information content and use. This is evidenced by the fact that the board members did not simply accept the information as given, but sometimes requested new information.

> Subsequently followed a board discussion and one of the non-executive directors raised the issue of exposure to exchange rate risks in Latin America. This board member requested additional information about the value of investments in these countries and the group’s net income from these countries. The chairman promised to ensure that this information was delivered to the board. (February 1990)

> The vice chairman requested a summary of all Company Z’s production plants as a basis for a discussion of price levels and strategy. (December 1999)

Management also responded by providing the requested information. Thus, the content of the board accounts was not solely determined by the key producers of the accounts (the CEO, the CFO and the company secretary). The content was also influenced by demands from the non-executive board members.

4.6 Important decisions but limited information

At the board meeting in May 1990, the CEO presented an investment proposal that involved the construction of a production plant in Chile. The background of the project was the need for new production capacity in Chile and the investment amount was MUSD 10. The material supplied to the board was comprehensive and comprised 54 pages. Its main content were descriptions of the present economic and political conditions in Chile and the current and future market for Product A in

Table 7 Sensitivity analysis of the project (item 13)

	Fixed 15 years		Positive impact on income obtained after *x* years	Payback (in years)
	IRR (%)	NPV (MUSD)		
Base project	23	11	2	6
Merchant market prices up 10%	20	7	3	7
Merchant market prices down 10%	18	7	3	7
Electric costs up 30%	21	10	2	6
Interest rate up 5%	23	5	3	7

Chile. The CEO provided calculations of the investment's internal rate of return, net present value and net financial impact on Company Z's balance sheet. Finally, a sensitivity analysis was supplied to the board as illustrated in Table 7. This information item provides evidence that information about risks was an important part of the board accounts.

At the board meeting in March 1996, the CEO put forth a proposal to quit Company Z's involvement in the energy industry by selling the shares in Company G. One piece of paper about the sale of Company G had been distributed to the board members prior to the board meeting. This piece of paper stated the background to the sale, Company Z's current situation and the recommendation of the CEO. The sale of Company G was subsequently ratified by the board.

The sale of Company G was an apparently important decision, which resulted in a cash inflow of about MSEK 3000 (≈MUSD 500). The small amount of information and absence of board discussion in relation to this big decision of selling Company G is conspicuous. By contrast, the comparatively small decision of investing in a production plant in Chile was accompanied by a comprehensive material of both financial and non-financial information.

If the CEO chose to anchor important decisions with key board members outside the boardroom, there was less need for information to support the decisions at the board meeting. Thus, the presence of informal communication and unofficial accounts is a plausible explanation for the lack of information with respect to such decisions (Mintzberg 1973; Earl and Hopwood 1980). The quotation below from the interview with the CEO to some extent supports this explanation.

> Of course you don't come up with major board proposals without ensuring some support beforehand. However, it would be wrong to say that the boardroom is an unimportant arena for discussion and decision-making.

The CEO also provided an alternative explanation by referring to the nature of the decision. The board and management had over time began to share an implicit understanding that Company G would be sold once it had played out its role for Company Z. Thus, strategic decisions were not always made at specific points in time, but developed gradually over extended periods of time.[13]

[13] This finding relates strongly to conceptualizations of strategies as emergent (Mintzberg 1987).

4.7 Moving towards a strategically involved board

In 1996, three important events occurred in Company Z. Firstly, the performance of Company Z fell significantly by the end of 1996. Secondly, there was a significant change in the ownership structure of Company Z. A new shareholder acquired a large block of shares. This shareholder received a seat on the board and demanded that management improved company performance. Thirdly, there was a change of CEO in 1996.

These events were accompanied by a change in the function of the board and how the board accounts were used in Company Z. The magnitude of the change is captured by the quotation below from the interview with the company secretary.

> The attitude and role of the board changed 180°.

Prior to 1996 (1989–1995) the board members had played a rather passive role. The functions of the board were largely confined to providing management with advice and evaluate performance on a routine basis. The two extracts from the minutes below exemplify the role of the board in this period.

> The vice chairman stressed, on the basis of his background in the European Development Bank, the significant uncertainties with respect to the countries in Eastern Europe. (March 1990)

> One non-executive board member asked whether there were reasons to consider diversification into other areas, for example chemicals such as Product AZ_1. However, the CEO argued that there were still great opportunities on Company Z's traditional markets. (March 1993)

As evidenced by the quotations above, the board members played the minimal role in strategy by providing advice. Furthermore, as judged by the decisions implemented in Company Z, it was in practice rare that management followed the suggestions by board members.[14]

In the period 1996-1998, the board took a much more critical stance towards how management was running the company and assumed a more active role in corporate strategy. Whereas the board almost always ratified investment proposals from management in the first period, the board of directors rejected many projects proposed by management in the second period. The type of board member statements in the minutes illustrated below became increasingly common.

> He also argued that in spite of the substantial increase in the number of plants and capacity, there had been virtually no increase in operating income since 1993. The relevant question, according to this board member, was why. (October 1998)

This board member, who represented the new shareholder, persistently argued that the strategy of Company Z should either be to become a small and focused top-player in the industry of Product A or merge with another company.

[14] Contrary to the suggestions by the board members, Company Z entered the Eastern European market but did not diversify into chemicals.

Thus, the board became increasingly involved in setting out the strategic direction of Company Z. Differences between the service and strategy functions may seem subtle. However, when the board plays an increased role in strategy it does not just provide suggestions, but also initiates and prescribes strategy. This is further illustrated by the extract below from the minutes.

> Referring to the information presented about sales revenues per product group for 1996, the vice chairman argued that Company Z should aim towards more sales of Product Group AY to achieve higher margins. (March 1997)[15]

4.8 Modest changes in information content

Given the changes in board functions and use of information, it would be expected that the content of the board accounts would also change over time. New information items that contained less aggregated information were supplied to the board. Examples include ex post information about sales revenue for each product group (item 27) and sales volume for each individual product within the product groups (item 19). This may be a cause of the board's more direct involvement in business operations, which likely requires less aggregated information for judgement.

Overall, however, there was no radical change in the content of the board accounts. Traditional financial statements were an important part of the board accounts over the whole period of the study. The modest changes in information content likely reflect the stable information preferences of the board members. Table 8 ranks the board members' information preferences in the two periods.

In addition to the increase in demand for less aggregated quantitative information mentioned above, the only significant change in information preferences was decreased use of subjective non-financial information. A likely explanation for this decrease was that the board no longer trusted management.[16] Starting around 1996, board members did not to the same extent rely on the judgement of management as basis for ratification.

Broad scope information, such as information about competitors and sensitivity analyses, played a minor role in both periods. Interestingly, it can be noted that some information was used for other purposes in the two periods. In the second period, the board also used the competitor overviews for decision control by evaluating the performance of Company Z relative to its competitors. Multiple use of information is an explanation for the small changes in information content. Thus, it is difficult to draw inferences about information content on the basis of information use and vice versa.

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[15] It is worth noting that a board highly involved in strategy may interfere with the responsibilities normally ascribed to management. Tricker (1984) has stated that "while management is about running the business, governance is about seeing that it is run properly". Crossing the line between governance and management could have adverse consequences if the board lacks knowledge of the company's business operations.

[16] This was particularly the case with respect to the board representative of the new shareholder.

Table 8 Information preferences in the two periods

Period 1 (1989–1996)	Period 2 (1996–1999)
1. Financial accounts (FA) + budgets (MA)	1. Financial accounts (FA) + budgets (MA)
2. Subjective non-financial information	2. Less aggregated quantitative information (MA)
3. Broad scope information (SMA)	3. Broad scope information (SMA)

5 Summary and discussion

A substantial part of the board accounts in the case study company was traditional scope information disclosed in the external financial reports.[17] The financial accounts were also frequently used both for evaluating past performance (decision control) and as a basis for reviewing and ratifying strategic initiatives (decision management). Furthermore, the timing of board meetings with the release of external financial reports reflects the influence of financial accounting regulation.

Nevertheless, disaggregated and ex ante information from the management accounting system was also supplied to the board and used by the board members. Examples of management accounts include budgets, competitor overviews and sensitivity analyses. Furthermore, there was also information in the board accounts that was communicated by word of mouth at the board meetings. This information often contained the judgements of the CEO about for example various external risk factors. Although this subjective non-financial information was a small part of the board accounts in terms of quantity, it sometimes played an important role in the decisions of the board.[18]

An important finding of the case study was the weak relationship between content and use of the board accounts. Firstly, changes in board functions and the use of the board accounts were not accompanied by significant changes in the content of the board accounts. Secondly, there were occasions where the board took important decisions on the basis of almost zero information. Thirdly, some decisions were accompanied by a lot of information, but the subsequent decision was not consistent with the content of the information.

One explanation to the weak link between content and use of the board accounts is that information was used for multiple purposes. Traditional scope information from the financial accounts was used not only for control, but also for strategy. Conversely, broad scope information from the management accounts such as competitor overviews was used not only for discussing strategy, but also for control.

[17] Appendix A actually underestimates the quantity of this information. Because these information items usually had a standardized format, they were only illustrated once. However, this information was usually continuous and reappeared at most board meetings.

[18] Although management is clearly the sender of this information, this is not normally the type of information referred to as management accounts. Somewhat intriguingly, if this information is not defined as management accounts, it becomes another type of accounts specific to the BA. In terms of figure 1, it would constitute the upper part of the BA circle that neither overlaps with the FA nor MA.

This may explain why information content did not change much, in spite of significant changes in board functions and information use.

Another explanation to the weak link starts out from board members' distrust in some of the management accounts provided to the board. Often this was ex ante information that related to various projects proposed by management. The board members sometimes questioned or even ignored this information. This is likely to be related to the significant discretion that management had over this information. In contrast to the financial accounts, the management accounts were not subject to external regulation and auditing. Furthermore, the information was often forward-looking and forecasted decision outcomes were likely biased in favor of management proposals. The CIMA (2003) guide stresses a number of principles in performance reporting to boards. The principles of relevance and reliability in the guide are important because they highlight a dilemma of the management accounts. Although this information may be relevant to board decision making, it may also be highly unreliable.

Paradoxically, the board members were more inclined to ratify decisions on the basis of management's qualitative assessments of for example markets and risks. One explanation is that if uncertainty is substantial and the board trusts management, board members may simply be satisfied with subjective non-financial information. Comprehensive financial information about expected cash flows over an extended period in the future may even produce the opposite effect of making the board members suspicious.[19]

Thus, management clearly had an advantage in acting as a gatekeeper of information and controlling what data should be turned into information and transmitted to the board. However, the evidence from the case study does not support claims that management completely determines the information available to directors (Estes 1973; Lorsch and MacIver 1989). There were several occasions where board members requested and received new information.

Finally, the important role of unofficial accounts is also an explanation to the weak link between content and use of the board accounts. Communication and anchoring of decisions elsewhere imply that there is less need for information at the board meetings. The case study evidence indicates that the presence of unofficial accounts is a valid explanation for the lack of information in the board accounts in relation to important decisions.

The case study drew attention to the board members' lack of knowledge about the company's underlying business operations as a factor that constrained their role in strategy.[20] Nevertheless, important contextual and structural factors moved the

[19] Thus, in the presence of trust relationships, traditional scope information (financial accounts and budgets) combined with subjective non-financial information and possibly some broad scope information may be sufficient for the board.

[20] Thus, even in the Swedish context with a tradition of active owners on boards, there were obstacles to board involvement in strategy.

board of the case study company towards deeper involvement in corporate strategy. Those factors were a decline in company performance, changes in ownership structure and a change of CEO. On the basis of conceptual and theoretical framework in Sect. 2, it would be expected that the board's information needs would change as the board becomes increasingly involved in strategy.

The recent literature does not discuss the specific SMA techniques that could be used by boards (Seal 2006). In the case study company of this paper, such information existed foremost in the form of competitor-focused reviews. Even though the case study company had a large number of different customer segments, there was an absence of customer-focused information. A priori, we would expect to find more SMA information in the board accounts of the case study company. However, in contributing to company strategy the board members often used traditional scope information. One explanation for this may be the reliability of the information. Auditing and external regulation constrain management's discretion over the information content in the financial accounts. Furthermore, a warranted question is why the board should start to adopt practices that have so poor adoption results at other organizational levels (Guilding et al. 2000)? Finally, many of the techniques in the SMA literature involve descriptive objects with a low level of aggregation and are often used for more operational decisions, such as pricing products. Given the high organizational level of the board, such information may be more useful for management than the board of directors.

The evidence from this study and the arguments above would raise some doubts that SMA techniques, such as for example strategic scorecards, will play the important role for corporate boards. However, it should be pointed out that even though the case study material dated before the Enron debacle, the board accounts still contained a substantial amount of management accounts. In spite of the considerations above, it seems likely that the increased responsibilities placed on boards of directors will provide a role for the SMA type of information. The challenge becomes to design information that is both relevant for the board members and reliable.

6 Conclusions

Despite a recent surge of interest (CIMA 2003; Seal 2006), the intersection of management accounting and corporate governance has been given little interest from researchers. This paper has introduced and elaborated on the concept of board accounts, defined as the information formally supplied to the board by management. The main contribution of the paper has been in exploring, operationalizing and theorizing about the attributes of the board accounts.

This paper has identified and located the board accounts in the Swedish institutional context as an important, but neglected interface between governance and management. Although concepts such as board functions, board tasks, decision and decision outcomes are incorporated in process-oriented frameworks of boards of directors (Hill 1995; Pettigrew and McNulty 1995, 1998; Huse 2005; Roberts et al. 2005), a missing piece is an explicit role for information in the work of boards. Process-oriented research on corporate governance would likely benefit from integrating information in their frameworks of boards of directors. Similarly, accounting researchers should move beyond the one-sided preoccupation with external financial reports and seriously start to consider the relationship between accounting information and the work of the board.

Only a subset of the management accounts are generally part of the board accounts. The method of studying board records is not suitable for determining the quantity and characteristics of this information. However, this should not stop future research from examining the information gap between the board and management ($I(B) < I(M)$). This gap has not been examined much in existing research, but has implications for risk management at the board level. The case study provided evidence that the board was concerned with risks, but often relied on the judgement of management. Nevertheless, from an agency theoretical perspective, the interests of the board as representatives of the shareholders and management do not always coincide (Jensen and Meckling 1976; Fama and Jensen 1983). The extent to which more information from the management accounting system can provide the board with better risk indicators and early warning signals of decreasing organizational performance is an important issue for future research.

Although the case study illustrated how management accounts can be a significant part of the information supplied to boards of directors, the paper also raised some critical issues with respect to the intersection of corporate governance and management accounting. In the case study company, the board members often preferred to use traditional financial accounts and budgets, both for decision control and decision management. Furthermore, the potential of SMA information was also discussed in the light of the case study. Although the paper saw possibilities in developing the board accounts concept along the lines of this type of information, some problems were also highlighted.

Future case study research, archive-based or not, should not be confined to what information in excess of the financial accounts that boards of directors have access to, but also the questions of if, how and why they use this information? This paper initially theorized about a complex relationship between information content and use. The case study provided evidence of a weak link between content and use, which can be explained by alternative sources of information and communication, unreliability of the management accounts, and multiple uses of information. Although the conceptual and theoretical framework in Sect. 2 proved useful in operationalizing and analyzing the content and use of the board accounts, it is less useful to develop the finding of a weak relationship or link between content and use. There is a distinct literature which stresses ambiguity in the link between information and decisions by drawing on the notion of 'loose coupling' (March and Simon 1958; Feldman and March 1981; March 1987; Høgheim et al. 1989). An important issue for future research is if information is more loosely coupled at the level of boards and in that case why?

The case study of this paper also indicated that subjective non-financial information played an important role in the decisions of the board. Is this type of information more important at the top level of organizations and if so, why? Furthermore, what role does relationships built on trust play with respect to this information?

This paper also sees an important role for an institutional theory of agency (ITA) as a framework for boards of directors and management accounting (Seal 2006). The study of information as institutionalized practices and routines has in many respects much more to offer than the one-sided focus of economic agency theory (EAT) on incentive contracts. Indeed, if it was possible to fully resolve agency problems through contracts, as proposed by the most naive versions of EAT, the board would have little need for any information at all in excess of the financial accounts. The case study evidence of this paper does not at all support such a conclusion.

Methodologically, the paper has demonstrated that using archived board records is one possible approach to the study of information to boards of directors. Historical archived material is particularly useful for approaching this research topic, because information to boards of directors is generally considered sensitive information. If the board records are of high quality, they allow the researcher to come close to the real processes in corporate boardrooms. However, the issue of board members' information from other channels and sources cannot be resolved through studies of archived board records. In-depth interviews with board members could shed further light on the importance of other information sources in the board information set (BIS) for the work of boards of directors.

Promising avenues for future research also include quantitative approaches based on for example questionnaire surveys. Questions could be asked about for example how board members perceive the usefulness of different types of information, in relation to the board functions as well as to more specific decisions. These data could then be analyzed in the context of other variables in corporate governance research. The case study provided some indication that industry characteristics, ownership structure, company performance and change of CEO could influence the board accounts. Those variables also appear frequently in reviews of corporate governance research (Daily et al. 2003; Hermalin and Weisbach 2003). Another important issue is if there is a relationship between the board accounts and value creation. Are certain types of information content and use associated with higher or lower company performance? Future empirical research could shed light on these issues.

In conclusion, if the access problems that constrain research about boards of directors and information can be overcome, there are prospects for future research that will further open up this black box in the field of corporate governance.

Appendix A

Information items in Company Z

	Descriptive object[a]	Quantification	Measure(s)	Focus[b]	Time horizon	Lifetime[c]
Item 1	Organization	Financial	Income measures, EPS	Internal	Ex post	Continuous
Item 2	Products (1)	Financial	Operating income, operating margins	Internal	Ex post	Continuous
Item 3	Organization and products (1)	Financial	Operating income, income after financial items.	Internal	Ex post	Continuous
Item 4	Organization and products (1)	Financial	Sum of investments	Internal	Ex post	Continuous
Item 5	Organization	Financial	ROE, ROCE, ROC	Internal	Ex post	Continuous
Item 6	Investment project	Financial	IRR, net cash flow, capacity	Internal	Ex ante	Temporary
Item 7	Organization	Financial and non-financial	Investment amount granted and expected	Internal	Ex post	Continuous
Item 8	Organization	Financial	Sales, operating income, net income, interest coverage ratio	Internal	Ex ante	Temporary
Item 9	Organization and products (1)	Financial	Budgeted operating income	Internal	Ex ante	Continuous
Item 10	Country or group of countries	Financial	Operating income, capital costs, exchange rate adjustments	Internal	Ex post	Continuous
Item 11	Companies	Non-financial	Market share	External	Ex post	Temporary
Item 12	Investment project	Financial	Income after financial items, loan balance	Internal	Ex ante	Temporary
Item 13	Investment project	Financial	IRR, NPV, impact on income after financial items, payback	Internal and external	Ex ante	Temporary
Item 14	Companies	Financial	Market value, EPS, dividend yield, sales, investments, ROCE, P/E	External	Ex post	Temporary

Information items in Company Z

	Descriptive object[a]	Quantification	Measure(s)	Focus[b]	Time horizon	Lifetime[c]
Item 15	Organization	Financial	ROE	Internal	Ex ante	Temporary
Item 16	Investment project	Financial	Sales	Internal	Ex ante	Temporary
Item 17	Organization	Financial	Change in income after tax	Internal	Ex ante	Temporary
Item 18	Organization	Financial	Equity/assets, debt/equity(gross), debt/equity (net)	Internal	Ex post	Temporary
Item 19	Product (3)	Non-financial	Sales volume per country, change in sales volume (%)	Internal	Ex post	Continuous
Item 20	Organization	Financial	Net income with and without hedge	Internal	Ex ante	Temporary
Item 21	Product (1)	Financial	Operating income, share of group's operating income	Internal	Ex ante and ex post	Temporary
Item 22	Investment project	Financial	Sum of investments	Internal	Ex ante	Temporary
Item 23	Investment project	Financial	Sales for two scenarios	External	Ex ante	Temporary
Item 24	Investment project	Non-financial	n/a	External	Ex ante	Temporary
Item 25	Companies	Financial	Distribution of sales in terms of sales amount and markets	External	Ex post	Temporary
Item 26	Organization and countries	Financial	Budgeted operating income	Internal	Ex ante	Continuous
Item 27	Products (2)	Financial	Sales	Internal	Ex post	Continuous
Item 28	Investment project	Financial	Sales, costs, various income measures, margins	Internal	Ex ante	Temporary
Item 29	Competitors	Financial	Sales, operating income, operating margins, Investment / sales	External	Ex post	Temporary
Item 30	Business areas	Financial	Sales, operating income, operating margins, operating value added (OVA)	Internal	Ex post	Continuous
Item 31	Countries	Financial	Change in revenues (%) subdivided into price, volume and exchange rate effect	Internal	Ex post	Continuous
Item 32	Organization	Financial	Change in revenues (%) subdivided into price, volume and exchange rate effect	Internal	Ex post	Continuous

Information items in Company Z

	Descriptive object[a]	Quantification	Measure(s)	Focus[b]	Time horizon	Lifetime[c]
Item 33	Organization	Financial	Impact on net income of restructuring program	Internal	Ex ante	Temporary
Item 34	Organization	Financial	Type and amount of synergies resulting from merger	Internal	Ex ante	Temporary

[a] Products' comprises three different aggregation levels. 'Products (1)' refers to the main operations or products of a diversified company with operations in many industries. 'Products (2)' refers to product groups within one main operation or product. 'Products (3)' refers to individual products within each product group

[b] Here, an item is classified as external if it explicitly focuses on factors outside the company, such as competitors and customers. Items that refer to the entity of the company or parts of the company such as income statements are classified as internal

[c] It should be noted that Bjørnenak and Olson (1999) discussed lifetime in terms of information systems. Here, the lifetime characteristic is applied to single items of information

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