Earnings management in family firms

Abstract

Our study investigates the earnings management in publicly listed family firms. Based on the most commonly used accounting theory for family firms, namely agency theory, we develop the hypothesis that associates the different size of family firms with the level of earnings management and make a comparison with non-family firms. We also examine whether the incentives of earnings management are likely to be different in large family firms, small family firms, highlighting the differences from nonfamily firms. This study relies on United Kingdom firms on the London Stock Exchange and on their level of discretional accruals. Our findings demonstrate that large family firms have lower earnings management, whereas small family firms have higher earnings management as both compared to nonfamily firms. They confirm broad findings from US literature which indicate that large family firms face less severe type II agency problems than nonfamily firms, as well as findings in European literature which suggest that small family firms face more severe type II agency problems than nonfamily firms. This study fills a gap in the literature, suggesting that not only the level of family ownership, but also the family firm size should be considered when addressing the incentives for earnings management.

1. Introduction

There are two major ongoing debates in accounting and finance literature in addressing the interplay of "controlling family" and "accounting" (Miller and Le Breton-Miller, 2006). The first is linked to the founding family's interest in the long-term viability of the firm, its concerns with family and firm reputation, and its enhanced power to better monitor managers; this is resulting in higher quality accounting reported by family firms. Lack of alignment between managers and owners might be less prevalent in family firms (Anderson and Reeb, 2003), referred to here as type I agency problem.

In the second scenario, attempts to mislead other stakeholders about the actual financial performance of the firm and to conceal the extent of wealth expropriation by founding or controlling families are resulting in lower quality accounting reported by family firms. The controlling family may have incentives and the ability to extract private benefits at the expense of minority shareholders (Fama and Jensen, 1983; Shleifer and Vishny, 1997), referred to here as type II agency problem.

These two broad alternative views of how the "accounting" and "controlling family" entities may interact have been conceptually addressed and empirically tested, yielding rich yet sparse and often contradictory insights. Financial scandals in the United States and Europe in firms that are widely held (e.g., Enron, Xerox and Worldcom) as well as in family controlled firms (e.g., Cirio and Parmalat) have highlighted the importance of the quality of accounting information, with the especial emphasis on earnings management practice. Nevertheless earnings management is a major research topic in the financial accounting field,

the stream of research has directed only limited attention to the antecedents of earnings management in family firms.

The problem of earnings management in family firms is particularly important (e.g., Ali et al., 2007; Prencipe et al., 2008) in light of the scare recent studies and its important consequences for accounting practice. The question of whether family firms have a lower or higher level of earnings management than non-family firms remains unanswered. Among the large United States corporations (Wang, 2006; Ali et al., 2007; Tong, 2007; Jiraporn and Datalt, 2009) empirical evidence shows that family firms have a fewer incentives for earnings management than non-family firms. In other economies, the evidence is scarce and provides mixed results (Cascino et al., 2010; Principe et al., 2008; Principe et al., 2011). Gabrielsen et al. (2002) concluded that the effect of firms' ownership on earnings management in Danish firms is different from in the United States. The authors attribute their findings to the different size of firms found in the United States and Denmark. The impact of earnings management in large family firms is expected to be different from, in small family firms. However, none of the previous studies has thoroughly investigated the effect of firm size on earnings management in family firms.

This study investigates whether the incentives of earnings management are likely to be different in large family firms, small family firms, highlighting the differences from nonfamily firms. No large scale empirical study has analyzed this basic issue. Based on the most commonly used accounting theory for family firms, namely agency theory, we develop the hypothesis that associates the different size of family firms with the level of earnings management and make a comparison with non-family firms.

We use the discretionary accruals model to measure the level of earnings management; this corresponds to the value of the difference between the levels of total and non-discretionary accruals. The latter were estimated by Ordinary Least Square method, based on the Modified Jones Model proposed by Kothary et al. (2005), a model frequently used to measure earnings management practices. A multivariate statistical analysis was applied using the traditional multiple regression technique.

Our empirical study is based on listed firms in the United Kingdom, included in the London Stock Exchange, in the period from 2006 to 2010 and using the Thomson Worldscope Database. We applied the European Union criteria to define listed family firms, i.e. when 25% of the firm's social capital is held by the family and a family representative or relative is heavily involved in the company management and board.

In general, our results are in line with expectations. According to our findings, type I agency problem prevails over type II agency problem in large family firms and this gives rise to fewer incentives for earnings management; on the other hand, type II agency problem prevails over type I agency problems in small family firms which leads to greater incentives for earnings management when compared with non-family firms. In relation to large family firms, our results are consistent with the empirical studies on companies in Anglo Saxon countries, while our results for small family firms confirm the empirical studies on companies in Continental Europe.

The findings of this study contribute to the literature on agency theory, in that we are among the first authors to analyze the influence of family firm size, with its ability to mitigate or aggravate the different type of agency problem, on the level of earnings management.

Salvatto and Moores (2010) note that there is little evidence in the literature on the effect of agency problems on earnings management. This paper fills a gap in the literature, suggesting that not only the level of family ownership, but also the family firm size should be considered when addressing the agency theory for earnings management.

The remainder of the paper is organized as follows. In Section 2 we review previous literature and in section 3 we develop our research hypothesis. Section 4 describes the sample selection and research design. Section 5 provides the empirical results and discussant. Finally, Section 6 presents the concluding remarks of the study.

2. Previous literature

2.1 Earnings management and family versus nonfamily firms

Empirical evidence regarding earnings management (i.e. earnings smoothing and accruals) in family firms is mixed, and provides very little in the way of consistent results (e.g. Wang, 2006; Ali et al., 2007; Tong, 2007; Jiraporn and Datalt, 2009; Principe et al., 2008; Principe et al., 2011). Previous, majority United States and the United Kingdom studies, suggests that family firms tend to have less earnings management compared to nonfamily firms (e.g.Wang, 2006; Ali et al., 2007; Tong, 2007; Jiraporn and Datalt, 2009; Cascino et al., 2010). This findings contradicts evidence from Europe (Principe et al., 2008; Principe et al., 2011) and indicate that family firms report a higher level of earnings management compared to nonfamily firms.

Table 1 summarize the empirical studies of earnings management in family firms compared to nonfamily and their main findings. So far, there are few studies that examined earnings management in family as compared to non-family firms. This study expands on prior research is that it focuses on whether listed family firms differ from nonfamily firms with respect to earnings management.

2.2. Agency theory and family firms

Two features of family firms can determine the extent of earnings management, according type I and II agency problem: ownership concentration and chance for executive entrenchment (Salvato and Moores, 2010). Type I agency problem consists in the separation between ownership and controls, that leads to a divergence between management and owner interests (Jensen and Meckling, 1976). This agency problem arise when asymmetric information coexist with divergent objectives between managers and shareholders. Type II agency problem arises from conflicts between controlling shareholders and non controlling shareholders, that can result in executive entrenchment and high incentives for earnings management (Fama and Jensen, 1983; Shleifer and Vishny, 1997).

Concerning type I agency problem, the majority of empirical research asserts that monitoring by family owners and long-run investment horizon in family firms, improve the quality of managerial decisions, because the presence of concentrated ownership leads to closer monitoring of management, implying less opportunity for earnings manipulation (Stein, 1988; Stein, 1999; Demsetz and Lehn, 1985; Anderson and Reeb, 2003). Families tend to have much longer investment horizons as compared to that other shareholders. Stein (1988) concluded that the long-run investment horizon of family owners is likely to discourage family firms from engaging in myopic and value-destructing rent seeking behaviour. Stein (1999) develops a model of inefficient managerial behaviour in the face of rational stock

market, and find that managers are interested in long-term earnings, but they also care about current stock price. Author concluded that families help mitigate myopic investment decisions by managers.

For a sample of S&P 500 firms, for period from 1992 to 1999, Anderson and Reeb (2003) concluded that the owner versus managers conflict in nonfamily firms is more costly than the conflict between family and nonfamily shareholders in founder family firms. Overall, authors concluded that family firms performance better than nonfamily firms. Families tend to hold undiversified and concentrated equity position in their firms. Demsetz and Lehn (1985) argue that concentrated investors have substantial economic incentives to diminish agency conflicts and maximize firm value.

Extant research assumes that type II agency problem assent on the view that controlling families have incentives and the ability to extract private benefits at the expense of minority shareholders, implying greater opportunity for earnings management (Anderson and Reeb, 2004; Setia-Atmaja et al., 2009; Setia-Atmaja et al., 2011; Gomez-Mejia et al., 2007). Founding families are likely to engage in self-dealing behaviour by directly expropriating wealth from managers, employees, or other investors, seeking non-profit maximizing objectives, or generally putting their interests over those of the firm's other stakeholders. Setia-Atmaja et al. (2009) find that family controlled firms employ higher dividend payout ratios, higher debt levels and lower levels of board independence compared to non-family firms.

Table 1 - Empirical studies on earnings management in family firms compared to nonfamily firms

Author(s)	Concept of family firms	Earnings management measurement	Sample	Theoretical approach	Research main findings	Justifications
Wang (2006)	Dominant family exert strong influence on the management or owns directly or indirectly superior voting rights (Classification is based on Anderson and Reeb, 2003)	Accruals quality Dechow and Dichew (2002) (Absolute value)	Listed S&P 500 companies (1994-2002)	Agency theory	Family firms report lower absolute value of discretionary accruals compared to nonfamily firms	Lower earnings management is associated with: -Better alignment of interests between family members and other shareholders
Ali, Chen and Radhakrishnan (2007)	Dominant family exert strong influence on the management or owns directly or indirectly superior voting rights (Classification is based on Anderson and Reeb, 2003)	Abnormal accruals - Performance matched model Kothary et al. (2005) (Absolute value; Signed value)	Listed S&P 500 companies (1998-2002)	Agency theory	Family firms report lower signed value of discretionary accruals compared to nonfamily firms	Lower earnings management is associated with: -Less earnings management opportunistic incentives;
Tong (2007)	Dominant family exert strong influence on the management or owns directly or indirectly superior voting rights (Classification is based on Anderson and Reeb, 2003)	Abnormal accruals - Adapted Jones Model with cash flow from operation (Absolute value)	Listed S&P 500 companies (1992-2003)	Agency theory	Family firms report lower absolute value of discretionary accruals compared to nonfamily firms	Lower earnings management is associated with: - Long-term shareholder´s investment horizon; - Reputation concerns.
Jiraporn and Datalt (2009)	Dominant family exert strong influence on the management or owns directly or indirectly superior voting rights (Classification is based on Anderson and Reeb, 2003)	Abnormal accruals - Modified Jones Model Dechow et al. (1995) (Absolute value)	Listed 1500 S&P companies (1994-1999)	Agency theory	Family firms report lower absolute value of discretionary accruals compared to nonfamily firms	Lower earnings management is associated with: - Long-term shareholder´s investment horizon; - Reputation concern; -Concentrated ownership.
Cascino, Pugliese, Mussolino, and Sansone (2010)	-Dominant family (or families) owns directly or indirectly more than 50% of the voting rights; -Least one member of the controlling family hold a managerial position.	Accrual quality – Dechow and Dichev (2002) model	Listed Italian firms (1998-2004)	Agency theory; Stewardship theory.	Family firms report higher inverse absolute value of accruals quality compared to nonfamily firms	Higher accruals quality is associated with: - Beneficial effects of ownership concentration
Prencipe, Markarian, and Pozza (2008)	-Dominant family owns directly or indirectly more than 50% of equity capital; -Dominant family controls the strategic decisions of the firm.	Specific accruals – Research and Development cost capitalization	Italian firms (2001-2003)	Agency theory; Stewardship theory.	Family firms report less strong relationship between the amount of R&D cost capitalization and the level of profitability compared to nonfamily firms	Higher earnings management is associated with: -Debt-covenant motivations.
Prencipe, Bar-Yosef, Mazzola, and Pozza (2011)	Dominant family owns directly or indirectly more than 50% of the voting rights	Income smoothing	Listed Italian firms (2004)	Agency theory; Stewardship theory	Family firms are less likely to smooth income compared to nonfamily firms	Higher earnings management is associated with: -Different strong earnings management incentives; -Different shareholder´s investment horizon.

Setia-Atmaja et al. (2009) suggest that family controlled firms use either dividends or debt as a substitute for independent directors and imply that dividends and debt are viewed as more effective mechanisms in mitigating the families expropriation of minority shareholders' wealth (i.e., prevalent type II agency problem).

Family owners often have a deep emotional investment in their firms (Bubolz, 2001) due to the fact that their fortune, personal satisfaction, and reputation are tied to the firm. Gomez-Mejia et al., (2007) report that family ownership and control in Spanish firms for the period from 1944 to 1998 is associated with greater management entrenchment. The authors find that when family firms are faced with a strategic choice dilemma that involves a high degree of certainty of improved financial gains but loss of family control, and a greater risk of declining performance, but retention of family control, the clear winner is the "risk willing" decision. At the same time, these firms tend to avoid investments that increase their performance variability even under a negative framing, as this might exacerbate the performance hazard that they have freely accepted in exchange for continued family control.

Agency theory provides a different perspective on moral hazard problems in family firms. On the one hand, families are assumed to be better monitors of managers than other types of large shareholders, suggesting that lack of alignment between managers and owners (e.g., type I agency problem) might be less prevalent in family than in non-family firms (Stein, 1988; Stein, 1999; Demsetz and Lehn, 1985; Anderson and Reeb, 2003). On the other hand, controlling families may have an incentive and the ability to extract private benefits at the expense of minority shareholders (e.g., type II agency problem) (Anderson and Reeb, 2004; Setia-Atmaja et al., 2009; Gomez-Mejia et al., 2007).

3. Hypothesis development

Firm size is regularly considered influence the relationship between firms ownership and earnings management (Verrecchia, 1983; Burgstahler and Dichev, 1997). Regarding the family firms, it is important factor that determines how large the family's holdings need to exerted the power and dominate family firm. The differences in the earnings management between large family, small family and nonfamily firms would depend on the difference in the severity of their type I agency problems and type II agency problems.

The findings of Gabrielsen et al. (2002) are particularly interesting for earnings management literature debate. Gabrielsen et al. (2002) find a negative relationship between managerial ownership and the informativeness content of earnings, and positive but non-significant relationship between managerial ownership and discretionary accruals in a sample of Danish firms, which they attribute to the different institutional setting (i.e. greater ownership concentration in Denmark) between the US and Denmark. Gabrielsen et al. (2002: 983) also suggest that "*... possible explanation for the opposing Danish results is the different sizes of firms found in the US and Denmark. ... Large US firms tend to be considerably larger than "large" Danish firms. Given that the firms in the Warfield and Danish studies are probably of different sizes, it is possible that earnings quality varies with managerial ownership similarly in the US and Denmark among firms by similar sizes*." That is, in large family firms, the earnings management impact of family ownership is expected to be different, than in small family firms.

The agency perspective suggests that family firms either mitigate or exacerbate agency problems. Large family firms face more severe type I agency problems due to the separation of ownership and management. Large family firms take into account their concern about reputation and visibility. Proprietary costs theory developed by Verrecchia (1983) and Dye

(1985) supports the idea that managers of larger firms are likely to sense that the cost of supplying non-proprietary information to the public is minimal, when compared with smaller firms' managers. In fact, the cost of generate, assemble and disseminate detailed information is believed to be relatively higher for smaller firms than for larger ones (Singhvi and Desai, 1971), because generally the latter already collects this information for internal purposes and also because it is supposed to have better resources, such as developed information systems, that facilitate this assignment. These authors also suggest that smaller firms have a tendency to withhold information which they consider could endanger their competitive position. Because large firms attract more attention from financial analysts and the press, they have more difficulty hiding their earnings management behaviour (Healy et al., 1999).

Large firms have stronger management power (Ali et al., 2007). Family owners are better able to mitigate management myopia because they can more effectively monitor professional managers (Demsetz and Lehn, 1985). Family owners are often as knowledgeable as management about the firm and therefore, provide effective checks on professional managers. The better monitoring of management in large family firms is likely to mitigate managerial opportunistic behaviour designed to maximize the managers' own wealth, including earnings management practice to achieve better compensation outcomes. Additional, larger firms may have more sophisticated internal control systems compared to smaller firms. An efficient internal control system in large firms helps to control inaccurate disclosure of financial information to the market. Thus, both the mitigation of managerial manipulation of accounting numbers and sophisticated internal control systems is likely to result in lower level of earnings management practice by large family firms compared to nonfamily firms.

Family firms take into account their concern about longer investment horizons (Stein, 1988). To counter a perception of low accountability and to entice investors to buy non-controlling interests, large family firms have incentives to provide more precise and transparent earnings. Therefore, a large family firm is less likely to engage in low-quality financial reporting practices in order to maintain its reputation and to facilitate the long-term viability of the firm. Consistent with this, Anderson and Reeb (2003) conclude that the owner *versus* manager conflict in nonfamily firms is more costly than the conflict between family and nonfamily shareholders in founder family firms.

The above arguments regarding large family firms, namely greater visibility and reputation, better monitor managers and longer investment horizons, suggests that, because more severe type I agency problems, earnings management of large family firms are likely to be of lower level than that of nonfamily firms.

Small family firms face more severe type II agency problems, that arise between controlling and non-controlling shareholders. Family firms may enjoy substantial control as a result of their concentrated equity holding in their firms, their voting rights exceeding their cash flow rights, and their domination of the board of directors' membership. In small family firms it is more easier to get and to keep the undiversified and concentrated equity position than in nonfamily firms. This control gives the small family firms power and to seek private benefits at the expense of other shareholders. Hence, the control power in small family firms could lead to a greater earnings management practice compared to nonfamily firms.

Small family firms may face more severe socio emotional problems, like self-control and other problems engendered by altruism and conflicts (Setia-Atmaja et al., 2009; Gomez-Mejia et al., 2007, Schulze et al., 2001). As the small family firms amenity potential of keeping

control in the family is huge, it is difficult to resolve the conflict by pushing a family member out of the firm, since this would also have negative effects on familial relationships. Hence, conflicts within an organization can lead to short-term thinking and short-term behaviour, and to a greater earnings management practice in small family firms compared to nonfamily firms.

The above arguments regarding small family firms, namely private benefits and control, conflicts problems, and short-term orientation suggests that, because more severe type II agency problems, earnings management of small family firms are likely to be of higher level than that of nonfamily firms.

In large family firms, the earnings management impact of family ownership is expected to be different, than in small family firms, compared to nonfamily firms. Given the competing predictions of type I and type II agency theory and theoretical and empirical justifications regarding firms size and earnings management, we expect that large size family firms provide lower level of earnings management and small size family firms provide higher level of earnings management compared to nonfamily firms. We testing the following hypothesis:

Large size family firms are negatively and small family firms are positively related to absolute discretionary accruals, compared to nonfamily firms.

4. Research design

4.1 The sample

The empirical study investigates listed firms in the London Stock Exchange and comprises the five years of the adopted new accounting standards (International Financial Reporting Standards) from 2006 to 2010. We don't include observations pertaining to 2005 to remove adoption IFRS year effects.

This study defines listed family firms according to the following criteria, 25 percent of the equity is owned by the family and one representative of the family or kin is formally involved in the governance of the firm. Data used to compute dependent and independent variables are collected from the Thomson Worlscope Database. From the initial sample, we employ the following filters: first, we use only industries (Two-digit SIC) where there were indentified family firms and delete firms in industries without family firms. Hence, we focus on industries that had both family and nonfamily firms, allowing a better comparison between these firms. Second, we excluding financial industry firms (Standard Industrial Classification, or SIC, 6000–6999), because they operate in highly regulated industry with forms of corporate governance that differ substantially from those in other industries. Third, we delete firms with negative equity and firms with insufficient data to compute our dependent variable. To ensure that regression results are not influenced by unusual or extreme observations, we performed outlier's analysis[1].

From these procedures, we have constructed an unbalanced panel of 1044 firm-year observations (113 firm-year observations for family firms and 931 firm-year observations for nonfamily firms).

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[1] First, we winsorize the extreme values of all variables to the 1 and 99 percentiles. Second, we estimate the regression model and studentized residuals have been computed. The observations whose studentized residual absolute value is higher than two have been also removed from the sample.

4.2. Dependent variables measurement

Our dependent variable is the magnitude of absolute value of abnormal accruals, as suggested by Kothary et al. (2005). The reason for including a performance variable in the discretionary accruals regression model is that Kothary et al. (2005) indicated that firm performance and estimated discretionary accruals exhibit a mechanical relation. This measure improved the discretionary accruals estimated by the Jones (1991) and modified Jones models suggested by Dechow et al. (1995) in mitigating type I errors in which the firms having no earnings management are wrongly recognized as having engaged in earnings management.

The magnitude of cross-sectional absolute discretionary accruals is calculated based on estimated abnormal accruals, where estimated abnormal accruals are defined as total accruals minus estimated normal accruals. Estimated normal accruals are determined from the modified Jones model with current-year ROA (Kothari et al., 2005; Jones et al., 2008). A higher magnitude of cross-sectional absolute abnormal accruals indicates a greater level of earnings management, or lower accounting quality. More specifically, discretionary accruals are estimated as the residuals of the modified Jones model with current-year ROA cross-sectional model.

4.3. Independent variables measurement

The test variable. The aim of our study is to examine whether different size family firms have low or high level of abnormal accruals compared to nonfamily firms. To determine this, our main test explanatory variable is the binary variable indicating whether the observation is characterized by family, and was recoded into two dummy variables. The first test explanatory variable is the large family firm (LARGE_FAMILY) is the dummy variable that takes value 1 for family firms superior or equal to median family size and 0 otherwise; and the second test explanatory variable is the small family firm (SMALL_FAMILY) is defined as the dummy variable that takes value 1 for family firms inferior to median family size and 0 otherwise.

Control variables. We select a set of the control variables which may also affect the level of earnings management that previous research finds to be related to earnings management (e.g. Warfield et al., 1995; Ali et al., 2007; Cascino et al., 2010; Sánches-Ballesta and García-Meca, 2007; Gabrielsen et al., 2002), namely current accruals, financing, litigation, financial leverage ratio, market-to-book ratio, negative earnings, cash flow from operations, insider ownership, earnings variability, systematic risk, current return of asset, prior return on assets and index FTSE 350. According to previous studies, we also capture industry and years effect. All independent variables using in our empirical work are described in Table 2.

4.4. Research model

Our goal is to examine how different size family ownership firms influences the level of abnormal accruals compared to nonfamily firms. In order to evaluate the effect of different size family ownership firms on abnormal accruals we regress the absolute value of abnormal accruals (ABS_PADCA) on different size family firms (LARGE_FAMILY and SMALL_FAMILY) and control variables:

$$ABS\_PADCA_{i,t} = \beta_0 + \beta_1 LARGE\_FAMILY_{i,t} + \beta_2 SMALL\_FAMILY_{i,t} + \beta_h ControlVariables_{i,t} + \beta_j Industry_{i,t} + \beta_l Years_{i,t} + \varepsilon_{i,t} \quad (1)$$

where all variables as previously defined.

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Table 2 - Independent variables measurement (test variable and control variables)

Variable label	Variable name	Variable measurement
Large family	LARGE_FAMILY	Dummy variable that takes value 1 for family firms superior or equal to median family size and 0 otherwise (Worldscope)
Small family	SMALL_FAMILY	Dummy variable that takes value 1 for family firms inferior to median family size and 0 otherwise (Worldscope)
Current accruals	LIACCRUAL	Last year´s total current accruals and equals net income before extraordinary items plus depreciation and amortization minus operating cash flow scales by beginning of year total assets (Worldscope)
Financing	FINANCING	Dummy variable that takes value 1 if number of outstanding shares increased by at least 10%, or long-term debt increased at least 20%, or firms first appears on the database during the fiscal year, and 0 otherwise (Worldscope)
Litigation	LITIGATION	Dummy variable that takes the value 1 the firm operates in a high-litigation industry (SIC codes of 2833-2836, 3570-3577, 3600-3674, 5200-5961, and 7370), and 0 otherwise (Worldscope)
Financial Leverage	LEVERAGE	Ratio of total debt to total assets at the beginning of the fiscal period (Worldscope)
Market-to-Book Ratio	MB	Firm´s market-to-book ratio (Worldscope)
Negative Earnings	LOSS	Dummy variables that takes value 1 if the firm represented net loss for the fiscal period and 0 otherwise (Worldscope)
Cash flow from operation	CFO	Cash flow from operation scaled by beginning of year total assets (Worldscope)
Insider Ownership	INSIDER	Percentage of shares held by insiders. Shares held by officers , directors and their immediate families; trust and by individuals with 5% or more of outstanding shares (Worldscope)
Earnings Variability	VAR	Standard deviation of earnings for the period 2006-2010 (Worldscope)
Systematic Risk	BETA	Firm´s systematic risk(Worldscope)
Return of Assets	ROA	Ratio earnings before extraordinary item divided by total assets(Worldscope)
Prior Return of Assets	PROA	Ratio average of prior 5 years´ earnings before extraordinary items divided by total assets(Worldscope)
Index FTSE 350	INDEX	Dummy variable that takes value 1 if the firm is also listed in FTSE 350 exchange and 0 otherwise (www. northcote.co.uk)

5. Results and discussant

5.1. Empirical results

Table 3, Panel A presents descriptive statistics of the dependent variables under study and presents the results of parametric independent samples t-tests regarding the differences in those means [2]. Overall, this preliminary analysis provide evidence according our hipothesis and suggest that discretionary accruals level in family firms are not equal to large family firms, small family firms and nonfamily firms.

Table 3, Panel B presents the results of parametric independent samples t-tests regarding the differences in means between the tree subsamples. Many of the independent variables are significantly different across large family firm and small family firm and nonfamily firms. In general, we find that, in the one hand, UK small family firms have lower market to book ratio, lower systematic risk, more concentrated insider ownership, more debt

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[2] We calculated tree dependents variables - ABS_PADCA is the absolute value of performance adjusted discretionary accruals estimated by Kothary et al. (2005), ABS_ATACC is the absolute value of discretionary accruals estimated by Jones Model(1991) and ABS_AWACC is the absolute value of discretionary accruals estimated by Modified Jones Model (1995).

capital structure which are similar to Continental Europe firms structure, suggesting that these firms exacerbate rather than mitigate the agency problem. In the other hand, the UK large family firms have significantly have lower reporting of losses and are more profitability, which are similar to the Anglo-Saxon firms structure, suggesting that these firms mitigate rather exacerbate agency problem.

Table 3 – Panel A Descriptive statistics for absolute value discretionary accruals metrics

	Mean	Median	SD	Differ. (t-stat) Large family vs Non-family	Differ. (t-stat) Small family vs Non-family	Differ. (t-stat) Large family vs Small family
All Firms (N=1044)						
ABS_PADCA	0.059	0.044	0.052	-0.015**	0.016**	-0.030***
ABS_ATACC	0.060	0.044	0.055	-0.017**	0.013*	-0.030***
ABS_AWACC	0.060	0.045	0.055	-0.016**	0.013*	-0.029***

Table 3 – Panel B Descriptive statistics for independents variables

All firms (N=1044)

	Mean	Median	SD			
LARGE_FAMILY	0.05	0.00	0.23			
SMALL_FAMILY	0.05	0.00	0.23			
LIACCRUAL	-0.01	-0.01	0.04	0.03	-0.10	0.01*
FINANCING	0.31	0.00	0.46	-0.11*	-0.06	-0.06
LITIGATION	0.18	0.00	0.38	-0.25	0.15***	-0.13
LEVERAGE	15.89	13.70	14.23	-1.93	2.06	-3.99
MB	2.63	1.70	2.88	-0.02	-1.55***	1.60***
LOSS	0.21	0.00	0.41	-0.21***	-0.26	-0.23***
CFO	0.10	0.10	0.11	0.07***	-0.02	-0.08***
INSIDER	44.16	42.37	21.15	11.59***	4.39	7.20***
VAR	0.07	0.05	0.07	-0.04***	-0.02	-0.03**
BETA	0.99	0.88	0.65	-0.30***	-0.30***	0.02
ROA	0.05	0.06	0.11	0.06***	-0.02	0.08***
PROA	0.05	0.06	0.11	0.06***	0.01	0.06***
INDEX	0.39	0.00	0.49	0.14**	-0.31***	0.45***

ABS_PADCA is the absolute value of performance adjusted discretionary accruals estimated by Kothary et al. (2005); ABS_ATACC is the absolute value of discretionary accruals estimated by Jones Model(1991); ABS_AWACC is the absolute value of discretionary accruals estimated by estimated by Modified Jones Model (1995).; LARGE_FAMILY is the dummy variable that takes value 1 for family firms superior or equal to median family size and 0 otherwise; SMALL_FAMILY is the dummy variable that takes value 1 for family firms inferior to median family size and 0 otherwise; LIACCRUAL is the last year´s total current accruals and equals net income before extraordinary items plus depreciation and amortization minus operating cash flow scales by beginning of year total assets; FINANCING is dummy variable that takes value 1 if number of outstanding shares increased by at least 10%, or long-term debt increased at least 20%, or firms first appears on the database during the fiscal year, and 0 otherwise; LITIGATION is dummy variable that takes the value 1 the firm operates in a high-litigation industry (SIC codes of 2833-2836, 3570-3577, 3600-3674, 5200-5961, and 7370), and 0 otherwise; LEVERAGE is the ratio of total debt to total assets at the beginning of the fiscal period; MB is the firm´s market-to-book ratio; LOSS is dummy variables that takes value 1 if the firm represented net loss for the fiscal period and 0 otherwise; CFO is the cash flow from operation scaled by beginning of year total assets; INSIDER is the percentage of shares held by insiders: shares held by officers , directors and their immediate families; trust and by individuals with 5% or more of outstanding shares; VAR is the standard deviation of earnings for the period 2006-2010; BETA is the firm´s systematic risk; ROA is the ratio earnings before extraordinary item divided by total assets; PROA is the ratio average of prior 5 years´ earnings before extraordinary items divided by total assets; INDEX is dummy variable that takes value 1 if the firm is also listed in FTSE 350 exchange and 0 otherwise.

Table 4 reports the Ordinary Least Squares (OLS) regression results of absolute discretionary accruals on high size family firms, low size family firms and control variables, estimated for total sample by research model [3]. We find that estimated coefficient for the variable LARGE_FAMILY is significantly and negatively related, and the estimated coefficient for the variable SMALL_FAMILY is significantly and positively related to the absolute discretionary accruals both at 5% level (C 1). A statistically association between the

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[3] Four estimation are presented: Column C1 includes all variables and industry dummies of the regression of research model, Column C2 includes all variables and years dummies, Column C3 includes all variables and Column C4 includes all variables, industry and years dummies of the regression research model.

variables ABS_PADCA and LARGE_FAMILY and SMALL_FAMILY can be found irrespective of the different combinations involving industry and years dummies (C1 to C4). All presented regressions are significant for the LARGE_FAMILY and SMALL_FAMILY at the 5% level. The adjusted R^2 values are 0.11. Because the highest Variance Inflation Factor value is 8.17, multicollinearity is not problem in our regression sample (Kennedy, 1992).

Table 5 - Regression estimates of discretionary accruals

$$ABS\_PADCA_{i,t} = \beta_0 + \beta_1 LARGE\_FAMILY_{i,t} + \beta_2 SMALL\_FAMILY_{i,t} + \beta_h ControlVariables_{i,t} + \beta_j Industry_{i,t} + \beta_l Years_{i,t} + \varepsilon_{i,t}$$

Variables	(C1) (t-statistic)	(C2) (t-statistic)	(C3) (t-statistic)	(C4) (t-statistic)
Inrtercept	0.033*** (5.44)	0.038*** (5.81)	0.034*** (5.94)	0.036*** (5.38)
LARGE_FAMILY	-0.015** (-2.10)	-0.016** (-2.31)	-0.016** (-2.35)	-0.014** (-2.06)
SMALL_FAMILY	0.021** (3.00)	0.022** (3.13)	0.022** (3.11)	0.021** (3.03)
LIACCRUAL	0.172** (3.35)	0.176** (3.44)	0.172** (3.37)	0.176** (3.42)
FINANCING	0.006* (1.78)	0.006* (1.85)	0.007** (1.97)	0.006* (1.67)
LITIGATION	0.002 (0.48)	0.001 (0.29)	0.001 (0.26)	0.002 (0.51)
LEVERAGE	-0.000*** (-3.99)	-0.001*** (-4.72)	-0.001*** (-4.67)	-0.000*** (-4.06)
MB	0.002*** (3.04)	0.002*** (3.35)	0.002** (2.16)	0.002** (3.20)
LOSS	0.012** (2.16)	0.012** (1.99)	0.012** (2.07)	0.012** (2.10)
CFO	0.172*** (5.00)	0.171*** (4.92)	0.177*** (5.12)	0.169*** (4.82)
INSIDER	0.000** (2.58)	0.000** (2.55)	0.000** (2.55)	0.000** (2.58)
VAR	0.105*** (4.02)	0.101*** (4.00)	0.102*** (4.04)	0.104*** (3.98)
BETA	-0.004 (-1.54)	-0.003 (-1.35)	-0.003 (-1.37)	-0.004 (-1.52)
ROA	-0.107** (-2.74)	-0.108** (-2.75)	-0.111** (-2.84)	-0.105** (-2.66)
PROA	-0.053** (-2.27)	-0.051** (-2.18)	-0.052** (-2.22)	-0.052** (-2.20)
INDEX	0.008** (2.27)	0.008** (2.07)	0.008** (2.13)	0.008** (2.21)
Industry dummies	Yes	No	No	Yes
Years dummies	No	Yes	No	Yes
Adjusted R-sq	0.11	0.11	0.11	0.11
N observations	1044	1044	1044	1044

Variables definitions: ABS_PADCA is the absolute value of performance adjusted discretionary accruals estimated by Kothary et al. (2005); LARGE_FAMILY is the dummy variable that takes value 1 for family firms superior or equal to median family size and 0 otherwise; SMALL_FAMILY is the dummy variable that takes value 1 for family firms inferior to median family size and 0 otherwise; SIZE is the natural logarithm of a firm's market capitalization; LIACCRUAL is the last year´s total current accruals and equals net income before extraordinary items plus depreciation and amortization minus operating cash flow scales by beginning of year total assets; FINANCING is dummy variable that takes value 1 if number of outstanding shares increased by at least 10%, or long-term debt increased at least 20%, or firms first appears on the database during the fiscal year, and 0 otherwise; LITIGATION is dummy variable that takes the value 1 the firm operates in a high-litigation industry (SIC codes of 2833-2836, 3570-3577, 3600-3674, 5200-5961, and 7370), and 0 otherwise; LEVERAGE is the ratio of total debt to total assets at the beginning of the fiscal period; MB is the firm´s market-to-book ratio; LOSS is dummy variables that takes value 1 if the firm represented net loss for the fiscal period and 0 otherwise; CFO is the cash flow from operation scaled by beginning of year total assets; INSIDER is the percentage of shares held by insiders: shares held by officers , directors and their immediate families; trust and by individuals with 5% or more of outstanding shares; VAR is the standard deviation of earnings for the period 2006-2010; BETA is the firm´s systematic risk; ROA is the ratio earnings before extraordinary item divided by total assets; PROA is the ratio average of prior 5 years´ earnings before extraordinary items divided by total assets; INDEX is dummy variable that takes value 1 if the firm is also listed in FTSE 350 exchange and 0 otherwise; INDUSTRY is the industry-type dummy variable; YEAR is the year dummy variable.

***, ** and * indicate significance at the 0.01, 0.05 and 0.10 levels respectively.

Reported regression results suggested that a large family firms report lower level of discretionary accruals, as compared to nonfamily firms. That is, large size structure of firms seems to induce these firms to decrease the level of discretionary accruals. This findings are consistent with the arguments presented in support of the research question developed that large firms are more visibility, political costs and media attention (Watts and Zimmerman,1986) and therefore reduce the incentive to carry out earnings management actions.

In contrast, reported regression results regarding small family firm suggest that a these firms report higher level of discretionary accruals, as compared to nonfamily firms. That is, small size structure of firms seem to induce these firms to increase the level of discretionary accruals. This findings are consistent with the arguments presented in support of the research question developed that small family firms use its controlling position in the firm to extract private benefits at the expense of the small shareholders and therefore induce the incentive to earnings management actions.

With regards to control variables, the ABS_PADCA is significant and negatively associated with financial leverage (LEVERAGE), current return on asset (ROA) and prior return on asset (PROA), although not always at 1% level, suggesting that higher leveraged and more profitability firms are less likely to manage earnings. The significant positive association ABS_PADCA with the firms' operating cash flows (CFO) and earnings variability (VAR) (at 1% level), suggest that greater cash flow firms and more earnings variability firms are more likely to manage earnings. These results confirm previous studies indicating that the greater cash flow from operating seems as more uncertainty in the operation environment (Francis et al., 2004; Gaio, 2010). We also find that ABS_PADCA is significant and positively associated with growth (MB), negative earnings (LOSS), issuing equity and debt (FINANCING) firms, insider ownership (INSIDER), current accruals (LIACCRUAL) and listed index firms (INDEX) suggesting that high growth, reported negative earnings firms, higher issuing firms, higher concentrated insider ownership, large current accruals and listed in FTSE 350 firms are more likely to manage earnings.

5.2. Discussant

Two competing views are often provided in empirical literature to predict the earnings management practice in the case of ownership concentration. Existing accounting debate is consistent with agency theoretical views positing both higher and lower level of earnings management in family firms.

In this study we focus on two possibility of agency theory, namely on alignment and entrenchment hypothesis, to testing earnings management in family firms compared to nonfamily firms. However, we do not draw the distinction between ownership, control and management. Instead, we assume that founding families exert strong influence on the running of family firms whether via direct involvement in management or indirectly via common stock ownership or superior voting rights. This assumption is supported by recent empirical evidence (e.g. Villalonga and Amit, 2006; Tong et al., 2007). Taken together, we interpret this findings as consistent with small family firms having higher level of earnings management compared to nonfamily firms. The engage in the earnings management practice is consistent with controlling position of family firms, more opportunistic rent-extraction activities, psychological factors and families internal conflicts. Regarding the large family firms, our results is consistent with the majority of US findings of literature, indicating that large size family firms face more severe agency problem type I compared to nonfamily firms

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(Wang, 2006; Ali et al., 2007; Tong, 2007). The better earnings management practice by large family firms is consistent with concerns over reputation and visibility, long-term investment horizons and better monitoring of professional managers. Accordingly, our results increase our confidence in the conclusion that the difference in the severity of agency problems is a likely reason for the difference in the earnings management practice we observe across large family, small family and nonfamily firms.

6. Conclusions

This study analyzes the earnings management in publicly listed family firms. We also examine whether the incentives of earnings management are likely to be different in large family firms, small family firms, highlighting the differences from nonfamily firms. We find that large size family firms provide a lower level of earnings management and small size family firms provide a higher level of earnings management than nonfamily firms. For instance, our results indicate that in a country like the United Kingdom, incentives for earnings management across family firms are not the same as those of their nonfamily counterparts. At a more detailed level, we show that firm size is a characteristic of firms that influences the level of earnings management practice in family firms differently, according to the variation in the severity of the agency problem. We find that the large United Kingdom listed large family firms have less incentives for earnings management as compared to nonfamily firms, whereas small family firms have greater incentives to earnings management as compared to nonfamily firms.

There are several promising avenues for further research. Given contradictory evidence of agency theory, further research is clearly needed to capture incentives of earnings management through ownership, governance, and capital market effects in family firms. For instance, it may be interesting to further explore under what incentives the interest-alignment effect prevails over the entrenchment hypothesis in family firms compared to nonfamily firms. Additional effects may also be tested, related to family-specific variables such as family involvement and the family life cycle stage. Building models that capture the uniqueness of family firms is both challenge and opportunity.

7. References

Ali, A., T. Chen, and S. Radhakrishnan (2007), Corporate disclosure by family firms, *Journal of Accounting and Economics* 44, 238-286.

Anderson, R.C. and D. M. Reeb (2003), Founding-family ownership and firm performance: Evidence from the S&P 500, *Journal of Finance* 58(3), 1301-1328.

Anderson, R. C. and D. M. Reeb (2004), Board composition: balancing family influence in S&P 500 firms, *Administrative Science Quarterly* 49, 209-237.

Bubolz, M (2001), Family as a source, user and builder of social capital, *Journal of Socio-Economics* 30, 129-131.

Burgstahler, D. C. and I. Dichev (1997), Earnings management to avoid earnings decreases and losses, *Journal of Accounting and Economics* 24, (1), 99-126.

Cascino, S., A. Pugliese, D. Mussolino and C. Sansone (2010), The influence of family ownership on the quality of accounting information, *Fam. Busin. Review* 23, 246-265.

Dechow, P.M., R. G. Sloan and A. P. Sweeney (1995), Detecting earnings management, *The Accounting Review* 70(2), 193-225.

Demsetz, H., and K. Lehn (1985), The structure of corporate ownership: Causes and consequences, *Journal of Political Economy 93*, 1155–1177.

Dye, R.A. (1985), Disclosure of nonproprietary information, *Journal of Accounting Research* 23(1), 123-145.

Fama, E. (1980), Agency problems and the theory of the firm, *Journal of Political and Economics* 88, 288-307.

Fama, E. and M. Jensen (1983), Separation of ownership and control, *Journal of Law and Economics* 26, 301-325.

Fan, J. and T. J. Wong (2002), Corporate ownership structure and the informativeness of accounting earnings in East Asia, *Journal of Accounting and Economics* 33, 401–425.

Francis, J., R. LaFond, P. Olsson and K. Schipper (2004), Cost of equity and earnings attributes, *The Accounting Review* 79(4), 967-1010.

Gabrielsen, G., J. Gramlich and T. Plenborg (2002), Managerial ownership, information content of earnings, and discretionary accruals in a non-US setting, *Journal of Business, Finance and Accounting* 29, 967-988.

Gaio, C. (2010), The relative importance of firm and country characteristics for earnings quality around the world, *European Accounting Review* 19(4), 693-738.

Gómes-Mejía, L., K. Takács-Haynes, M. Núñez-Nickel and J. Moyano-Fuentes (2007), Socioemothional wealth and business risk in family-controlled firms: evidence from Spanish olive oil mills, *Administrative Science Quarterly* 52, 106-137.

Healy, P. and M. Wahlen (1999), A review of earnings management literature and its implications for standard setting, *Accounting Horizons* 13(4), 365-383.

Jensen, M. (1986), The takeover controversy: Analysis and evidence, *Midland Corporate Finance Journal* 4, 6-32.

Jensen, M. and W. Meckling (1976), Theory of firm: Managerial behaviour, agency costs and ownership structure, *Journal of Financial Economics* 3(4), 305-360.

Jiraporn, P. and P. Dadlt (2009), Does founding family control affect earnings management?, *Applied Economics Letters* 16, 117-124.

Jones, J. (1991), Earnings management during import relief investigations, *Journal of Accounting Research* 29(2), 193–228.

Jones, K., Krishnan, G. and K. Melendrez (2008), Do models of discretionary accruals detect actual cases of fraudulent and restated earnings? An empirical analysis, *Contemporary Accounting Research* 25(2), 499-531.

Kennedy, P. (1992), *A guide to econometrics* (3rd edition), Oxford, UK: Basil Blackwell Ltd.

Kothari, S., J. Leone and E. Wasley (2005), Performance matched discretionary accruals measures, *Journal of Accounting and Economics* 39, 163-197.

Maijor, S. and A. Vanstraelen (2006), Earnings management within Europe: the effects of member state audit environment, audit firm quality and international capital markets, *Accounting and Business Research* 36(1), 33-52.

Miller, D., and I. Le Breton-Miller (2006), Family governance and firm performance: Agency, stewardship, and capabilities, *Family Business Review* 19(1), 73-87.

Morck, R., A. Shleifer and R. Vishny (1988), Management ownership and firm value: an empirical analysis, *Journal of Financial Economics* 20(1), 293-315.

Park, M. and T. Shin (2004), Insider sales and earnings management, *Journal of Accounting and Public Policy* 23(5), 381-411.

Prencipe, A., S. Bar-Yosef, P. Mazzola and L. Pozza (2011), Income smoothing in family firm-controlled companies: Evidence from Italian listed companies, *Corporate Governance: an International Review* 19, 529-546.

Prencipe, A., G. Markarian and L. Pozza (2008), Earnings management in family firms: Evidence from R&D cost capitalization in Italy, *Family Business Review* 21, 71-88.

Rangan, S. (1998), Earnings Management and the Performance of Seasoned Equity Offerings, *Journal of Financial Economics* 50(1), 101-122.

Salvato, C. and K. Moores (2010), Research on Accounting in Family Firms: Past Accomplishments and Future Challenges, *Family Business Review* 16(3), 160-177.

Sánchez-Ballesta, J. and E. García-Meca (2007), Ownership structure, discretionary accruals and the informativeness of earnings, *Corporate Governance: An International Review* 15(4), 677-691.

Schulze, W., M. Lubatin and R. Dino (2001), Agency relationships in family firms: theory and evidence, *Organization Science* 12, 99-116.

Setia-Atmaja, L., G. Tanewsky and M. Skully (2009), The role of dividends, debt and board structure in the governance of family controlled firms, *Journal of Business Finance and Accounting* 36(7), 863-898.

Setia-Atmaja, L., J. Haman and G. Tanewsky (2011), The role of board independence in mitigating agency problem II in Australian family firms, *The British Accounting Review* 43, 230-246.

Shleiefer, A. and R. Vishny (1997), A survey of corporate governance, *Journal of Finance* 52(2), 737-783.

Singhvi, S. and H. Desai (1971), An empirical analysis of the quality of corporate financial disclosure, *The Accounting Review* 46(1), 129–138.

Skinner, D. and R. Sloan (2002), Earnings surprises, growth expectations, and stock returns or don´t let an earnings torpedo sink your portfolio, *Review of Accounting Studies* 7, 289-312.

Stein, J. C. (1998), Takeover threats managerial myopia, *Journal of Political Economy* 96(1), 61-80.

Stein, J. C. (1999), Efficient capital markets, inefficient firms: a model of myopic corporate behaviour, *Quarterly Journal of Economics* 103, 655-669.

Teoh, S., I. Welch and T. Wong (1998), Earnings Management and the Underperformance of Seasoned Equity Offerings, *Journal of Financ. Economics* 50(1), 63-99.

Tong, Y. (2007), Financial reporting practice of family firms, *Advances in Accounting* 23(1), 231 – 261.

Verrecchia, R. (1983), Discretionary disclosure, *Journal of Accounting and Economics* 5, 179-194.

Villalonga, B. and R. Amit (2006), How do family ownership, control and management affect firms value?, *Journal of Financial Economics* 80(2), 385-417.

Wang, D. (2006), Founding family ownership and earnings quality, *Journal of Accounting Research*, 44 (3), 619-656.

Warfield, T., J. Wild and K. Wild (1995), Managerial ownership, accounting choices, and informativeness of earnings, *Journal of Accounting and Economics* 20, 61-91.