

MSc Thesis

The effect of private and family ownership on tax aggressiveness

MSc Accounting, Auditing and Control

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Acknowledgment

Dear reader,

In front of you, you will find my thesis on the effect of private and family ownership on the level of tax aggressiveness of firms. I hope that you will read this paper with great joy. Even though this paper was written through difficult times due to the covid-19 virus, it was still a pleasure to write.

My internship at PWC did not go as planned due to covid-19, I still had very nice time and I have learned a lot during my internship. I would like to thank my supervisor Shiva Gopal from PWC for his support. Furthermore, I like to express my gratitude towards dr. J. Pierk for his guidance. Finally, I would like to thank my family and friends for emotional support.

Elif Demirci

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Abstract

This paper examines whether private and family ownership significantly influences the level of tax aggressiveness of firms. Tax avoidance can be profitable as it can lead to tax savings, however it can also lead to penalties and reputational damage. Family firms differentiate themselves from other firms as they tend to have a greater long-term focus and a greater socioemotional wealth. The sample consists of 498,076 firm observations from a 5-year period (2014-2018). This study finds that private firms tend to be less tax aggressive compared to public firms. Also, evidence shows that family ownership reduces the level of tax aggressiveness of firms. However, family and private ownership combined results in greater tax management. Evidence shows that private family firms tend to be more tax aggressive.

Keywords: family ownership, tax aggressiveness, tax management, effective tax rate, public firms, private ownership.

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1. Introduction

1.1. Background and motivation

According to the Credit Suisse (CS) Family 1000 report, family businesses outperform nonfamily businesses in every sector. CS reported a positive association between market performance and family ownership. Family owned enterprises have stronger revenues and earnings growth, higher margins and better cash flow returns in comparison to nonfamily owned enterprises. The report suggest that this performance is mainly caused by the long-term focus of family firms. Family firms are more future oriented and have a longer long-term focus which leads to a more robust growth. They tend to invest more in research and development. Furthermore, these firms are also more likely to reduce net debt and fund the company with their own resources instead of borrowing from outside sources (CNBC, 2017).

The purpose of this thesis is to examine whether private family firms are more or less tax aggressive compared to private nonfamily firms. This thesis will also analyze how public and private family firms differ from each other in terms of tax aggressiveness. Tax is one of the most significant business costs of firms and it has a direct impact on profitability and shareholder value. That is the reason why managers have incentives to engage in tax management. On the other hand, firms also fear the risk of damaging their reputation and receiving penalties. Therefore, it is important to have a better insight into the tax behavior of family firms. This paper attempts to answer the following research question:

How does family and private ownership influence the level of tax aggressiveness?

Tax is an important income source for governments, and it is used to provide government services. Tax management could decrease the total tax revenue of the government. Family firms cover a large part of the total number of firms in the economy¹. For instance, in the Netherlands 276.900 family firms were active on the 1st of January of 2016. This represents 71 percent of all enterprises in the country. These firms generated 343 billion in revenue together in 2015 (CBS, 2017). Firms are expected to pay their fair share of taxes as they also use government services, such as the maintenance of infrastructure (Landry, Deslandes, and Fortin, 2013).

There are several characteristics of family businesses that differentiate them from other firms. First, family firms tend to have greater socioemotional wealth. The preservation of socioemotional wealth could incentivize managers to manage earnings upwards when the firm performance is poor in order to reach targets and protect their reputation (Gómez-Mejía et al., 2007; Stockmans, Lybaert and Voordeckers, 2010). Second, family firms tend to have a greater long-term orientation compared to nonfamily firms. A long-term focus for decision making and taking actions is associated with higher firm performance and competitive advantages. Family firms have the incentive to pass a well-performing firm to the next generation (Lumkin and Brigham, 2011). A long-term focus could decrease

¹ 32-46% of S&P 1500 firms (Chen et al., 2010)

the level of tax aggressiveness as management fears to damage their reputation. Third, family firms tend to focus more on innovation and sustainability due to their long-term orientation. Family members have incentives to encourage investments in R&D as this can result in an increase of their wealth in the long-run (Zahra, 2005). Fourth, Family firms have a different ownership structure compared to nonfamily firms. Family firms have a smaller agency conflict between owners and managers, and a greater agency conflict between large and small shareholders. Agency problems could affect the tax aggressiveness of firms (Chen et al., 2010).

The main difference between public and private firms is that the shares of public firms are sold in the stock market to the general public whereas the shares of private firms are privately held by a limited number of shareholders. Public firms are predicted to be less tax aggressive as they can face greater non-tax costs, such as penalties and reputational damage. Furthermore, the level of mandatory disclosures tends to be higher for public firms and this can lead to greater costs of tax avoidance. This results in less tax avoidance as it becomes easier for tax authorities to detect tax management due to a greater amount of available information. On the other hand, public firms could also be more tax aggressive as they might also face higher benefits from tax management. For instance, if earnings targets are based on after-tax earnings it can be beneficial for management to engage in tax management in order to reach those targets (Pierk, 2016).

In the past decades, many studies have searched for the motivations behind earnings and tax management. For instance, research has found that CEOs are more likely to engage in earnings management if their compensation is closely related to the value of stock and option holdings (Bergstresser and Philippon, 2006). Minnick and Noga (2010) examined the effect of corporate governance on long-run tax management. They have found that incentive compensation provides long-term incentives to executives and directors to engage in tax management. Furthermore, research shows that firms with higher earnings are more likely to face lower costs in transactions with stakeholders. Therefore, firms manage their earnings in order to avoid earnings decreases and losses (Burgstahler and Dichev, 1997).

Not many studies have been conducted regarding the differences in tax aggressiveness between public and private firms. Beuselinck, Deloof and Vanstraelen (2015) found that public multinationals tend to shift more income from high-tax countries to low-tax countries compared to private multinationals, especially when the tax enforcement are weak. Furthermore, research has shown that the effective tax rates of public firms are significantly lower compared to private firms. This implies that public firms are more tax aggressive (Pierk, 2016). On the other hand, Burgstahler, Hail and Leuz (2006) found that private firms engage in higher levels of earnings management compared to public firms, especially in countries with weaker legal systems. They stated that earnings management tends

to be more extensive in private firms. Several researchers have tried to investigate whether private or public firms are more tax aggressive, however this area is still relatively understudied.

Previous literature found mixed evidence on whether family firms are more or less tax aggressive than nonfamily firms. Several papers found that family firms are less tax aggressive than nonfamily firms (Chen, Chen, Cheng and Shevlin, 2010; Steijvers and Niskanen, 2014; Landry, Deslandes and Fortin, 2013). However, several other papers found that family firms are more tax aggressive (Martinez and Ramalho, 2014; Mafrolla and Amico, 2016; Sari and Martani, 2010; Gaaya, Lakhali and Lakhali, 2017). This thesis aims to give more insights into the effects of family ownership on the tax behavior of the family owned enterprises. Although many papers have been written about earnings and tax management, this specific area is still understudied in literature. This paper contributes to previous literature by combining literature regarding the tax aggressiveness of public and private firms and literature regarding tax aggressiveness of family and nonfamily firms. This thesis examines the differences between public family firms and public nonfamily firms and the differences between public and private family firms regarding the level of tax aggressiveness.

1.2. Data and methodology

Data have been collected from the Amadeus database which provides detailed information on the financial statements of European firms. The sample consists of 498.076 firm observations from a 5-year period (2014-2018). The research model is based on the cross-sectional regression model of Chen et al. (2010). This model helps to examine whether private and family ownership has a significant effect on the level of tax aggressiveness in a firm. Tax aggressiveness is measured using the effective tax rate (ETR), which shows aggressive tax management through permanent book-tax differences. Family ownership is measured as a dummy variable which has the value of one if the firm is a family firm and zero otherwise. Private ownership is measured as a dummy variable which has the value of one if the firm is a private firm and zero otherwise. A lower ETR implies that the level of tax avoidance is greater for a firm.

1.3. Main findings, contribution and implications

The results show that the ETR is significantly positive for family firms which implies that family firms have a lower level of tax aggressiveness. Furthermore, evidence also show that private firms are less tax aggressive as private ownership is positively associated with the ETR. However, family and private ownership combined results in a greater level of tax aggressiveness. The ETR is lower, which implies that private family firms are more tax aggressive. This thesis aims to contribute to previous literature by examining whether family firms or nonfamily firms are less tax aggressive. This paper provides more insight into the mixed results of previous literature. Also, it is examined whether public or private firms engage more in tax management. This not been studied much and is an understudied field in literature. The two streams of literature are combined to examine the differences in private family,

private nonfamily and public family and public nonfamily firms. This has not been done before and this paper aims to fill this gap in literature.

The structure of the paper is as follows: First, the most important concepts, previous literature and the hypothesis are discussed in the theoretical framework. Afterwards, the methodology, data and sample selection is discussed in the research design and sample section. Thereafter, the results of this study are explained. Finally, the conclusion section discusses the main findings and provides an explanation regarding the limitations of this thesis.

2. Theoretical background

This section provides a description of the most important concepts and discusses the main findings of previous research in order to give more insight into the topic of this thesis. The most important concepts of this paper are tax aggressiveness, family ownership and private ownership. These concepts will be discussed firstly followed by the main findings of previous literature. The literature consists of two main streams, namely literature on the tax aggressiveness of family firms and nonfamily firms and literature on tax aggressiveness of public and private firms. The main goal of this study is to combine the two streams of literature as this has not been done before. This study examines the differences in tax aggressiveness between public family, private family, public nonfamily and private non family firms.

Table 1: *Firm matrix*

	PUBLIC	PRIVATE
FAMILY	PUBLIC FAMILY FIRM	PRIVATE FAMILY FIRM
NONFAMILY	PUBLIC NONFAMILY FIRM	PRIVATE NONFAMILY FIRM

2.1. Concepts

2.1.1. Tax aggressiveness

Tax aggressiveness is defined as any tax minimization strategy or subset of strategies, including aggressive tax planning, tax avoidance, and tax evasion. The lower the effective tax rate, the more tax aggressive firms are and the closer they get to tax avoidance and possibly tax evasion (Hanlon and Heitzman, 2010). Firms can enjoy benefits but also face costs from engaging in tax management. It is important to know whether the cost of tax aggressiveness is likely to outweigh the benefits in certain types of firms.

The decision to engage or not to engage in tax management is a tradeoff of between the benefits and cost of tax aggressiveness. Firms can enjoy benefits from a higher level of tax aggressiveness, such as greater tax savings. Tax savings are beneficial for the shareholders, but also for managers as they might be compensated for the firm performance. Research discussed that a negative relationship exists

between tax-based incentive compensation and the effective tax rate (Seidman and Stomberg, 2012). Tax savings are reserves of recourses from decreases in tax expenditure. These benefits are generated through tax avoidance and are accompanied by certain non-tax costs, such as agency costs and financial reporting costs (Park et al. 2016). Furthermore, complicated tax transactions can be used to mislead investors regarding the financial performance of the firm. For instance, temporary financing cash flows can be classified as operating cash flows in order to mislead investors. This can benefit managers as this can result in higher executive compensation and increases in stock prices. Tax management can be used by insiders to gain from the changes in stock prices (Chen, 2010).

On the other hand, firms can also face several costs from engaging in tax management. Firstly, the firm has to pay fees to its tax advisors and consultant who investigate methods to avoid tax. A lot of time and effort is invested to identify and implement tax planning strategies (Seidman and Stomberg, 2012). Furthermore, firms can face costs of potential penalties given by the government. A firm can receive a penalty if tax aggressiveness is discovered since tax aggressiveness may result in a loss in tax revenues for governments. Furthermore, shareholders will change their behavior if they perceive that management engages in tax management to pay less taxes. They will price protect themselves and bid the price down. Tax management can result in tax savings, however investors react favorably to regulatory actions that prevent managers from transferring firm's capital through tax transactions (Chen, 2010). Another important potential cost of tax aggressiveness is the potential reputational damage. Firms face the risk of damaging their reputation by engaging in tax aggressiveness as the view of stakeholders on the firm worsens after tax aggressiveness is perceived. Research found that aggressive corporate tax strategies diminishes corporate success with consumers and responsible corporate tax strategies enhances it (Hardeck and Hertl, 2014).

2.1.2. Family ownership

The definition of family firms of Chen et al. (2010) is used in this paper. They define family firms as firms of which the members of the founding family (by either blood or marriage) are key executives, directors or block holders.

There are several characteristics of family businesses that differentiate them from other firms. First, family firms tend to have greater socioemotional wealth. Socioemotional wealth refers to the non-financial aspects of the firm that meet the family's affective needs, such as identity, the ability to exercise family influence, and the perpetuation of the family dynasty (Gómez-Mejía et al., 2007). The preservation of socioemotional wealth could incentivize managers to engage in earnings management. Stockmans, Lybaert and Voordeckers (2010) stated that the preservation of socioemotional wealth could be a motivation for earnings management in private family firms. Socioemotional wealth may play a role in upward earnings management when the performance of the firm is poor. Since these firms want to continue their family's legacy and protect their reputation, they have incentives to present the

firms performance better when the performance is poor. Family firms have greater incentives to manage earnings upwards in order to preserve their socioemotional wealth.

Second, family firms are considered to have a greater long-term focus compared to nonfamily businesses. Family businesses have the intention to shape and pursue the vision of the business which is controlled by family members of the owner family in a sustainable way across generations of the family (Chua, Chrisman and Sharma, 1994). Lumkin and Brigham (2011) argue that adopting a long-term orientation for decision making and taking action is associated with higher firm performance and competitive advantages in family firms. Furthermore, family firms also have the objective to maintain or improve the firm's performance in order to pass it to the next generation.

Third, due to their greater long-term orientation, family firms tend to focus more on innovation and sustainability. Research found that a greater number of family members from different generations results in a greater focus on innovation. Members of the owner family can have a significant influence on the entrepreneurial risk taking of family enterprises. Family members tend to have incentives to encourage the firm to invest in R&D as this can result in an increase of their wealth in the long-run (Zahra, 2005).

Fourth, insider control and organizational factors can affect the level of tax aggressiveness of firms. Family firms tend to have a different ownership structure, which allows to analyze the effect of insider control on tax aggressiveness. Compared to nonfamily firms, family firms have a smaller agency conflict between owners and managers of the firm. On the other hand, a greater agency conflict can arise between large and small shareholders of family firms. Agency conflicts can influence the level of tax aggressiveness of firms (Chen et al., 2010).

2.1.3. Private ownership

A company is considered public when all or a large portion of the shares are traded on the stock market. In contrast, a company is considered to be a private firm when the shares are privately held by its shareholders. The shareholders of private firms may consist of the its founders, management or a group of private investors, whereas the shares of a public firm are all or for a large part bought by investors through IPO's.

Due to the differences in character of public and private firms, differences are expected in the tax aggressiveness of these firms. The main differences between public and private firms are the differences in disclosures, stock ownership and capital acquirement. Since public firms sell their shares to the public, they are required to provide disclosures to everyone. This is not the case for private firms. Because of this, the quality of disclosures tends to be much higher for public firms. Furthermore, the stock ownership is different as all or a large part of stocks of public firms are held by public investors (Reardon, 2017). This indicates that these firms sell shares on the stock market through IPO's. Public

firms can generate capital from selling these stocks. Investors aim to obtain benefits from these investments, such as dividends and gain on sales. Whereas, private firms retrieve their capital mostly from private equity and loans.

These differences may lead to different behavior of the management of the firms. For instance, research stated that public firms tend to be more bureaucratic, less materialistic and have weaker organizational commitment compared to private firms (Boyne, 2002). It is expected that the level of tax aggressiveness of public and private firms will differ as management's incentives are influenced by different factors. Management are assumed to follow their own interest. They aim to reach certain thresholds in order to obtain bonuses. Managers of public firms have incentives to reach analysts forecasts in order to satisfy and attract investors on the stock market as this allows the firm to generate capital and for the management to obtain bonuses. Managers of private firms have incentives to satisfy the objectives of their shareholders. These firms do not sell their shares on the stock market, therefore management is not punished for the unwanted changes in stock prices. This research examines whether the differences in public and private ownership results in significant differences in the level of tax aggressiveness.

2.2. Previous literature

2.2.1. Literature: Family firms vs nonfamily firms

Throughout the years, several researchers have tried to examine the differences in the behavior of family firms compared to nonfamily firms. This paper focuses on the differences in behavior regarding tax management. This thesis is related to two streams of literature. First, it relates to the literature on the differences in earnings and tax management of family firms and nonfamily firms. Previous literature has tried to examine this matter, however, they found mixed results. Second, it relates to the literature on earnings and tax management of public and private firms. This research area is still understudied previous literature also provides mixed results on whether private or public firms tend to be more tax aggressive. This paper aims to combine the two streams and analyze the differences in tax aggressiveness of public family, public nonfamily, private family and private family firms.

Chen et al. (2010) examined whether public family firms are more or less tax aggressive compared to nonfamily firms. Tax aggressiveness is defined as downward management of taxable income through tax planning activities. They used two tax rate measures and two book-tax difference measures to examine tax aggressiveness. Firms that are owned or run by the founding family are less tax aggressive compared to nonfamily firms. This suggests that family owners are more concerned with non-tax cost, penalties and reputational damage that could arise from tax aggressiveness compared to nonfamily firms. Similarly, Steijvers and Niskanen (2014) argued that private family firms are less tax aggressive compared to nonfamily firms based on their Finnish survey data. They also found that lower CEO

ownership in family firms results in a higher level of tax aggressiveness, whereas an outside director makes the overall effect of CEO ownership smaller.

Sánchez-Marín, Portillo-Navarro and Clavel (2016) have examined the influence of family involvement on tax aggressiveness of family firms. They analyzed the effects of family influence through power, experience, and culture. First, they found that greater family power in terms of firm ownership and management negatively affects tax aggressiveness. So, family firms with a greater power dimension are less tax aggressive. Second, greater family experience results in greater tax aggressiveness. The passing generations of the family can provide more resources and knowledge to prepare tax strategies and therefore reduce the amount of tax paid.

Research examined the effect on tax aggressiveness of Italian family firms when family involvement is greater (Mafrolla and D'Amico, 2016). Interestingly, tax aggressiveness of family firms highly depends on how entrenched the family is in the ownership and management of the firm. Results show that family firms are less tax aggressive compared to nonfamily firms, however, the effect on tax aggressiveness of the firm is non-linear. This implies that higher levels of family involvement are associated with increased tax aggressiveness. They conclude that too much family involvement leads to a higher outcome of tax aggressiveness.

In contrast, several researches show a negative relation between family ownership and tax management. For instance, Martinez and Ramalho (2014) found a negative relationship between the dummy variable family firms and the effective tax rate for Brazilian firms. The results suggest that family firms are more tax aggressive than nonfamily firms. Sari and Martani (2010) examined the links between family ownership, corporate governance and tax aggressiveness of public manufacturing firms registered in the Indonesian stock exchange market. The results of this paper show that family firms tend to be more tax aggressive compared to nonfamily firms. The authors also stated that corporate governance practices have a negative effect on the level of tax aggressiveness. Similarly, Gaaya et al. (2017) found similar results. They argued that family ownership is positively correlated with corporate tax avoidance, which implies that family firms enjoy more benefits from tax saving activities than they face costs. They also found that higher levels of audit quality can make this effect negative.

2.2.2. Literature: Private firms vs public firms

The second stream of literature relates to the differences between public and private firms regarding earnings and tax management. Beuselink, Deloof and Vanstraelen (2015) analyze how income shifting of multinational corporations is affected by tax enforcements and their public listing status. They find that firms shift income from high-tax subsidiary countries to low-tax parent countries and weaker local tax enforcement results in more income shifting. They argued that higher non-tax costs of public firms may restrain their shift of income to low-tax countries. Their evidence shows that private multinationals

tend to use weak tax enforcements more to shift income to low tax countries compared to public multinationals.

These conclusions are supported by Jaafar and Thornton (2015) as they argued that tax haven operations result in lower effective tax rates for public and private firms. However, private firms tend to benefit more from tax havens relatively compared to public firms. The impact of these operations is much greater for privately owned firms. Furthermore, Study has shown that managers' accounting choices can be influenced by the accounting methods chosen for tax purposes. It is argued that conformity is perceived to obtain benefits, which are tax savings, and managers try to obtain these benefits through financial accounting choices. Moreover, evidence shows that managers of public firms are less likely to prefer conformity, because they tend to face greater non-tax costs from reporting lower income (Cloyd, Pratt and Stock, 1996).

On the other hand, Pierk (2016) has examined how tax aggressiveness differs for public and private firms. Unconsolidated financial statements are used to determine tax obligation and private and public firms have similar tax rules. Consolidated statements are used to provide information to investors, which can result in different reporting incentives. Unconsolidated financial statements are used to control for the differences in reporting incentives to ensure that that public and private firms become more comparable. Evidence shows that public firms are more tax aggressive than private firms as their effective tax rates in the unconsolidated and consolidated financial statements are significantly lower.

Research has found that private firms engage in higher levels of earnings management compared to public firms. Burgstahler, Hail and Leuz (2006) found evidence which shows that earnings management tends to be more extensive in private firms. Furthermore, earnings management tend to be greater in countries with a weaker legal system and enforcement. Strong legal systems are associated with less earnings management in both private and public firms. Moreover, they argue that capital markets create incentives to increase earnings informativeness, which contradicts the idea that capital markets incentivize firms to conceal their performance.

In contrast, Beatty and Harris (1999) argued that public firms tend to engage in higher levels of earnings management compared to private firms. They found that public banks have a greater portion of gains and losses on securities related to earnings management. Earnings management is argued to be caused by greater information asymmetry in public firms. This statement is supported by Kim and Yu (2006) who stated that public firms are incentivized by stock markets to engage in earnings management in order to satisfy the investors' expectations. They examined the effect of a firms listing status on the magnitude of the discretionary accruals and found that publicly listed firms tend to be engage more aggressively in earnings management compared to private firms.

This thesis aims to contribute to the literature by examining whether family firms are more or less tax aggressive than nonfamily firms. This paper will provide more insight into the mixed results of

previous literature. The differences between public and private firms regarding tax aggressiveness have not been studied much and is an understudied field in literature. The two streams of literature are combined to examine the differences in private family, private nonfamily and public family and public nonfamily firms as shown in the firm matrix (Table 1). This has not been done before and this paper aims to fill this gap in literature.

Table 2: *Summary previous literature*

	Authors	Topic	Main findings
1.	Chen et al. (2010)	Tax aggressiveness family firms	Public family firms are less tax aggressive compared to public non-family firms. Family firms are more concerned with non-tax cost, penalties and reputational damage that could arise from tax aggressiveness.
2.	Steijvers and Niskanen (2014)	Tax aggressiveness family firms	Family firms are less tax aggressive than nonfamily firms. Lower CEO ownership results in greater tax aggressiveness, whereas an outside director mitigated the effect of CEO ownership smaller.
3.	Sánchez-Marín et al. (2016)	Tax aggressiveness family firms	Greater family ownership and management results in less tax aggressiveness.
4.	Mafrolla and D'Amico (2016)	Tax aggressiveness family firms	Family firms are less tax aggressive compared to nonfamily firms, however higher levels of family involvement are associated with increased tax aggressiveness. If family involvement is high, family firms exceed nonfamily firms in terms of tax aggressiveness.
5.	Martinez and Ramalho (2014)	Tax aggressiveness family firms	Family firms are more tax aggressive compare to nonfamily firms.
6.	Sari and Martani (2010)	Tax aggressiveness family firms	Family ownership has a positive effect on the level of tax aggressiveness. Corporate governance practices mitigate the effect on tax aggressiveness
7.	Gaaya et al. (2017)	Tax aggressiveness family firms	Family ownership is positively correlated with corporate tax avoidance. Higher levels of audit quality mitigate this effect.
8.	Beuselink, et al. (2015)	Public and private firms	Public firms have higher non-tax costs which restrains them from shifting income to low tax countries. Private firms are more likely to shift income to low tax countries compared to public firms.
9.	Jaafar and Thornton (2015)	Public and private firms	Private firms tend to benefit more from tax havens relatively compared to public firms.

10.	Cloyd et al. (1996)	Public and private firms	Public firms are less likely to engage in tax management as they tend to face greater non-tax costs from reporting lower income. Therefore, they tend to be less tax aggressive compared to private firms.
11.	Pierk (2016)	Public and private firms	Public firms are more tax aggressive than private firms. The effective tax rates in the financial statements are significantly lower for public firms.
12.	Burgstahler, et al. (2006)	Public and private firms	Private firms engage in higher levels of earnings management compared to public firms.
13.	Beatty and Harris (1999)	Public and private firms	Public firms tend to engage in higher levels of earnings management compared to private firms. Earnings management is caused by greater information asymmetry in public firms.
14.	Kim and Yu (2006)	Public and private firms	Public firms engage more aggressively in earnings management compared to private firms. Public firms are incentivized to satisfy the expectations of the investors on the stock markets.

2.3. Hypothesis development

This paper aims to examine how family and private ownership influence the level of tax aggressiveness of firms. It is examined whether the potential cost of tax management outweighs the possible benefits of tax management in case of family and private ownership. Three hypotheses have been developed in order to examine the influence of family and private ownership on tax aggressiveness. These hypotheses have been developed based on previous literature.

H1: Family ownership reduces the level of tax aggressiveness.

Chen et al. (2010) found that public family firms are less tax aggressive than public nonfamily firms. They stated that family firms tend to be less tax aggressive because they tend to be more concerned with non-tax cost, reputational damage and potential penalties that could arise from tax-aggressiveness. Due to their larger equity ownership and longer investment horizons, family firms tend to be more concerned with penalties and reputational damage from being involved in a tax related lawsuit. Furthermore, family firms also tend to have greater incentives to manage their earnings upwards in order to preserve their socioemotional wealth (Stockmans et al., 2010). On the other hand, family owners tend to have a great number of shares, therefore they could benefit more from tax savings or rent extraction. Both the advantages and disadvantages of tax management appear higher for family firms compared to nonfamily firms. A tradeoff between the marginal benefits and the marginal costs of managing taxes exist. The benefits of tax management include greater tax savings and the costs of tax management include the potential penalties, implementation costs and agency cost. (Chen et al., 2010). Overall, family firms are expected to be less tax aggressive. This paper examines the differences in tax

management between family and nonfamily firms. Especially the differences in private family and non-family are analyzed as this has not been done before.

H2: *Private ownership reduces the level of tax aggressiveness.*

H3: *Private ownership increases the level of tax aggressiveness.*

Private firms and family firms are both categorized by concentrated ownership. However, these firms tend to face different agency and reputational problems. Private firms are not dependent on outside shareholders for capital and they are less concerned with the opinions of investors (Chen et al., 2010). The differences in stock ownership of public and private firms are expected to influence tax aggressiveness as public firms may have more incentives to manage earnings and tax in order to satisfy investors' expectations and to attract new investors. On the other hand, they may also have less incentives as earnings and tax management can risk their reputation and leave a bad impression to their shareholders. Therefore, it is very interesting to examine how the differences in firm characteristics influence the level of tax aggressiveness. Previous research found that public firms tend to engage in higher levels of earnings management (Beatty and Harris, 1999; Kim and Yu, 2006). Furthermore, research found that private firms are more likely to shift income to low-tax countries compared to public firms (Beuselink et al., 2015; Jaafar and Thornton, 2015). Contradicting results exist regarding the tax management of public and private firms. Cloyd et al. (1996) found that public firms are less likely to engage in tax management as they tend to face greater non-tax costs, however Pierk (2016) stated that public firms are more tax aggressive compared to private firms. Not much research has been conducted regarding the influence of family and private ownership on tax aggressiveness. This study aims to fill this gap and complement existing literature.

3. Research design and sample

3.1. Sample

In order to find an answer to the research question, data must be gathered. Data are available through databases within the Wharton Research Data Services system. Data for financial accounting information and shareholder information can be found in Bureau van Dijk's Amadeus databases. This database is a European financial database and provides detailed information on the financial statements of firms. When conducting this research, close attention has been paid to the steps taken by Chen et al. (2010). However, they used different datasets to conduct their research., such as Compustat and ExecuComp. Data on family ownership has been gathered manually, whereas this thesis uses data on shareholder information from Amadeus. Amadeus is a database of comparable financial and business information on Europe's largest firms and provides data on financials and shareholders of 21 million companies across Europe. The sample consist of 498,076 firm year observations from a 5-year period (2014-2018).

Table 3: *Sample selection*

Amadeus sample selection	
Number of observations found in Amadeus for 2014-2018	13,573,588
<i>Less:</i> Remove duplicates	175,837
<i>Less:</i> Remove Financial firms (SIC 600-699)	136,747
<i>Less:</i> Remove missing values for legal status, quoted and shareholder type	6,076,480
<i>Less:</i> Remove missing values for net income	1,636,282
<i>Less:</i> Remove missing values for long-term debt	610,729
<i>Less:</i> Remove missing values for tangible fixed assets	533,484
<i>Less:</i> Remove missing values for taxation	203,013
<i>Less:</i> Remove missing values for intangible fixed assets	29,246
<i>Less:</i> Remove missing values for profit before tax	1,647
<i>Less:</i> Remove missing values for total assets	1,255
<i>Less:</i> Remove firm observations if the total assets are below 5 million	2,678,824
<i>Less:</i> Remove firm observations with negative net income	894,724
<i>Less:</i> Remove firm observations with negative profits before tax	34,801
<i>Less:</i> Remove firm observations with negative taxation	26,373
<i>Less:</i> Remove firm observations with a legal status of “liquidation”, “insolvency proceeding”, “unknown” and “bankruptcy”.	12,988
<i>Less:</i> Remove firm observations with ETR greater than one	11,086
<i>Less:</i> Remove firm observations with reporting based on consolidated data, financial data and data with no recent account.	11,996
Total number of observations in the final sample	498,076

Table 3 shows the sample selection process. The sample from Amadeus contains 13,573,588 observations. Financial firms are removed from the sample because financial firms have a different view on leverage. High leverage can be normal for financial firms, however it can be considered an indicator of distress for non-financial firms. After the controlling for duplicates, 175,837 observations are removed. Afterwards, firm observations with missing variables for total assets, tangible fixed assets, intangible fixed assets, net income, pre-tax income, long-term debt and taxation are removed from the sample. Furthermore, in order to increase comparability among firms, observations are removed if the total assets are below 5 million. Moreover, observations with a negative taxable income and negative net income are removed as this could lead to biased results. When a firm has negative income, it does not pay taxation and may even receive government support. Observations with missing variables for

shareholder type, legal status and publicly quoting status are also deleted. Also, observations with an ETR greater than one are deleted as this is considered unreasonable. An ETR greater than one indicates that taxation is greater than the profit before tax. Firm observations with reporting based on consolidated data, financial data and data with no recent account are also removed from the sample. The consolidated financial statement provide information to investors, however unconsolidated financial statements are used for legal purposes. In many European countries unconsolidated statements are used to determine tax obligation. The reporting incentives do not differ for public and private firms in the unconsolidated financial statement (Pierk, 2016). Therefore, these statements will be used to compare the differences in tax management among firms. lastly, firms observations with a legal status of “liquidation”, “insolvency proceeding”, “unknown” and “bankruptcy” are also removed from the sample as these observations could lead to biased results. This results in a total of 498,076 observations. Table 4 shows the sample composition of this paper. The sample contains much more private firms (99.1%) compared to public firms (0.9%). Also, the sample consist of 50.2% family firms and 49.8% nonfamily firms.

Table 4: *Sample composition*

Sample composition			
	Family firm	Nonfamily firm	Total
Private firm	249,289 (50.1%)	244,313 (49.1%)	493,602 (99.1%)
Public firm	624 (0.1%)	3,850 (0.8%)	4,474 (0.9%)
Total	249,913 (50.2%)	248,163 (49.8%)	498,076 (100%)

3.2. *Research design*

The research model is based on the cross-sectional regression model of Chen et al. (2010). This model has been used by several researchers that analyzed the relation between tax aggressiveness and family firms. This model is also suitable for this research and therefore it will be used. The model is as follow:

$$\begin{aligned}
 TaxAgg = & \alpha_0 + \beta_1 FAMIL Y_{i,t} + \beta_2 PRIVATE_{i,t} + \beta_3 PRIVATE * FAMIL Y_{i,t} + \beta_4 ROA_{i,t} \\
 & + \beta_5 LEV_{i,t} + \beta_6 PPE_{i,t} + \beta_7 INTANG_{i,t} + \beta_8 SIZE_{i,t} + YearDummies \quad (1) \\
 & + IndustryDummies + CountryDummies + \varepsilon
 \end{aligned}$$

The variable definitions can be found in table 5. Tax aggressiveness (TaxAggr) is measured using the effective tax rate (ETR), which shows aggressive tax management through permanent book-tax differences (Chen, 2010). ETR is measured as the total tax expense divided by the pre-tax income (eq. 2).

$$ETR = \frac{\text{Total tax expense}}{\text{pre-tax income}} \quad (2)$$

Family is a dummy variable and it will have a value of one if the firm is a family firm and zero otherwise. Firms are considered family firms when the majority of the shareholders (>50%) are private shareholders, individuals or families.² With the model (eq.1), it is examined whether there is a significant influence on the degree of tax aggressiveness due to family and/or private ownership. Tax aggressive firms tend to lower their tax expense. Therefore, the ETR will be lower as tax aggressiveness increases. If family firms are more tax aggressive, a negative coefficient is expected on the FAMILY variable (β_1). A positive sign is expected if family firms are less tax aggressive. This is also the case for the PRIVATE variable. If the ETR is lower when the dummy variable for private ownership is one, private firm are considered more tax aggressive compared to public firms. In addition, an interaction term is added for the family and private variable. The B3 coefficient shows whether the effect on tax aggressiveness is strengthened or weakened when a firm is both a family and private firms.

Moreover, following the research model of Chen et al. (2010), the model includes several control variables, such as profitability, size and leverage, in order to control for firm characteristics that could have an effect on the level of tax aggressiveness of firms. The ROA control variable allows to control for profitability. The ROA is generated by dividing the net income by the total assets. The long-term debts are scaled by the total assets to generate the leverage variable (LEV). The LEV control variable helps to control the leverage of the firms.

The property, plant and equipment (PPE) variable is generated by dividing the fixed tangible assets by the total assets. The intangible assets are also scaled by the total assets. The level of tax aggressiveness can be influenced by differences in book and tax reporting. The PPE and intangible fixed assets (INTANG) are used to control for these differences. For instance, different treatments of depreciation expense for tax and financial reporting purposes may have a greater effect on capital intensive firms (Chen, 2010). Following Pierk (2016), the variable SIZE is generated by taking the natural logarithm of total assets. Larger firms tend to have more resources to engage in tax management and therefore it is important to control for size. Chen et al. (2010) uses the natural logarithm of the market value of equity to generate size, however the required information is not available for private firms. Also, this research does not include market-to-book ratio and the book-tax difference control variables, because the required data is not available for private firms. Dummy variables are included to control for year, country and industry fixed effects. Lastly, all variables are winsorized at a 1% and 99% level.

² More specifically, nameless private stockholders (code D) and one or more named individuals or families (code I) are used from the Amadeus databases to estimate whether a firm is a family firm or a nonfamily firm.

Table 5: *Variable description*

<i>Variable</i>	<i>Description</i>	<i>Amadeus variable</i>
TaxAgg _{i,t}	Tax aggressiveness for firm i, year t.	taxa/plbt
FAMILY _{i,t}	Dummy variable with the value one in case of family ownership and zero otherwise. A firm is considered a family firm, when the majority of the shareholders (50%) SH_TYPE SH_TYPE are private shareholders, individuals or families.	One if shareholder type is I or D, zero otherwise
PRIVATE _{i,t}	Dummy variable with the value one in case of private ownership and zero otherwise.	One if private firm, zero otherwise
ROA _{i,t}	Return on assets for firm i, year t. ROA is the net income scaled by the total assets.	pl/toas
LEV _{i,t}	Leverage for firm i, year t, which is measured as the long-term debt scaled by the total assets.	ltdb/toas
PPE _{i,t}	Property, plant and equipment for firm i, year t.	Tfas/toas
INTANG _{i,t}	Intangible assets for firm i, year t scaled by the total assets.	Ifas/toas
SIZE _{i,t}	Size for firm i, year t is measured as the natural logarithm of the total assets.	Ln(toas)
Industrydummy		
Countrydummy		
yeardummy		

4. Empirical results and analysis

4.1. Descriptive statistics

Table 6 shows the descriptive statistics of private family firms, private nonfamily firms, public family firms and public nonfamily firms. Panel A and B show the descriptive statistics of private firms and panel D and F show the descriptive statistics for public firms. The ETR is significantly lower for family firms (15.08%) compared nonfamily firms (19.88%) implying that family firms exhibit greater tax aggressiveness. Similarly, panel D and E show that the ETR is also lower for public family firms (16.22%) compared to public non family firms (17.31%). Furthermore, private family firms exhibit greater tax aggressiveness compared to public family firms. on the other hand, private nonfamily firms exhibit lower tax aggressiveness compared to public nonfamily firms. Panel C shows that the differences in means and medians of private firms significantly differ from zero and Panel F shows that the differences in means and medians of public firms significantly differ from zero, except for the means of ROA, LEV and PPE and the median of PPE.

Table 6: *Descriptive statistics.*

Panel A: Descriptive statistics private family firms								
Variable	<i>N</i>	Mean	Std. Dev.	Min.	Q1	Median	Q3	Max.
$ETR_{i,t}$	249289	0.1508	0.1260	0.0000	0.0514	0.1589	0.1995	0.9587
$ROA_{i,t}$	249289	0.0903	0.1191	0.0001	0.0120	0.0452	0.1203	0.6869
$LEV_{i,t}$	249289	0.0671	0.1492	0.0000	0.0000	0.0000	0.0510	0.8729
$PPE_{i,t}$	249289	0.1643	0.2230	0.0000	0.0015	0.0467	0.2676	0.9749
$INTANG_{i,t}$	249289	0.0031	0.0256	0.0000	0.0000	0.0000	0.0000	0.6016
$SIZE_{i,t}$	249289	18.8517	0.9360	17.7319	18.1200	18.6240	19.3442	23.2929

Panel B: Descriptive statistics private nonfamily firms								
Variable	<i>N</i>	Mean	Std. Dev.	Min.	Q1	Median	Q3	Max.
$ETR_{i,t}$	244313	0.1988	0.1424	0.0000	0.1101	0.1956	0.2524	0.9881
$ROA_{i,t}$	244313	0.0843	0.1004	0.0000	0.0189	0.0517	0.1106	1.6157
$LEV_{i,t}$	244313	0.0911	0.1815	0.0000	0.0000	0.0000	0.906	2.2857
$PPE_{i,t}$	244313	0.2567	0.2855	-0.0881	0.0148	0.1371	0.4348	1.0000
$INTANG_{i,t}$	244313	0.0220	0.0677	-0.0355	0.0000	0.0002	0.0065	0.8708
$SIZE_{i,t}$	244313	19.2748	1.3090	17.728	18.2378	18.9189	19.9873	24.1488

Panel C: P-values of the difference of the mean and median of private firms						
	$ETR_{i,t}$	$ROA_{i,t}$	$LEV_{i,t}$	$PPE_{i,t}$	$INTANG_{i,t}$	$SIZE_{i,t}$
<i>mean</i>	0.0000***	0.0000***	0.0000***	0.0000***	0.0000***	0.0000***
<i>median</i>	0.0000***	0.0000***	0.0000***	0.0000***	0.0000***	0.0000***

Panel D: Descriptive statistics public family firms								
Variable	<i>N</i>	Mean	Std. Dev.	Min.	Q1	Median	Q3	Max.
$ETR_{i,t}$	624	0.1622	0.1448	0.0000	0.0564	0.1477	0.2185	0.7758
$ROA_{i,t}$	624	0.0580	0.0692	0.0001	0.0104	0.0331	0.0843	0.4623
$LEV_{i,t}$	624	0.0952	0.1522	0.0000	0.0000	0.0209	0.1433	0.8159
$PPE_{i,t}$	624	0.3597	0.2737	0.0000	0.1505	0.2943	0.5366	0.9574
$INTANG_{i,t}$	624	0.0094	0.0331	0.0000	0.0000	0.0001	0.0039	0.2964
$SIZE_{i,t}$	624	19.4885	1.2563	17.74331	18.4246	19.2298	20.3546	23.2929

Panel E: Descriptive statistics public nonfamily firms

Variable	N	Mean	Std. Dev.	Min.	Q1	Median	Q3	Max.
$ETR_{i,t}$	3850	0.1731	0.1347	0.0000	0.0820	0.1642	0.2260	0.8534
$ROA_{i,t}$	3850	0.0616	0.0712	0.0001	0.0158	0.0415	0.0825	0.6804
$LEV_{i,t}$	3850	0.0254	0.1407	0.0000	0.0000	0.0254	0.1457	0.8166
$PPE_{i,t}$	3850	0.3508	0.2756	0.0000	0.0979	0.3062	0.5739	0.9574
$INTANG_{i,t}$	3850	0.0247	0.0644	0.0000	0.0000	0.0017	0.01268	0.4680
$SIZE_{i,t}$	3850	20.4772	1.7382	17.7378	18.9603	20.3308	21.9712	23.6805

Panel F: P-values of the difference of the mean and median of public firms

	$ETR_{i,t}$	$ROA_{i,t}$	$LEV_{i,t}$	$PPE_{i,t}$	$INTANG_{i,t}$	$SIZE_{i,t}$
<i>mean</i>	0.0324**	0.1186	0.4612	0.2254	0.0000***	0.0000***
<i>median</i>	0.0001***	0.0018***	0.0443**	0.1410	0.0000***	0.0000***

This table provides the descriptive statistics of private family and nonfamily firms and public family and nonfamily firms. Also, the t-test is used to test the difference in means and medians. FAMILY is a dummy variable which has a value of one if the firm is a family firms and zero otherwise. PRIVATE is a dummy variable which has a value of one if the firms is a private firm and zero otherwise if it is a public firm. The ETR is the effective tax rate measured as the total tax expense divided by the pre-tax income. The ROA is the return on assets measured as the net income scaled by total assets. Lev is the leverage which is measured as the long-term debt scaled by the total assets. The PPE is the property plant and equipment which is measured as the tangible fixed assets scaled by total assets. The INTANG is the intangible assets which are scaled by total assets. SIZE of a firm is measured as the natural logarithm of the total assets. All variables are winsorized at a 1% and 99% level. ***/**/* represents the significance level at 1/5/10% significance level.

4.2. Correlation matrix

Table 7 provides the Spearman correlation matrix above the diagonal line and the Pearson correlation matrix below the diagonal line. All correlations significantly differ from zero at a 1% significance level, except the correlation between PRIVATE and ETR (Pearson). According to both matrixes FAMILY and ETR are negatively correlated. Private ownership is positively correlated with ETR (Spearman). This implies that family firms have a greater level of tax aggressiveness and private firm have a lower level of tax aggressiveness. Furthermore ROA, LEV, PPE and SIZE are negatively correlated with ETR according to both the spearman and Pearson correlation matrix. On the other hand, INTANG is positively related to ETR. A lower the ETR implies that a firm has a greater level of tax aggressiveness as it engages more in tax management in order to pay less taxes.

Table 7: Correlation matrix.

Correlation matrix for key variables. Spearman (Pearson) correlations are shown above (below) the main diagonal								
	$ETR_{i,t}$	$FAMILY_{i,t}$	$PRIVATE_{i,t}$	$ROA_{i,t}$	$LEV_{i,t}$	$PPE_{i,t}$	$INTANG_{i,t}$	$SIZE_{i,t}$
$ETR_{i,t}$		-0.2132 (0.000)	0.0048 (0.000)	-0.0624 (0.000)	-0.0332 (0.000)	-0.0321 (0.000)	0.2129 (0.000)	-0.0280 (0.000)
$FAMILY_{i,t}$	-0.1743 (0.000)		0.0690 (0.000)	-0.0337 (0.000)	-0.0717 (0.000)	-0.1903 (0.000)	-0.3975 (0.000)	-0.1495 (0.000)
$PRIVATE_{i,t}$	0.0021 (0.1406)	0.0690 (0.000)		0.0157 (0.000)	-0.0391 (0.000)	-0.0573 (0.000)	-0.0730 (0.000)	-0.0726 (0.000)
$ROA_{i,t}$	-0.1414 (0.000)	0.0287 (0.000)	0.0225 (0.000)		-0.0989 (0.000)	0.0683 (0.000)	0.0557 (0.000)	-0.0755 (0.000)
$LEV_{i,t}$	-0.0152 (0.000)	-0.0723 (0.000)	-0.0095 (0.000)	-0.1266 (0.000)		0.3135 (0.000)	0.1183 (0.000)	0.0374 (0.000)
$PPE_{i,t}$	-0.0398 (0.000)	-0.1792 (0.000)	-0.0514 (0.000)	-0.0806 (0.000)	0.2768 (0.000)		0.2003 (0.000)	0.0248 (0.000)
$INTANG_{i,t}$	0.1007 (0.000)	-0.1819 (0.000)	-0.0183 (0.000)	-0.0255 (0.000)	0.0534 (0.000)	-0.0499 (0.000)		0.0945 (0.000)
$SIZE_{i,t}$	-0.0147 (0.000)	-0.1885 (0.000)	-0.1032 (0.000)	-0.0617 (0.000)	0.0453 (0.000)	0.0457 (0.000)	0.0331 (0.000)	

This table provides the Spearman (above) and Pearson (below) correlations. The P-value is shown in the parentheses. FAMILY is a dummy variable which has a value of one if the firm is a family firms and zero otherwise. PRIVATE is a dummy variable which has a value of one if the firms is a private firm and zero otherwise. The ETR is the effective tax rate measured as the total tax expense divided by the pre-tax income. The ROA is the return on assets measured as the net income scaled by total assets. LEV is the leverage which is measured as the long-term debt scaled by the total assets. The PPE is the property, plant and equipment which is measured as the tangible fixed assets scaled by total assets. The INTANG is the intangible assets scaled by total assets. SIZE of a firm is measured as the natural logarithm of the total assets. All variables are winsorized at a 1% and 99% level.

4.3. Regression

Table 8 provides the results of the OLS regression. The coefficient of the FAMILY variable (0.0148) is positive and significant. This indicates that the ETR is 1.48% greater for family firms. The coefficient of PRIVATE ownership (0.0158) is positive and significant implying that the ETR tends to be higher when a firm is a private firm. However, when a private firm happens to be a family firm, the ETR is lower. The coefficient of the interaction term of the PRIVATE and FAMILY variable (-0.0354) is negative and significant. This implies that private family firms spend 3.54% less on taxes. The coefficients of ROA, LEV and PPE are significant and negative, and the coefficient of INTANG is positive and significant at a 1% significance level.

The first hypothesis stated that family firms are less tax aggressive in accordance with Chen et al. (2010). Similar results can be found in this paper. The results show that family firms have a higher ETR, which implies that they are indeed less tax aggressive. Therefore, sufficient evidence is found to accept H1. Furthermore, the second hypothesis stated that private firms are less tax aggressive and the third hypothesis stated that private firms are more tax aggressive. According to the results, PRIVATE ownership is positively associated with the ETR. This implies that firms pay 1.58% more in taxes when they are privately owned. This suggests that private ownership reduces the level of tax aggressiveness. Therefore H2 is accepted and H3 is rejected.

On the other hand, the coefficient of the interaction term is negative and significant. As ETR decreases, the level of tax aggressiveness increases. These results indicate that family ownership combined with private ownership leads to greater levels of tax aggressiveness. These results are very surprising as it was initially expected that private family firms would be even less tax aggressive. Surprisingly, a private firm which also happens to be a family firm pays 3.54% less taxes implying that private family firms are more tax aggressive.

Table 8: *The relation between family and private ownership on tax aggressiveness.*

OLS Regression: $ETR_{i,t} = \beta_0 + \beta_1 FAMIL Y_{i,t} + \beta_2 PRIVATE_{i,t} + \beta_3 PRIVATE * FAMIL Y_{i,t} + \beta_4 ROA_{i,t} + \beta_5 LEV_{i,t} + \beta_6 PPE_{i,t} + \beta_7 INTANG_{i,t} + \beta_8 SIZE_{i,t} + i. Year + i. Industry + i. Country + e_{i,t}$

<i>ETR_{i,t}</i>		
<i>Intercept</i>	0.0578	***
<i>FAMILY firm indicator</i>	0.0148	***
<i>PRIVATE ownership</i>	0.0158	***
<i>PRIVATE * FAMILY</i>	-0.0354	***
<i>ROA_{i,t}</i>	-0.1270	***
<i>LEV_{i,t}</i>	-0.0245	***
<i>PPE_{i,t}</i>	-0.0049	***
<i>INTANG_{i,t}</i>	0.0986	***
<i>SIZE_{i,t}</i>	-0.0002	
<i>Year dummies</i>	YES	
<i>Industry dummies</i>	YES	
<i>Country dummies</i>	YES	
<i>Adj. R-squared</i>	17.27%	

This table provides the results of the OLS regression. The sample consists of 498,076 firm observations from 2014-2018. FAMILY is a dummy variable which has a value of one if the firm is a family firms and zero otherwise. PRIVATE is a dummy variable which has a value of one if the firms is a private firm and zero otherwise if it is a public firm. The ETR is the effective tax rate measured as the total tax expense divided by the pre-tax income. The ROA is the return on assets measured as the net income scaled by total assets. Lev is the leverage which is measured as the long-term debt scaled by the total assets. The PPE is the property plant and equipment which is measured as the tangible fixed assets scaled by total assets. The INTANG is the intangible assets which are scaled by total assets. SIZE of a firm is measured as the natural logarithm of the total assets. Year, country and industry dummies are included to control for year, country and industry fixed effects. All variables are winsorized at a 1% and 99% level. ***/**/* represents the significance level at 1/5/10% significance level.

5. Conclusion

5.1. Conclusion

This paper aims to examine how private and family ownership affect the level of tax aggressiveness of firms. This research examined whether private family firms are less tax aggressive compared to private nonfamily firms. Also, it examined whether private family firms are more or less tax aggressive compared to public firms. Firms spend a significant amount on taxations. Tax avoidance can help firms to decrease the effective tax rate in order to increase their net income. On the other hand, firms also fear the risk of reputational damage and potential penalties. It is examined how private and family ownership affects the tradeoff between the benefits and costs of tax management.

Tax aggressiveness of public and private firms is a relatively understudied area in literature. A few studies argued that private firms are more likely to benefit more from tax havens, shift income to low-tax countries and engage in higher levels of earnings management (Beuselink, et al., 2015; Jaafar and Thornton, 2015; Cloyd et al., 1996; Burgstahler, et al., 2006). On the contrary, research also found that public firms are more tax aggressive and engage in higher levels of earnings management (Pierk, 2016; Beatty and Harris, 1999; Kim and Yu, 2006).

This thesis aims to contribute to the literature by examining whether family firms are more or less tax aggressive than nonfamily firms. This paper provides more insight on the effect of private and family ownership on the level of tax aggressiveness. Furthermore, it complements existing literature and provides interesting new insights. The differences between public and private, and family and nonfamily firms regarding tax aggressiveness had not been studied much and is an understudied field in literature.

The sample consists of 498,076 firm observations from 2014-2018. The research is conducted following the research model of Chen et al. (2010). This model helps to examine how private and family ownership effects the ETR, which shows aggressive tax management through permanent book-tax differences. Family ownership is measured as a dummy variable which has the value of one if the firm is a family firm and zero otherwise. Private ownership is measured as a dummy variable which has the value of one if the firm is a private firm and zero otherwise. When a firm has a lower ETR, the level of tax aggressiveness is greater.

The results show that private ownership is positively associated with ETR, which implies that family firms are less tax aggressive. Furthermore, evidence shows that the ETR is greater when a firm is a private firm, which implies that private firms are less tax aggressive compared to public firms. However, private firms are more tax aggressive when they also happen to be family firms. This is very surprising as previous literature argued that family firms tend to be less tax aggressive (Chen et al., 2010; Steijvers and Niskanen, 2014; Sánchez-Marín et al., 2016). It was expected that private family

firms would be less tax aggressive as they were expected to be more concerned with reputational damage, penalties and face more pressure from a small group of shareholders.

The results show that firms are more tax aggressive when they happen to be private family firms. This is interesting for stakeholders as private and family ownership combined is an indicator that a firm is more likely to engage in tax management. Shareholders should pay more attention to their management in order to prevent them from engaging in tax management which could lead to penalties and reputational damage. Also, government should pay more attention to private family firms in order to prevent losses in their gains from taxations.

5.2. Limitations and recommendations for further research

This research has several limitations. Firstly, financial information for private firms is not always available. Because of this, the market-to-book ratio (MB), foreign income (FI), equity income in earnings (EQINC) and cash ETR (CETR) could not be controlled for and they are not included in the regression. The MB controls for firm size and growth, but this control variable could not be included due to unavailable data. Previous research on tax aggressiveness at public firms (Chen et al. 2010) also complemented their studies by also including CETR as a dependent variable to see how the cash taxes paid are affected. This was not possible in this paper as cash taxes paid was not available for private firms in the database.

Secondly, the variable FAMILY is based on assumptions. It is assumed that a firm is a family firm if at least 50% of the shareholders are private shareholders, one or more named individuals or families. However, it is possible that a firm is considered a family firm even though the shareholders are not related by blood. Future research should manually check whether firms are actually family firms.

Thirdly, this study focused on firms in the European union. The results might not be applicable for non-European firms as tax behavior might be significantly different. For example, this could be due to cultural differences between western and non-western culture. Further research could examine how family and private ownership influences the level of tax management in non-European countries and whether there is a significant difference in tax aggressiveness.

Fourth, the sample composition is not equally distributed. While 99.1% of the sample consists of private firms, only 0.9% consist of public firms. The sample for public family firms is also relatively very small with only 624 observations. Further research could use a sample which is more equally distributed. Furthermore, it would be interesting if future research examines whether the level of tax aggressiveness is affected differently if the CEO happens to be a family member or if management consists of family members.

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