

Do Ownership Structure Characteristics Affect Italian Private Companies' Propensity to Engage in the Practices of "Earnings Minimization" and "Earnings Change Minimization"?

Simone Poli¹

¹ Department of Management, Università Politecnica delle Marche, Ancona, Italy

Correspondence: Simone Poli, Department of Management, Università Politecnica delle Marche, Piazzale R. Martelli 8, 60121, Ancona, Italy. Tel: 39-071-220-7258. E-mail: s.poli@univpm.it

Received: March 18, 2015

Accepted: March 27, 2015

Online Published: May 25, 2015

doi:10.5539/ijef.v7n6p193

URL: <http://dx.doi.org/10.5539/ijef.v7n6p193>

Abstract

The study aims to verify whether and how ownership structure (with specific reference to ownership concentration and identity) affects Italian private (unlisted) companies' propensity to engage in practices of "earnings minimization" and "earnings change minimization". Companies that engage in these practices have been identified following the "earnings frequency distribution" approach suggested by Burgstahler and Dichev (1997). The influence of ownership structure, together with that of a set of control variables mainly aiming to control for tax, financial, and size incentives, is tested by logit analysis models. Ownership concentration does not have a statistically significant influence. Conversely, institutional, state, and foreign ownership has a statistically significant influence. In the first and third cases, the influence is negative, in the second case the influence is positive. The study extends the current knowledge on the relationship between aspects of corporate governance and earnings management practices in private companies, especially SMEs. It also expands what is known about the earnings management practices undertaken by companies in countries, like Italy, in which a code law system is in force and accounting and tax systems are closely aligned.

Keywords: earnings management, earnings minimization, earnings change minimization, ownership structure, ownership concentration, ownership identity, private companies, Italy

1. Introduction

Our study explores the relationship between ownership structure and earnings management. In particular, it aims to verify whether and how ownership structure (with specific reference to ownership concentration and identity) affects Italian private (unlisted) companies' propensity to engage in practices of "earnings minimization" (EM) and "earnings change minimization" (ECM).

We observe EM practices when companies with negative earnings manage them upward to overcome the threshold of zero and, at the same time, companies with positive earnings manage them downward to bring them close to zero (e.g. Coppens & Peek, 2005; Marques, Rodrigues, & Craig, 2011; Poli, 2013a, 2013b). We observe ECM practices, instead, when companies manage earnings to avoid large earnings changes or, in other words, to smooth earnings (e.g. Coppens & Peek, 2005; Poli, 2013a). EM and ECM fall under the category of earnings management practices aiming to meet or beat certain earnings targets (e.g. Burgstahler & Dichev, 1997; Degeorge, Patel, & Zeckhauser, 1999). They have great relevance and are widely popular in countries such as Italy (e.g. Gavana, Guggiola, & Marenzi, 2013; Lamb, Nobes, & Roberts, 1998; Poli, 2015), where accounting and tax rules are closely aligned. In these countries, in fact, tax incentives stimulate companies to manage their earnings (e.g. Baralexis, 2004; Coppens & Peek, 2005; Eilifsen, Knivsfla, & Sættem, 1999; Goncharov, & Zimmermann, 2006; Guenther, 1994; Hermann & Inoue, 1996; Marques et al., 2011; Othman & Zeghal, 2006; Poli, 2013b). On the one hand, they stimulate companies to avoid losses in order to decrease the probability of tax audits. On the other hand, they stimulate companies to minimize earnings in order to minimize tax payments. As a result, companies are likely to report slightly positive earnings and to smooth the changes in earnings.

Poli (2013a, 2013b) has found that these practices have great relevance and are widely popular among Italian private companies. However, whether and how ownership structure affects Italian (and non-Italian) private companies' propensity to engage in them has not yet been sufficiently explored in the literature.

In addition to filling this knowledge gap, our study contributes to expanding the existing literature in two main ways. First, it enriches the knowledge on the relationship between aspects of corporate governance and earnings management practices in private companies, especially small- and medium-sized ones. Although this relationship has been extensively explored in the literature, the focus has largely been on different earnings management practices than those we consider in our study and it has also been on public (listed) companies (e.g. Akileng, 2014). Second, our study enriches the knowledge on earnings management practices undertaken by companies in countries, like Italy, where a code law system is in force and accounting and tax systems are closely aligned, that have been relatively less explored in the literature.

From a methodological standpoint, we identify the companies that practice EM and ECM following the “earnings frequency distribution” approach suggested by Burgstahler and Dichev (1997) and we test our research hypotheses on the influence of ownership structure on the propensity of companies to practice them through logit analysis models.

Our study proceeds as follows. Section two reviews the literature and develops the research hypotheses. Section three describes the research design and the sample selection. Section four shows and discusses the empirical findings. Section five summarizes the findings and highlights the main contributions to the literature, the limitations of the study, and possible further research opportunities.

2. Literature Review and Research Hypotheses

To reiterate what was stated above, several previous studies have explored the relationship between aspects of corporate governance and earnings management practices (e.g. Akileng, 2014), but most of them have focused on earnings management practices different from those that we consider in our study and on listed companies. Instead, the relationship between aspects of corporate governance and the EM and ECM practices undertaken by private companies has not yet been sufficiently explored in the literature. On the one hand, this gives importance to our study. On the other hand, this makes it difficult to find direct points of reference in the literature for the formulation of our research hypotheses. We are aware of this discrepancy but, in order to formulate our research hypotheses, we refer to this literature even though it is not directly comparable to our study which delves into very specific EM and ECM earnings management practices.

2.1 Ownership Concentration and Earnings Management

Previous studies have widely investigated the relationship between ownership concentration and earnings management. They have generally shown that this relationship exists. However, they have shown that ownership concentration can affect earnings management in two alternative ways. The first hypothesis (the “alignment effect”), inspired by the agency theory, suggests that owners with significant amounts of shares have a greater interest in their investments and a greater ability to monitor managers’ behavior and decisions. This decreases their incentive to expropriate companies for their personal benefit and to minimize earnings management practices in order to secure companies and their own future. Thus, ownership concentration appears to be a very effective internal governance mechanism that hinders managers’ opportunistic behavior and decisions. As a result, ownership concentration and companies’ earnings management activity is inversely related (e.g. Abdoli, 2011; Alves, 2012; Persons, 2006; Ramsay & Blair, 1993; Roodposhti & Chashmi, 2011). Conversely, the second hypothesis (the “entrenchment effect”) suggests that owners with significant amounts of shares have incentives to exploit their dominant position to the detriment of minority shareholders (e.g. Bebchuk, 1994; Liu & Lu, 2007; Stiglitz, 1985). As a result, ownership concentration and companies’ earnings management activity is directly related (e.g. Choi, Jeon, & Park, 2004; Claessens, Djankov, & Lang, 2000; Fan & Wong, 2002; Kim & Yoon, 2008; Wang, 2006).

All of the studies just mentioned refer to public companies. Private companies display different characteristics from public companies. Most private companies (here, we are specifically interested in Italian ones) have an ownership structure that is generally very concentrated and composed of a few owners. Consequently, private companies are less likely than public companies to be affected by agency problems between owners and managers and problems between majority and minority shareholders (e.g. Ball & Shivakumar, 2005; Garrod, Kosi, & Valentincic, 2008). Economic incentives for owners and managers are generally closely aligned, because they are often the same persons. Any change in the value of the companies is directly reflected in the wealth of the owners. The absence of agency problems between owners and managers and problems between majority and minority shareholders leads us to hypothesize that, in the context of private companies and especially smaller ones, the types of relationship between ownership concentration and earnings management found in the context of public companies described above may not exist.

This leads us to hypothesize the absence of an association between ownership concentration and Italian private

companies' propensity to practice EM and ECM. Therefore, we test the research hypothesis that follows:

H₁: Ownership concentration is not related to companies' propensity to engage in EM and ECM practices.

2.2 Institutional Ownership and Earnings Management

Previous studies have widely investigated the relationship between institutional ownership and earnings management. They have come to two possible, but antithetical, interpretations: the "efficient monitoring hypothesis", that has had more evidence, and the "passive hands-off hypothesis". The first hypothesis suggests that institutional ownership ensures a better monitoring of managers' activities and reduces their ability to opportunistically manage earnings. As a result, institutional ownership and companies' earnings management activity is inversely related (e.g. Almazan, Hartzell, & Starks, 2005; Bange & De Bondt, 1998; Bushee, 1998; Chung, Firth, & Kim, 2002; Cornett, Marcus, & Tehranian, 2008; Ebrahim, 2007; Koh, 2003). Conversely, the second hypothesis suggests that institutional ownership may not limit managers' earnings management activity and may increase their incentives to engage in earnings management. As a result, institutional ownership and companies' earnings management activity is directly related (e.g. Claessens & Fan 2002; Duggal & Millar, 1999; Porter, 1992; Pound, 1988; Sundaramurthy, Rhoades, & Rechner, 2005).

This leads us to hypothesize the existence of an association between institutional ownership and Italian private companies' propensity to practice EM and ECM, but not to have expectations about the sign of the association. Therefore, we test the research hypothesis that follows:

H₂: Institutional ownership is related to companies' propensity to engage in EM and ECM practices.

2.3 State Ownership and Earnings Management

The earnings management practices undertaken by the companies owned by states, governmental agencies, governmental departments, and local authorities (hereinafter simply referred to as "state") have only been investigated to a limited degree in the literature. In addition, the majority of previous studies have investigated Chinese listed companies (Aharony, Lee, & Wong, 2000; Chen & Yuan, 2004; Ding, Zhang, & Zhang, 2007; Liu & Lu, 2007; Wang & Yung, 2011). Ding et al. (2007) and Wang and Yung (2011) have found that state-owned companies manage earnings less than privately-owned companies. Conversely, Aharony et al. (2000), Chen and Yuan (2004) and Liu and Lu (2007) have found that state-owned companies manage earnings more than privately-owned ones do. Recently, Capalbo, Frino, Mollica, and Palumbo (2014) have investigated Italian private companies, finding that state-owned companies manage earnings less than privately-owned ones do. Thus, all previous studies have shown that state ownership and earnings management practices are associated, but the sign of this association is divergent.

This leads us to hypothesize the existence of an association between state ownership and Italian private companies' propensity to practice EM and ECM, but not to have expectations about the sign of the association. Therefore, we test the research hypothesis that follows:

H₃: State ownership is related to companies' propensity to engage in EM and ECM practices.

2.4 Foreign Ownership and Earnings Management

Beuselinck, Blanco, and Garcia Lara (2013) have investigated whether and how foreign ownership impacts on earnings quality of companies domiciled in weak institutional quality countries (Greece, Italy, Spain, and Portugal) and whether and how such an impact varies according to the country where the foreign investor is domiciled. They have found that increases in foreign ownership, when the foreign investor is domiciled in strong institutional quality countries, positively affect the earnings quality of companies domiciled in weak institutional quality countries.

This leads us to hypothesize the existence of a negative association between foreign ownership and the Italian private companies' propensity to practice EM and ECM. Therefore, we test the research hypothesis that follows:

H₄: Foreign ownership is negatively related to companies' propensity to engage in EM and ECM practices.

3. Research Design and Sample Selection

To test our research hypotheses, we use logit analysis models. They are appropriate when dependent variables have one of only two possible values representing the presence or absence of the attribute of interest (in our case, the presence or absence of EM and ECM) (e.g. Freedman, 2009).

3.1 Dependent Variables—Measures of Earnings Management

The dependent variables correspond to the presence or absence of EM and ECM. We identify the companies that practice EM and ECM following the "earnings frequency distribution" approach suggested by Burgstahler and

Dichev (1997). Although it is not free from criticism in the literature (e.g. Beaver, McNichols, & Nelson, 2007; Dechow, Richardson, & Tuna, 2003; Durtschi & Easton, 2005, 2009; Holland, 2004; Lahr, 2014; McNichols, 2003), it has been widely used to detect the presence of earnings management practices (e.g. Baber & Kang, 2002; Beatty, Ke, & Petroni, 2002; Brown & Caylor, 2004; Burgstahler & Dichev, 1997; Collins, Pincus, & Xie, 1999; Coppens & Peek, 2005; Daske, Gebhardt, & McLeay, 2006; Degeorge, Patel, & Zeckhauser, 1999; Easton, 1999; Gore, Pope, & Singh, 2007; Hamdi & Zarai, 2012; Hayn, 1995; Holland & Ramsay, 2003; Jacob & Jorgensen, 2007; Kerstein & Rai, 2007; Marques et al., 2011; Moreira, 2006; Phillips, Pincus, Rego, & Wan, 2004; Poli, 2013a, 2013b; Revsine, Collins, Johnson, & Mittelstaedt, 2009). According to this approach, we assume that a company practices EM if the reported earnings of a fiscal year, scaled to total assets of the previous fiscal year, assumes a value between 0 and 0.005 (0 is included, 0.005 is excluded) and that a company practices ECM if the reported earnings change of a fiscal year (determined as the difference between the reported earnings of a fiscal year and the reported earnings of the previous fiscal year), scaled to total assets of the second previous fiscal year, assumes a value between -0.0025 and 0.0025 (-0.0025 is included, 0.0025 is excluded). The choice of the interval amplitudes has been primarily made to facilitate the comparison of our findings with those of previous studies.

For each earnings management practices, we use a specific dependent variable. Specifically, we use EM1 and EM2, respectively.

3.2 Independent Variables

The independent variables correspond to the ownership structure characteristics whose influence on companies' propensity to practice earnings management we are interested in observing. They derive from the four hypotheses above. They are defined as follows.

CONCENTRATION is the independent variable we use to test the influence of ownership concentration. As in previous studies (e.g. Demsetz & Lehn, 1985; Prowse, 1992; Claessens & Djankcov, 1999; Ding et al., 2007), it is defined as the proportion of shares held by the majority shareholder.

INSTITUTIONAL is the independent variable we use to test the influence of institutional ownership. It is defined as the proportion of shares held by institutional shareholders. For institutional shareholders we intend banks, insurance companies, mutual and pension funds and private equity firms.

STATE is the independent variable we use to test the influence of state ownership. It is defined as the proportion of shares held by state shareholders. For state shareholders we intend states, governmental agencies, governmental departments or local authorities.

FOREIGN*Strong* and FOREIGN*Others* are the independent variables we use to test the influence of foreign ownership. They are defined as the proportion of shares held by foreign shareholders domiciled in either strong or non-strong institutional quality countries, respectively. According to Beuselinck et al. (2013), the strong institutional quality countries are: Australia, Austria, Belgium, Canada, Denmark, Germany, Ireland, Luxembourg, the Netherlands, Norway, Sweden, Switzerland, the United Kingdom, and the United States of America.

All the independent variables are defined in terms of controlling rights and direct ownership.

3.3 Control Variables

The control variables aim to control for the influence of the factors (tax, financial and size incentives, time and sectors) that previous studies have found to be able to affect companies' propensity to engage in EM and ECM practices.

Previous studies have controlled for tax incentives (e.g. Marques et al., 2011; Poli, 2013b). They have found that EM practices are observable among the companies that have a higher actual tax rate (ATR) and not among companies that have a lower ATR (e.g. Marques et al., 2011; Poli, 2013b). According to them, to control for tax incentives, we use the ATR variable. It is a dummy variable that holds a value of 1 if the ATR of the company is higher than the median of the overall distribution, of 0 otherwise. ATR is defined as follows:

$$ATR_{it} = \frac{IBT_{it} - NI_{it}}{|IBT_{it}|} \quad (1)$$

where: ATR_{it} is the actual tax rate of company i referring to fiscal year t ; IBT_{it} is the income before taxes of company i referring to fiscal year t ; NI_{it} is the net income of company i referring to fiscal year t .

Consistent with previous studies (e.g. Marques et al., 2011; Poli, 2013b), we expect that ATR positively

influences companies' propensity to practice EM and ECM.

Previous studies (e.g. Baralexis, 2004; Moreira, 2006; Poli, 2013b) have controlled for bank indebtedness. However, their findings are mixed. On the one hand, Moreira (2006), exploring the impact of the level of bank indebtedness on Portuguese private companies' earnings management practices, found that companies with a higher level of bank indebtedness have a higher propensity to manage earnings upward to avoid losses and a lower propensity to manage earnings downward to minimize tax payments than companies with a lower level of bank indebtedness. On the other hand, Baralexis (2004) and Poli (2013b) found that the level of bank indebtedness does not constrain private companies' propensity to manage earnings downward to minimize tax payments in the Greek and Italian contexts, respectively. As in previous studies (e.g. Moreira, 2006; Poli, 2013b), to control for the bank indebtedness influence, we use the BANK variable. It is defined as follows:

$$BANK_{it} = \frac{BANKLOANS_{it}}{TA_{it}} \quad (2)$$

where: $BANK_{it}$ is the level of bank indebtedness of company i referring to fiscal year t ; $BANKLOANS_{it}$ is the bank loans of company i referring to fiscal year t ; TA_{it} is the total assets of company i referring to fiscal year t .

Consistent with Poli (2013b), we expect that BANK positively influences companies' propensity to practice EM and ECM.

Previous studies have generally controlled for size. To do so, we use the variables *SIZE_{Large}* and *SIZE_{Medium}*. The first is a dummy variable that holds a value of 1 if the observation corresponds to a large company, of 0 otherwise. The second is a dummy variable that holds a value of 1 if the observation corresponds to a medium-sized company, of 0 otherwise.

Our definition of large and medium-sized companies is inspired by that provided by the European Commission's Recommendation 2003/361/CE. We consider a company to be large if it meets the following criteria:

- number of employees > 250 and,
- balance sheet total > €43 million or turnover > €50 million.

We consider a company to be medium-sized if it meets the following criteria:

- number of employees between 50 and 250 and,
- balance sheet total between €10 and 43 million or turnover between €10 and 50 million.

The findings of previous studies on the influence of size are mixed. Generally, the influence is negative, in the sense that the bigger the company, the smaller the probability that it engages in earnings management practices. However, Poli (2013b), in his investigation of Italian private companies' propensity to practice earnings management, found that the influence is positive; moreover, the size of the companies was measured by the natural logarithm of total assets. This leads us to hypothesize the existence of an association between company size and the companies' propensity to practice EM and ECM, but not to have expectations about the sign of the association.

Previous studies have generally also controlled for time and sector. The variables we use to this end are YEAR and SECTOR, respectively. The first is a dummy variable that holds a value of 1 if the observation refers to 2013, of 0 otherwise (our investigation refers to 2012 and 2013). The second, that is used to control for industry fixed effects, is a set of dummy variables based on the two-digit NACE 2 rev. codes. The base case is the set of sectors that have less than twenty observations.

3.4 Testing Methodology

The logit analysis models we use to test our research hypotheses are the following:

$$EMI_{it} \text{ or } EM2_{it} = \beta_0 + \beta_1 CONCENTRATION_{it} + \beta_2 INSTITUTIONAL_{it} + \beta_3 STATE_{it} + \beta_4 FOREIGNStrong_{it} + \beta_5 FOREIGNOthers_{it} + \beta_6 ATR_{it} + \beta_7 BANK_{it} + \beta_8 SIZE_{it} + \beta_9 YEAR_{it} + \beta_{10} SECTOR_{it} \quad (3)$$

The variables are analytically described in Table 1.

Table 1. Definitions of the variables

Variables	Definitions
EM1_{it}	Dummy variable that holds a value of 1 if the reported earnings of fiscal year t, scaled to total assets of fiscal year t-1, of company i assumes a value between 0 and 0.005 (0 is included, 0.005 is excluded), of 0 otherwise.
EM2_{it}	Dummy variable that holds a value of 1 if the reported earnings change (determined as the difference between the reported earnings of fiscal year t and the reported earnings of fiscal year t-1) of fiscal year t, scaled to total assets of fiscal year t-2, of company i assumes a value between -0.0025 and 0.0025 (-0.0025 is included, 0.0025 is excluded), of 0 otherwise.
CONCENTRATION_{it}	Proportion of shares held by the majority shareholder in company i in fiscal year t.
INSTITUTIONAL_{it}	Proportion of shares held by institutional shareholders in company i in fiscal year t.
STATE_{it}	Proportion of shares held by state shareholders in company i in fiscal year t.
FOREIGNStrong_{it}	Proportion of shares held by foreign shareholders domiciled in strong institutional quality countries in company i in fiscal year t. The strong institutional quality countries are: Australia, Austria, Belgium, Canada, Denmark, Germany, Ireland, Luxembourg, the Netherlands, Norway, Sweden, Switzerland, the United Kingdom, and the United States of America.
FOREIGNOthers_{it}	Proportion of shares held by foreign shareholders domiciled in non-strong institutional quality countries in company i in fiscal year t. The non-strong institutional quality countries are those countries that are not included among the strong institutional quality countries.
ATR_{it}	Dummy variable that holds a value of 1 if the actual tax rate of company i in fiscal year t is higher than the median of the overall distribution, of 0 otherwise. ATR is defined as follows: $ATR_{it} = \frac{IBT_{it} - NI_{it}}{ IBT_{it} }$ <p>where: ATR_{it} is the actual tax rate of company i referring to fiscal year t; IBT_{it} is the income before taxes of company i referring to fiscal year t; NI_{it} is the net income of company i referring to fiscal year t.</p>
BANK_{it}	Incidence of bank debt to total assets of company i in fiscal year t. It is defined as follows: $BANK_{it} = \frac{BANKLOANS_{it}}{TA_{it}}$ <p>where: BANK_{it} is the level of bank indebtedness of company i referring to fiscal year t; BANKLOANS_{it} is the bank loans of company i referring to fiscal year t; TA_{it} is the total assets of company i referring to fiscal year t.</p>
SIZELarge_{it}	Dummy variable that holds a value of 1 if the observation refers to a large-sized company, of 0 otherwise. The company is considered large if it meets the following criteria: <ul style="list-style-type: none"> - number of employees > 250 and - balance sheet total > €43 million or turnover > €50 million.
SIZEMedium_{it}	Dummy variable that holds a value of 1 if the observation refers to a medium-sized company, of 0 otherwise. The company is considered medium-sized if it meets the following criteria: <ul style="list-style-type: none"> - number of employees between 50 and 250 and - balance sheet total between €10 and 43 million or turnover between €10 and 50 million.
YEAR_{it}	Dummy variable that holds a value of 1 if the observation i refers to 2013, of 0 otherwise.
SECTOR_{it}	Set of dummy variables based on the two-digit NACE 2 rev. codes (the base case is the set of sectors that have less than twenty observations).

The logit analysis models we use do not include variables to verify the influence of possible interaction effects of the explanatory variables.

For validation of our research hypotheses, we are interested in the sign and statistical significance of the β coefficients. The positive (or negative) sign means that the corresponding independent or control variable positively (or negatively) influences companies' propensity to engage in EM and ECM. Table 2 summarizes our expectations on the signs of the independent and control variables.

Table 2. Expectations on the signs of the independent and control variables

Variables	Expected signs
CONCENTRATION _{it}	/
INSTITUTIONAL _{it}	+/-
STATE _{it}	+/-
FOREIGNStrong _{it}	-
FOREIGNOthers _{it}	/
ATR _{it}	+
BANK _{it}	+
SIZELarge _{it}	+/-
SIZEMedium _{it}	+/-
YEAR _{it}	?
SECTOR _{it}	?

Note. + = we expect a positive sign. - = we expect a negative sign. +/- = we expect an association but we do not expect a specific sign. / = we expect no association. ? = we do not have an expectation.

3.5 Sample Selection and Data

The sample of Italian private companies we used to test our research hypotheses was extracted (on 13rd January 2015) from the “Analisi Informatizzata Delle Aziende” (AIDA) database supplied by Bureau van Dijk. The AIDA database provides financial statement data for a vast set of private and public Italian companies operating in sectors other than the financial one.

Table 3. Main descriptive statistics referring to the variables

Variables	Obs.	1 st quartile	2 nd quartile	3 rd quartile	Mean	Standard deviation
EARNINGS	27 448	0.0003	0.0078	0.0330	0.0177	0.0703
EARNINGS CHANGE	27 448	-0.0124	-0.0002	0.0108	-0.0013	0.0776
CONCENTRATION	27 448	0.4000	0.5000	0.8392	0.5920	0.2601
INSTITUTIONAL:						
with	728	0.2884	0.7000	1.000	0.6296	0.3559
without	26 720					
STATE:						
with	808	0.7991	1.000	1.000	0.8645	0.2417
without	26 640					
FOREIGNStrong:						
with	720	0.2827	0.5000	1.0000	0.6133	0.3687
without	26 728					
FOREIGNOthers:						
with	46	0.0141	0.1186	0.4000	0.2288	0.2238
without	27 402					
ATR	27 448	0.3223	0.4232	0.6694	-0.7128	4.0645
BANK	27 448	0.0424	0.2030	0.3557	0.2192	0.1827
SIZE:						
small	11 935					
medium	14 768					
large	745					

We selected the sample of companies on the basis of the criteria that follow: limited liability companies; active companies; unlisted companies; companies that prepare their (non-consolidated) financial statements in ordinary form according to the Italian legislation and generally accepted accounting standard in the period 2010-2013; companies that are not micro-enterprises according to the quantitative size limits established by the European Union (according to the European Union, a micro-enterprise is that which meets the following criteria: fewer than 10 employees and a balance sheet total below €2 million or a turnover below €2 million); companies that have a positive total shareholder equity in the period 2010-2013; companies for which complete information on

the ownership structure is available; companies that are not controlled by an industrial company, i.e., an industrial company that owns more than 50% of the shares (in order to exclude companies belonging to industrial groups). In the database, the number of companies that meet the above selection criteria amounts to 14,147.

The database only provides data relating to the date of consultation (it does not provide historical information). Because Italian companies generally have an ownership structure that tends to be stable over time, we assumed that the ownership structure of companies at the date of consultation had remained stable during the period 2012-2013. Based on this assumption, we developed the investigation referring to a period of two years (2012-2013). In doing so, the initial sample of companies included 28,294 firm-year observations. From that, we subtracted the observations for which data was either incomplete or invalid. The sample of companies, therefore, consists of 13,724 companies, corresponding to 27,448 firm-year observations. Table 3 shows the main descriptive statistics referring to them. It illustrates some of the features that distinguish private Italian companies: high ownership concentration, high level of actual tax rate, high level of bank debt, widespread small-to-medium size.

Figure 1 shows the frequency distribution of earnings (defined as the reported earnings of fiscal year t scaled to total assets of fiscal year $t-1$). It is characterized by a peak of observations in the first positive interval $[0-0.005)$ (+1), a marked discontinuity and a convex shape both to the left and to the right of this interval. The frequency distribution of earnings, therefore, displays the typical characteristics of earnings management practices aiming to minimize earnings (e.g. Coppens & Peek, 2005; Marques et al., 2011; Poli, 2013a, 2013b). The verification of the statistical significance of the two discontinuities, using the test statistics suggested by Burgstahler and Dichev (1997) and Garrod, Pirkovic, and Valentincic (2006), for which the data is not shown, has revealed that they are statistically significant at a level of 1%. Figure 1 shows that the EM practices are widely popular among Italian private companies, confirming the findings of previous studies (Poli, 2013a, 2013b).

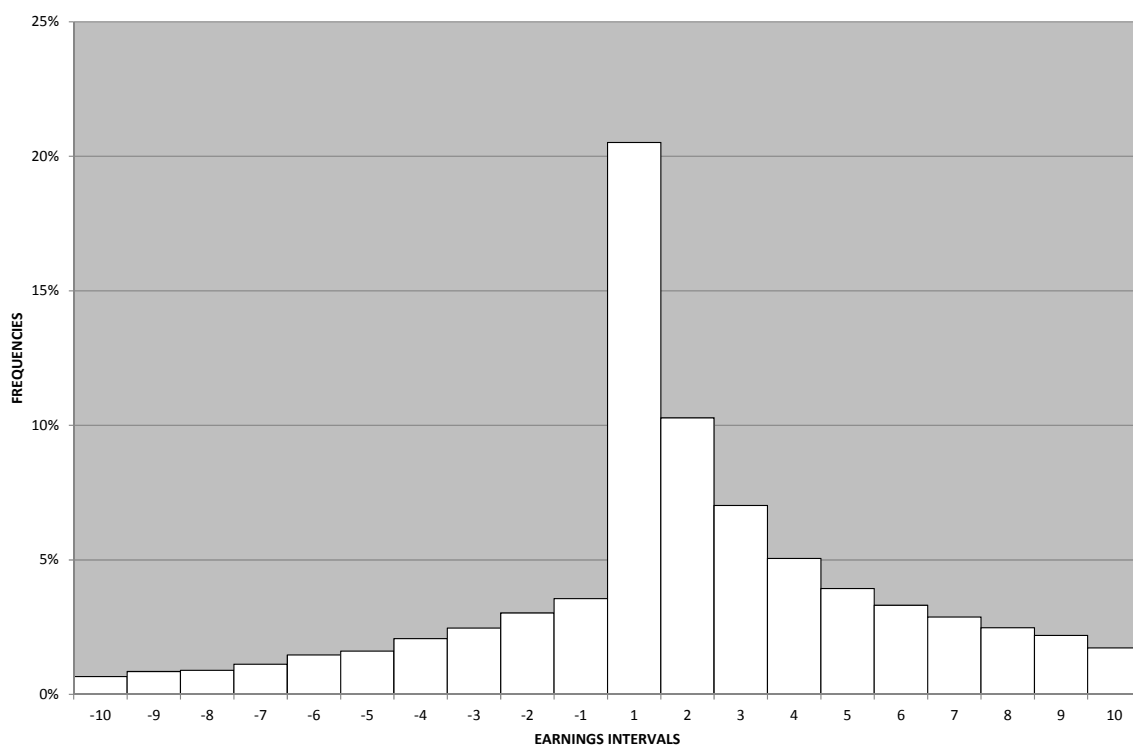


Figure 1. Earnings frequency distribution

Note. The abscissa axis shows earnings intervals. The ordinate axis shows frequencies (the percentage of the observations falling in each earnings interval). The interval amplitude is 0.005. So, interval “1” is the first positive interval to the right of zero (0; 0.005), interval “2” is the second positive interval to the right of zero (0.005; 0.01), and so on. Conversely, interval “-1” is the first negative interval to the left of zero (-0.005; 0), the interval “-2” is the second negative interval to the left of zero (-0.01; -0.005), and so on. The intervals include the lower limit and exclude the upper limit. The figure is truncated, showing only the first ten intervals of positive (from 1 to 10) and negative (from -1 to -10) earnings. The figure shows 21,171 observations, corresponding to 77% of the overall sample (27,448 observations).

Figure 2 shows the frequency distribution of earnings changes (defined as the difference between the reported earnings of fiscal year t and the reported earnings of fiscal year $t-1$, scaled to total assets of fiscal year $t-2$). It is characterized by peaks of observations in correspondence to the first negative interval $(-0.00250-0)$ (-1) and the first positive interval $(0-0.0025)$ ($+1$), a marked discontinuity and a convex shape both to the left of the first negative interval and to the right of the first positive interval. The frequency distribution of earnings changes, therefore, displays the typical characteristics of earnings management practices aiming to minimize earnings changes (e.g. Coppens & Peek, 2005; Poli, 2013b). The verification of the statistical significance of the two discontinuities, using the test statistics suggested by Burgstahler and Dichev (1997) and Garrod et al. (2006), for which the data is not shown, has revealed that they are statistically significant at a level of 1%. Figure 2 shows that EM practices are widely popular among Italian private companies, confirming the findings of previous studies (Poli, 2013a).

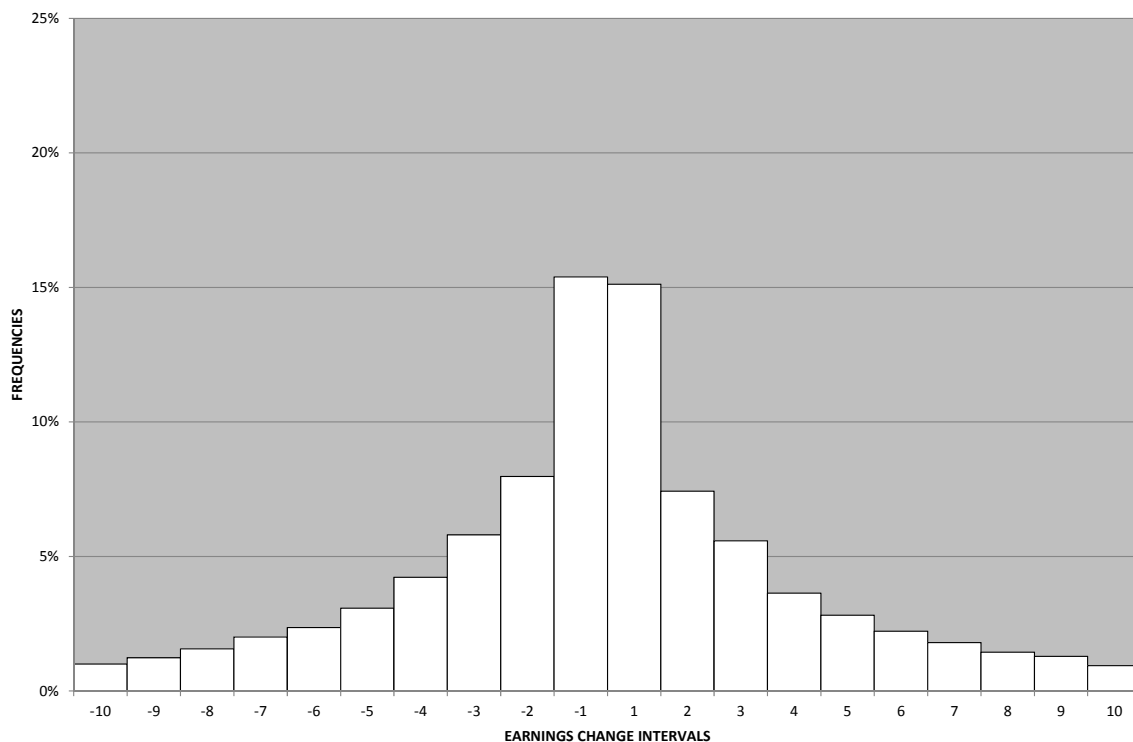


Figure 2. Earnings change frequency distribution

Note. The abscissa axis shows earnings intervals. The ordinate axis shows frequencies (the percentage of the observations falling in each earnings interval). The interval amplitude is 0.0025. So, interval “1” is the first positive interval to the right of zero $(0; 0.0025)$, interval “2” is the second positive interval to the right of zero $(0.0025; 0.005)$, and so on. Conversely, interval “-1” is the first negative interval to the left of zero $(-0.0025; 0)$, interval “-2” is the second negative interval to the left of zero $(-0.005; -0.0025)$, and so on. The intervals include the lower limit and exclude the upper limit. The figure is truncated, showing only the first ten intervals of positive (from 1 to 10) and negative (from -1 to -10) earnings changes. The figure shows 23,859 observations, corresponding to 87% of the overall sample (27,448 observations).

4. Findings and Discussion

Table 4 shows the results of the logit analysis models we use to test our research hypotheses.

Table 4. Results of the logit analysis models

Variables	Coefficients (Standard error)	
	EM1	EM2
CONSTANT	-4.05537*** (0.16401)	-2.96057*** (0.16493)
CONCENTRATION	0.11019 (0.06820)	-0.00531 (0.06380)
INSTITUTIONAL	-0.37965** (0.18271)	-0.40573** (0.16773)
STATE	1.31791*** (0.11262)	1.05256*** (0.10327)
FOREIGN ^{Strong}	-0.48226** (0.19627)	-0.24502 (0.16661)
FOREIGN ^{Others}	0.12130 (1.29886)	-0.35794 (1.26063)
ATR	2.95602*** (0.05426)	1.25205*** (0.03532)
BANK	1.61498*** (0.09759)	0.95582*** (0.09038)
SIZE ^{Large}	-0.33013*** (0.12011)	0.20726** (0.10137)
SIZE ^{Medium}	-0.11143*** (0.03525)	0.06090* (0.03342)
YEAR	0.04276 (0.03391)	0.05095 (0.03342)
SECTOR	INCLUDED	INCLUDED
Adjusted R ²	23.20%	7.09%
Likelihood-ratio test	6,604.74(0.00000)	2,042.23(0.00000)
Percentage of correctly predicted results	79.80%	80.90%

Note. ***, **, and * indicate significance at 1%, 5% and 10%, respectively.

Ownership concentration does not have a statistically significant influence with regard to both practices of earnings management. As a result, our first research hypothesis is confirmed. As stated above, the fact that the level of concentration is generally high in the context of Italian private companies and the fact that for these we can rule out the existence of agency problems between owners and managers and problems between majority and minority shareholders could be a satisfactory explanation of the findings we have obtained. Our findings lead us to believe that neither the “alignment effect” hypothesis nor the “entrenchment effect” hypothesis can explain the relationship between ownership concentration and EM and ECM practices in the context of Italian private companies.

Institutional ownership has a negative and statistically significant influence with reference to both practices of earnings management. This means that the presence of institutional investors adversely affects the propensity of companies to practice EM and ECM (in particular, the higher the proportion of shares directly held by institutional shareholders, the lower the probability that the company practices EM and ECM). As a result, our second research hypothesis is confirmed. The “efficient monitoring hypothesis” could be the best explanation of our findings (e.g. Almazan et al., 2005; Bange & De Bondt, 1998; Bushee, 1998; Chung et al., 2002; Cornett et al., 2008; Ebrahim, 2007; Koh, 2003).

State ownership has a positive and statistically significant influence with regards to both practices of earnings management. This means that the presence of state investors positively influences the propensity of companies to practice EM and ECM (in particular, the higher the proportion of shares directly held by state shareholders, the higher the probability that the company practices EM and ECM). As a result, our third research hypothesis is confirmed. However, our findings contrasts with those of Capalbo et al. (2014). They found that, in Italy, state-owned companies manage earnings less frequently than privately-owned companies. We believe that our findings could be explained by the lower efficiency that generally characterizes Italian state-owned companies

and by the desire to avoid too negative or too positive levels of earnings arousing criticism from public opinion or the higher levels of government.

Foreign ownership has a negative and statistically significant influence with reference to both practices of earnings management if foreign investors are domiciled in strong institutional quality countries. Otherwise, the relationship is not statistically significant. This means that the presence of foreign investors domiciled in strong institutional quality countries adversely affects the propensity of companies to practice EM and ECM (in particular, the higher the proportion of shares directly held by this kind of foreign shareholders, the lower the probability that the company practices EM and ECM). As a result, our fourth research hypothesis is confirmed. Our findings are consistent with those of Beuselinck et al. (2013).

Both ATR and BANK have a positive and statistically significant influence with reference to both practices of earnings management. This means that the level of ATR and BANK positively influences the propensity of companies to practice EM and ECM (in particular, the higher the level of ATR and BANK, the higher the probability that the company practices EM and ECM). Our findings are consistent with our expectations and the findings of previous studies (e.g. Poli, 2013b). In countries like Italy, characterized by a close alignment between accounting and tax rules, tax incentives greatly impact on private companies' earnings management practices (e.g. Coppens & Peek, 2005; Goncharov & Zimmermann, 2006; Marques et al., 2011; Poli, 2013b). With regard to the findings referring to financial incentives, Poli (2013b) has posited that it could depend on the fact that Italian banks do not attribute great importance to the financial information provided by Italian private companies' financial statements. In fact, Italian banks generally require (informal) information in addition to what is reported in financial statements in order to grant loans to Italian companies.

With regard to size, the results differ according to the practice of earnings management. With reference to EM practices, both the *SIZE_{Large}* and *SIZE_{Medium}* coefficients are negative and statistically significant, showing that an inverse relationship exists between the size of companies and their EM practices (in essence, the greater the size, the lower the probability that the company practices EM). Conversely, with reference to ECM practices, both the *SIZE_{Large}* and *SIZE_{Medium}* coefficients are positive and statistically significant, showing that a direct relationship exists between the size of companies and their ECM practices (in essence, the greater the size, the higher the probability that the company practices ECM). Our findings referring to the relationship between company size and EM practices contrasts with those obtained by Poli (2013b). However, as specified above, in Poli (2013b), the size of the company was measured by the natural logarithm of total assets.

With reference to the control for time, the coefficient of the corresponding control variable is not statistically significant in both models. Thus, the year does not affect the companies' propensity to practice EM and ECM.

With reference to the control for sector, both of the logit analysis models include 60 dummy variables. The base case is represented by all the sectors that have less than twenty observations. In the first model, only 11 sectors showed a statistically significant relationship. In the second model, instead, 33 sectors showed a statistically significant relationship. Therefore, the sector has only a little importance in the first model and a relatively greater importance in the second model.

The last three rows of Table 4 show the indicators for estimating the goodness of fit of the logit analysis models. They appear acceptable. The logit analysis models are not affected by multicollinearity problems.

5. Conclusion

Our study has explored whether and how ownership concentration and identity affect Italian private companies' propensity to engage in EM and ECM. The logit analysis models we have used have shown that ownership concentration is not associated with both types of earnings management practices and that, conversely, the presence of institutional, state and foreign (if foreign investors are domiciled in strong institutional quality countries) shareholders are associated with both of them. In the first and third cases (institutional and foreign ownership), the relationship is negative (the higher the proportion of shares held by institutional or foreign shareholders, the lower the propensity for companies to practice EM or ECM). In the second case (state ownership), the relationship is positive (the higher the proportion of shares held by state shareholders, the higher the propensity for companies to practice EM or ECM).

In showing this, our study extends the current knowledge on the relationship between aspects of corporate governance and earnings management practices in private companies, especially SMEs, and on earnings management practices undertaken by companies in countries, like Italy, in which a code law system is in force and in which accounting and tax systems are closely aligned. Both issues are under-explored in the literature. Moreover, despite previous studies having shown that EM and ECM practices are widely popular among Italian

private companies (e.g. Poli, 2013a, 2013b), whether and how such practices are influenced by ownership structure characteristics have not yet been investigated. Our study, therefore, fills this knowledge gap.

The main limitation of our study refers to the method we have used to detect companies that practice EM and ECM (e.g. Dechow, Ge, & Schrand, 2010). In fact, it is difficult to distinguish companies that report slightly positive earnings and slight earnings changes because of chance circumstances (or as a result of credible alternative explanations including non-accounting issues) from those that report them as a result of earnings management practices. Thus, caution should be used in interpreting our findings.

This study notwithstanding, the earnings management practices of Italian private companies are still insufficiently investigated. Therefore, further studies are required to gain a full understanding of the earnings management practices of Italian private companies.

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