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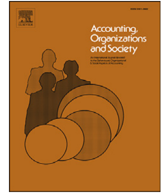

“Reverse brokering” and the consumption of accounting: A broker desk ethnography of an investment case☆

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ABSTRACT

This study examines the under-researched equity sales function and analyses how equity brokers use accounting to generate individualized, contrarian investment recommendations to serve fund manager clients in a highly competitive market for investment advice. This study reports on the brokers' practices using an ethnographically inspired study of an equity sales desk and follows the lifecycle of a brokers' investment case referred to herein as “Indumine” (pseudonym). The analysis shows how the brokers used accounting to develop the case together with fund manager clients and against the analyst consensus — a practice the brokers referred to as “reverse brokering”. Unlike previous analyses of how accounting influences investment decisions by being stable and objective, the brokers in our analysis continually added and abandoned accounting items in order to maintain a distance from consensus, remain subjective and interesting to clients, and achieve recognition. To make theoretical sense of such a use of accounting, this paper puts forth a consumption perspective of accounting. The argument is that the relevance of the accounting used for the brokers' investment recommendations is consumed when the information becomes factual and impersonal, and no longer sustains the brokers' contrarian view of the share; the challenge for the brokers is to sustain the economic potential of the case despite the temporary facticity of the accounting information. The paper proposes that this form of accounting consumption constitutes an elementary form of accounting use, operating in the shadow of more formal information infrastructure.

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1. Introduction

Despite much effort to examine the use of accounting by those involved in equity investing, equity sales brokers' (hereafter referred to as brokers) use of accounting has been overlooked (cf. Barker, 1998; Beunza & Garud, 2007; Brown, Call, Clement, & Sharp, 2015; Gniewosz, 1990; Imam, Barker, & Clubb, 2008; Kraus & Strömsten, 2012; McNichols & O'Brien, 1997; Zuckerman, 2000). Instead, studies have rested on three assumptions about the role of brokers in investing. First, most studies have assumed that only sell-side analysts generate value-relevant information for investors and, therefore, have excluded brokers from the investigation (Beunza & Garud, 2007; Fogarty & Rogers, 2005). Second, studies that included brokers have equated them with analysts (Barker, 1998; 1999), suggesting that brokers do not perform a distinct function for investors' investments. Third, when directly studied, brokers are assumed to do “maintenance work” (cf. Barker, 1998) — that is, to merely channel information from the analysts to the investors (Blomberg, Kjellberg, & Winroth, 2012). Earlier research has thus treated brokers as advisors that do not develop investment cases for investors, nor use accounting in a theoretically distinct way — as indicated by statements such as “there is no economic rationale for stock brokerage [...] except at the time of the trade” (Brown, 1996, p. 24).

Brokers and analysts have two distinct functions within investment banks, both of which presumably influence fund managers' investment decisions, albeit in different ways. That presumption is not without substance in the earlier literature, as

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most studies have documented that analysts' advice fails to satisfy clients' search for "alpha investments" — that is, investments that outperform the market (e.g. Barker, 1998; Hellman, 1996; Taffler, Spence, & Eshragi, 2017). Alpha investments require fund managers to take "[…] a contrarian stance toward prevailing valuations" (Zuckerman, 2012, p. 232). To be contrarian means to go against the market consensus, and investors thus search for the presently "untold stor[ies]" in the market (Abhayawansa, Aleksanyan, & Bahtsevanoglou, 2015, p. 297). Previous research indicates that fund managers do "not call the SS [sell-side] analysts to hear about new ideas or hitherto unidentified investment opportunities" (Spence, Aleksanyan, Millo, Imam, & Abhayawansa, 2019, p. 34) because analysts are required to publish their investment ideas in research reports and communicate them evenly to all their clients (ibid.). Instead, many studies have recorded how fund managers approach analysts to appreciate the market consensus from which they seek to deviate (Abraham & Bamber, 2017; Barker, 1998; Imam & Spence, 2016; Taffler et al., 2017).

In this paper, we argue for and examine how brokers' practices constitute a missing link (Vollmer, Mennicken, & Preda, 2009) between analysts' production of "valuation benchmarks" (Barker, 1998; Spence et al., 2019) and fund managers' contrarian investment decisions (Zuckerman, 2012). Our focus is motivated by brokers being the salespersons of equity advice within investment banks. In such an organizational role, brokers develop long-term relationships with their fund manager clients (Blomberg, 2004) in order to produce "individualized recommendations that will make the investor decide to either buy or sell shares" (Blomberg et al., 2012, p. 88). However, earlier studies have not followed through on how these individualized recommendations emerge and possibly bridge the recorded differences in fund managers' and analysts' time perspectives and preferences for information sources (e.g. Barker, 1998; Imam & Spence, 2016). Similar to how Spence et al. (2019) suggest that sell-side analysts have repositioned their expertise to survive a "potential extinction" (p. 18), our analysis examines how brokers use accounting to influence their investors' decision-making both before and after "the time of the trade" (e.g. Brown, 1996, p. 24). The empirical research question we answer in this paper is: *How do brokers use accounting to generate an investment case that deviates from market consensus?*

We answer this research question through an ethnography of an investment bank's equity sales desk. By studying accounting as it was used to develop an investment case referred to herein as "Indumine" (pseudonym), we make two contributions to the research field on the use of accounting for investments (Barker, 1998; Imam & Spence, 2016; Spence et al., 2019). First, we record how the brokers' use of accounting mediated between the sell-side and the buy-side (e.g. Imam et al., 2008) by questioning individual assumptions about the analysts' consensus view in order to meet with individual clients' "local" investment criteria. The "Indumine" case is illustrative of a work practice the brokers called "reverse brokering", in which the brokers worked closely with their clients to generate investment cases. Whereas earlier studies have proposed that accounting users combine and accumulate different accounting items into a single view of the company's capacity to generate earnings (cf. Brown et al., 2015; Hägglund, 2001; Holland, 2006), our account of "reverse brokering" shows instead how the brokers' use of accounting was piecemeal and consumptive (Knorr Cetina, 2010; Vollmer, 2007), meaning that each accounting item was used once together with clients in order to challenge the consensual view of the share. Our second contribution is to theorize the brokers' use of accounting as a consuming use of accounting (e.g. Knorr Cetina, 2010; 2011) and show how accounting was "used up" in the broker-client dialogue. Following Vollmer's discussion (2007) about accounting consumption being an elementary way of using accounting, we discuss and show how the consumption of accounting relates to, and strengthens, the subjective position of the brokers. Contrary to much existing research (e.g. Beunza & Garud, 2007; Beunza & Stark, 2004; Huikku, Mouritsen, & Silvola, 2017; O'Barr & Conley, 1992; Vollmer et al., 2009) the information was used up and was no longer valuable for the brokers when it became stable, impersonal and fact-like (e.g. Latour, 1987). Indeed, this last claim is followed through in the discussion as a potentially broader contribution of this study to research on (financial) accounting as a social and institutional practice (e.g. Robson, Young, & Power, 2017; Vollmer et al., 2009). Although the brokers' efforts were rewarded through formal evaluations, the broker-client practice of "reverse brokering" was a parasitic practice that functioned without reliance on stable accounting items (e.g. Robson, 1992) because it used up accounting produced by others. We use the particularities of this case to open up a discussion about the way in which short-lived accounting information emerges in the shadow of evaluative infrastructures (e.g. Power, 2015), making consumption an elementary accounting practice (Vollmer, 2007) in the stock market.

The next section reviews prior studies of accounting uses and introduces the context of sell-side equity advice. Thereafter, the theory section develops the discussion on how the particular institutional and organizational setting of brokers conditions a certain type of accounting consumption. Next follows a section explaining the research methods. The analysis is presented in three sections, and the final section of the paper discusses and concludes the paper.

2. Earlier literature

2.1. Accounting use and the context of sell-side equity advice

Our ethnography of brokers departs from two common approaches when researching the use of accounting for equity investments: *analysing a generalized accounting use* and *targeting analysts*. First, many earlier studies have chosen to summarize, list and/or rank users' preferences for accounting items from the financial reports (e.g. Barker, 1998, 2000; Brown et al., 2015). As argued early on by Bence, Hapeshi, and Hussey (1995) and Gniewosz (1990), this type of approach targets an averaged use of accounting for investment decisions — that is, an average over time, for all types of investments and for all respondents. By "assess[ing] the utility of sources of information based on [respondents'] generalised perceptions" (Bence et al., 1995, p. 20), most studies have failed to capture how and when accounting items become investment-relevant within specific settings. Instead, studies have reported that users *generally* assess a company's reported earnings when making investments (Barker, 1998; Beunza & Garud, 2007; Brown et al., 2015; Gniewosz, 1990) and treat other accounting items as valuable only when verifying a firm's earnings potential (e.g. Brown et al., 2015). That is, accounting is assumed to become relevant when users bring together a broad spectrum of information sources into an "information mosaic" (Brown et al., 2015; Holland, 2006), thus forming a holistic assessment of the firm's future earnings capacity.

Second, our study deviates from previous research efforts by targeting brokers within sell-side firms, and thereby foregrounding the investment banks' relations to buy-side investors. Our empirical focus is justified by earlier studies that have reported considerable differences between analysts' and fund managers' preferences for information sources and the time perspectives by which they evaluate accounting (Barker, 1998; Cascino et al., 2014). Notably, analysts' emphasis on information releases — particularly earnings reports — differs from "fund managers' focus on longer-term fundamental variables" (Barker, 1998, p. 15; Gniewosz, 1990;

Hellman, 1996; Spence et al., 2019). In addition, fund managers seek "contrarian" investments, or alpha investments, which are investments that go against the general market community (Zuckerman, 2012). It is widely considered that sell-side analysts' research reports fail to satisfy fund managers' information needs when making these types of investment decisions (e.g. Barker, 1998; Holland, 2006) because analysts display a high degree of conformity in their recommendations (Imam & Spence, 2016; Jegadeesh, Kim, Krische, & Lee, 2004) and must distribute their reports broadly to the entire investment community (e.g. Bradshaw, 2011). In effect, analysts' work setting largely prevents them from exploiting temporary investment opportunities tailored to individual investors, as a quoted analyst in Spence et al., 2019 explains: "Legally […] I have to first publish a note […] so everybody gets the information all at the same time [before …] I can make my calls" (pp. 37–38).

In response to the observations that analysts' reports have low relevance for fund managers' investment decisions, recent studies have instead theorized analysts' reports as "relational devices" between analysts and fund managers (Fogarty & Rogers, 2005; Imam & Spence, 2016; Spence et al., 2019). Analysts have been found to mostly provide fund managers with contextual information about the company (Imam & Spence, 2016), and their official recommendations then become:

> […] a benchmark against which [investors/fund managers] can test their own private information, which is essential for both relative risk minimisation and for the assessment of prospects for outperformance. […] fund managers may not be able to outperform by using analysts' output directly, they nevertheless still need the analysts in order to have a measure of the consensus beliefs of the market. (Barker, 1998, p. 16)

Analysts' efforts to produce the financial "foundation" of a share (e.g. Winroth, Blomberg, & Kjellberg, 2010, p. 12) make their work indirectly useful for fund managers because fund managers' contrarianism requires a consensus to deviate from (Barker, 1998; Winroth et al., 2010; Zuckerman, 2012). However, this indirect use of analysts' work raises the question of where fund managers receive input to their alpha investments from, what input they receive (cf. Bradshaw, 2009; Imam et al., 2008; Spence et al., 2019) and whether brokers do more than simply channel analysts' work to fund managers.

Studying brokers' work practices is further justified by the many ways in which brokers' advice can differ from their analysts' research reports. To satisfy investors' different investment needs (e.g. Gniewosz, 1990; Hellman, 1996) and serve fund managers with individualized investment recommendations (Blomberg et al., 2012), brokers may go against their analysts' opinions. Furthermore, rather than giving equal attention to all of their clients, brokers may approach a selected client with any share they find suitable for any period of time (Blomberg, 2004; Blomberg et al., 2012). These differences in brokers' and analysts' work activities imply that their "[…] information needs, as well as their demand for information, differ systematically" (Cascino et al., 2014, p. 200), and that other accounting information and other ways of using accounting – different from those that have been previously reported – may be relevant for the broker-client dialogue. Furthermore, the cited studies above largely lack a discussion of how accounting – in the interrelation between the sell-side and the buy-side – becomes relevant (or irrelevant) and is used (or stops being used) for a specific investment (Imam et al., 2008).

Central to our argument of how brokers use accounting in relation to their clients is what Vollmer et al. (2009) discuss as the need to analyse how "accounting becomes incorporated into the knowledges and infrastructures of markets" (p. 628). One such relevant analytical aspect of the broker's practice is how brokers use accounting to generate knowledge about investment cases and the ways in which they are subsequently compensated by their clients for doing so. Traditionally, analysts and brokers have been evaluated and have received bonuses based on the amount of trading commission the buy-side pays to their employing bank (Ho, 2009). Such a transaction-based compensation system has earlier been reported to encourage sell-side analysts to focus on maximizing their clients' trading volumes (e.g. Barker, 1998; Brown et al., 2015; Imam & Spence, 2016). However, sell-side firms' revenues have become increasingly decoupled from their clients' actual trading volumes, as commission is instead allocated based on periodic "broker votes"[1] (Groysberg & Healy, 2013). It is common practice for buy-side clients to decide on their total spending for equity advice irrespective of trading volume, and to instead compensate sell-side firms based on how individual fund managers score their advice at the end of the period (Groysberg, Healy, & Maber, 2011). The importance of votes for the sell-side is indicated by the observation that fund managers now receive "a lot of pleading emails from […] analysts to vote for them" (Spence et al., 2019, p. 32). The "pleading emails" result from the way in which the stock market is organized, as fund managers use several investment banks to gain varied input to an investment (Brown, 1996; Holland, 2006) but then execute trades through strict cost considerations to secure the interest of their sponsors. Such a legally sanctioned disconnect between the advice given and the transactions made means that neither trades nor commission income can be reliably traced to the brokers' generation of individual investment cases (cf. Dambrin & Robson, 2011), and that there are no guarantees that sell-side firms are compensated for their efforts. Accordingly, for brokers, a "successful" investment case is one for which fund managers have compensated the broker – whether justifiably or not. Therefore, the analytical relevance of such a setting lies in how brokers use accounting to generate "individualized recommendations", and then continuously work to gain recognition for them.

3. Theorizing brokers' use of accounting

3.1. Brokers' consuming use of accounting

We theorize the brokers' generation of individualized investment recommendations by drawing on science and technology studies (Latour, 1987; 1999), as other social studies of investing have done (e.g. Knorr Cetina, 2010; Vollmer et al., 2009). Science – like investing – is not a single, homogeneous practice; thus, it is important to clarify "*what* science … we [are] in fact talking about" (Knorr Cetina, 2011, p. 408, emphasis added) when theorizing stock market activities as paralleled to scientific endeavours. Indeed, analysts' practices have also been theorized as "stock market science" (Blomberg et al., 2012, p. 65; Hägglund, 2001). This metaphor puts emphasis on analysts' valuation models (Beunza & Garud, 2007; Beunza & Stark, 2004) and on how these models' outputs – the official investment recommendations – are refined in a collective fact-making process to eventually become part of a generally shared, reliable (Huikku et al., 2017) and timeless "valuation frame" (Beunza & Garud, 2007; Knorr Cetina, 2010). Our theorization of brokers' use of accounting has certain analytical features in common with these studies, but deviates from them by studying the practices involved in making individualized investment

[1] This is also influenced by the new regulation MIFID II, which has been underway for some years. This regulation requires banks to specify income from trading and advice separately.

recommendations; in this way, we shift the emphasis from the production of accounting to its consumption.

To begin with, although brokers present fund managers with investment ideas that deviate from the consensus view, no actor is single-handedly responsible for generating and realizing an investment case (e.g. Beunza & Garud, 2007; Huikku et al., 2017; Knorr Cetina, 2010). Brokers need others' support in order for their case to develop as they have proposed (Latour, 1987), and at risk in such a "fact-making process" is that "[w]ith each new witness, someone else, or some other group, takes credit for part or for all of the move" (Latour, 1987, p. 118). While this collective effort is essential for generating and realizing an investment case, it creates fuzziness about *who* contributed with *what* and *when*, potentially backgrounding a broker's association with a case. Receiving recognition for having generated an investment case is, therefore, a separate achievement from the case itself being realized, and Latour (1987) emphasizes how the different actions that are needed potentially lead in opposite directions:

> The recruitment of allies supposes that you go as far and make as many compromises as possible, whereas the attribution of responsibility requires you to *limit* the number of actors as much as possible. (Latour, 1987, pp. 118–119)

Callon (1986) and Latour (1987) propose that some actors, by virtue of their associations, become indispensable and then direct the fate of those involved in the fact-making process. However, the sell-side industry's disconnect between advice given and compensation received (Groysberg & Healy, 2013) means that analysts and brokers rarely become indispensable to fund managers; at least, fund managers are not like locked-in consumers who, without alternatives, "rush to buy Eastman Kodak cameras" (Latour, 1987, p. 120). Instead, to gain recognition from the buy-side, analysts offer *various* valuation metrics about one share (Imam & Spence, 2016) and include *more* information in their reports in order to attract the attention of *many* different clients (Imam et al., 2008; Spence et al., 2019). Analysts represent the investment banks' official view of their assigned shares (Groysberg & Healy, 2013) and, by serving a broad range of investors with varied information, analysts compromise and background their particular view (e.g. Latour, 1987, pp. 118–119) of the share (Barker, 1998, 2000; Imam et al., 2008; Spence et al., 2019).

An alternative way to be recognized by clients is to limit the number of investors a recommendation aims to attract (e.g. Latour, 1987, pp. 118–119) – a strategy that is more in line with the brokers' organizational responsibilities and position in the stock market. Such an investment recommendation relies on a different, less compromised, use of accounting, whereby the accounting items may lack an "afterlife" (Knorr Cetina, 2010) in terms of stability (Robson, 1992) and timelessness (Huikku et al., 2017). Consider Latour's (1987, p. 216) account of the explorer Lapérouse and the fishermen he encountered in Sakhalin. Lapérouse aimed to gather and accumulate traces of the area to refine existing maps and enable other long-distance ships to travel. In contrast, the terrain was already familiar to the fishermen and, as their maps were used "locally" (Latour, 1987, p. 216), imprecise and short-lived drawings in the sand sufficed for them to represent the area to each other. Furthermore, despite not meeting the explorers' demands for stability and mobility, the drawings attracted the explorers' attention, quickly verified their assumptions and sent them in a certain direction. The closeness and immediacy between the real (the terrain) and the represented (the map) meant that the knowledge claims of the "local" maps were not based on protracted and collective refinement, but on newsworthiness and reasonableness. Therefore, the explorer could test the relevance of the drawings by "sight[ing] the straight himself" (Latour, 1987, p. 217) or return to the fishermen for more information if needed.

The parallel to stock markets is that analysts – like Lapérouse – aim for general relevance of their inscriptions to anyone interested in any aspect of the share (e.g. Beunza & Garud, 2007). Conversely, brokers only use accounting to carve out specific aspects of the share, and only to interest specific clients they already know well. By building investment cases based on "local" criteria (de Laet & Mol, 2000; Latour, 1987), such as their clients' particular portfolio requirements, the brokers instead compromise on the number of potential investors concerned (e.g. Blomberg et al., 2012). By compromising on the inscriptions' generalizability, the brokers' accounting items are *not* "lastingly endowed with significance as actively usable knowledge" (Knorr Cetina, 2010, p. 175) in the broker-investor relation or in the market at large. Without stability gained by other market actors' acceptance of the links between the real and the represented (Robson, 1992; Vollmer, 2007), the accounting item does not have an afterlife in which it acts again (Knorr Cetina, 2010; Latour, 1987, 1999); however, it is not without significance for individual investment decisions. Because "[w]hat counts […] is news, not truth" (Knorr Cetina, 2011, p. 180), instead of being part of a stabilizing valuation practice, the short-lived accounting numbers "counts" because they are:

> […] *intermediaries* for their exchanges between [broker and client], intermediaries which are used up in the exchange and are not considered important in themselves (Latour, 1987, p. 218).

That accounting is "used up" is not intuitive from sociological analyses of investment activities (Beunza & Stark, 2004; Vollmer et al., 2009) or from ANT-inspired accounting studies (Huikku et al., 2017), because a common assumption is that "[…] once shaped, [accounting inscriptions] last far longer than the interactions that fabricated them" (Latour, 1999, p. 210). Nevertheless, Knorr Cetina (2010; 2011) have specifically called for such a consuming use of information to be theorized in stock market research, with her argument (ibid.) being that the objects of study differ for (natural) scientists and market actors. Importantly, the market "[…] is fluid and ever changing and does not conform to the stable mechanisms and patterns that we perceive to be present in nature" (Knorr Cetina, 2010, p. 173). Knorr Cetina (2010), therefore, urges researchers to reconsider the dominant "production thinking" (ibid. p. 174) of knowledge, in which market actors are presumed to accumulate information from dispersed centres of calculation (e.g. Huikku et al., 2017) and, through an extended, collective process, end up with stable "facts", such as a detailed map (e.g. Latour, 1987) or a consensus price for a share (Beunza & Garud, 2007; Hägglund, 2001; Winroth et al., 2010). These rather common narratives in sociological analyses of accounting and stock markets emphasize how analysts' valuation models and other seemingly "objective" technologies (Huikku et al., 2017) reduce the uncertainties of investing (Beunza & Garud, 2007; O'Barr & Conley, 1992). In targeting how accounting – and accounting-based models – produce investment recommendations of general interest to the investment community, it is presupposed that investment advice is impersonal to the individual analyst (e.g. Barker, 1998; Beunza & Garud, 2007; Huikku et al., 2017; Taffler et al., 2017) because "the more personal [a forecast] is the less reliable it will be" (Huikku et al., 2017, p. 69). However, the observation that analysts converge their various forecasts to produce a stable market consensus fails to make sense of how accounting is used to influence individual fund managers' decision-making (e.g. Bradshaw, 2009; Imam & Spence, 2016), other than as the baseline from which fund managers deviate (Barker, 1998).

According to Knorr Cetina (2010; 2011), the key is that market fluctuations and continuous news flows will prevent "market facts" from "becom[ing] more stable over time" (Knorr Cetina, 2010, p. 175). Therefore, central to our theorization is that the brokers' consuming use of accounting is based on a "logic of decay, dissipation and temporary truth [… which] contrasts with the intended production of stable findings and permanent truth that we find in the natural sciences" (Knorr Cetina, 2011, p. 411). Not all investment-relevant information is the result of a broad collective fact-making process, nor does all information gain durability; particularly so when the targeted audience and investment criteria are local (cf. Latour, 1987). Instead, brokers view accounting as relevant when it questions individual assumptions of the market consensus, and point out an "unfulfilled [economic] potential" (Boedker & Chua, 2013, p. 263) of the share of relevance to specific clients. Using accounting to present individualized, deviating investment cases is an alternative way of dealing with the sell-side industry's remuneration problem (Spence et al., 2019) and foregrounds the brokers' specific contributions to the case (e.g. Vollmer, 2007). However, because these investment cases are temporary achievements (Zuckerman, 2012), the brokers' case and personal contributions also "decay" once the accounting no longer points out the economic potential of a share for the select few clients (Knorr Cetina, 2010, pp. 192–193). Many of the arguments supporting an investment case may eventually have to be replaced in order for the case to remain relevant, because "[…] staying the same [in terms of economic potential] may also depend upon changes [new accounting information]" (Law & Singleton, 2005, p. 339). Analysing the ways in which accounting information is consumed in the broker-client dialogue, and how brokers prevent their efforts from being overshadowed by others (Latour, 1987), is key in relating accounting usage to the "knowledges and infrastructures of markets" (Vollmer et al., 2009, p. 628). The analytical stake in relation to this theoretically distinct consumption perspective of accounting is how brokers consume accounting to produce news about a share and suggest a potential case for a particular investor at a particular time. The empirical question then is how brokers, despite their temporary knowledge claims (Knorr Cetina, 2010), use accounting to continuously generate a case and remain associated with it by the fund managers.

4. The study

Our study contributes to the literature by analysing brokers' use of accounting through an ethnographically inspired study (e.g. Jönsson & Macintosh, 1997) of an equity sales desk. The study is "ethnographic" because we examined "accounting as understood by organizational members through their diverse activities" (Ahrens & Mollona, 2007, p. 310), yet "inspired" as we already had knowledge of similar environments from our earlier research. We observed the work at the desk during four visits in 2014 (12 days), which were scheduled to occur during the "reporting season" (Blomberg et al., 2012) in order to capture how brokers analysed new accounting reports. The reporting season is also when most investor-management meetings and conference calls happen. We were granted access for one visit at the time, and we interpret our additional invitations as proof of our ability to "hang around" in another world (Czarniawska, 2007) without interfering with the brokers' daily work (e.g. Silverman, 2006).

The sales desk belongs to a sub-unit of the global investment bank Bauer (pseudonym) and is located in the city centre in one of the world's leading financial centres (anonymized). We had full access to the desk, which mainly consisted of a spacious trading room and conference rooms used for company-investor meetings. We spent 10 hours or more at the desk per day, and often took a seat close to the Head of Equity Sales, from where we could observe and hear most of the brokers in the room (12 in total). The brokers covered six different national stock markets for equity funds globally; their buy-side counterparts were the fund managers responsible for their fund's investments.

Our observations included the brokers' interactions with several other groups within Bauer. We joined all morning meetings (telephone conferences) between the brokers and analysts from other offices. During these meetings, the analysts presented newly released accounting reports and answered the brokers' questions. We also received examples of emails and other formal communication between the brokers and the analysts. In addition, we observed interactions between the brokers and those working in the back office of the equity desk when they discussed the organization of the company-investor meetings that were routinely held at the office. Finally, our observations covered the work of the equity sales traders (five in total), who were located in the centre of the room. Commonly described as "traders", this group trades on behalf of the brokers and has daily contact with the fund managers' traders.

We collected field notes from more than 100 hours of observations and conducted more than 40 interviews (see appendix 1). By "interview", we mean a structured conversation in which we explored selected themes. Because we were prohibited from tape-recording the interviews, one author led the conversations and the other took extensive notes. All notes were transcribed directly in the evenings. During the interviews, we discussed what was communicated to clients, but also how brokers conducted valuations and how their personal performance was evaluated. We also engaged in many informal discussions at the brokers' desks, during which they showed us their ways of working. By anchoring the discussions in our observations, we acquired specific elaborations about the work the brokers perform unknowingly or without reflecting on its importance (e.g. Baxter & Chua, 1998; Kreiner & Mouritsen, 2005).

An initial observation was that if clients owned the share or had an interest in its industry, the broker would forward all available analyst information without much commentary – a way of working that has been referred to as "maintenance work" (cf. Barker, 1998). The type of work we analysed in this study was "case work", in which the brokers worked closely with their clients; the brokers referred to this way of working as "reverse brokering". We observed many efforts to jointly develop investment cases during our study, and the Indumine case shares important characteristics with other cases, which we explain throughout the analysis. However, we argue that analysing one coherent case as well as observing similar cases reduces the risk of analysing anecdotal cases as general cases (Silverman, 2006).

The reasons for choosing Indumine over other cases were threefold. First, unlike the more episodic maintenance work, case work extends over time, and our full-year study enabled us to analyse how brokers developed, sustained and eventually abandoned the case. We observed customer calls on Indumine, explanations at morning meetings, evaluations of interim reports and all formal analyst recommendations. Second, the case played out before the brokers' year-end evaluations, enabling us to analyse the case in relation to their reward systems. Third, only six of Bauer's brokers chose to communicate the case, as it fit their clients' particular investment profile. This enabled us to analyse the brokers' different stakes in the case (e.g. Vollmer, 2007) and how these influenced the brokers' use of accounting. By using Indumine as the case, we could observe how accounting was used in action rather than being told by the brokers how they used accounting in general (e.g. Gniewosz, 1990), thus observing how doubtful, disappointed and lucky the brokers were at times, which contrasts with some of

the brokers' later claims of how "well" the case was planned beforehand.

5. Analysis

5.1. The brokers' association with Indumine's margins

The background to the Indumine case was the poor outlook for the heavy industry during the autumn of 2013. Depressed global prices for raw materials had lowered the industry's CAPEX levels, and Indumine – a supplier of heavy equipment and services – had a bleak outlook. Bauer's "house position" on Indumine, which was the bank's official analyst recommendation, was "hold", and this view was shared by the analyst community and several of Bauer' brokers:

> Indumine needs strong macroeconomic growth, which is simply not there. They probably have to be aggressive in pricing and then struggle with their margins; that is why I don't talk to my clients about Indumine. (William)

Despite sharing this negative outlook, Freddy – one of Bauer's brokers – received questions on Indumine from a client who was searching for heavy industry firms to diversify its portfolio. As a large cap firm, Indumine was sufficiently large for the client to invest in, and Freddy therefore organized a private meeting between him, the client and Indumine's top management. During the meeting, Indumine's management team confirmed their flat guidance for revenue growth, but indicated a future shift in revenue streams: the low-margin business area of new equipment would potentially decrease, but would be compensated for by an increase in the high-margin business area of service.

Freddy left Bauer shortly thereafter, but six other brokers with clients to whom Indumine could be of interest (Michael, Robert, John, Christopher, Linda and Joseph) "piggybacked" (e.g. Latour, 1987, p. 110) on Freddy's idea and began developing it. Robert took the lead by scanning analyst reports on Indumine, and soon noted that no report mentioned a margin-mix change. He also found that the analyst community largely agreed on how group-level sales and CAPEX needs would develop. This agreement on key measures made the analyst consensus reliable (Huikku et al., 2017) as a benchmark (Barker, 1998) to deviate from:

> You need to know the consensus because that is what you deviate from. (Terry)

Robert treated the consensus forecasts on group-level sales as a reliable input to his work, but challenged them by increasing the sales of service and decreasing the sales of new equipment by an equivalent amount. The early work with the case was not a rejection of the shares' financial foundation (Winroth et al., 2010), but rested on many black boxes (Latour, 1987) about Indumine. With segment margins absent from the analysts' reports, however, Robert hand-collected Indumine's historical margins and concluded that a changed margin mix would make the share beat the analysts' expectations. This gave the case a distinct economic potential: future improvement in margins. These improved margins were thus far an "untold story" (Abhayawansa et al., 2015) that was sufficiently interesting for Robert to send out his *pro forma* income statement to selected clients and ask for their input to the case as to further it:

> You are either the quickest broker to call clients or the most interesting broker that calls. (Terry)

As we often observed with case work, the brokers sidestepped their analysts and initiated the Indumine case in cooperation with their clients, in a practice the brokers referred to as "reverse brokering". In general, the clients were viewed by the brokers "as some of the brightest minds" (William) in the city, and the brokers preferred to work with them rather than with their analysts in identifying investment cases. The brokers argued that a case in which the economic potential of a share was viewed just through the margin-mix change – but with all other items held constant – would not emerge within the relation to their analysts, as described by Linda: "[analysts] can view cases not based on a [full] fundamental valuation as stupid". The brokers reasoned that analysts would spend time modelling the entire development of the firm, whereas the brokers only wanted clients to note how one aspect of the firms' development – the margins – was underestimated. Also, the brokers often told us that they believed analysts were too focused on the companies' earnings announcements (e.g. Barker, 1998; Gniewosz, 1990), and were therefore too passive during the time between reports to benefit the brokers' daily communication with clients, which occurred outside of the reporting cycle:

> We are like paperboys. We knock on people's doors and ask them to buy things. Therefore, we need things to sell. When we have reached the end of the street, we have nothing more to do. We can't just start over and knock on the first door again. (Michael)

Robert's take on Indumine was successful in that one of his clients contributed to the case and returned a recent industry analysis that Robert used to verify the sales and cost estimates. Both Robert and his clients seemed to have worked under the realization that his margin-mix calculation was an indirect measure of economic potential (e.g. Knorr Cetina, 2011), but the calculation resulted in Indumine's P/EBIT ratio being 35% below those of its industry peers. Hence, by leaving much of the margin-mix change "undefined" (Latour, 1987, p. 87) in terms of when and how it would materialize, Robert's model sought to attract the clients' attention by illustrating how a changed margin mix could affect earnings and multiple valuations: "nothing more, nothing less" (ibid., p. 87).

The margin-mix case was now sent out to those clients of the six brokers who had both an investment portfolio in which the heavy industry case fitted and an appropriate investment horizon of 6–12 months. The brokers had no strong arguments as to when the margin change would be realized, but communicated to clients that the numbers would increase within a couple of quarterly reports, and that the market price would adjust accordingly. This investment horizon excluded certain pension funds, which looked for more long-term investments, as well as hedge fund clients who were looking for shares to short-sell. Furthermore, just as Robert had done when first inviting inputs to the case, the brokers targeted clients based on their competence to contribute to the case, because: "every broker has a few clients they find 'smart' and who will give us ideas to develop and ideas to be tested on them" (Christopher). The more practical use of Robert's P/EBIT ratio was therefore to "throw out a bait" (Joseph) to clients. The brokers viewed Indumine as a good case because it was "rough around the edges" (ibid.) and what the brokers presented to their clients was therefore not a full view of the company's capacity to generate future earnings:

> Because if you deliver closed cases, that is simply useless. You need preliminary cases if you want to involve your best customers because, otherwise, they will have little to offer and add to the case, and then you don't get them on board. (Joseph)

A "useless case" was thus a case that did not invite the contribution of clients. Instead, presenting the margin-mix change to clients was a "bait" used to cultivate expectations about economic potential among clients (e.g. Vollmer, 2007), and the brokers primarily hoped that their clients would ask for more details (Latour, 1987, pp. 219–220) about Indumine. Arguing in favour of the share had caused the brokers to stand out from the market consensus because – to comply with stock market legislation – the brokers had to specify that the recommendation was "their personal view" (compliance officer) and differed from Bauer's official recommendation. Now, the brokers "appear in broad daylight" (Latour, 2004, p. 24), and their personal stake in the case could be sensed by the aggressive undertone when we asked about their risk in deviating from consensus:

> Listen, I cannot talk about consensus to my clients; then they would think I am an idiot. (Michael)

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To the brokers' annoyance, their position in favour of the "hated share" (Christopher) Indumine was not contrarian for long. During the fall, Bauer's analyst team on Indumine – fronted by Jimmy, a top-ranked analyst – upgraded their recommendation to "buy". This increased the reliability of Indumine's economic potential because the bank's official view – an argument from authority (Latour, 1987) – was now in line with that of the brokers. However, with the margin-mix change absent from the report, the brokers feared that their dialogue about the margin mix would be backgrounded and their contribution (vis-á-vis their analysts) would be indiscernible for the clients. The analysts' revised recommendation was justified by the share price now being 6.7% below Bauer's unchanged target price (Bauer, equity research report). Thus, the idea that Indumine was "cheap" was now disseminated to the market, effectively "using up" the brokers' P/EBIT ratio (e.g. Knorr Cetina, 2010) by making it redundant for the broker-client communication.

The changed analyst recommendation was a response to Indumine's updated revenue guidance for the year from which Jimmy – and other analysts – picked up that Indumine's product market had reached a "new normal" (Bauer, equity research report). The information about the "new normal" made the brokers confident that Indumine had "a marginal downside which [at] worst will remain flat" (Michael), but such information offered little input for brokers to call their clients. Also, the Q3 report showed no changes in margins, and the brokers' case was weak:

> I have tried to push the Indumine case for some clients […] but they simply say, "Why?" (Michael)

From conversations with clients, the brokers became aware that the clients feared that Indumine would cut their dividends. Indumine's managers had communicated that the price pressures would continue, which Bauer's and other banks' analysts viewed as a risk to current dividend levels. Reduced dividends were a general worry in the market and were taken as an explanation for the currently low share price, evidenced by the share's large short base:

> Indumine is a favourite short-pick among hedge funds because they are seen as a proxy for a low-quality company that is delivering bread-and-butter services. Everyone is just waiting for Indumine to cut the dividends. (Christopher)

The brokers believed that Indumine's management had exaggerated the threat from price pressures because – now four quarters after the price pressures were first announced – Robert could not find any real impacts on earnings:

> Then I cannot see why their [gross] margins have remained unaffected throughout this time. […] They may very well experience price pressures, but that seems to be pushed down on their sub-suppliers. (Robert)

At this point, the brokers redefined their contrarian position by communicating that dividends would *not* be reduced. The analyst consensus assumed that price pressures would reduce the margins and lower dividends, whereas the brokers' margin-mix case implied sustained dividend levels. In addition, the brokers now became more confident in the margin-mix case, and refined it further by associating it with a "restocking effect". Earlier, during Indumine's Q3 conference call, the managers had mentioned that customers had stopped ordering spare parts due to financial distress. The brokers used this piece of information, which by then had been public for two months, to argue that sales soon had to increase because "[y]ou can only wait that long without restocking spare parts; sooner or later, the warehouses will be empty" (Christopher). Furthermore, the brokers told their clients that Indumine was in a favourable position relative to competitors because the company had developed mobile service centres. Such centres would allow Indumine to meet demand immediately without new investments – a claim the brokers supported with Indumine's guidance on stable CAPEX (Indumine conference call, October).

The brokers' margin-mix case was again distinct from the analyst consensus, as it was now related to cash flow concerns about dividends. The case had become less "rough around the edges" (Joseph) and less open to the contributions of clients. Furthermore, the brokers had added a distinct deadline for their case because Indumine's dividends would be communicated in the Q4 report. Thus, the margin-mix change now depended on the improvement of the full-year profitability, of which only Q4 was left. At this point, the brokers told their clients that the Q4 report would show improved margins and committed themselves to that particular aspect of the share (Beunza & Stark, 2004). The brokers "staged" (Latour, 1987) their particular take on economic potential to the investors so that the Q4 results would "say for themselves the same thing the [broker] claims them to say" (ibid., p. 73):

> In case work, it's necessary to plant an idea and then support it with news. The Q4 report is essential to support our case so that the clients can see [the margin mix] for themselves. (Christopher)

5.2. Using up the margin mix

At 9:40 on the day of Indumine's report release, the brokers purchased the Indumine share in their alpha systems – systems used by algorithm-based funds to automatically assess the brokers' investment decisions via fictitious online portfolios.[2] Because "[t]he clients see everything in the system and track the developments all the time" (Omar), these purchases signalled to clients that the brokers foresaw a price increase from the Q4 report. The brokers then began preparing emails and Bloomberg messages, and opened Jimmy's "Update Report" to see his forecasts, historical trends and

[2] Brokers earn commission as a percentage of the accumulated value of the fictitious portfolio.

consensus estimates for Indumine. The "Update Report" had also been sent to clients, and Robert soon noticed that Jimmy's forecast on sales was 8% above the consensus estimates, thus requiring the Q4 report to show a substantial increase in order intakes:

> Robert: Have you seen the forecast for order intake? He is way above consensus.
>
> Michael: I know. Do you know how he forecasts sales? I am not joking, he sets the book-to-bill ratio to one.
>
> Robert: F******r*****! He is just dead wrong about that.

The historical conversion rate of orders was 80% of order intake, not 100%, and the brokers believed that Jimmy would have to revise his sales estimates. As revisions are communicated *en masse*, the brokers feared that their clients would focus on the revision and start anticipating the reaction of the market in general, which would shift their attention from the brokers' case:

> You always have to explain to your clients why your own analyst [Jimmy] is all over the place, and first deviate from consensus, and then adjust to consensus. (Michael)

The tensions ran high in the room, but at 10:05 – 5 minutes late – a Bloomberg press release finally appeared on the brokers' screens, including a table with key accounting items for Indumine. Within 15 seconds, the brokers had verified, by shouting out, the items that underpinned their argument about the changed margin mix:

> Michael: Sales somewhat below consensus!
>
> Joseph: Orders slightly weaker. Are they below on margins?
>
> Christopher: No, the opposite, 14.4%, that is better than consensus.
>
> Michael: The stock is up!

At 10:06, several brokers had already reached their first clients to reiterate the sales figure, order intake and margin. The numbers revealed the same things the brokers had told their clients, and the immediate stock price increase made it the arbiter of an "indisputable" case (Latour, 1993, pp. 61–62): "You see what I see, right? A relief rally!" was John's opening phrase when reaching his clients. Meanwhile, Michael received an e-mail from a client and read aloud a question: "Why is order intake slightly weaker than consensus and below your estimates?". He swore over the analysts' "crappy work" and sent a short response. However, while most brokers kept calling new clients, Robert suddenly shouted out angrily:

> Robert: Has someone managed to open the f****** report?
>
> Christopher: I am reading it in Bloomberg; I put it on the chat for you!
>
> Robert: I know, but you don't see the margins for the business areas in that s***. You only have the total margin.

Although Michael, Joseph and Christopher paused for Robert to read the report, John, Paul and Linda kept calling clients, seemingly unaffected by the news that the accounting metric the brokers had built their case on – the gross margins for each business area – had not been examined. Finally, at 10:12, Robert opened the full report via Indumine's IR-website and soon exclaimed:

> The margin is just phenomenal! [… It's] up from 13.6% last quarter, and the consensus was 13.2%. They miss [the sales target] on new equipment and the order intake is lower than expected, but they deliver a phenomenal margin, thanks to the margin mix.
>
> Robert then called his first client:
>
> Good report! The margin is strong, 14.3%. […] Indumine is working through more and more services than new equipment and that is why the overall margin is good.

All the broker's customer calls had an undercurrent of triumph, as the report had proved their margin-mix case to be quantitatively right. The report had verified the brokers' take on the firm's operational performance because not only had the Q4 report realized the brokers' argument of improved margins, but the increase in the sales backlog had also secured their case for the year to come. Furthermore, the report verified that, because of the improved margin, the company could sustain its dividend level for the year, resulting in a dividend yield of 5.6%. Because high dividend yields attract long equity funds, "the guys who are short will start to become nervous" (Joseph), as the price would increase further when hedge funds had to cover their short positions. For the brokers, the improved margins combined with the subsequent increase in share price had become the measures of "everything else" (Latour, 1993, p. 158), not least the brokers' capacity to generate investment cases. When the trading room eventually calmed down, Michael went to pick up a Coke from the kitchen.

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> "How the f*** can the price only be up by 4%!?" (Michael)

When Michael returned to his desk, the share price had dropped from the 15% increase the brokers had witnessed just minutes earlier, and this disrupted the brokers' sense of security about the Q4 report. Robert, Michael and Christopher gathered around Joseph's desk to see if they had misread the order backlog, but soon concluded that the conversion rate was above historical averages, meaning that Indumine should be able to meet the following years' sales targets. Meanwhile, John had called Jimmy and learned that most analysts had lowered the company's order intake because they treated one unusually large order as a non-recurring item. John "piggybacked" (Latour, 1987) on Jimmy's arguments as he told the other brokers:

> Conversion rates need to be in line with the historical rate plus full effect on the cost cuts to reach current estimates on sales and margin. Jimmy believes that the sales estimates [the company's own] may come down. (John)

A visibly upset Robert interrupted John: "The analyst is just wrong all the time!". Likewise, Michael claimed that, "if we delete big orders, then Boeing has no orders at all!" and, in a heated discussion, Robert argued that Jimmy's order forecast had been inflated from the start and that non-recurring orders still generated aftermarket services. Later that day, Robert explained to us:

> Sure, it is a bit subjective how you classify [the large order]. But my argument then is if we agree on 600, because you subtract 90 million in orders, and you need the historical conversion rate plus all cost cuts in line to support the margin, then I don't see the downside. In fact, I have two safety margins. I know I have the 90 million that contributes to sales and will help reach the

> sales estimate this year. I also have the conversion rate that could come in more positive than the historical.

Still, the discussion about the large order had affected the brokers' confidence, as they all covered the order in the subsequent client calls. Unlike the analysts, the brokers did not debate how the order should be classified (cf. Beunza & Garud, 2007) to assess the company's normalized earnings capacity. Instead, they argued that any order, reoccurring or not, would generate aftermarket service, thereby strengthening their claims of the increased margin for the service segment. As such, the brokers remained convinced that Indumine was a good investment case because the report was "bang in line" (Michael) with what they had anticipated:

> I struggle to find a good reason why Indumine should continue to trade at a 25% peer discount, and as such, Indumine is my favourite stock pick. (E-mail Michael sent to clients)

After a quick lunch in front of their screens, the brokers tuned in to the earnings conference call. To the brokers' frustration, the CEO and CFO never mentioned the big order and, even worse, when the Q&A opened up, the analysts' questions associated the improved margins with cost cuts and not with changes in sales patterns. The brokers listened silently because "it doesn't look good if equity sales ask questions directly to the managers" (Joseph) and, shortly after the call had ended, the brokers began noticing that other investment banks had upgraded their recommendations to "buy". When studying the recommendations, the brokers found that none of the analyst reports motivated their view with the argument the brokers had generated about the margin-mix change. The analysts did not seem to be "applying" (Latour, 1987, pp. 118–119) the brokers' margin-mix arguments; the brokers were then disappointed because, even though the numbers had improved, many analysts took "credit for part or for all of the move" (Latour, 1987, p. 118):

> Rarely does someone thank you for your input [in retrospect], so possibly it is now time for another era of talking to their [clients'] voice mails. (Christopher)

With several analysts' reports now arguing in favour of Indumine's operational strengths – and such arguments also touching upon the firms' improved margins – the brokers felt that they could no longer call their clients on Indumine. The brokers had exhausted all their arguments and therefore paused the case because "to more actively push the case, we need more data points like large orders, reports or a company visit" (Robert). Unlike the consumption of the P/EBIT ratio earlier, the margin mix had "nothing of value left" (Knorr Cetina, 2010, p. 177) to interest their clients and it was now "used up" because too few investors and analysts had picked up the brokers' version of the case (e.g. Callon, 1986). The margin-mix change was generally agreed upon – and supported by accounting numbers – but the brokers' particular arguments as to why the change occurred had not gained much support. This meant that their numbers were consumed without the brokers gaining much credit, and Indumine became part of the brokers' "maintenance work" (e.g. Barker, 1998).

5.3. Achieving responsibility for the investment case

To everyone's surprise, Indumine received and declined an all-cash offer in the spring, which immediately increased the share price. The bid became a central focal point for the analyst community, and Jimmy interpreted it as evidence of Indumine's operational strength:

> That the most profitable company in the mining equipment industry is willing to pay a real premium on Indumine strongly indicates that Indumine offers significant attractive qualities and has been mispriced in the stock market. (Bauer, equity research report)

The brokers also viewed the bid as having "proved us right" (Christopher). They argued that the rejected bid and the maintained price were symptomatic of how the market had underrated the company's performance earlier, but also of how investors viewed the company now:

> What is interesting with an offer is that, when valuing a company with multiples or, like the analysts do, with a DCF model, it is still just a theoretical value. But when someone makes an offer, then you get a mark to market value because then that actor is saying that this how much we believe the company is worth and thus *the* market value. After the bid, the share went up some 20%–25% and after it was declined, it should have dropped back, but it didn't [...] which is an indication that the market still perceives that an offer is topical. (Christopher)

In a switch from the earlier phases of the case, it was now clients who approached the brokers to ask if they had news of the bid. The brokers were not necessarily an obligatory point of passage (e.g. Callon, 1986) for Indumine, but they were now of interest to clients because they had both demonstrated sufficient accuracy about the share's performance and generated a case that had met with local criteria (e.g. Latour, 1987). The clients had come to associate the brokers with the Indumine share, and remembered that it was the brokers who – up until the Q4 report – had continuously offered them news about Indumine and had argued for its potential:

> I tried to push Indumine earlier, but the customers were not interested. They didn't buy the share via Bauer, nor via anyone else. But then, after the bid, I got a lot of positive feedback. Now, I am also getting tickets for Epsilon [pseudonym] because they remembered that I was the one who recommended Indumine. (Linda)

Indumine's operational performance was no longer discussed between the brokers and clients, because even though "we still believe there is some upside to the share due to the margin mix [...], it's becoming too hard to sell" (Christopher). As the operational strength was widely agreed upon, the clients instead asked the brokers about the rejected bid. At this stage, corporate governance information about Indumine became a "bait" to further the investment case – information that is typically argued to be only indirectly used to evaluate the economic potential of a share (Hellman, 2005; Hendry, Sanderson, Barker, & Roberts, 2006). A central question for the fund managers was whether Indumine's largest owner – known for long-term commitment – was unwilling to sell. However, both the brokers and some of their "smart" clients viewed the board as shareholder-friendly, not least because parts of Indumine had been spun off two years earlier. Instead, they reasoned that the board must have viewed the bid as too low, rather than rejecting it on technical terms or conditions, given the offer's all-cash nature.

The brokers' problem with the Indumine case following the bid was that "we don't really have any extra information about it [the bid]" (Michael). Without a particular take on the case at this point, the brokers instead offered their clients meetings with Indumine's management team, which was scheduled to visit Bauer as part of their road show:

> Hopefully, [the clients] remember that we brought the firms to them, and then they'll trade with us or score us higher in the broker votes. (John)

The six brokers joined their clients for a joint lunch presentation with Indumine, but mostly hoped that Robert would find a new take on the case, as he also organized a private meeting with Indumine's managers for a client. However:

> They [the managers] simply said the same thing as at the lunch. The demand for new equipment has troughed, and they see the industrial logic behind an offer, which we [Robert and his client] agreed meant that they were willing to be sold. (Robert)

Therefore, soon after these meetings, the brokers stopped calling clients about Indumine. For months, the brokers had generated arguments by taking out individual accounting items from the financial reports and/or analysts' forecasts and slightly modifying the items to become associated with Indumine's economic potential. At this point, all those arguments had been consumed (Knorr Cetina, 2010) and could no longer be usefully communicated to clients. Importantly, the brokers still believed that the share had economic potential, either in the form of a new bid offer or because of improved profitability, even to the point that "I would buy the share privately, but I cannot push it to my clients now" (Michael). The "decreased disputability" (Vollmer, 2007, p. 583) regarding Indumine's operational qualities meant that most analysts and investors already shared the brokers' positive outlook. Therefore, the brokers' commitment to the case as a buy recommendation had also been "used up" and no longer had value for the brokers, because remaining committed to the case with no new deviating arguments — or simply forwarding information from the analyst — was seen as detrimental to the broker-client dialogue: "To be honest, the clients would probably think I am desperate" (Robert).

Instead of finding a new take on Indumine, we observed that Michael and Robert began reusing industry CAPEX figures from the Indumine case to generalize (Latour, 1993) the argument of the industry's "new normal" onto a new share. Detacore (pseudonym) was a supplier to Indumine and had just released "a disastrous report" (Robert). Jimmy — the analyst at Bauer who also covered Detacore — lowered his recommendation to "hold", which was in line with the consensus. However, Detacore's share price actually *increased* following their poor report and, when Michael called clients about the report, he made careful parallels to their Indumine case:

> Detacore, it is just appalling! But just like Indumine, it is at its bottom, so for us, this is rather a case of when to buy rather than sell. They reported lower order intake, but if it does not go down on bad news, what will make it drop? It is just like Indumine, you have a large short base, but they are through the worst and are now operating at a new normal; we'll see what they will say about the earnings guidance at the conference call. (Michael)

As can be seen from the quote, the brokers repeated much of their old investment story for the new share, not least because Detacore was also a "hated share" (Robert) and its low share price had spurred rumours of a bid on the firm in the business press. Furthermore, Michael and Robert picked up that the analysts' consensus had doubted whether Detacore would reach its revenue guidance — a worry that had also seemed to lower the share price. However, the brokers reasoned that if the industry had indeed normalized at the current levels, these concerns were exaggerated. Detacore's managers were scheduled to visit Bauer and, in order to interest their clients, Michael and Robert reused CAPEX information to substantiate the "new normal" of that industry. The exact same numbers that the six brokers had briefly used to secure the downside risk of Indumine were now recycled by Robert and Michael to become a new "bait" for clients. During the meetings, Detacore's managers claimed that no cost cuts were needed; this time, Robert and Michael took a contrarian position against the analysts' consensus view, by claiming that Detacore would be able to reach its guided levels, largely supported by the CAPEX trends. If so, Detacore would be "just like Indumine" (Michael).

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Retrospectively, the decision to stop pushing the Indumine case was timely. The brokers were uneasy with how they had recycled information to the Detacore case, and doubted whether the CAPEX figures from the Indumine case could be reused:

> Everyone, including consensus estimates, says that the industry should remain flat. There is, however, this one small firm, K-Mine [pseudonym], whose guidance indicate a worsened [revenue development]. [...] If K-Mine is right, the entire industry should go down, but if they're wrong, everyone should go up. (Michael)

Later that autumn, the oil price plummeted and Indumine's and Detacore's shares lost 30% and 50% of their value, respectively. The oil and gas crisis diminished the sector's order intake, and the industry became a "complete stay-away" (Robert) because a foundation for the cases — the "new normal" — was no longer valid:

> Their customers signalled that they will further cut their CAPEX, which killed order intake. If Indumine was our strongest case this year, the Detacore case was the worst one. (Robert)

For some of the brokers, the short-lived nature of market facts (Knorr Cetina, 2011) meant that they had already forgotten about Indumine by December: "Was it Robert who focused mostly on Indumine? And he was positive?" (John). John's interest had halted after the Q4 report, as his largest clients did not continue to buy the share. However, the other brokers' association with Indumine translated into personal rewards in Bauer's year-end reviews, as the clients who initially contributed to the case had gained almost a 50% return on their investment. Timely divestments of Indumine in the alpha portfolios combined with high client commission made Robert, Michael, Joseph and Christopher top-ranked in Bauer's internal evaluations.

It is noteworthy that the clients emphasized Indumine when giving the brokers feedback about their services for the year, because it was the brokers' "maintenance work" that had generated the highest return for their clients. During one of our last conversations with Michael after the bonuses had been allocated to the brokers at the desk, he explained that Nina, another analyst at Bauer, had early on predicted a market downturn in a separate industry, and had then identified a share she viewed as overvalued. Nina had presented the brokers with a short case, which they had channelled (Blomberg et al., 2012) to relevant clients. For this, Nina became the brokers' "invite of the year at their annual Christmas party" (Michael), and she received top scores when the brokers evaluated her; not only for being right, but also for respecting the broker's function of selling individualized recommendations to selected fund managers. Still, the brokers did not mention Nina's short case until our very last visit because — and rightfully so — the brokers' contributions had been deemed marginal (Latour, 1987, p. 110) and had earned the brokers little recognition from their clients. Nina's arguments were widely communicated through

Bauer's analyst reports, and these arguments were shared by other investment banks, which meant that the brokers had no contributions to make: "We can't just call clients and tell them things they can read themselves" (Michael). Instead, Michael explained to us that their clients had emphasized Indumine in their formal broker evaluations – including their broker votes – even though cases were rarely mentioned in the feedback spreadsheets; one example read: "Thanks for the Indumine case, Michael." Recognition will not be gained without brokers' efforts (Latour, 1987) and the brokers had repeatedly offered their clients something new about Indumine, such as insights regarding board member attitudes or a private meeting. Therefore, the brokers were able to associate their particular contribution with what had already been "realized" (Christopher) by the market. It is particularly notable how Michael and Robert made careful parallels between Detacore and their prior success with Indumine in an attempt to achieve recognition for what was by then a consumed case (Knorr Cetina, 2010).

Conversely, the failure of Detacore did not seem to cause much concern for Michael and Robert. Unlike other failed cases we observed, in this case, the brokers did not call and apologize to their clients, nor did they appear to "feel guilty" (Michael). Instead, the brokers explained to us, in a take-for-granted tune, that they escaped blame because the "case killer" (Robert) was a take they were not committed to:

> We claim no edge on macro factors. We are experts in the firm-specific. The dollar and oil price are two things no one knows anything about. (Michael)

Michael's explanation suggests that the brokers have no personal stake in macroeconomic events, even when such events drastically impact their case. The brokers were only committed (Beunza & Stark, 2004) to particular accounting items, which meant that the responsibility for failed cases was evaluated by a local criterion that shifts the ultimate responsibility for failed investments elsewhere:

> It's neither my job, nor my clients' job, to worry about where the [overall] stock market is going. Their customers chose to bid on the stock market when they invest their money in the equity funds. My job is to find investment opportunities. (Michael)

We were eventually told that few clients had actually taken the bait on Detacore, partly for mundane reasons. Detacore's investor meetings took place in the summer, and "you don't start making huge changes to your portfolios when you're off for vacation" (Michael). More importantly, the clients had concluded that Detacore was not interesting to them; as Christopher commented, "We don't force them to buy shares. They do their own analysis." Therefore, Michael and Robert had not established a personal contribution to Detacore to which they were committed. Reverse brokering needs client input because, otherwise, the brokers' "bait" will just be one small idea in the brokers' and clients' continuous dialogue and will soon be forgotten in the general stream of news.

6. Concluding discussion

A general observation from the practice of "reverse brokering" is that a much more varied range of accounting information was used to identify and sustain an investment case, when compared with earlier research (Barker, 1998; Cascino et al., 2014; Bradshaw, 2011; Brown et al., 2015; Imam et al., 2008; Spence et al., 2019). In the Indumine case, the brokers first combined Indumine's low P/EBIT ratio with a largely unsubstantiated argument of a margin-mix change, thus producing an "untold story" (Abhayawansa et al., 2015) that the clients could contribute to in building up the case (Imam et al., 2008). To reduce clients' concerns about lowered dividends, the brokers later used "old" information when crafting the restocking effect, and finally abandoned operational arguments altogether by associating the case with the board members' attitudes towards a bid. Also, when earnings were in focus, the brokers did not model the entire income statement nor calculate the long-term "street earnings" (cf. Barker, 1998, 2000; Bradshaw, 2011; Brown et al., 2015; Gniewosz, 1990; Hellman, 2000). Instead, after the report release, the brokers went against the analyst community by persistently including the large order in their communication with clients. In sum, we record that the accounting items used in the practice of "reverse brokering" differ from much earlier research on the identification and evaluation of investments. Such research has instead argued that users: (1) rely on low-level earnings (Barker, 2000; Bradshaw, 2011; Brown et al., 2015; Gniewosz, 1990; Hellman, 2000); (2) are news-oriented and rarely reuse already public information (e.g. Barker, 1998; Hellman, 2000); (3) usually neglect balance-sheet information (Barker, 1998; Bradshaw, 2011; Brown et al., 2015; Gniewosz, 1990; Holland & Doran, 1998); and (4) only evaluate corporate governance aspects indirectly (Hellman, 2005; Hendry et al., 2006).

Our methodological approach makes apparent the advantage of longitudinal research to identify all the accounting items used, and all the different forms of accounting usage, in the making of an investment case. The brokers' varied use of accounting illustrates that there are shifting reasons for investing in, holding and eventually divesting a share (cf. Bence et al., 1995; Gniewosz, 1990). Furthermore, it contrasts with earlier accounts of investment cases being made up of "accounting mosaics" (e.g. Brown et al., 2015; Gniewosz, 1990; Holland, 2006) as the mosaic argument assumes that individual accounting items become important when they are added together into a single coherent view of the company's future earnings capacity (Brown et al., 2015; Holland, 2006; Winroth et al., 2010). Instead, the synthesis of our case is that the brokers' use of individual accounting items – what they often referred to as "bait" – was *piecemeal* and *consumptive*. Accounting was not used to produce a stable, coherent and alternative view of the share (e.g. Brown et al., 2015; Gniewosz, 1990; Holland, 2006) that would address and challenge the total "financial foundation" of the company (Spence et al., 2019; Winroth et al., 2010). Instead, each accounting item was important for the brokers to question and modify assumptions of the analyst consensus, and to develop a contrarian investment case (Zuckerman, 2012) for – and together with – clients. In the practice of reverse brokering, what mattered was "local" (de Laet & Mol, 2000; Latour, 1987) investment criteria – criteria particular to the investment profile of the client the broker was dialoguing with – and making local investment cases conditioned this particular use of accounting. The central difference between our story, earlier social studies on investing (e.g. Beunza & Stark, 2004; Spence et al., 2019; Vollmer et al., 2009) and ANT-inspired accounting studies (Huikku et al., 2017) is that, in the interaction between brokers and clients, the accounting information was consumed and *used up.*

To say that accounting was consumed in investment activities (Knorr Cetina, 2010) is different from the dominant theme on accounting and calculation as part of producing durable valuation frames in stock markets (e.g. Beunza & Garud, 2007; Vollmer et al., 2009). However, our proposition about the broker-investor investment practice relying on a consuming use of accounting does not replace earlier studies of sell-side analysts' production-oriented (Knorr Cetina, 2010) accounting use, as "we do not have to oppose the local knowledge of the [brokers] to the universal knowledge of

the [analysts], but only two local knowledges" (Latour, 1987, p. 229). How the brokers consumed accounting in their attempts to influence investors instead indicates a broader relevance for accounting, as accounting items can be relevant when acting on uncertain events without being particularly durable, broadly disseminated, built upon, reused or combined in other calculations (cf. Huikku et al., 2017; Robson, 1992; Vollmer, 2007). Instead of fitting together many pieces of accounting information and collapsing each item's particularity (Huikku et al., 2017; Spence et al., 2019), the brokers used individual accounting pieces to make their clients think differently about the share, and thus continuously served investors with contrarian, individualized recommendations. In the broker-client interrelation, accounting items had to be relevant to the specific investor and not necessarily for the market as a whole – in fact sometimes of no value to the market as a whole – and when used for such purposes, accounting items quickly decayed.

The conditions for the brokers' practices rested on accounting consumption, which was particularly evident when the entire Indumine case eventually decayed, even though the brokers still foresaw that the share would increase in price. In as much as clients would do their own research (cf. Latour, 1987, p. 216), the brokers viewed accounting as consumed when clients displayed little interest in their "bait" and, at that point, neither the brokers nor their clients would further the accounting item in the translation process (Callon, 1986). However, just as accounting has multiple beginnings (e.g. Power, 2015), accounting was also consumed in multiple ways. Note how the brokers abandoned accounting items when others – especially the analysts – began communicating similar arguments *en masse*, making it appear as if the brokers were piggybacking (Latour, 1987) on others' ideas. This move consumed the accounting items for the purpose of dialoguing with clients because the items stopped being personal and particular to the broker, that is subjective. Earlier studies have theorized this form of subjectivity as a weak position for the user (e.g. Beunza & Garud, 2007; Hägglund, 2001; Winroth et al., 2010) because, without sharing, compromising and having others contributing to the accounting items, accounting cannot be "accepted as more than pure subjectivity" (Huikku et al., 2017, p. 74). The risk then is that the accounting item will be dropped and the desired action will be stopped (e.g. Callon, 1986; Latour, 1987). Subjectivity is understood to be undesirable in previous analyses of investing because accounting is assumed to stabilize the investment practice by shifting "[…] responsibility for decision-making [individual investments] away from identifiable individuals" (O'Barr & Conley, 1992, p. 23) to generally acceptable models of valuations (Taffler et al., 2017). Actors then become "emotionally distant from any particular trade […] [but] strongly attached to an evaluative principle and its affiliated instruments" (Beunza & Stark, 2004, pp. 371–372; also; Beunza & Garud, 2007; Taffler et al., 2017). Our analysis suggests the opposite because, as accounting was used up and replaced, the investment case could remain relevant for the broker-client dialogue. This also meant that brokers often gave up their "evaluative principles" (e.g. margin-mix change) to remain personally committed – that is, identifiable by clients – to the investment case. Consuming accounting to take and sustain a subjective position was directly desirable for the brokers because "[b]eing subjective means that when you talk *in the name* of people or things, the listeners understand that you represent […] yourself" (Latour, 1987, p. 78). Without taking such a subjective position, the weak links between advice given and remuneration received would make it more difficult for the brokers to be remembered when their clients, much later, scored the brokers' advice.

We have explained how reverse brokering relied on the brokers selectively modifying and consuming prefabricated accounting information (e.g. Vollmer, 2007) to both make the items locally relevant to individual investors and associate the items with the brokers' efforts. Nevertheless, viewing accounting as relevant to local criterion not only meant that different accounting items made up a different form of economic potential – that is, one that was not based on a fundamental and comprehensive analysis – but also drew attention to the particular premises that conditioned, and were reproduced in, the broker-client interaction. For example, as brokers used accounting to present economic potential in one particular aspect of the share, the case was also associated with local responsibility, which limited what a broker could be asked to account for to the client. Responsibility was also shared with the clients, as failed investment cases were viewed as an "accident" at work when trying to satisfy the fund managers' clients' demands for increased returns. Rather than asking brokers to account for their investment cases in retrospect, the clients displayed a high level of tolerance for inexact numbers, crude assumptions, and unsubstantiated arguments in the broker-client dialogue. Reverse brokering can therefore be seen as an elementary form of accounting use in the stock market, and as part of an evaluative infrastructure (Vollmer et al., 2009) in which the quick generation – and quick decay – of "bait" is rewardable. Indeed, by rewarding gains asymmetrically to losses, clients encouraged brokers to present them with deviating investment proposals (Zuckerman, 2012) and then immediately converse about something new – further limiting the impression of brokers being particularly responsible for their "bait". The brokers' subjective position was both sought-after and enabled by clients, because the relevant way for brokers to use accounting in the client dialogue was to generate newsworthiness (Knorr Cetina, 2010) at the expense of the reliability and durability (Huikku et al., 2017) of accounting information. The takeaway from this desired form of accounting use is that accounting consumption was not necessarily tied to the informational processing of the market *en masse*, such as the continuous release of new information (as emphasized by Knorr Cetina, 2010; 2011). More importantly, the brokers feared becoming repetitive in the eyes of their clients, and therefore considered accounting items to have been consumed more or less directly after they had been communicated, even when clients showed interest and the investment case remained unrealized and contrarian. In this way, beyond information being "'discounted' in prices" (Knorr Cetina, 2010, p. 192) or dropped in the translation chain (e.g. Callon, 1986), the broader takeaway from our study is that the brokers' consuming use of accounting exists as an elementary accounting practice, which feed on the formal evaluative infrastructures of the sell-side industry (Power, 2015; Vollmer et al., 2009) and conditions the brokers to be less committed – and less expected by their clients to be committed – to their evaluative principles.

Our argument is potentially of interest for analysing how local versions of accounting – in both form and substance – can emerge, live on and make up users who enjoy epistemic authority in the fabrication of these accounts. Such epistemic authority may be framed, and paralleled to, as a case of vernacular accounting (cf. Goretkzi, Strauss & Wiegmann, 2018), for example. The reliance on self-generated accounting information means that organizational actors localize generally shared and accepted accounting items in a particular way for a particular setting. Later, local versions of accounting can influence more general forms of accounting, nonspecific to an organization, and help to accrete field-wide evaluative infrastructures (e.g. Power, 2015). Our analysis of reverse brokering is different, as stable forms of cooperation were achieved without controversies – e.g. about what to measure, how to measure and who to do the measuring – having been settled by the making of lasting objects such as widely accepted accounting items (Strum & Latour, 1987; e.g.; Beunza & Stark, 2004; Beunza & Garud, 2007). It was not the stability of accounting items (e.g. Robson, 1992) that enabled the broker-client action, as each accounting item was used up without the social interaction becoming "extremely labile and transitory" (Latour, 1999, p. 210). Instead, the practice of reverse brokering was stable to such an extent that

brokers and investors could bracket a great deal of evidence that contradicted their stake and instead consider "one [accounting] variable at a time" (Strum & Latour, 1987, p. 793) as relevant for an investment. The practice (of reverse brokering) is much more stable than the accounting items it gives rise to, relies on and eventually uses up; therefore, the broader takeaway is to propose that these consumptive accounting practices constitute a form of parasitic practice that exists in the shadow of more formal evaluative infrastructure (Power, 2015).

In our case, the practice of reverse brokering existed in the shadow of the formal infrastructures between the sell-side and the buy-side – most importantly, the analysts' research reports – and thus designated an alternative, less inclusive, path to the public routes in the market for information (Barker, 1998; Spence et al., 2019). Without the gaze of the public eye (e.g. from analysts or other brokers, see Abraham & Bamber, 2017; Knorr Cetina, 2011), there was less pressure or incentive to document and standardize the investment process, allowing accounting items to be newsworthy and probable rather than reliable ways to gain knowledge about investments (Huikku et al., 2017). Concomitantly, because consumptive accounting practices leave little or no traces to be furthered (Latour, 1987) or to demand responsibility for, the used-up accounting items did not accumulate and eventually influence decision-making more generally (cf. Power, 2015). Without negotiating, compromising and accumulating accounting pieces, consumptive accounting practices produce little lasting "truth" in themselves (Latour, 1987; Knorr Cetina, 2010; 2011); instead, they constitute a parasitic practice that needs another, more formal, infrastructure to feed from. In our case, the brokers only consumed accounting that supported the analyst consensus and its associated practices, which explains why the brokers carefully navigated – and often admitted defeat against – the analysts' changed recommendations. The parasitic character of these consumptive accounting practices influences the knowledge claims that can be made and which items that can be consumed, effectively hindering "anything" from becoming the measure of an investment case (e.g. Latour, 1993). Our proposition is that, unlike cases of vernacular accounting systems (Goretzki et al., 2018) and other *complementary* accounting forms, consumptive practices constitutes a more *elementary* form of accounting use (Vollmer, 2007) in which new accounting, or new interpretations of accounting, is derivative of the generally available accounting it operates in the shadow of. Such "new" accounting information decays promptly because a consuming use of accounting is a more immediate form of fact-making in which the aim is to introduce scepticism about the infrastructure it feeds from. The aim for such a practice is not to produce a competing, reliable accounting metric that backgrounds its users due to its extended networks (Huikku et al., 2017; Robson, 1992). Instead, a parasitic accounting practice sidesteps issues of more general representation and correspondence – and, by extension, the responsibility for a knowledge claim – by making the links between the accounting item and the represented more immediate and allowing recipients to easily assess the reasonableness of the users' claims. Thus, in practices that operate within the shadow of an infrastructure, users can act with epistemic authority regarding, for example, investment cases by inserting "more esoteric claims" (Vollmer, 2007, p. 583) about economic potential into the interaction, and thereby sustaining it.

Our analysis could lead to new research about accounting use in several ways. First, we encourage more financial market researchers to view investment activities as a combined effort between analysts, brokers, investors and other potential actors (Imam et al., 2008). Doing so will shed more light on the iterations between the respective users' production and consumption of accounting in the making of an investment case. Hence, future research could not only nuance the contribution of brokers versus analysts, but also seek to empirically analyse how various users take over or alter the arguments made by others, and how the recognition for an investment case changes from actor to actor. More generally, our consumption perspective of accounting complements much earlier production-oriented research that draws on science and technology studies in the field of accounting in other sub-disciplines. Thus, emphasizing the consuming use of accounting could bring forward many other consumptive practices operating in the shadow of information infrastructures, and could reveal how these practices influence daily decision-making without producing persisting knowledge artefacts. This would allow for an understanding of other elementary uses of accounting, and of other ways in which accounting is valued as it is used up.

Appendix 1. Table of interviews

Interviewee	Date	Length (min)
Anna (compliance officer)	2014-02-05	60
–	2014-02-06	45
Christopher (broker)	2014-02-07	45
–	2014-02-07	60
–	2014-04-28	40
–	2014-04-30	45
–	2014-07-16	80
–	2014-07-18	40
David (sales trader)	2014-04-28	40
John (broker)	2014-02-05	45
–	2014-07-17	50
–	2014-12-16	60
Joseph (broker)	2014-02-05	40
–	2014-04-30	30
–	2014-07-17	40
Kim (sales trader)	2014-04-29	30
Linda (broker)	2014-04-28	60
Matthew (sales trader)	2014-02-07	20
–	2014-04-28	45
Michael (Head of Equity Sales)	2014-01-31	40
–	2014-02-04	90
–	2014-02-05	40
–	2014-02-06	30
–	2014-04-24	20
–	2014-04-28	45
–	2014-04-30	25
–	2014-07-16	60
–	2014-12-15	30
–	2014-12-16	50
Omar (broker)	2014-02-07	20
–	2014-04-29	40
–	2014-07-17	25
–	2014-12-16	30
Paul (sales trader)	2014-04-28	30
Robert (broker)	2014-02-05	40
–	2014-02-06	20
–	2014-04-28	45
–	2014-07-17	35
–	2014-12-16	60
Sarah (administrator)	2014-02-07	20
Terry (broker)	2014-02-07	20
William (broker)	2014-02-06	65

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