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The impact of SME's pre-bankruptcy financial distress on earnings management tools

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ABSTRACT

Previous literature finds that situations that put managers under significant levels of pressure (e.g. IPO, upcoming credit rating changes, violation of debt covenant, etc.) might affect the way earnings are manipulated. The aim of this study is to investigate whether the pressure caused by the non-temporary level of financial distress, conditions the choice between real activity and discretionary accrual manipulation. Using a selection of financial distress indexes and pre-bankruptcy data of a sample of bankrupt small companies operating in a code law country, our findings show that, on average, firms with higher levels of financial distress show more extensive signs of upward earnings management through real transaction manipulation rather than accruals and *vice versa*. Accordingly, real activity earnings management is preferred over accruals when managers are under significant levels of 'pressure' such as being close to face a bankruptcy procedure, despite its implications for the firm in the long term.

1. Introduction

Managers have different incentives to manipulate earnings that may affect the quality of financial statements and alter their reliability. Especially during a financial crisis, the pressure brought by poor results and/or tough financial situations is an 'ideal' context for managers to expand the alteration of the current performance of firms. For example, extant literature indicates that managers have stronger motivations for manipulating reported earnings during financial distress situations such as the period preceding bankruptcy procedures (e.g. Adu-Boateng, 2011; Burgstahler & Dichev, 1997). Indeed, bankrupt companies manipulate earnings upwards in comparison with healthy firms (Campa & Camacho-Miñano, 2014; Rosner, 2003) and, in some cases, entities do that to 'clean' the negative signals of financial distress (Iatridis & Kadorinis, 2009; Jaggi & Lee, 2002; Sweeney, 1994).

Recent studies (Choi, Kim, & Lee, 2011; Trombetta & Imperatore, 2014) have also analyzed the effect of economic downturns on financial reporting quality since the former enlarge the number of firms in financial distress situations, especially among small companies. They show that earnings management increases when an economic crisis becomes worse. Hence, it is interesting to analyse the impact of economic downturns at a microeconomic level, i.e. the index of financial distress of each firm, on earnings quality through the study of the two tools of earnings management, real activity and accrual manipulation (Schipper, 1989). Literature that investigates what drives the choice between these two earnings management tools indicates that real activity manipulation is chosen in the presence of 'extreme' circumstances, when managers need immediate results, regardless of the disadvantages and the costs it has for companies in the long term (e.g. Chamberlain, Butt, & Sarkar, 2014; Kim, Kim, & Song, 2013). Accordingly, we aim to investigate whether the earnings management tools used by managers of companies that are experiencing 'extreme' financial situations also depend on the level of firms' financial distress. Indeed, there is evidence that distressed firms behave differently from others, for example, when looking at their financial structure decisions (Pindado, Rodrigues, & de la Torre, 2006).

Our investigation focuses on a sample of small and medium companies (SME) which have been involved in a bankruptcy procedure and operate in a code law country, Spain. The analysis of small companies would allow us to focus on the most relevant part of the economy of developed countries. Indeed, according to latest available statistics, 99.8% of firms in Europe, in 2013, were SMEs; they employed 66.8% of workers and delivered 57.9% of gross value added generated by the

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private, non-financial, business sector (European Commission, 2014, p. 10). In addition, SMEs are those that suffer the most during financial distress given their limited choices in terms of access to funds (Dewaelheyns & Van Hulle, 2008). On the other hand, the use of a code law setting would allow us to investigate a context usually less explored by the extant literature. Indeed, the majority of studies is 'biased' towards common law countries and listed companies while evidence indicates that earnings manipulation is different and more pervasive in code law institutional settings (Leuz, Nanda, & Wysocki, 2003) and among non-listed entities (Ball & Shivakumar, 2005). The incentive for the use of different tools of earnings manipulation could change depending on the institutional setting. The more extensive use of accounting data in contracting in code law countries may motivate managers to manipulate accruals more than in common law settings (e.g. Arnedo, Lizarraga, & Sánchez, 2007; Nabar & Boonlert-U-Thai, 2007). In common law countries investors ask for higher quality financial statements and companies should live up to the market's expectations thus managers have more incentives to use real activity manipulation instead of accrual management because the former is less detectable by external stakeholders (Enomoto, Kimura, & Yamaguchi, in press). If we want to generalize research results, it would be important to test different contexts and samples. Moreover, Spain is a country where the outcome of a bankruptcy procedure is quite hard on companies. Evidence indicates that around 90% of firms filing for bankruptcy procedure, in Spain, are liquidated[1], with negative consequences for managers and all other firms' stakeholders. Given this statistic, managers are aware that an involvement in a bankruptcy procedure basically means the end of their company and a failure in their job. For all these reasons, in line with other studies concentrated on common law contexts and listed companies, we investigate whether Spanish SMEs in a severe non-temporary financial distress situation have more incentives for using real activity manipulation than discretionary accruals.

The main contribution of the paper is that evidence highlights that the level of pre-bankruptcy financial distress does affect managers' behaviour. We find that, on average, before bankruptcy, firms with higher non-temporary levels of financial distress manage earnings upwards using real transaction manipulation more than other lower-distressed bankrupt companies. These firms also exhibit less income-increasing accrual manipulation than bankrupt companies with lower pre-bankruptcy levels of financial distress. It would support the view that real activity manipulation is seen as the most 'reliable' and 'effective' tool to be used when the events require some 'drastic' and 'ultimate' actions. Moreover, although other studies found that real activity manipulation is less extensive than accrual manipulation in code law contexts (Enomoto et al., in press; Leuz et al., 2003), our evidence indicates that the pressure caused by a situation of financial distress might be even more relevant than the institutional setting when investigating managers' behaviours and the quality of information.

The rest of the paper is organized as follows. Section 2 frames this study within the literature that deals with the trade-off between real activity and accrual manipulation and presents the main hypothesis. Section 3 details the main distress indexes and the methodology used to gather evidence in order to test our hypothesis. It also describes the sample selection procedure. Section 4 presents and discusses the empirical results and, finally, Section 5 concludes this research highlighting its main implications and limitations.

2. Background and hypothesis development

Real activities and accruals are the two main tools available to managers in order to manipulate earnings. Gunny (2010) states that managers may prefer real activity management over accruals manipulation because, for example, accounting standards setters are making accruals more difficult to manipulate and because auditors exercise a closer monitoring over accruals. In addition, Graham, Harvey, and Rajgopal (2005) find that managers would rather take economic actions with future persistent consequences than focusing on accounting choices whose effects are transitory. On the other hand, Zang (2012) suggests that managers may prefer accrual management to real activity manipulation because the former can take place after the fiscal year-end, when they actually know if earnings management is needed. Yang, Rahman, and Bradbury (2015) ascertain that the use of the two tools of earnings management depends on the cost and the circumstances that incentivise firms to manipulate earnings. As a consequence, the implications of the choice between these earnings management tools are crucial for firms' evolution. Real activity manipulation has greater efficacy than accruals because it is easier to implement and it is also more difficult to detect by others due to its opacity (García Lara, García Osma, & Mora, 2005; Kothari, Roychowdhury, & Mizik, in press) even if it produces negative effects on future cash flow (Chen, Yen, & Chang, 2009), profitability and stock price (Bhojraj, Hribar, Picconi, & McInnis, 2009).

Historically, the discussion on earnings management primarily focused on accrual manipulation strategies and there is a large volume of studies devoted to documenting accrual earnings management (e.g. Nelson, Elliot, & Tarpley, 2002; Teoh, Welch, & Wong, 1998) while real actions undertaken to manage earnings have received less attention by the accounting literature (Xu, Taylor, & Dugan, 2007; Zang, 2012).

The transition from accrual to real activity manipulation could be conditioned by the role of regulators and auditors, who cannot restrain firms from engaging in real activity manipulation but could strength the accounting regulation, thus limiting the use of accruals (Enomoto et al., in press).

Real activity studies are based on firms' choices that affect the real conduct of the business and its cash-flows, for example reducing research and development expenses (i.e. Cheng, 2004; Dechow & Sloan, 1991), altering production output (e.g. Baber, Fairfield, & Haggard, 1991; Perry & Grinaker, 1994), cutting advertising expenditures (Cohen, Mashruwala, & Zach, 2010), increasing revenues by offering large discounts or unusually favourable credit terms to customers (e.g. Jackson & Wilcox, 2000; Roychowdhury, 2006), selling non-current assets (e.g. Bartov, 1993; Herrmann, Inoue, & Thomas, 2003).

Currently, there is a new research line, mainly still in the form of working papers, that is looking at the driving forces that affect managers' choice between real activity and accrual earnings management and this trade-off is also the focus of this paper. We classified, in Table 1, all these studies into two big groups: firms' external and internal factors that condition the preference for one earnings management strategy rather than the other. Firstly, we show the situations that condition the choice between accruals and real activity in each paper, then we highlight how their findings are not conclusive and, finally, we discuss the motivations for real activity manipulation instead of accrual management and the consequences for companies.

In the first group, we find papers that relate the choice of one particular earnings management tool on the basis of external firms' factors such as the introduction of new regulations like the Sarbanes and Oxley Act (Cohen, Dey, & Lys, 2008), IFRS (Ipino & Parbonetti, 2011), strengthened accounting standards (Ewert & Wagenhofer, 2005), the fiscal and legal regime of the countries in which firms operate (Durnev, 2010; Enomoto et al., in press), firm's stock prices (Badertscher, 2011), audit quality (Burnett, Cripe, Martin, & McAllister, 2012), external monitoring (Wongsunwai, 2012), the effect of regulated market and market failure risk on initial public offering (Alhadab, Clacher, & Keasey, 2013a, 2013b) and upcoming credit rating changes (Kim et al., 2013).

In the second group, we have evidence that explains the shift from real activity to accrual manipulation or *vice versa* in the presence of firms' internal situations such as income smoothing (Matsuura, 2008), meeting earnings benchmarks (Bjurman & Weihagen, 2013; Zang,

[1] Source: INE – Spanish National Statistics Institute, 2011.