

**UNIVERSITE D'AIX-MARSEILLE**  
**INSTITUT D'ADMINISTRATION DES ENTREPRISES**  
**AIX-MARSEILLE GRADUATE SCHOOL OF MANAGEMENT**

**École Doctorale des Sciences Économiques et de Gestion**  
**Centre D'Études et de Recherche en Gestion d'Aix-Marseille**

Thèse présentée pour obtenir le grade universitaire de docteur

Discipline : Sciences de Gestion

**Joseph ABDEL NOUR**

**The Effect of Employee Ownership on Audit Fees, Auditor  
Independence and Earnings Management**  
**Evidence from France**

Soutenue le 07/04/2020 devant le jury :

<b>Nicolas AUBERT</b>	Professeur	Aix-Marseille Université IAE-AMGSM	Directeur de thèse
<b>Domenico CAMPA</b>	Professeur	International University of Monaco	Co-Directeur de thèse
<b>Yves MARD</b>	Professeur	Université Clermont Auvergne IAE – School of Management	Rapporteur
<b>Anne STEVENOT</b>	Professeur	Université de Lorraine ISAM-IAE NANCY	Rapporteur
<b>Walid BEN AMAR</b>	Professeur	University of Ottawa Telfer School of Management	Suffragant



*To my family,*



# Acknowledgment

The PhD process has been a life changing experience for me on different levels and would not have been possible to achieve without the help and support that I have received from many persons.

In the beginning, I would like to express my sincere gratitude to my PhD supervisor Professor Nicolas Aubert for his constant support, availability and care during all the steps of my doctoral curriculum. *Nicolas, ton humanité fait de toi l'une des personnes les plus inspirantes et aimables que j'ai eu la chance de rencontrer. Merci pour ta bienveillance et ton soutien tout au long de ma thèse.*

Many thanks also to my co-director Professor Domenico Campa for his persistent guidance and directions throughout my PhD. *Domenico, thank you for sharing with me your knowledge and for being the perfectionist that you are, allowing me to regularly improve my work.*

Apart from my supervisors, I would also like to address my acknowledgments to Professors Anne STEVENOT, Yves MARD and Walid BEN AMAR for doing me the honor of participating in my PhD jury and evaluating my work.

I am also sincerely thankful to Professors Xavier HOLLANDTS and Sebastien LAURENT for taking part of my PhD committee for two years and for giving me all the feedbacks, advice and for taking the time to evaluate my work.

I am also pleased to thank the FNEGE association for allowing me to participate in the CEFAG 2018 program, along with all the contributors to this experience, including my fellow PhD students and the professors, mainly Professors Isabelle MARTINEZ and Hervé LAROCHE. I am similarly grateful to the CIRANO lab members who provided me with all the facilities during my research stay and particularly to Professor Michel MAGNAN who

presented this wonderful enriching experience and provided numerous feedbacks and advices on my research work.

Additionally, I would like to thank the Doctoral School—ED372— for the doctoral contract and resources that allowed me to complete this work. And I won't forget to recognize the assistance provided by all of Bachelor and Masters teachers, especially Professors Véronique COVA, Pierre-Xavier MESCHI, Emmanuelle REYNAUD, Olivier ROQUES and Eric TAFANI for giving me the tools to complete this PhD work. I am also very thankful to all the staff in IAE, CERGAM and the Doctoral School, particularly Mrs. Marie LAVIRON and Mrs. Fabienne PAUL for their constant help and assistance in all the formal procedures and for their infinite kindness.

I would always remember every single one of my friends for their continuous encouragement, the stimulating discussions and all the fun that helped me get through the PhD, particularly my PhD mate Zahid, my brothers Nabil and Wassim, my friends from back home who have regularly checked up on me (mainly Khaled, Alanah, Bob, Dana, Dory, Elie, Elio, Joe, Pya, Ray, Sarah, Tina ...), my lab-mates and day-to-day friends (Particularly Anthony, Béné, Imane, JD, Marine, Mo, Nada, Pauline, Thibault, Yasmine and Zonaib), and the amazing people I met in the wonderful Aix en Provence (specifically Céline, Elodie, Lina, Malek, Murielle, Shirine).

Last but not least, I am infinitely grateful to my parents, Colette and Najib, my sister, Marie-Thérèse, for their faith in me which allowed me to persevere and reach my ultimate capacities, and for their unmeasurable moral and financial support throughout my life. I am also extremely thankful to my whole family particularly Sr. Bacima, Joe, Violette, Bero, Anthony and all my aunts, uncles and cousins who always believed in me and constantly prayed for me and checked up on me, motivating me to move forward. To every single person in my family, *I can never thank you enough.*

# Abstract

Employee Share Ownership (ESO) refers to a compensation practice through which an employee's wealth is directly tied to their companies'. It provides their representation in the board of directors and has several effects on the individual, corporate and macroeconomic levels. This doctoral thesis discusses the effects of employee ownership on accounting and audit practices in France, the country that has the most developed ESO in Europe. The first chapter provides a general introduction to ESO schemes and other shared capitalism arrangements in France and in the world. The second chapter focuses on agency costs and audit fees, and finds a negative U-shaped relationship between ESO and both variables. It indicates that ESO aligns the interests of employees with those of shareholders, but also acts as a managerial entrenchment mechanism. The third chapter finds that ESO reassures the company's stakeholders about the auditor's independence and allows managers to benefit from their auditor's joint-engagement benefits by purchasing more non-audit services. The fourth chapter studies earnings management through discretionary accruals and reveals that earnings management in France is rather used opportunistically by managers. It also finds that ESO helps decreasing the manipulation of earnings and reduces the opportunism of the discretionary accruals. The final chapter summarizes the thesis' results and presents its contributions and limitations. This doctorate dissertation contributes to research on corporate governance by studying ESO's effect on agency costs from several perspectives.

**Keywords:** Shared Capitalism, Employee Share Ownership, Audit Fees, Non-Audit Service Fees, Earnings Management, Discretionary Accruals, Agency costs, Information Asymmetry, Managerial Entrenchment.

# Résumé

L'Actionnariat Salarié (AS) est une composante de rémunération qui permet de relier le patrimoine personnel du salarié à celui de l'entreprise. Il assure leur représentation dans le conseil d'administration, ce qui génère des effets sur plusieurs niveaux : individuel, organisationnel et macroéconomique. Ce travail doctoral examine les effets de l'AS sur les pratiques de comptabilité et audit en France, pays où l'AS est le plus développé en Europe. Le premier chapitre introduit les plans d'AS et les autres plans de participation des salariés en France et dans le monde. Le second chapitre étudie les coûts d'agence et les honoraires d'audit. Il montre une relation en U inversé entre l'AS et ces deux variables, indiquant que l'AS a un double effet : l'alignement des intérêts et l'enracinement des dirigeants. Le troisième chapitre montre que l'AS rassure les parties prenantes sur l'indépendance de l'auditeur. Il permet notamment aux dirigeants de profiter des bénéfices liés à un double engagement (audit et non-audit) et d'acquérir plus de services non-audits. Le quatrième chapitre révèle que la gestion des résultats par les managers en France, à travers les *accruals* discrétionnaires, est plutôt utilisée de manière opportuniste. L'étude démontre aussi que l'AS réduit la manipulation opportuniste des résultats et le taux d'opportunisme des *accruals*. Le dernier chapitre présente une conclusion de la thèse et synthétise les résultats, les contributions et les limites de la recherche. Cette thèse de doctorat contribue à la littérature sur la gouvernance d'entreprise, en examinant l'effet de l'AS sur les coûts d'agence à travers divers prismes.

**Mots clés:** Participation des Salariés, Actionnariat Salarié, Honoraires d'Audit, Services Non-Audit, Gestion des Résultats, *Accruals* Discrétionnaires, Coûts d'agence, Asymétrie d'informations, Enracinement des Dirigeants.



# **Table of Contents**

# Table of Contents

<i>Acknowledgment .....</i>	<i>5</i>
<i>Abstract .....</i>	<i>7</i>
<i>Résumé.....</i>	<i>8</i>
<i>Table of Contents.....</i>	<i>10</i>
<b>1. General Introduction.....</b>	<b>13</b>
1.1. Shared Capitalism.....	13
1.2. Employee Share Ownership around the World .....	24
1.3. Employee Share Ownership in France.....	29
1.4. Employee Ownership: Inducements and Outcomes .....	38
<b>2. Employee Share Ownership, Agency Costs and Audit Fees.....</b>	<b>46</b>
Abstract.....	46
2.1. Introduction.....	47
2.2. Literature Review .....	51
2.3. Methodology .....	56
2.4. Results .....	62
2.5. Conclusion .....	75
2.6. Annex .....	77
<b>3. Employee Share Ownership and Auditor Independence .....</b>	<b>82</b>
Abstract.....	82
3.1. Introduction.....	83
3.2. Literature Review .....	86
3.3. Methodology .....	91
3.4. Results and discussions.....	95
3.5. Conclusions.....	106
3.6. Annex .....	109
<b>4. The Type of Earnings Management in France and the Effect of Employee Share Ownership.....</b>	<b>113</b>
Abstract.....	113
4.1. Introduction.....	114
4.2. Literature Review and Hypothesis Development.....	116
4.3. Research Methods and Measurement of Variables .....	125
4.4. Results .....	134
4.5. Conclusion .....	147

4.6.	Annex .....	150
5.	<i>General Conclusion</i> .....	154
5.1.	Main Findings.....	154
5.2.	Main Contributions of the Research .....	159
5.3.	Limitations of the Research and Future Research.....	163
6.	<i>Bibliography</i> .....	167
7.	<i>Annexes</i> .....	191
	Annex 1: List of the Main Regression Models.....	191
	Annex 2: Heteroscedasticity Tests .....	192
	Annex 3: Hausman Tests .....	194
8.	<i>Appendix</i> .....	196
	New Features of Labor Participation in France in 2019 .....	196
	<i>Table of Figures</i> .....	201
	<i>Table of Tables</i> .....	203
	<i>Table of Contents</i> .....	206

# **Part I:**

# **General Introduction**

# 1. General Introduction

## 1.1. Shared Capitalism

“Who owns the robots rules the world” (Freeman, 2015)<sup>1</sup>. The development of robots and machines is facilitating work tasks and increasing corporate productivity. Nevertheless, it is gradually replacing workers, reducing job opportunities and even decreasing employees’ salaries. With an increasingly high job automation risk across the globe (OECD, 2019), the world is headed to an economy controlled and owned by a limited number of investors who own these machines<sup>2</sup>. Additionally, current employees are in the risk of a jobless future and might end up without any capital to hold on to. Freeman argues that one of the most important tools that can transform worldwide economies and save many workers’ wealth is neither implemented nor discussed extensively enough. This tool is “Shared Capitalism”, which consists of sharing the wealth of companies with the employees. With employees owning parts of their companies’ shares or obtaining portions of the profits, they would not decrease the risk of job automation, but they would benefit from the success of their firms. Otherwise, human labor will be completely substituted by machines and robots, and the world might be entering a chapter of a human-free workplace.

Several disciplines in the field of management sciences have studied shared capitalism plans, evaluated their implementations and effects. For instance, research in Human Resources Management studied how shared capitalism plans improve employees’ satisfaction, motivation, attitude, training, attachment and commitment to their company

---

<sup>1</sup> Freeman defines robots as “any sort of machinery from computers to artificial intelligence programs that provides a good substitute for work currently performed by humans”.

<sup>2</sup> The OECD’s annual report on jobs and employment in OECD countries estimates that 14% of jobs are at high risk of automation and that 32% could be radically transformed.

(Kruse et al., 2010a; Pendleton, 2006). In Finance, shared capitalism plans have been linked to an increased financial performance and valuation of the company, resulting from an improved individual performance due to the increased employee satisfaction (Ginglinger et al., 2011; O’Boyle et al., 2016). From a Corporate Governance approach, shared capitalism has been linked to managerial entrenchment (Park & Song, 1995), modification in the managers reward schemes, protection from hostile takeover and transformation in the company’s overall goals (Aubert et al., 2014; Kim & Ouimet, 2011). This thesis focuses on a discipline that has been ignored by previous research in management sciences research on shared capitalism: Accounting and Auditing. It firstly evaluates how shared capitalism can affect agency costs by evaluating the effort made by the external auditor during their mission (Essay 1). Secondly, it studies if shared capitalism plans affect the relationship between the external auditor and the audited company by assessing the independence of the auditor (Essay 2). And finally, it examines the accounting behavior of management by studying the nature of earnings management and how shared capitalism can affect the discretionary accruals used by managers either opportunistically or to communicate information with outside shareholders (Essay 3).

### **1.1.1. The Definition of Shared Capitalism**

Shared capitalism is a variety of arrangements that link the gain or wealth of the employees to the performance of the company they work at (Freeman et al., 2010). This link includes both, the returns (profits) and the risks (losses). Its purpose is straightforward, increasing the performance of employees, by sharing the companies’ successful returns with them. Managers find this idea attractive, stating that by giving financial incentives to employees, firms perform better (Caramelli, 2011). However, these arrangements also present some drawbacks—like the free riding incentive (Freeman et al., 2008) and the “pay at risk”

(Freeman et al., 2010, p. 5), which will be discussed in a subsequent paragraph—and therefore, should be implemented in a way that overcomes them, otherwise, any employee participation in gains would go to waste, as it would not help in aligning the interests of the company and employees.

Shared capitalism offers the employees rewards for their company's success (Freeman et al., 2010). Martin Weitzman's model of the share economy (1984) argues that a shared capitalism economy would have lower unemployment levels and a greater stability at the macroeconomic level. The model compares the share of profits distributed to the employees to the salesperson's commissions; just as employing more sales workers increases the total sales, shared capitalism companies should employ as many workers as possible to increase their profits. It assumes that companies should increase the employment opportunities in order to increase their sales and profits, which would have many macroeconomic effects, specifically an employment stability (Blasi et al., 2003). Although Weitzman's theory has received some support at a corporate level<sup>3</sup>, the theory is complex to study at the macroeconomic level, as it needs to compare a shared capitalism economy to an economy without any shared capitalism firms (Kruse et al., 2010a).

### **1.1.2. Different Forms of Shared Capitalism**

Freeman (2008) lists the four most common arrangements that link the firms' and employees' risks and rewards: Profit sharing, gain sharing, employee stock ownership (ESO),

---

<sup>3</sup> Kruse (1998) reviews twelve studies examining the effect of profit-sharing plans on employment stability in several companies. Half of these studies showed a significantly greater employment stability in profit-sharing companies; four found a significant effect in some but not in all the studied samples, while only two studies found little or no significant effect of employment stabilization with profit sharing plans.

and broad-based stock options. Noting that shared capitalism excludes individual performance-based pay, such as bonus and commission schemes.

1. Profit sharing: A system that shares the company's profits with its employees, either by yearly bonuses or by what is known as "deferred profit sharing" i.e., a retirement plan for each employee. It is the most common shared capitalist mode of pay, as is it the easiest to implement

2. Gain sharing: This system is similar to profit sharing, but is based on the performance and productivity of their departments/units and not the results of the whole company. Non-profit organizations can implement gain-sharing with employees, but cannot use profit sharing, for example.

3. Employee share ownership (ESO): It refers to the full or partial ownership of a company by some of its employees, generally through formal plans prepared by the employer. Countries often offer tax incentives to encourage ESO. The main vehicle of ESO in France is the company savings plan (Plan d'Epargne Entreprise), which will be presented in a subsequent chapter. In the United States, ESO is mainly streamered by the Employee Share/Stock Ownership Plans (ESOP) that allow firms to borrow money to fund employee ownership and the Employee Stock Purchase Plans (ESPP) in which company stocks are offered to employees at a discounted price.

4. Broad-based stock options: "A hybrid between profit sharing and employee ownership" (Freeman, 2008, p. 4); workers are offered stock options under profit sharing plans. Employees, with a stock option at hand, can purchase a stock at a fixed price during a time frame, even if the market stock price increases.

Governments of all developed countries have been impressed by shared capitalism, have promoted it, and even made some profit sharing obligatory, or have offered financial



incentives to firms implementing shared capitalism plans (Freeman, 2008). For instance, in France, profit sharing is mandatory for every company with at least 50 employees since 1966<sup>4</sup>. The law keeps profit-sharing plans optional for companies with fewer than 50 employees, but offers them tax exemptions for the sums shared with employees, encouraging the employment of these plans. The USA offers tax privileges on Employee Stock Ownership Plan (ESOP)—which allows firms to borrow money to fund employee ownership, allowing workers to own stocks without investing their own wealth—to favor their implementation amongst US companies<sup>5</sup>.

### **1.1.3. The Positive Outcomes of Shared Capitalism**

Shared Capitalism arrangements are being implemented and studied by a continuously increasing number of companies, economists, and governments, mainly in the Western World, in countries like the USA, the UK, France and Italy. They have been mentioned in ex-US President Barack Obama's speeches, and are of significant importance in Great Britain, where the "National Employee Ownership day" is celebrated on the last Friday of June.<sup>6</sup>

Extant research, represented by a growing number of articles, theses, reports and books, has shown that shared capitalism is associated with several benefits for firms, employees, managers, and the country's economy overall (Kaarsemaker, 2006), such as reduced employee turnover (Kruse et al., 2012), increase in employees' loyalty (Blasi et al., 2013; Gladden, 1888), job security (Park et al., 2004), productivity (Robinson & Wilson, 2006), satisfaction (Hallock et al., 2004), cooperation (Barney, 1990b) and motivation (Pierce et al., 1991) resulting in an increased financial performance of the company (Kruse, 2002;

---

<sup>4</sup> As per the article number 3322-2 of the French labor code.

<sup>5</sup> <https://www.nceo.org/articles/esop-employee-stock-ownership-plan>

<sup>6</sup> <https://www.employeeownership.co.uk/events/eo-day/>

O'Boyle et al., 2016), and making the firm more attractive to talents and investments (Pendleton, 2006), which improves the whole economy, given that shared capitalism is offered as an extra reward for employees, on top of their fixed salaries, and not as a replacement of their basic income (Carberry, 2011a). It would then help creating a productive, stable, innovative and efficient environment inside the company.

Practices of shared capitalism vary widely between countries, companies, and even inside the companies. Studies have aimed towards understanding the behavior of employees in response to these different forms of shared capitalism, and the outcomes of these arrangements for the companies implementing them. Though the applications and consequences diverge in each case, some results, concerning the employees' behavior, have been proven solid for most shared capitalism plans. For instance: A lower employee turnover rate, an increasing loyalty and pride, a higher productivity, a greater concern about the company's performance, an improved payroll for the workers, and a healthier employer-employee relationship.

- Lower Employee Turnover Rate: Employees participating in shared capitalism arrangements are more willing to stay with the say company, and search less often for other job opportunities, compared to other employees. (Blasi et al., 2016; Buchko, 1992).

- Increasing loyalty and pride: Even if these arrangements fail to increase the company's performance or the employees' productivity, the employees have great pride in having their wages linked to the company's results, which increases their self-esteem by invoking every worker as a crucial element of the enterprise, and creating a special attachment between the two parties. (Blasi et al., 2010a; McNabb & Whitfield, 1998).

- Higher productivity: Having their payroll depending on the company's performance, has an immediate consequence of increasing someone's motivation to work

harder, helping the company succeed more and become more profitable. (Kim & Ouimet, 2014; Sesil et al., 2007).

- Greater concern about the company's performance: Shared capitalism encourages employees to make more suggestions that aim to improve the company's performance. The number of suggestions made by employees is a major indicator for the concern and loyalty of the employees towards their firms. Additionally, companies with shared capitalism arrangements, usually have a higher tendency to take the workers' suggestions into consideration. (Blasi et al., 1996; Dube & Freeman, 2010).

- Better payroll: One of the most important features of shared capitalism is that its arrangements do not substitute the employees' basic wages, but is a complement, which increases the worker's payroll. Therefore, employee ownership and profit sharing plans have a significant positive impact on the beneficiary's wealth. (Freeman et al., 2010; Handel & Levine, 2004).

- Healthier employer-employee relationship: The increased loyalty and decreased turnover in the company, create a meaningful attachment between the employees and the firm, allowing the latter to invest more in the former (training, job security...) and trust them (less supervision, more participation in decision taking...) (Blasi et al., 2010a; Brown & Sessions, 2003).

Implementing shared capitalism plans is not a binary concept; the size/level of these plans makes a great difference and effect. When studying the effects of these arrangements, researchers never limit their studies to the comparison between the effects of implementing shared capitalism plans at work, and the consequences of these plans' absence. They rather evaluate the size and context of implementation. As an employee, being eligible for gain/profit sharing or having owned some stocks of the company, is associated with all the

points stated in the previous paragraph, and even more. But also, the magnitude of profit/gain sharing and the value of the stock owned or the potential stock option, apply even better conditions for the worker and the firm (Blasi et al., 2013). Moreover, the combination of several arrangements, improve the work conditions furtherly. It would have a larger effect than one individual arrangement by itself. Companies tend to combine different kinds of arrangements in a complementary approach. For instance, profit and gain sharing provide the worker with some immediate rewards (as soon as the company is profitable), while stock ownership and stock options improve the employee's wealth over a longer term. Hence, joining a profit-sharing program with an employee ownership plan, allows the employee to benefit from both, short—and long-term benefits, creating a much more important effect than that of an individual standalone program.

The positive outcomes of shared capitalism are not absolute. They surely do not solve all problems, and if implemented solely, do not generate the positive effects discussed above (Kim & Patel, 2017). They should be combined with other HR practices that allow employees to feel their importance in the company (Carberry, 2011b). Some of these practices might include extensive training, wide sharing of information, increased decision-making opportunities for employees (Berry & Schneider, 2011)... To get the best out of shared capitalism plans, employees need to be provided with a sense of ownership and control of the company (McCarthy et al., 2010). Whenever shared capitalism achieves its primary goal of aligning the employees' interests with those of the company (which increases the employees' motivation...), it creates an ideal environment that is economically productive, innovative, efficient and stable, based on the shared effort of all employees (Carberry, 2011a). It also offers employees financial remuneration every time the companies perform well, in addition to their wages, without replacing them; otherwise it would be much less interesting for employees to participate in these plans, as they are generally more risk averse and would

always prefer the safe monthly wage over the risky/uncertain outcome (Freeman et al., 2010; Kruse, 2016).

#### **1.1.4. Criticism and Negative Effects**

Critics of shared capitalism have constantly highlighted the disadvantages and negative effects of implementing these arrangements, for both the employees and the firms. They believe that workers are not better off with share ownership than without it, exposing them to the “pay at risk” (Freeman et al., 2010, p. 5), after linking the workers’ pay to the company’s performance. This shifts the risk from shareholders and the company, as a whole, to the employees working there (Aubert et al., 2017). They argue that these systems create an extra pressure on the employees, to work, rather than motivating them. However, shared capitalism promoters argue by saying that these plans never replace the employee’s initial wage, making the better performance a bonus rather than a pressure (Carberry, 2011a).

Another criticism widely used is the prospect of free riding (Freeman et al., 2008, 2010). It allows some employees to benefit from the extra effort made by their colleagues, rather than their own. Shared capitalism consists of plans that recompense the employee based on the performance of the whole company, or at least department (Kruse et al., 2010a). The plans do not reward the workers as per their individual performance. This generates the “free-riding” problem. The free-riding problem occurs when employees, who do not over-perform, are rewarded for the extra effort, made by other employees. For example, in a company of 10 employees, with profit-sharing plans implemented, one employee might be responsible for generating 100 extra Euros for the company in profits. These additional €100, would be distributed for all 10 employees, of whom 9, did not over-perform, and they may have only done their job, without any extra effort. In this case, 9 out of 10 employees got the remuneration of €10, for a job they did not do, and the person who over-performed, received

the same reward as those who did nothing. Criticizers state that because of free-riding, employees lose the motivation, and no one would over-perform, as everyone would be waiting for their colleagues to put extra effort, and the arrangements would fail to motivate any worker to work hard. Blasi et al. (2013) respond to these critics by saying that this exact same analysis states that no one should vote, recycle, do volunteer work or give money to charity ..., but for some reason, people do vote, recycle, volunteer and donate money to charity. This does not rule out the possibility of free-riding, but shows that some people would still put some extra effort, even if the compensation resulting from it will be shared with people who did not. However, one solution has been proven effective to counter free-riding. This solution is co-monitoring—in which employees assure that their colleagues are doing their share at work. It has proven to be a very efficient technique, since the fellow colleagues' monitoring is more effective than a manager supervising the work of a big team of employees (Freeman et al., 2008). Additionally, co-monitoring is crucial for employees who over-perform, and would prefer to disallow other employees “free-riding” on their effort.

Finally, shared capitalism plans are also regarded as a managerial entrenchment tool (Benartzi et al., 2007; Shivdasani, 1993). Pagano and Volpin (2005, p. 841) state that managers are “natural allies” and create these plans to protect the company from takeovers. For example, the existence of employee ownership plans is a protection tool for employees from worker layoffs that follow any takeover or merger. Moreover, they can, alongside managers, attempt to use their governance voice to maximize both their “contractual and residual claims, and that this often pushes corporate policies away from, rather than toward, shareholder value maximization” (Faleye et al., 2006, p. 489).

Even though research on shared capitalism is relatively conclusive, the understanding of all the cases, characteristics and implications of shared capitalism remains limited, especially when considering the constant increase in the number of companies using shared

capitalism plans, and increasing complexity of the arrangements and forms applied by firms. Measuring or estimating the overall shared capitalism arrangements is practically impossible, therefore, and similar to previous research, we focus on one particular form of shared capitalism in this dissertation, that is Employee Share Ownership (ESO), which will be presented and elaborated in the next chapter. More particularly, we emphasize employee ownership in French listed companies, and study how accounting and audit practices are affected by different levels of employee ownership.

## **1.2. Employee Share Ownership around the World**

Before examining the forms and numbers of employee share ownership in France—the context of this research—and develop the research questions, we review employee ownership around the world, mainly in some developed economies. Employee ownership studies have been limited to only a handful of countries. The vast majority of ESO studies emphasize the USA context, where ESO is very developed, while the remaining research mainly focuses on France, the UK and Japan. We start by discussing the case of Huawei, a model of an entirely employee-owned company that demonstrated that ESO plans can drive the firm to worldwide success. We then present the numbers of ESO plans and participants in the USA, the UK and Japan.

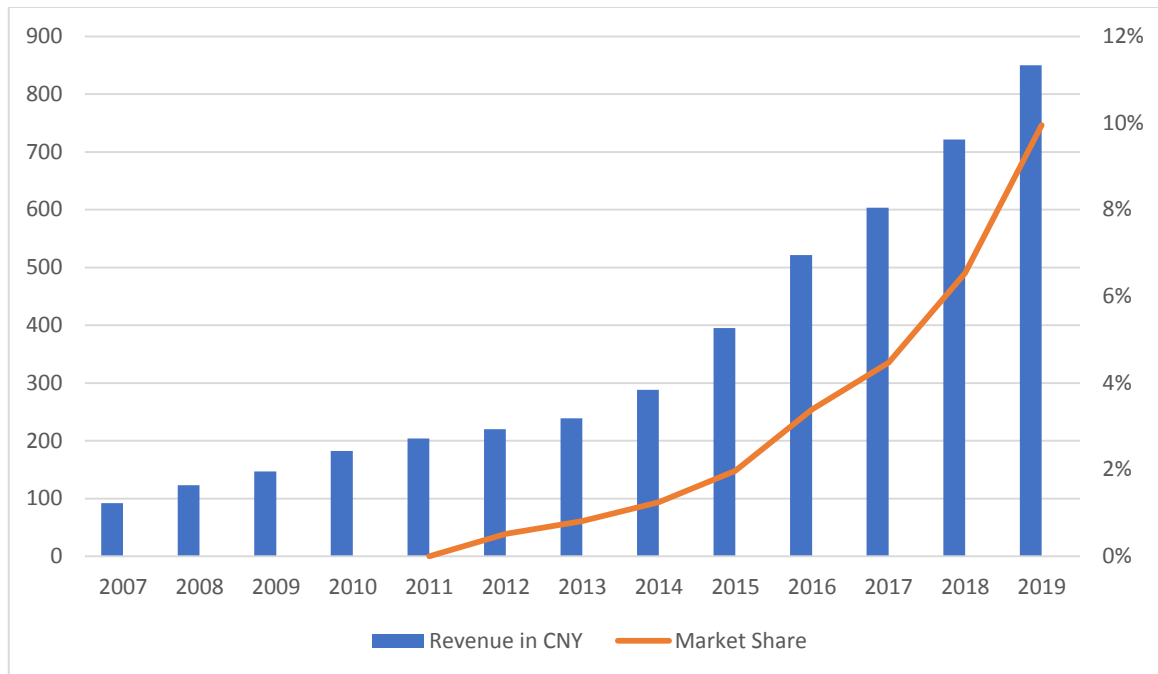
### **1.2.1. The Case of Huawei**

Huawei, a Chinese multinational company founded in 1987, is currently one of the world leaders in the information and communications technology industry. The company has been experiencing continuous growth in terms of sales and market share (Figure 1-1).

Three years after founding the company, Huawei's CEO and founder Ren Zhengfei designed and implemented an ESO program, and opted for a fully employee-owned firm. At the time, Huawei was encountering difficulties to find proper financing externally, as it was, and still is, a private company. The ESOP was solely a solution to the financing problems at first, as employees acquired 15% of its shares and had no voting rights. In 1997, the ESOP was restructured, aiming to shift the purpose from company financing to an employee incentive program. The share price was reduced for the company's employees and many inducements were given to the employees to maximize the incentive mechanism of the ESOP.



In 2001, Huawei turned to virtual stock options, which replaced the fixed dividends distributed to employees by dividends that are linked to the company's net assets (Zhu et al., 2013).



*Figure 1-1: Total Sales of Huawei in the last decade*

Sources: Huawei—Statistic.com/Huawei-revenue—Statcounter.com<sup>7</sup>

Today, while Zhengfei owns 1.14% of Huawei's shares, the company's 188,000<sup>8</sup> employees own the totality of the remaining 98.86% (Huawei, 2019). Huawei's official website links its rapid growth and success to their ESO program, stating that it differs from other publicly traded companies since the decisions of the company are not solely based on budgeted quarterly and annual returns and dividends. Huawei considers this ESO program a tool that increases the company's loyalty to its staff and helps attract talented employees.

Cremer and Tao (2015) explain that Huawei CEO Zhengfei employed an ESO plan that is based on two important principles. The first being the Confucian values of equality and

<sup>7</sup> 2019's ¥850 Billion revenues is a non-official estimation (Reuters, 2019).

<sup>8</sup> As per the end of 2018.

harmony between employees, which reduced wealth gaps between them. Zhengfei links employees' ownership of the company to their motivation to perform better and initiate more profitable projects, acting as entrepreneurs in their company. In the same time, this plan provides constant opportunities for all workers to increase their wealth. The second principle is a bonus scheme that employees are entitled to for their hard work. However, employees can receive bonus earnings on working overtime, only if the extra working hours are directly related to the customers' needs. This plan not only allows employees to increase their personal revenues, but also allows them to aim for an improved innovation and performance.

CEO Ren Zhengfei defends Huawei's ESOP and argues that this program is the reason for Huawei's success and advantage in the information and communications technology industry. He says that "Huawei belongs to its employees. If Huawei becomes bigger and creates more profit, employees will acquire benefits more from its ESOP and they will get huge motivation to work hard to enhance productivity" (Zhu et al., 2013).

Huawei is one of many examples of employee-owned companies around the world. John Lewis Partnership that occupies 25% of the department store retailers market share in the UK<sup>9</sup>, is 100% employee-owned. John Lewis tops the employee ownership top 50 largest businesses report (Employee Ownership Association, 2019) with total revenues of £11.7 bn. In the US, Publix Super Markets is one of many fully employee-owned companies. The Retail chain is ranked 12 on *Fortune* magazine's 2019 list of *100 Best Companies to Work For*<sup>10</sup>. Finally, in India, Amul became the world's 9<sup>th</sup> largest and its fastest growing dairy company by relying on an ESO program which gave the ownership of the organization to 3.6 million milk producers (Amul, 2018).

---

<sup>9</sup> <https://www.statista.com/statistics/784771/department-store-retailers-market-share-united-kingdom-uk/>

<sup>10</sup> <https://fortune.com/best-companies/>

### 1.2.2. ESO Numbers around the World

Employee Share Ownership is experiencing a period of considerable international growth, primarily in developed economies. For instance, in the United States of America the NCEO<sup>11</sup> uses data by the US Department of Labor and other sources to publish ESO-related statistics. The last study (NCEO, 2019) states that the number of ESOPs has grown to reach 6,624 plans in the USA as of 2016, covering more than 14.2 million participants and holding total assets of \$1.4 trillion (Figure 1-2). Additionally, a newly released survey by the Rutgers Institute for the Study of Employee Ownership and Profit Sharing found that 72% of Americans prefer working for an employee-owned company (Blasi & Kruse, 2019). Professor Joseph Blasi<sup>12</sup> analyzes these results by stating that “Americans disagree about a lot of things, but this is not one of them” and Professor Douglas Kruse<sup>13</sup> states that employee ownership provides greater job security as “employee share owners are six times less likely to be laid off” (Flamisch, 2019).

In the United Kingdom, a survey by the White Rose Employee Ownership Centre (WREOC) find that there were 370 employee-owned<sup>14</sup> companies by the end of 2018 and that more than 60% of these companies have become employee-owned since 2014 (Robinson & Pendleton, 2019). The survey also reveals that the number of employee-owned companies has increased by 17.2% and 18.5% in 2017 and 2018 respectively.

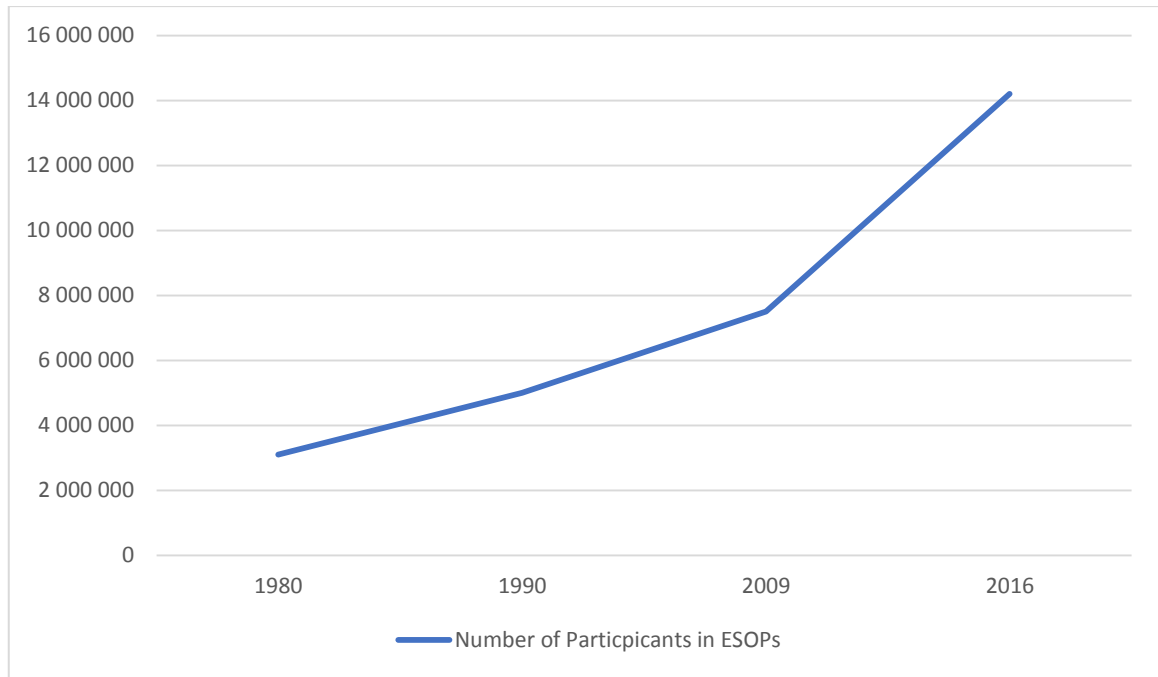
---

<sup>11</sup> National Center for Employee Ownership.

<sup>12</sup> Director of the Rutgers Institute for the Study of Employee Ownership and Profit Sharing.

<sup>13</sup> Former Senior Economist on the White House Council of Economic Advisers.

<sup>14</sup> The WREOC defines an employee-owned company as one where more than 25% of the shares are held by employees.



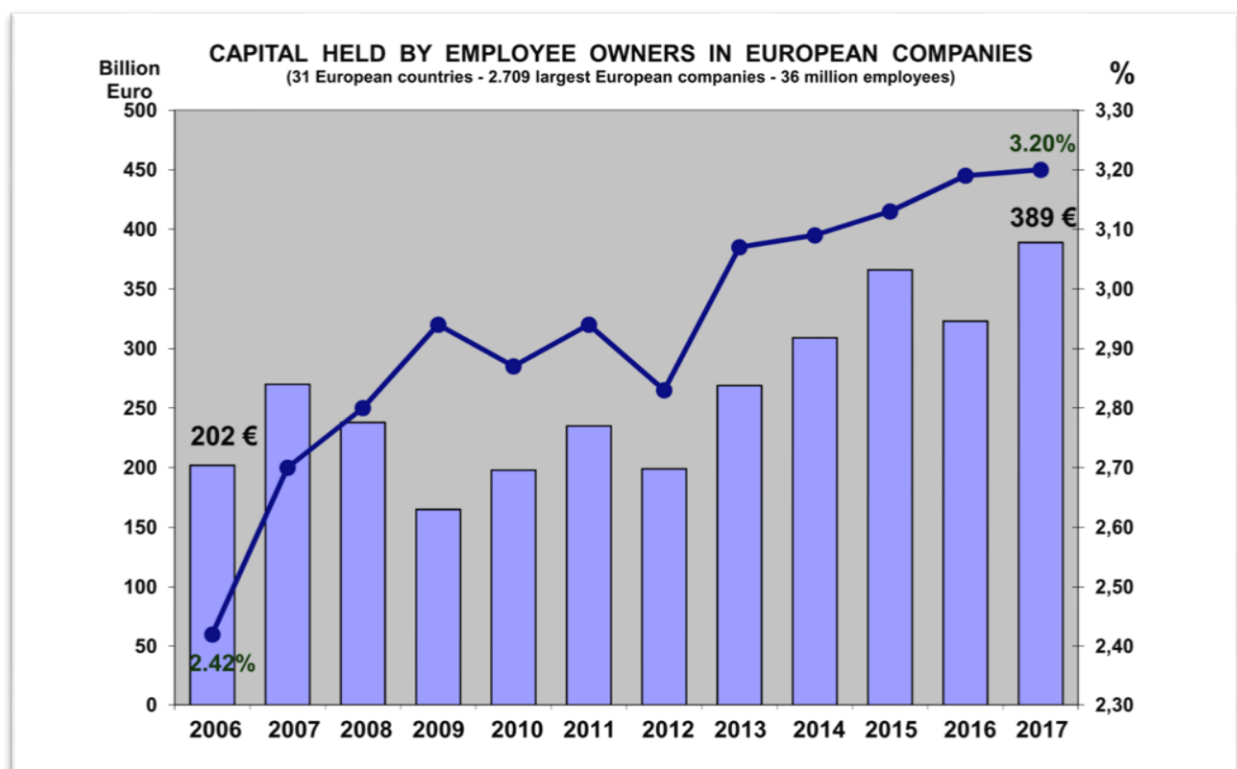
*Figure 1-2: Number of employees participating in ESOPs in the USA*  
*Source: NCEO (National Center for Employee Ownership)*

In Japan, The Nikkei 225, premier index of Japanese stocks, is encouraging more Japanese companies to implement ESOPs to reward and motivate employees (Nikkei, 2015). According to the Tokyo Stock Exchange (TSE), more than 91% of companies listed on TSE have ESO plans (Kato et al., 2016). ESO plans grew outstandingly in Japan's rapid growth era and withstood the Japanese lost decade (great recession) (Kato, 2003).

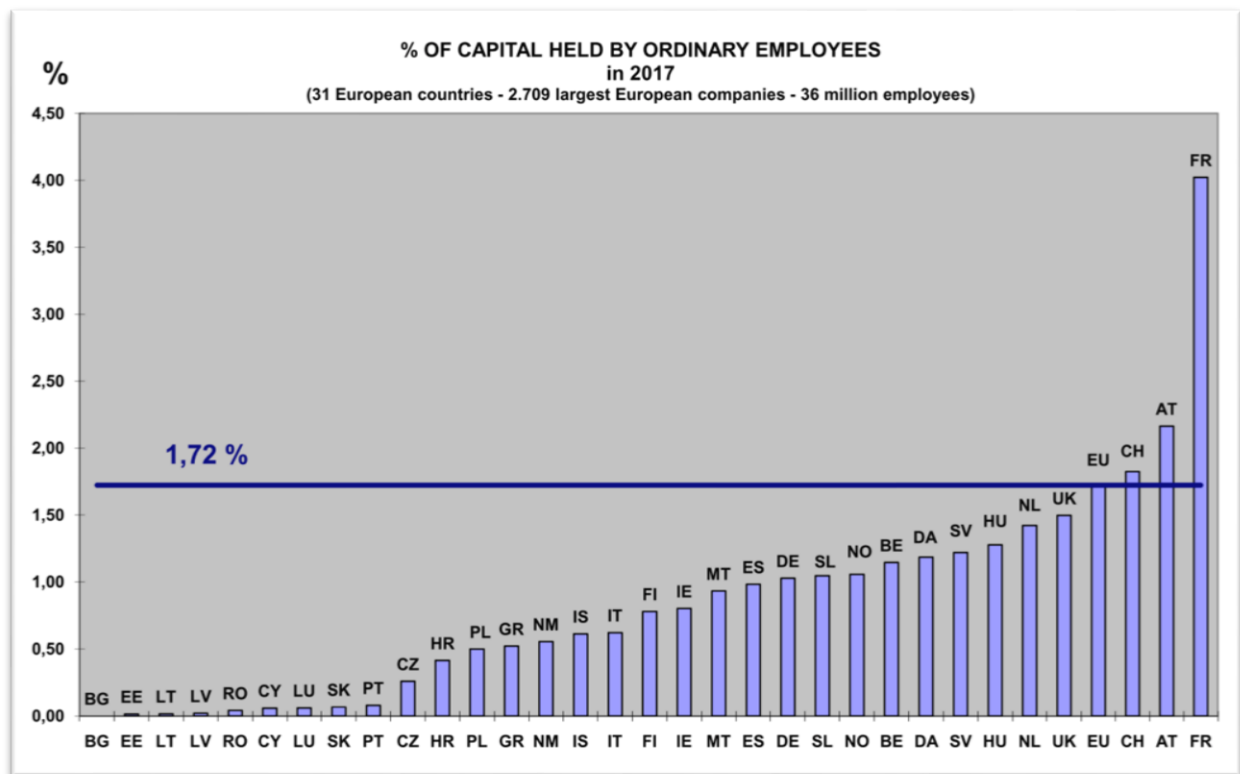
## 1.3. Employee Share Ownership in France

### 1.3.1. Employee Share Ownership Figures in France

The European Federation of Employee Share Ownership (EFES) conducts a yearly survey to evaluate employee ownership in Europe: “Annual Economic Survey of Employee Share Ownership in European Countries”. The statistics show an increase of more than 32% in the average capital held by employees in European companies in the last decade (Figure 1-3). The statistics also indicate that 93.5% of large European companies have at least one form of ESO, and that around 57.3% of these companies have significant ESO (More than 1% of total shares are owned by the company’s employees) (Mathieu, 2018).



*Figure 1-3: Capital Held by Employee Owners in European Companies*  
Source: Annual economic survey of employee share ownership in European countries  
(Mathieu, 2018, p. 14)



*Figure 1-4: Percentage of Capital Held by Non-Executives Employees in European companies by Country*

*Source: Annual economic survey of employee share ownership in European countries (Mathieu, 2018, p. 53)*

The EFES study indicates many interesting facts about Shared Capitalism and ESO in Europe in general and France in particular. For instance, employee profit-sharing plans<sup>15</sup> are only implemented in 6.8% of all listed European companies outside France—where it is mandatory by the French labor code. Even with the compulsion of one form of shared capitalism plans in France and its subsisting in other European countries, France still surpasses a great number of other countries in most ESO statistics. Figure 1-4 shows the percentage of the companies' capital held by its non-executive employees in each European country in 2017. While the European average stands on 1.72%, only 3 out of 31 countries

<sup>15</sup> Another form of Shared Capitalism plans.

surpass it<sup>16</sup>. In France, non-executive employees own more than 4% of listed companies, the biggest stake in Europe, followed by Austria where they own nearly 2% of the shares. Additionally, employee shareholders are represented on the board of 12% of French companies and only 1.6% of European companies, and while there are nearly 7.5 million employee owners in large European companies, around 3 million are in France and 2 million in the UK.

Total SA (France) tops the European Federation of Employee Share Ownership (EFES)'s CAP 100 list that ranks European companies based on the equity in the hands of their employees (€5.17 billion).

Based on these statistics, France is considered the European “democratic employee ownership champion” by Eres<sup>17</sup>, a consulting company specialized in employee ownership and employee savings plans. Eres links the well-developed ESO in France—compared to other European countries—to several factors:

1. France's history with employee participation that started with the establishment of the fifth (and actual) republic, with Charles De Gaulle's ordinance of the 7<sup>th</sup> of January 1959<sup>18</sup>, which aimed to promote employees' incentive schemes and profit sharing.
2. The company savings plans that exist since 1967 and allow employees to acquire shares in their companies since 1986 that prompt workers to participate in long-term investments and launch the employee ownership in France.
3. The tax incentives offered with employee savings plan, the root of most employee ownership in France.

---

<sup>16</sup> France, Austria and Switzerland.

<sup>17</sup> <https://www.eres-group.com/etudes-et-enquetes/france-championne-deurope-de-lactionnariat-salarie/>

<sup>18</sup> The Ordinance number 59–126.

4. The FCPE<sup>19</sup>, a well-developed diversified mutual funds scheme in France, which englobes most of the employee collective operations in French companies.

5. The financial success of many employee ownership plans in many French companies, which inspired other firms to launch their own ESO plans and encouraged employees to invest in their company's ownership and participation plans.

### **1.3.2. The forms of Employee Share Ownership in France**

In France, employees have two possibilities to hold shares in their companies. They can either purchase company shares directly or participate in a savings plan. The first option is usually the result of an Employee Share Purchase Plan (ESPP), in which the company decides to increase its capital by issuing shares at a discounted price for its employees. The second option includes the Company Savings Plans<sup>20</sup>, which allow the employees to benefit from the fiscal advantages of an employee savings scheme.

#### **1.3.2.1. Company Savings Plans—PEE**

The Company Savings Plan— “Plan Épargne Entreprise” (PEE)—are the most widespread platform for employee shareholding in France. The PEE is a collective savings scheme, in which employees can voluntarily participate in a portfolio of securities. It gives the participating employees several investment options and provides the company with many fiscal incentives (Aubert, 2006). Every employee of more than three months can participate in an employee savings scheme.

The PEE funds can arise from several sources, including:

- Voluntary participation of the employees

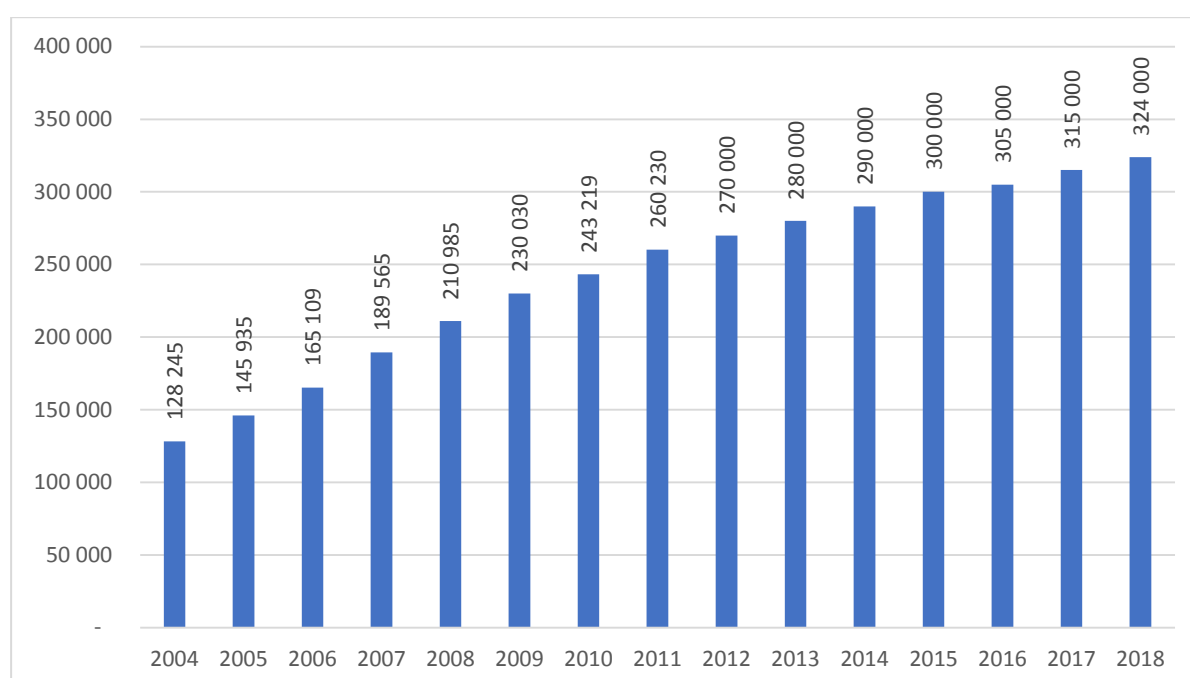
---

<sup>19</sup> Fonds Commun de Placement d'Entreprise.

<sup>20</sup> The French Employee Savings Plans are governed by the articles L. 443-1 to L. 443-9 of the Code de Travail, the French Labor code.



- Incentive bonuses
- Participation bonuses<sup>21</sup>
- Transfers from different savings plans
- Employer contributions<sup>22</sup>
- Transfer of employee rights under the time-saving scheme (CET—Compte épargne temps)
- Free granting of shares to all employees



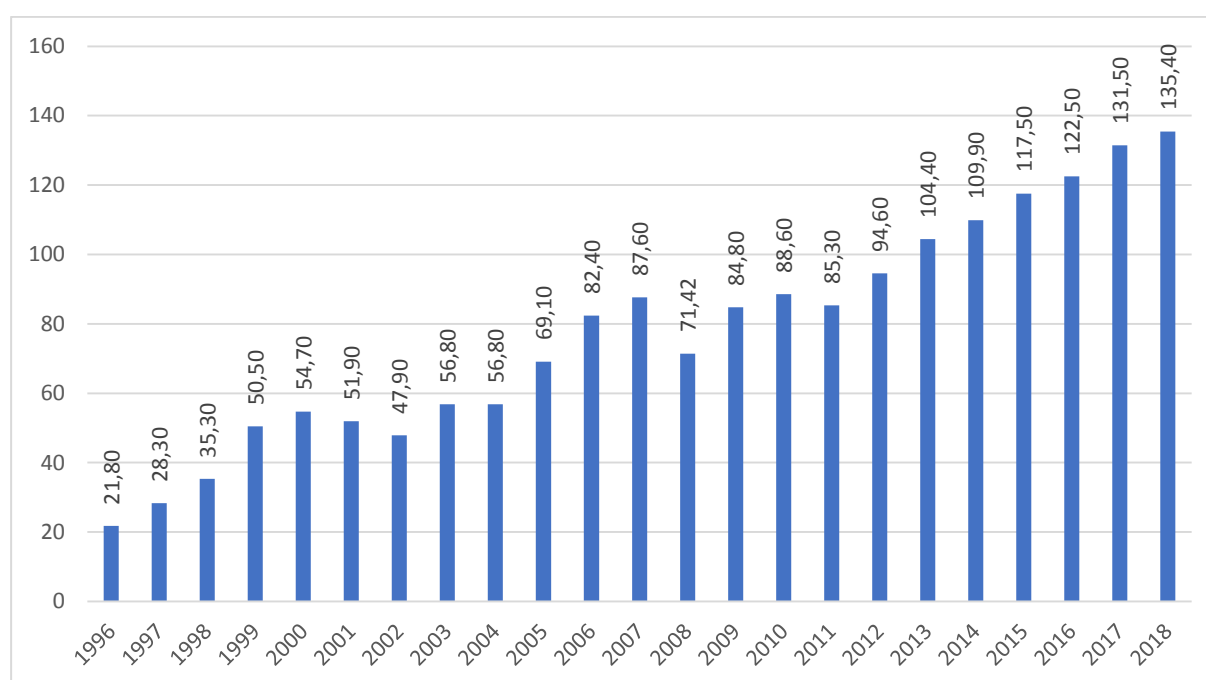
*Figure 1-5: Number of French companies participating in Company Savings plans*  
*Source: Data from Association Française de la Gestion Financière – AFG*

As per the French financial management association (Association Française de Gestion Financière – AFG), the number of companies offering employee savings plan has

<sup>21</sup> These funds cannot be invested in the company shares under employee ownership.

<sup>22</sup> Developed by the PACTE law of the 22<sup>nd</sup> of May 2019 (Loi relative à la croissance et la transformation des entreprises - PACTE).

increased from 211,000 companies in December 2008 to 324,000 in December 2018, a 53,55% increase (Figure 1-5). Figure 1-5 shows the evolution of the number of companies participating in PEE since 2004, and indicates that the number has been continuously increasing, even during the recession periods. Figure 1-6 presents the evolution of the total PEE funds in France since 1996. It reveals that the total employee savings plans deposits have augmented from 71,42 billion in 2008 to 135,4 billion Euros, an indication that the PEE funds have almost doubled in the last decade, and that they have increased by more than 200% in the last 20 years. Employees participating in PEE can decide to either invest in employee ownership or in diversified mutual funds — Known as Fonds Communs de Placements Entreprise (FCPE)<sup>23</sup>. The diversified mutual funds include investments in four different types of assets: Liquidity Securities — Bonds — Shares — Balanced Funds<sup>24</sup>.



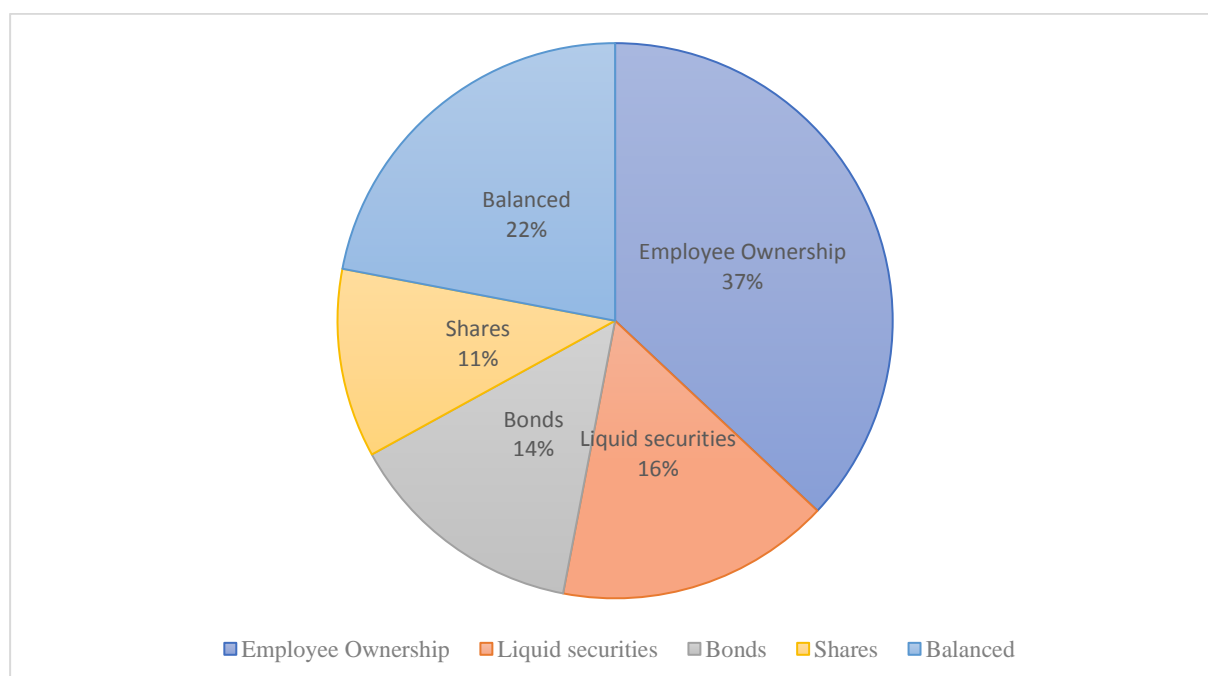
*Figure 1-6: Employee Savings Plans' total Deposits in France (in billion Euros)*

*Source: Data from Association Française de la Gestion Financière – AFG*

<sup>23</sup> Diversified Mutual Funds in Company Saving Plans are the funds invested in less than one third in company securities.

<sup>24</sup> Balanced Funds (Fonds Mixtes) include several asset classes: Liquid securities—Shares—Bonds.

Figure 1-7 shows the breakdown of PEE funds in France as per December 2018. Employees invest mostly in Employee Ownership funds, which occupy the biggest part of PEE funds (37%). The ESO funds have increased from 35 billion Euros to 51 billion Euros in the last decade. Around 55% of the PEE funds are invested in shares (37% ESO, 11% Shares and 9% through Balanced Funds). The AFG annual statistics also record a significant decrease of employees' investments in Liquid Securities (-39% since 2016) in favor of Balanced Funds and investments in Shares, indicating that employees are following a more beneficial savings scheme on the long term.



*Figure 1-7: Breakdown of Employee Savings Plan funds in France as per December 2018*  
*Source: Data from Association Française de la Gestion Financière – AFG*

All the aforementioned statistics and numbers of employee ownership and employee savings plans are expected to significantly rise in the forthcoming years in France, after the adoption of the Action Plan for Business Growth and Transformation or “Loi PACTE” by the French government (Check Appendix). The PACTE law, which has come into effect in

January 2020, aims to make the employee savings more flexible and attractive and to “enhance the sharing of the company’s wealth with its employees”<sup>25</sup>.

### **1.3.2.2. Employee Share Purchase Plan (ESPP)**

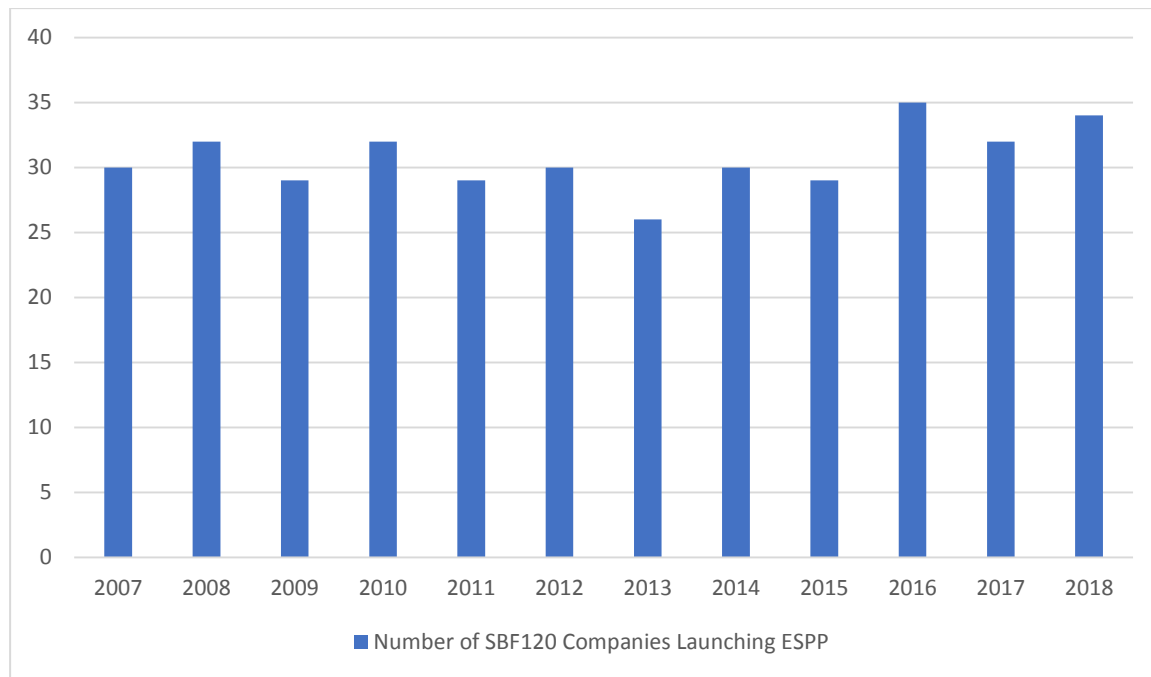
Employees might get purchase shares directly from the company as well. Companies might issue new shares reserved for their employees, with the purpose of developing their ESO. The Board of directors decides to implement such increase. The price is determined through a reference price, that is the average of the last 20-closing price of the share in the stock exchange preceding the issue. Employees can be offered of an up-to-30% discount<sup>26</sup> or refund on the reference price. The refund can also be in cash—in shares, as in 1 free share offered for every purchase of 4 shares—or a mix of cash and shares (for example, 10% in cash and 10% in shares).

The ESPP (capital increase reserved for employees) is being implemented increasingly by French-listed companies (Figure 1-8). For instance, TOTAL S.A. decided in 2019 to increase its capital by selling 18 million newly issued common shares to its employees. These shares represent the equivalent of 0.68% of the company’s total capital. Employees were able to benefit from a 20% discount off the reference price, which was determined as the average closing price of TOTAL shares over 20 trading sessions. Crédit Agricole S.A. has also issued more than 18 million shares in 2019 to its employees, representing 0.64% of its total shares. Employees have received a 20% discount on the share price as well.

---

<sup>25</sup> <https://www.economie.gouv.fr/loi-pacte-croissance-transformation-entreprises>

<sup>26</sup> The PACTE law increased the permitted discount on ESPP from 20 to 30%.



*Figure 1-8: Number of SBF120 Companies Launching ESPP*  
*Source: Eres- Employee Ownership France 2019 Study<sup>27</sup>*

These provisions allow ESO to take several forms that might be perceived differently by the employees participating in them. In this thesis, we do not differentiate between different types of employee ownership. Instead, we study employee ownership based on the percentage of company shares owned by non-executive employees, and their percentage of voting rights in the general assembly.

<sup>27</sup> <https://www.eres-group.com/etudes-et-enquetes/lactionnariat-salarie-se-porte-bien-34-operations-collectives-ont-ete-realisees-dans-le-sbf120-en-2018/>

## 1.4. Employee Ownership: Inducements and Outcomes

Employee Share Ownership has been linked to several positive consequences, as well as some concerns, affecting the participating employees, the partaking companies and the whole economy (Kruse, 2016). While Table 1-1 presents the main effects of ESO on individual and company levels, Kruse (2016) points out that employee ownership's effects of decreasing employee turnovers and layoffs would eventually lead to lower unemployment rate and inequality and thereafter, to an increase in the macroeconomic stability.

Kaarsemaker (2006) reviews the published studies on the outcomes of ESO. He notes that two thirds of these studies have found significant positive effects on both individual and corporate levels, and only one tenth of the studies found negative effects<sup>28</sup>. More recently, O'Boyle et al. (2016) review 102 studies that represent around 57,000 firms and find that ESO has generally a statistically significant positive effect on corporate performance. The positive effect exists in studies with different sampling designs i.e., studies that assess the change in "performance pre-employee—post-employee ownership adoption" and studies on firms with employee ownership. They also find that the positive effect of ESO on firm performance has increased in studies over time.

The summary of the main positive and negative effects are presented in Table 1-1. Kruse (2002) reviews ESO studies and notes that most of them find an association between ESO and increased employee-owners' commitment, satisfaction and motivation; the remaining studies found no significant relationship, but no studies have found a negative effect of ESO on employees' satisfaction, attitude and performance.

---

<sup>28</sup> The remaining studies found non-significant effects.

Table 1-1: Summary of Main ESO Effects

ESO effects			
Positive effects of ESO		Negative effects of ESO	
Effect	Reference	Effect	Reference
Co-monitoring	(Carberry, 2011a; Freeman et al., 2010)	Free riding	(Freeman et al., 2008, 2010; Kim & Ouimet, 2014)
Increase of employee commitment, satisfaction and motivation	(Blasi et al., 2003; Edmans, 2011)	Management entrenchment	(Benartzi et al., 2007; Hollandts et al., 2017)
Positive work attitudes	(Hallock et al., 2004; Kurtulus et al., 2011)	Dilution of property rights	(Jensen & Meckling, 1979; Pendleton, 2002)
Protection from a hostile takeover	(Pagano & Volpin, 2005; Shivdasani, 1993)	Decrease in shareholder value	(Faleye et al., 2006; Guedri & Hollandts, 2008)
Increase in individual productivity	(Kramer, 2010; Robinson & Wilson, 2006)	Divergence of incentives	(Brown et al., 2006; Chang & Mayers, 1992)
Increase in company productivity and profitability	(Kruse, 2002; O'Boyle et al., 2016; Sesil et al., 2007)		
Stable long-term management	(Oyer & Schaefer, 2005; Park et al., 2004)		
Tax incentives	(The French Labor Law; The United Kingdom Tax Code)		

Both psymetric and econometric studies on ESO suggest that it is not the ownership in its that produces all these positive effects on the employees' behavior, but the motivation behind it (Wu et al., 2008). The motivation perceived after implementing ESO plans can follow an intrinsic, an extrinsic or an instrumental route (Figure 1-9) (Klein, 1987; McCarthy et al., 2010). Firstly, the intrinsic satisfaction model predicts that employees' motivation and commitment are influenced by the ownership in itself. The concept of becoming also owners changes their behavior and attitude at work. Secondly, the extrinsic motivation model expects the financial incentives and benefits that employees receive—or might receive—under ESO plans influence their attitude and increase their productivity. Since employee-owners' wealth is linked to the company's, employees attempt to increase their firm's profit, which would provide them with financial rewards later on, by enhancing their job performance. Finally, the instrumental satisfaction model suggests that the positive effects of ESO result from the increase in the employees' participation and influence. It implies that employee-owners become more involved in the company, through their participation in decision-making process, allowing them to sense a more significant role and position within the company.

The change in the employees' attitude and productivity triggers many effects for the company implementing similar plans. For instance, following the instrumental route, employee-owners' presence in their respective enterprises is enriched by their improved participation via their voting rights and representation on the board of directors, allowing them to feel integrated in the company and to work on building a better working environment. Similarly, the intrinsic motivation increases their attachment with their company and decreases their turnover rate, and the extrinsic route motivates the employees to improve their productivity, which would enhance the company's overall financial performance thereafter, in order for them to receive any financial incentives attributed with ESO plans. Ultimately, all



three routes would aim to align the interests of employees with the company's and outside shareholders' objectives.

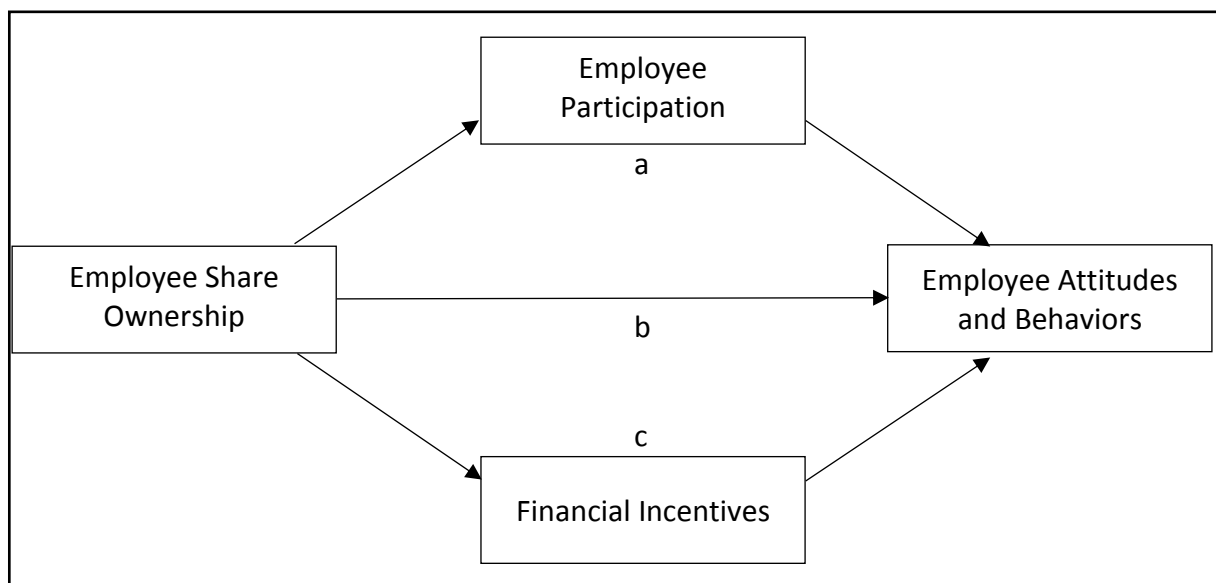
*Figure 1-9: Employee Ownership Causal Mode*

*a: Instrumental Route (the indirect effects caused by employee participation)*

*b: Intrinsic Route (the direct effects based on the ownership itself)*

*c: Extrinsic Route (The indirect effects related to the employees' wealth)*

*Source: McCarthy et al., 2018, p. 385*



Despite the fact that most studies focused on the advantages of implementing ESO, many studies discussed how such plans can backfire by causing some negative effects. On the

workers' level, we discussed in a preceding paragraph how ESO, among other shared capitalism arrangements, can tolerate free-riding (Park et al., 2004). The free-rider problem represents the most cited criticism of shared capitalism in the literature, as it is very likely to exist in any group incentive scheme (Lowitzsch & Hashi, 2014). Additionally, employee-owners are subject to a poor portfolio bearing a double risk—the risk of unemployment and the risk of losing their savings—in case the company struggles financially. The employees are generally risk averse (Kruse et al., 2010b; Kurtulus et al., 2011), and do not usually diversify their portfolio in other enterprises, making both their gains, their fixed salary and the residual claims from share price variations, depend on their firm's financial performance.

On a corporate level, the performance and profitability might be affected by ESO schemes, as managers might encounter difficulties in trying to exercise authority on employees, who are partial owners of the firm. Moreover, Faleye et al. (2006) argue that high ESO level companies might diverge from outside shareholders' interests and value maximization practices as employee-owners are more likely to prefer lower risk investments, causing shorter-term investments, slower growth rates and fewer job opportunity creations. Lastly, ESO has constantly been considered a managerial entrenchment mechanism (Gamble, 2000). Managers might use ESO to place a block of the company's shares under their control, by giving shares to employees who are under their supervision. Employee-owners are generally unlikely to vote against their managers' decisions and proposals, allowing managers to decrease risk-taking and innovative investments. However, that can be considered a defense tool against hostile takeovers as a significant part of the company's stocks would be in "friendly hands" (Benartzi et al., 2007).

Guedri and Hollandts (2008) investigate the clash between the “dark side” (p. 462) and the bright side of ESO<sup>29</sup>, by discussing the possible effects of both sides on corporate performance, and find a U-shaped relationship, confirming the existence of both effects. In this thesis, the existence of both effects is reviewed from different viewpoints, focusing on the French context. In the first essay, we review the effect of ESO on agency costs, by studying the relationship of ESO with the asset utilization ratio at first and the audit fees thereafter. Though Barney (1990a) argues that ESO decreases agency costs by aligning the interests of employee-owners with other external shareholders, Brown et al. (2006) state that employee-owners favor low-risk short-term investments, unlike outside shareholders who target more risky investments, protected by their diversified portfolio. Subsequently, we study how directors behave under ESO plans using two different approaches. In the second essay, we investigate the relationship between with the independence of the external auditor and level of ESO. Managers tend to demand relatively fewer non-audit services to decrease the “appearance of independence” of the auditors and guarantee a better audit quality (Firth, 1997, p. 514). Conversely, they tend to increase the demand for such services from the external auditors that can provide these services more efficiently, due to “knowledge spillovers” and synergies with the audit mission (Beck et al., 1988a). Therefore, the study explores if the request for non-audit services varies with ESO. Finally, the third essay examines the managers’ tendency to manage earnings in France. This study focuses initially on the nature of earnings management. It verifies if managers of French listed companies use discretionary accruals opportunistically for their personal benefits (attaining their bonuses, protect their jobs...) or beneficially for the company (signaling upcoming information for

---

<sup>29</sup> The dark side of ESO predicts that ESO has negative effects on the company and the employee-owners, as managerial entrenchment and the free riding while the bright side expects that ESO aligns the incentives of employee-owners with other shareholders and increases the productivity.

external stakeholders). It then inspects how the implementation of ESO plans affect this behavior of managers by studying if these plans affect the nature of discretionary accruals).

# **Part II: Essay 1**

## 2. Employee Share Ownership, Agency Costs and Audit Fees

### Evidence from France<sup>30</sup>

#### Abstract

This paper examines the effect of Employee Stock Ownership (ESO) on Agency Costs and on Audit Fees. We find, on a panel database of 125 firms listed in Euronext Paris, an inverted U-shaped relationship between employee ownership and both agency costs and audit fees. While previous studies expected a negative effect of ESO on agency costs, the results indicate that the relationship has an inverted U-shape. Our results suggest that ESO's effects on information asymmetry and alignment of interests are negative for low levels, operating as a managerial entrenchment mechanism at first. But after reaching a certain point, ESO serves the interests of external shareholders by aligning their benefits and with the employees' interests, thus decreasing agency costs.

**Keywords:** Audit fees, Employee share ownership, Agency costs, Information asymmetry.

---

<sup>30</sup> Paper presented in:

- Conférence Internationale de Gouvernance – Lausanne 2017.
- Workshop France Master CCA — Toulouse 2017.
- Mid-year Kelso Fellows Workshop — New Jersey 2019 (Selected but not presented).

## **2.1. Introduction**

Employee stock ownership is a situation where the employees of a certain company own part of its stocks and, consequently, get several rights in their owned shares, mainly voting rights and profit-sharing dividends. Employee Shares Ownership (ESO) is developing expeditiously, as per the European Federation on Employee Share Ownership's (EFES) "Annual Survey of Employee Share Ownership in European Countries - 2016" (Mathieu, 2017). The survey stated that there was an increase of 29.03% of employees' ownership in the capital of European companies between the years of 2006 and 2016. France has developed the highest percentage of capital held by non-managerial employees in Europe (4.01%), followed by Austria (only 2.2%). The study found a total of 8,000,000 employee-shareholders in Europe, including around 3,000,000 in France only, who owned 6.03% of the capital of French companies in 2016 (nearly the double of the European average of 3.2%) companies. Compared to American companies, ESO in Europe is more common in large companies than in smaller firms and in developed capital market countries (France, Germany, the UK...) (Kruse, 2016).

ESO is also a developing field of research in the broad area of companies that aim to decrease the number of internal problems, by increasing the employees' motivation and loyalty, helping the company to perform better and become more profitable. These consequences are based on previous studies that have shown that with the increase of employee ownership, the employee turnover rate decreases (Blasi et al., 2010a) as employees are more pleased and involved in company decisions (Pierce et al., 1991). The improved loyalty has several other implications such as a better performance for the whole firm (O'Boyle et al., 2016), as employees, who are also owners, may get dividends when the

company is more profitable, or a decrease in the costs of the agency conflicts between external shareholders and employees in a company (Barney, 1990a).

The relationship between ESO and agency costs has been presumed to be negative, considering that ESO reduces information asymmetry (Bova et al., 2015) after aligning the interests of employees with those of shareholders (Gerhart, 2007). However, a rival, less popular line of research, highlights the “dark side” of ESO (Guedri & Hollandts, 2008), often ignored by researchers. For instance, Faleye et al. (2006) argued that ESO might push employees away from shareholder value maximization, by stating that employee-owned firms push the management to take fewer risks, invest in more certain assets, have a low growth rate, and create fewer job opportunities. Similarly, Rauh (2006) found that ESO plans do not always favor the alignment of interests but, sometimes, construct a takeover defense through managerial entrenchment (Park & Song, 1995), as employees are less likely to vote against managers, who offered them these plans in the first place (Pagano & Volpin, 2005). Managers might implement ESO to keep shares in “friendly hands” as a mechanism that defends the company from takeovers (Benartzi et al., 2007, p. 61). Other stakeholders might also fear giving employees—who already benefit from their employment contracts with the company—decision-making ability via ESO. They worry that it might allow them to fully control the firm, which can erode the company’s—and shareholders—value. Hence, following these arguments, ESO might increase information asymmetry, as employee owners would have more access to private information than other shareholders (Babenko & Sen, 2015), leading to an escalation in agency costs.

The agency theory has additionally been one of the most mentioned and implied theories regarding the external audit. The latter has the main purpose of enhancing the confidence of any user of a firm’s published financial statements (ISA 200, 2009). This objective is accomplished by evaluating the completeness and accuracy of the accounting



records, determining if they are prepared in accordance with the applicable laws and regulations, and if the statements reflect the organization's true and fair financial position, and the results of its operations. The amount of fees charged by the auditor depends on many factors where some of them are well known and affect the fees directly such as auditee's risk (Bell et al., 2001), size (Gonthier-Besacier-Cerag & Schatt, 2007), complexity (Hay et al., 2006) while others would affect them indirectly such as governance and ownership of the company (Barroso et al., 2018), existence of an audit committee (Broye, 2009), and the presence and effectiveness of internal audit/control (Hogan & Wilkins, 2008). Some of those features are evaluated by the auditor before the engagement, and included as a risk premium, while the rest might affect the auditor's working hours and excess effort he puts during the engagement.

Several research studies explored the forms of agency problems, causes, implications and consequences on the external auditor's mission. It has been proven that agency problems are a major determinant of the audit fees (Jensen & Payne, 2005), as the external audit mainly exists to increase the confidence of the shareholders (and other possible users) in the financial statements, and provide a guarantee for them, that they are not expropriated by the managers and employees working inside the firm, and that all shareholders have equal access to information (Mitra et al., 2007). At the same time, the agency costs result from either the problems arising from the fact that the principals of the firm cannot always control the work of the agents they hire (Eisenhardt, 1989), or from problems among principals, as information asymmetry may arise in-between shareholders, due to lack of information disclosure (Barroso et al., 2018). In both cases, audit aims to decrease agency costs and information asymmetry between owners and their representatives in the firm, as well as between different owners. Therefore, with more agency problems, shareholders would be willing to pay more for a better guarantee in the fairness of the financial statements (more audit fees), and for a better

disclosure of information (Hackenbrack et al., 2014). Furthermore, only a handful of studies tested how employee ownership affects the agency cost proxies empirically (Aubert et al., 2017; Barney, 1990a, 1990b). Since ESO is still a growing field, most researchers on ESO focused on its effect on the employees' turnover (Kruse et al., 2012), satisfaction (Blasi et al., 2010a), intentions attachment and loyalty to the firm (Freeman et al., 2010), along with its impact on the company's performance (Kruse, 2016) and governance (Benartzi et al., 2007; Pagano & Volpin, 2005). Many argued that ESO decreases the firm's agency costs and predicted a negative relationship between the two variables (Ivanov & Zaima, 2011), while others gave evidence that it serves as a managerial entrenchment mechanism, increasing information asymmetry between managers and external shareholders, and causing more agency costs (Brown et al., 2006).

While most studies used ownership structure and corporate governance variables to measure agency costs, with mixed results (Anderson et al., 2003; Ang et al., 2000; Barroso et al., 2018; Singh & Davidson III, 2003), none has yet studied the impact of the percentage of employee ownership on the agency costs measured by the level of audit fees. However, audit fees are a good proxy for the level of agency costs in a company, based on the discussion provided above. Our study focuses on the French context, as France is the European country with the largest employee-owned shares, the highest number of employee-owners and the biggest representation of employee owners in the firms' board of directors. We collect data on 125 listed companies in Euronext Paris, since ESO's effect on the participation of employees in decision-making is greater for French publicly traded companies than private ones (Guery & Stevenot, 2017). By performing GLS regression on the panel dataset, we find an inverted U-shaped relationship between ESO and audit fees. The results indicate that low levels of ESO are related to higher agency problems since employees may be more focused on their fixed income (salaries) than their residual gains from the company's shares, thus allowing

more expropriation against external shareholders. Conversely, for high levels of ESO, we observe a negative relationship between ESO and agency costs, probably due to the fact that a significant representation of employees in the firm makes the latter vigilant in relation to any managerial expropriation.

The paper is organized as follows: Section 2.2 presents a literature review investigating the relationship between employee ownership and audit fees; with the agency theory as a mediator. Section 2.3 presents the sample details, the models, the variables and the method used. Section 2.4 presents our results and findings. Section 2.5 discusses the results and presents the conclusion of this research along with its contributions, limits and future research.

## **2.2. Literature Review**

### **2.2.1. Employee ownership and the agency theory**

Many researchers studied the positive impact of having part of a company's shares owned by its employees, especially on the performance of both, the company and the employee, by finding that it increases the influence of employees in decision inside the firm, their satisfaction and commitment to the firm and the profitability and productivity of the firm.

Pendleton (2006) argued that employee ownership would compensate for the negative incentives of individual motivations, and creates a more trustful environment in the company. ESO can also align the interests, goals and objectives of the employees with those of the managers' (Kruse, Blasi, and Park, 2010) and with those of the firm (Rosen et al., 2005), since they are becoming the owners of the company, and the company's better performance is

beneficial for them as well. The alignment of interests also increases the level of firm disclosure, thus decreasing information asymmetry and improving company's corporate governance by making it more transparent (Bova et al., 2015). Therefore, ESO might be considered as one of the mitigations of the firm's agency problems, which results from conflicting goals and interests between owners from one part, and their agents inside the firm from the other part (managers & employees). Jensen and Meckling (1976) defined the company's costs of the agency relationship as the aggregate costs of monitoring (incurred by the principal) and bonding (by the agent), along with the residual loss. The implementation of ESO in a company reduces the necessity of elevated monitoring costs incurred by the principal, as employees under ESO control themselves, with their interests aligned with the company's (Freeman et al., 2008).

In fact, Barney (1990a), while studying the relationship between ESO and the company's cost of capital, argued that employee ownership reduces agency conflicts, and his results were consistent with this argument. Moreover, Eisenhardt (1989) highlighted the fact that agents take fewer risks than shareholders, who have a bigger opportunity to diversify their portfolio. Indeed, employees, who invest their human capital in the company, are unlikely to invest their savings in other companies. Hence, employee-owners tend to take more risk averse decisions in the company and aim to decrease the company's total risk, in which they invested both their human and financial capital. Abbott et al. (2003a) indicate that agency costs increase when shareholders are non-insiders and decrease with managerial ownership. Accordingly, if insiders are also owners of the company, agency costs would tend to decrease. Oyer & Schaefer (2005, p. 100) argued that creating a link between employees' wealth and the worth of the company "might overcome agency problems and motivate the employee to take actions that are in the firm's best interest", because their beliefs would be redirected towards the firm's best interests.

Although pro-ESO researchers argue and find that it either has a positive or neutral effect on the firm performance and company risk (Kruse, 2002; O'Boyle et al., 2016), others were able to highlight negative effects of employee ownership (Guedri & Hollandts, 2008). One argument states that employees under ESO are very unlikely to perform effective monitoring on their managers, who implemented the ESO plans for them, and who monitor their day-to-day activity. Hence, it might serve firstly as a management entrenchment tool, and secondly it allows employees to root in the company, while equipped with corporate governance power, that can decide the fate of the firm. Additionally, employees engaging in ESO plans have two types of claims; a fixed one, represented in their salaries and wages, and a residual claim, that is the gain from dividends and share price variations. Employees (contrary to external shareholders and company owners) are generally more risk averse in creating a portfolio of many firms and therefore, rarely invest in other companies (Blasi et al., 2010c). This low ability to diversify their portfolios allows them to discourage their management from engaging in long-term projects and assets, with high risk, uncertainty, and returns (Faleye et al., 2006). They avoid high-risk investments, which can cause the loss of both their fixed salaries and their capital. On the contrary, external shareholders, who seek long-term investments with high possible returns, have their portfolios protected by investment diversification. This conflict of objectives between employee owners and outside shareholders shows that ESO may increase agency costs as well, since it creates a deviation between employees' and other shareholders' interests.

In case ESO can result in both these countervailing effects on agency problems, an inverted U-shaped relationship would result between the two (Haans et al., 2015). Blasi et al. (1996) question whether low percentages of ESO are sufficient enough to draw out the positive behavioral effects. Additionally, for low levels of ESO, external shareholders do not trust this arrangement, and would be worried if it only serves as a management entrenchment

tool (Benartzi et al., 2007) because its insignificant values are unlikely to have a positive effect on employees' motivation, and the firm performance hereafter. Furthermore, external shareholders perceive an elevated information asymmetry between them and internal shareholders, who have access to both internal and public information (Babenko & Sen, 2015). After a certain inflection point, when ESO becomes significant enough to align the objectives of employees with those of the firm, and when employees have sufficient power in the company, employee ownership's effect on agency costs shifts to negative. High employee ownership levels entail more voluntary disclosures to the market, increasing the transparency of the firm and decreasing information asymmetry (Bova et al., 2015). The employees' residual claims resulting from their ownership become as important as their fixed claims, and their main interests become similar to the firms' and they would more likely act in the latter's favor.

Therefore, we expect ESO to have both a positive and a negative effect on the level of agency conflicts in the company. The clash of these countervailing effects should cause an inverted U-shaped relationship between both variables.

*Hypothesis 1: There is an inverted U-shaped relationship between the percentage of ownership held by employees in a firm and the agency costs.*

### **2.2.2. Agency theory and audit fees**

The aim of auditing is historically seen as a tool that mitigates the agency problems and that verifies the accuracy of companies' annual reports on behalf of the owners of the firm, who cannot always control or cannot always have the competencies to control the fairness of the annual report (Ballwieser et al., 2012). Lafond & Roychowdhury (2008) underlined that a company's risk premium is influenced by agency costs which affect the audit fees consequently. Jensen & Payne (2005) showed that external audit decreases agency

costs by significantly reducing agency problems, and therefore, audit fees and agency costs are extremely correlated positively. Khalil et al. (2008) argued that the actions of the insiders will generate a higher inherent risk and higher internal control risk. The authors indicate that, on a sample of Canadian firms, higher agency problems are related to an increase in the auditors' effort. Several other studies also showed how the auditor mainly takes the agency problem into consideration before the audit engagement and how it affects audit fees indication, i.e., audit fees increase when the risk surrounding the company is higher and when more agency conflicts exist (Gul et al., 2003; Gul and Tsui, 2001; Jensen and Payne, 2005; Khalil et al., 2008). In addition, Chan et al. (1993) suggest that audit fees reach higher when there is a complete separation of ownership and control i.e., more agency costs. Similarly, Clinch et al. (2012) state that the increase in agency costs and information asymmetry entails a demand for an enhanced and a more thorough audit which results in higher audit fees.

To sum up, corporate governance and ownership structure have always been linked with audit fees (Abbott et al., 2007; Barroso et al., 2018; Mitra et al., 2007). While studies of different governance mechanisms found different effects on audit risk and, thus, on audit fees, they all have argued that agency problems and information asymmetry drive the relationship between the two. While predicting a negative U-shaped effect of ESO on agency costs, we also predict the same effect on audit fees. For low levels of ESO, external shareholders demand additional assurance about the accuracy of the financial statements which would result in an increase of the fees paid to the external auditor. On the other hand, higher levels of ESO would align the interests between employee owners and the other shareholders which results in lower agency costs and, thus, in lower audit fees. Accordingly, the second hypothesis is stated as follows:

*Hypothesis 2: There is an inverted U-shaped relationship between percentage of ownership held by employees in a firm and the audit fees.*

## 2.3. Methodology

### 2.3.1. Sample

The IODS (Insead OEE\*Data Services) database includes corporate governance data for the biggest 165 French listed firms, covering the period of 2002–2015. The database is used to collect Employee Stock Ownership and Employee Voting Rights data. The observations for the year 2016 are hand collected using the firms' published financial statements. Financial data are collected using the Thomson Reuters database and added to the initial database to form our study sample. The database is completed, verified and corrected through the companies' published financial statements. The period of the final database starts on January 1, 2002, and ends on December 31, 2016.

After excluding firms observations missing some necessary data for the analyses, our final sample comprised data for 133 unique companies and 1,711 firm-year observations (used for the study of the first hypothesis). Eight of these companies are financial firms and therefore had to be excluded from the second model (the regression for the second hypothesis), due to the absence of some necessary variables for the analysis. Other firm-year observations were also excluded from the sample because of missing values for some variables<sup>31</sup>. The resulting database is composed of 125 unique firms and 1,559 firm-year observations. All continuous variables were winsorized at the 1<sup>st</sup> and 99<sup>th</sup> percentiles.

---

<sup>31</sup> The number of observations changes in-between models due to missing values.



### 2.3.2. Models and Variables

To test both hypotheses, two independent variables are used. The first, Employee Ownership (ESO), measures the proportion of shares owned by companies' employees. It is calculated as the percentage of the shares owned by employees divided by the company's total shares. The second independent variable, Employee Voting Rights (EVR), measures the ratio of the number of votes employee owners have in the general meetings of the company, divided by the total votes in the assembly. The values of this variable are, on average, slightly higher than ESO, since, in France, shareholders get double voting rights when they hold nominative shares for two years or more<sup>32</sup>.

#### 2.3.2.1. Agency Costs

To test the first hypothesis, we use Ang et al. (2000)'s proxy for agency costs as a dependent variable. They use the sales turnover to total assets which measures the efficiency of utilization of assets in the company. It captures efficiency in the utilization of assets and is inversely related to agency costs since low values of the sales to assets ratio may indicate bad investment decisions by managers (assets with negative net present values), management shirking (not following up on investment as needed to generate the expected revenues) or purchase of fruitless assets (Ang et al., 2000).

An increased asset utilization ratio suggests that the company is using its assets more efficiently to generate revenues, and therefore indicates lower agency costs. Hence, we use the opposite value of the ratio to estimate the level of agency costs:

$$\text{UTILIZATION} = -1 * \text{Asset Utilization Ratio}$$

---

<sup>32</sup> As per the law no 2014-384 (The Florange Law) of 29 March 2014.

We test H1 using the following model (1):

$$UTILIZATION = \beta_0 + \beta_1 ESO2 + \beta_2 ESO + \beta_3 TURN + \beta_4 AGE + \beta_5 MAJOR + \beta_6 MGT + \varepsilon \quad (1)$$

In accordance with H1, we expect a negative and significant  $\beta_1$  and a positive and significant  $\beta_2$  but greater than  $-2*\beta_1$ .<sup>33</sup>

The utilization of assets differs immensely in-between industries, and therefore, we control for differences among the eight industries in our data, by including a set of dummy variables, one for each one digit SIC. We also control for the firm size by adding the natural logarithm of total sales as a control variable (TURN), and for the experience and expertise of the company via the age of the firm (AGE). We also control for other corporate governance mechanisms, including the percentage of management ownership (MGT) and the percentage of outside blockholder ownership (MAJOR).

### 2.3.2.2. Audit Fees

To test H2, we use the natural logarithm of the fees paid to the auditor (AUDIT) as the dependent variable and use it in the following model (2):

---

<sup>33</sup> ESO is a positive variable that can vary between 0 and 100%. In order to have a negative U-Shaped relationship with UTILIZATION, the ESO value of the inflection point of the function should be included in the 0–100% interval; otherwise, the relationship would be continuously positive or negative for the possible values of ESO. Therefore, ESO's coefficient should validate the following condition :  $0 < \beta_2 < -2*\beta_1$ .

$$\begin{aligned}
AUDITFEES = & \beta_0 + \beta_1 ESO2 + \beta_2 ESO + \beta_3 AUDITORS + \beta_4 BIG4 + \beta_5 SIZE + \beta_6 \\
& LEVERAGE + \beta_7 GROWTH + \beta_8 UTILIZATION + \beta_9 ROA + \beta_{10} LOSS + \beta_{11} \\
& QUICK + \beta_{12} PTBV + \beta_{13} INT + \beta_{14} BUSY + \beta_{15} MAJOR + \beta_{16} MGT + \varepsilon
\end{aligned}
\tag{2}$$

In accordance with the discussion stated above, if H2 were verified, we expect a negative and significant  $\beta_1$  and a positive and significant  $\beta_2$  but lower than  $-2*\beta_1$ .

The model also controls for other factors which affect the level of audit fees such as firm size (SIZE) as with auditors' tasks increase with the company's size (Gonthier-Besacier-Cerag & Schatt, 2007); ROA which controls for the company's profitability (Hay et al., 2006), with LOSS being a binary variable that controls for the negative profitability years. We also control for firm leverage with the Debt to Assets ratio (LEVERAGE) and for its liquidity with the quick ratio (QUICK) to measure, respectively, the long and short-term financial structure of the company which reflect firm financial risk (Chaney et al., 2004). We also include GROWTH to control for firms' growth in sales (Whisenant et al., 2003), INT for the complexity of the financial operations (Barroso et al., 2018), as well as UTILIZATION for agency costs and the effective use of the company's assets, and the market price to book value of the company's shares (PTBV) to control for information asymmetry that increases audit fees (Frankel & Li, 2004). Three auditors' characteristics are also included: AUDITORS to control for the number of auditors, BIG4 to check if at least one of the auditors is a big-4 audit firm as BIG4 companies usually require greater audit fees (Choi et al., 2008; Francis & Yu, 2009) and BUSY, a binary variable of 1 when the company's financial year ends on 31/12, to control for the auditor's busy period while performing the audit. We also try to control for other ownership structure mechanisms that have proven to affect audit fees; management (MGT) and blockholder (MAJOR) ownership.

Variables are described in Table 2-1.

We applied the Hausman specification test (Hausman, 1978) to our models by comparing the estimations that resulted from a fixed effect and another random effect model. It highlighted a non-statistically significant difference between the estimations of both methods (Annex 3: Hausman Tests); thus the models are estimated using generalized least-squares random effects (RE) regressions. We use robust standard errors corrected for heteroscedasticity to compute  $p$ -values and include industry effect in all models.

Table 2-1: Variables description

Variable	Definition	Source	Thomson Field
AUDIT	Audit-related service fees paid to the auditor	- Thomson Reuters - Financial statements	WC 01801
AUDITFEES	Natural logarithm of AUDIT	- Thomson Reuters - Financial statements	WC 01801
ESO	Shares owned by employees divided by the total shares outstanding	- Financial statements	-
EVR	Employees' voting rights to total voting rights	- Financial statements	-
ASSETS	Total assets	- Thomson Reuters - Financial statements	WC 02999
SIZE	Natural logarithm of the company's Total Assets	- Thomson Reuters - Financial statements	WC 02999
ROA	Return on assets	- Thomson Reuters	WC 08326
LEVERAGE	Total debt to total assets ratio	- Thomson Reuters	WC 08236
AUDITORS	The number of the company's external auditors	- Financial statements	-
BIG4	A dummy variable of 1 if the firm has at least one big-four external auditor; 0 otherwise	- Financial statements	-
QUICKRATIO	Cash and its equivalents divided by current liabilities	- Thomson Reuters - Financial statements	WC 08101
Asset Utilization Ratio	Net Revenues divided by total assets	- Thomson Reuters - Financial statements	WC 08401
INT	Foreign Sales divided by total sales	- Thomson Reuters - Financial statements	WC 08731
MAJOR	Major Shareholders' (>5%) ownership of the firm's capital divided by total shares	- Thomson Reuters	WC 18370
MGT	Management's ownership of the firm's capital to total shares outstanding	- Thomson Reuters	WC 18370
TURN	Natural logarithm of the total net sales	- Thomson Reuters	WC 07240
AGE	The age of the company	- Hand Collected	-

## 2.4. Results

### 2.4.1. Descriptive Statistics

Table 2-2 provides the descriptive statistics of the variables used in this study.

The minimum Employee Ownership (Voting Rights) percentage in a company is 0%, when employees own none of the total shares, while the maximum is 32.8% (42.0%), showing the great variation in levels of ESO (EVR) among the enterprises used in our sample. The average ESO (EVR) is 2.3% (2.8%) and the median is 1% (1.1%) since around 10% of the sample does not exhibit shares owned by their employees. The average of audit fees is 8.08 million. Moreover, around 85% of the firms show a positive profitability, with an average return on assets of 4.1%, and an average debt to total assets ratio of 25.9%. Finally, 96.1% of them have at least one big-4 audit firm in between their independent external auditors.

The correlation matrix is reported in Table 2-3.

The table shows that employee ownership is positively correlated with audit fees and asset utilization, but this does not describe only the relationship between these variables as bigger firms tend to have, at the same time, higher audit fees, better asset utilization and more employee-owned shares.

Table 2-2: Descriptive Statistics: Means, Medians, Standard Deviations, Maximums and Minimums

Variable		Mean	Median	Std. Dev.	Min	Max
1	ESO	0.022	0.010	0.040	0.000	0.328
2	EVR	0.028	0.011	0.050	0.000	0.420
3	Asset Utilization Ratio	.768	.727	0.410	0.000	2.338
4	TURNOVER (in million €)	10,600	2,980	17,700	1.20	112,000
5	AGE	69.071	48	60.004	1.00	351
6	AUDIT (in thousand €)	6,960	3,433	8,367	197	47,800
7	AUDITORS	2.184	2.000	0.423	1.000	4.000
8	BIG4	0.961	0.100	0.193	0.000	1.000
9	ASSETS (in million €)	17,200	5,080	31,600	97.6	276,000
10	LEVERAGE	0.264	0.249	0.159	.004	0.859
11	GROWTH	0.014	0.037	0.267	-1.869	0.636
12	ROA	0.043	0.044	0.062	-0.229	0.254
13	LOSS	0.157	0.000	0.364	0.000	1.000
14	QUICK	0.991	0.870	0.547	0.195	3.720
15	PTBV	2.010	1.610	2.834	-20.810	57.410
16	INT	0.531	0.587	0.290	0.000	1.000
17	BUSY	0.129	0.000	0.336	0.000	1.000
18	MAJOR	.365	.340	.266	0.00	.999
19	MGT	.067	.016	.137	0.00	.736

Table 2-3: Descriptive Statistics: Correlations between Variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1.ESO	1.00																		
2.EVR	.98***	1.00																	
3.UTILIZATION	-.02**	-.02	1.00																
4.TURNOVER	.23*	.25***	.13*	1.00															
5.AGE	.04**	.09***	-.01**	.09***	1.00														
6.AUDITFEES	.21**	.23***	.25***	.78***	.12*	1.00													
7.AUDITORS	.06***	.03	.16***	.14***	.04*	.19***	1.00												
8.BIG4	.04**	.05**	.14***	.06***	.16***	.12***	-.02	1.00											
9.ASSETS	.16*	.16***	.35***	.62*	.05***	.61**	.40***	.02**	1.00										
10.LEVERAGE	-.01	-.04	.16***	-.07**	.06***	-.07***	-.03	.06***	-.09***	1.00									
11.GROWTH	.02	.03	-.12***	.03	-.03	-.10***	-.03	-.06***	-.01	-.01	1.00								
12.ROA	-.05**	-.04	-.14**	-.09***	.11**	-.09*	-.01	-.04**	-.13***	-.07***	.21***	1.00							
13.LOSS	-.08***	-.08***	.05**	-.09***	-.06*	-.02**	-.03**	.07***	-.04**	.12***	-.29***	-.57**	1.00						
14.QUICK	-.097**	-.09***	.09***	-.20***	-.09*	-.21**	-.07**	-.09*	-.18***	-.28***	-.01	-.0**	.06*	1.00					
15.PTBV	-.06*	-.05*	-.09***	-.07***	-.03	-.06***	-.05***	-.01*	-.09***	-.15*	.04*	.14**	-.04	.12***	1.00				
16.INT	-.04*	-.01	-.26***	.02**	.25**	.06***	-.19*	.05***	-.19***	-.16**	.02	.07*	-.04*	.01	.05***	1.00			
17.BUSY	.07***	.08***	.05***	.16***	.03**	.15***	.08***	-.07***	.10***	-.14***	.03	.06*	-.10**	.09***	-.04**	-.06*	1.00		
18.MAJOR	-.04**	-.05**	-.08***	-.16***	-.04**	-.22***	.08*	-.06*	-.06***	-.02*	-.01	.05***	-.04**	-.07***	.02	-.20***	.01**	1.00	
19.MGT	.11*	.10***	.10*	-.09*	-.09*	-.10*	-.04*	.01	-.03	-.06*	.03	.09*	-.05*	.07*	.01	-.08*	-.04*	-.18*	1.00

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$



Table 2-4: The Effect of Employee Ownership and Employee Voting Rights on UTILIZATION.

VARIABLES	Predicted signs	A	B	C	D
ESO2	-	-11.320*** (3.454)		-11.240*** (3.493)	
ESO	+	3.527*** (0.963)		3.513*** (0.970)	
EVR2	-		-8.700*** (1.830)		-8.613*** (1.851)
EVR	+		3.126*** (0.831)		3.104*** (0.835)
TURN	-	-0.073*** (0.0208)	-0.074*** (0.0208)	-0.075*** (0.021)	-0.075*** (0.021)
AGE	+	0.001** (0.001)	0.001** (0.001)	0.001** (0.001)	0.001** (0.001)
MAJOR	-			-0.195* (0.112)	-0.184* (0.111)
MGT	-			-0.170 (0.190)	-0.168 (0.188)
Constant		0.700 (0.457)	0.721 (0.454)	0.797* (0.471)	0.813* (0.469)
Year effects		Included	Included	Included	Included
Industry effects		Included	Included	Included	Included
N		1,711	1,711	1,689	1,689
R <sup>2</sup>		37.56%	37.86%	40.24%	40.41%
Adjusted R <sup>2</sup>		37.18%	37.48%	39.87%	40.04%
Inflection Point		15.58%	17.97%	15.63%	18.02%

Robust standard errors in parentheses

\*\*\* p&lt;0.01, \*\* p&lt;0.05, \* p&lt;0.1

## 2.4.2. Regression Analysis

### 2.4.2.1. Asset Utilization Ratio

Table 2-4 reports the estimation of models (1). Column A of Table 2-4 tests the relationship between employee ownership and the asset utilization ratio and shows that ESO2 has a significant negative relationship with UTILIZATION (cf. = -11.323,  $p < .01$ ), in accordance with our expectations. The coefficient associated with ESO is positive and significant (cf. = 3.527,  $p < .01$ ) and it is lower than  $-2*\beta_1$  ( $3.527 < 22.646$ ). Therefore, we conclude an inverted U-shaped relationship between ESO and UTILIZATION, and fail to reject H1 as both conditions stated in the previous section are met. This evidence highlights an inverted U-shaped relation between ESO and agency costs. Considering an average firm whose level of ESO is below the inflection point, a single standard deviation increase in the percentage of ESO (4%) implies a decrease in the company's asset utilization ratio (an increase in UTILIZATION) of 12.30%. In opposition, the asset utilization ratio of firms whose level of ESO falls above the regression's inflection point increases by 12.30% with a one standard deviation increase of ESO. The results denote that, on the one hand, for companies with a sufficiently high ESO level, an increase in employee ownership entails a more efficient use of the company's assets to generate revenues. But, on the other hand, this same increase generates a lower asset utilization ratio for companies with low employee ownership.

The second column of Table 2-4 uses EVR as a dependent variable. The results reported lead to the same conclusion since the coefficient associated with *EVR2* is negative and significant (cf. = -8.7,  $p < .01$ ) while that associated to *EVR* is positive and significant and lower than  $-2*\beta_1$  (cf. = 3.126,  $p < .01$ ).

As additional robustness analysis, we regulate Ang et al. (2000)'s measure of agency costs by adjusted for industry-specific asset utilization ratios. We calculate the median asset utilization ratio for each different industry (MEDIANUTIL) and then use the adjusted value (ADJUSTEDUTIL), estimated as follows, to proxy for agency costs.

$$\text{ADJUSTEDUTIL} = \text{UTILIZATION} - \text{MEDIANUTIL}$$

The regression results, reported in Table 2-12, are in line with the initial results reported in Table 2-4.

#### **2.4.2.2. Audit Fees**

Table 2-5 shows the estimation of the model (2). The results provide a strong support to the second hypothesis. Before testing the second hypothesis, we run a regression excluding the squared value of ESO to check for a linear relationship between ESO and AUDITFEES (column A). The statistically nonsignificant coefficient of ESO indicates that the linear relationship between ESO and AUDITFEES is not statistically important ( $p > .1$ ). Column B includes the results of the curvilinear relationship hypothesized in the model (2). The regression results fail to reject our second hypothesis that an inverted U-shaped relationship exists between ESO and AUDITFEES. Indeed, ESO2 is significantly negatively related to AUDITFEES ( $\beta_1 = -12.610$ ,  $p < .01$ ) while the coefficient for ESO is positive and significant ( $\beta_2 = 2.951$ ,  $p < .05$ ), validating both conditions of the inverted U-shaped relationship between ESO and AUDITFEES ( $\beta_1 < 0$ ; &  $0 < \beta_2 < -2 \beta_1$ ). The results of this regression denote that when ESO is lower than 11.70%, its effect is positive on AUDITFEES, while its greater values have a negative effect on AUDITFEES. For an average firm with relatively low ESO, an increase of one standard deviation in ESO causes a 10.28% increase in the audit fees.

However, the same increase in the percentage of employee-owned shares in an average firm with high ESO ( $ESO > 11.7\%$ ) entails a 10.28% increase in the fees charged by the external results. The results suggest that when ESO is implemented in small values, it serves as a managerial entrenchment mechanism rather than a tool than aligns employees' interests with external shareholders' and thus, it increases the audit effort and the audit fees thereafter. However, greater ESO values are more likely to align the interests of the employees, managers and shareholders, decreasing agency costs (as proven in hypothesis 1) and reducing the audit effort and audit fees.

Table 2-6 present the results of the regression of AUDITFEES in which the independent variable ESO is replaced by the employees' voting rights (EVR). The results provide additional support to the validity of the second hypothesis, since the coefficient associated with EVR2 (column B) is negative and statistically significant ( $\beta_1 = -8.679, p < .01$ ) while EVR's coefficient is positive, significant and lower than  $-2 \beta_1$  ( $\beta_2 = 2.332, p < .05$ ). Due to the highly positive correlation of ESO and EVR, two variables that are interdependent, the regression shows that ESO and EVR has the same inverted U-shaped relationship with the audit fees.

Previous studies suggested that audit fees are affected by other agency costs factors, notably management (Type I Agency Costs) and institutional ownership (Type II agency costs). We included 2 independent variables MAJOR and MGT to the models, to control for the effects of blockholder and managerial ownership respectively. The results, reported in columns C of each of Table 2-5 and Table 2-6, remain insensitive to the inclusion of these measures.

Table 2-5: The Effect of Employee Ownership on AUDITFEES.

VARIABLES	Predicted signs	A	B	C
ESO2	-		-12.610*** (4.667)	-11.910** (4.803)
ESO	+	-0.321 (0.970)	2.951** (1.449)	2.806* (1.465)
AUDITORS	+	0.164*** (0.0497)	0.165*** (0.0491)	0.163*** (0.049)
BIG4	+	0.332*** (0.125)	0.345*** (0.117)	0.342*** (0.118)
SIZE	+	0.595*** (0.036)	0.584*** (0.036)	0.582*** (0.038)
LEVERAGE	+	-0.153 (0.151)	-0.143 (0.153)	-0.138 (0.147)
GROWTH	-	-0.062 (0.060)	-0.063 (0.055)	-0.047 (0.056)
UTILIZATION	-	-0.347*** (0.100)	-0.367*** (0.098)	-0.373*** (0.100)
ROA	-	-0.445 (0.353)	-0.438 (0.354)	-0.544 (0.349)
LOSS	+	0.007 (0.037)	0.070 (0.036)	0.018 (0.036)
QUICK	-	-0.065* (0.039)	-0.060 (0.039)	-0.059 (0.042)
PTBV	+	0.001 (0.003)	0.001 (0.003)	0.001 (0.003)
INT	+	0.038 (0.077)	0.033 (0.075)	0.029 (0.076)
BUSY	+	0.027 (0.134)	0.025 (0.131)	0.028 (0.134)
MAJOR	-			-0.489*** (0.140)
MGT	-			-0.412 (0.333)
Constant		0.805 (0.844)	0.938 (0.841)	1.168 (0.913)
Industry effects		Included	Included	Included
N		1,559	1,559	1,537
R <sup>2</sup>		88.20%	88.14%	88.19%
Adjusted R <sup>2</sup>		88.05%	87.97%	88.02%
Inflection Point		-	11.70%	11.78%

Robust standard errors in parentheses

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

Table 2-6: The Effect of Employee Voting Rights on AUDITFEES.

VARIABLES	Predicted signs	A	B	C
EVR2	-		-8.679*** (2.630)	-8.055*** (2.678)
EVR	+	-0.271 (0.721)	2.332** (1.125)	2.184* (1.131)
AUDITORS	+	0.164*** (0.050)	0.166*** (0.049)	0.163*** (0.049)
BIG4	+	0.333*** (0.125)	0.345*** (0.119)	0.342*** (0.120)
SIZE	+	0.595*** (0.036)	0.584*** (0.036)	0.582*** (0.038)
LEVERAGE	+	-0.153 (0.151)	-0.151 (0.151)	-0.145 (0.145)
GROWTH	-	-0.062 (0.056)	-0.063 (0.055)	-0.047 (0.056)
UTILIZATION	-	-0.347*** (0.100)	-0.365*** (0.098)	-0.370*** (0.100)
ROA	-	-0.444 (0.353)	-0.445 (0.354)	-0.550 (0.349)
LOSS	+	0.007 (0.037)	0.006 (0.036)	0.018 (0.036)
QUICK	-	-0.065* (0.039)	-0.061 (0.039)	-0.060 (0.042)
PTBV	+	0.001 (0.003)	0.001 (0.003)	0.001 (0.003)
INT	+	0.039 (0.077)	0.034 (0.075)	0.030 (0.076)
BUSY	+	0.027 (0.134)	0.025 (0.131)	0.028 (0.134)
MAJOR	-			-0.483*** (0.141)
MGT	-			-0.409 (0.330)
Constant		0.803 (0.846)	0.959 (0.843)	1.183 (0.916)
Industry effects		Included	Included	Included
N		1,559	1,559	1,537
R <sup>2</sup>		88.20%	88.18%	88.22%
Adjusted R <sup>2</sup>		88.05%	88.00%	88.05%
Inflection Point		-	13.43%	13.56%

Robust standard errors in parentheses

\*\*\* p&lt;0.01, \*\* p&lt;0.05, \* p&lt;0.1

### 2.4.3. Robustness Analysis

#### 2.4.3.1. Endogeneity Test

We run a set of robustness tests. Firstly, we address the basic limitation of endogeneity in the models. Endogeneity is expected to exist if ESO is correlated with unobserved variables in the regression models. To address this potential problem, we apply a two-stage least-squares (2SLS) regression analysis. We use the following first-stage regression (3) to estimate the constant and the coefficients of the dependent variables of ESO (Table 2-7):

We instrument employee ownership (in the first stage regression) with the industry mean of ESO, the average ESO level among companies in the same industry, to control for the competition in attracting employees with ESO plans (MEANESO), the SIZE which is significantly correlated with ESO (Table 2-3)—bigger companies in France tend to offer more ESO plans resulting from the resulting economies of scale in ESO implementation—and the company's BETA to control for the share's volatility in comparison to the market risk (Blair et al., 2000; Oyer, 2004)<sup>34</sup>. We also expect that ESO is related to the number of employees represented in the board of directors (EMPLDIRECTORS) who can influence the ESO implementation and to ownership structure characteristics (MGT and MAJOR) as managerial and major shareholders have the power to implement ESO plans.

$$\begin{aligned}
 ESO = & \beta_0 + \beta_1 MEANESO + \beta_2 SIZE + \beta_3 EMPLDIRECTORS + \beta_4 BETA + \beta_5 MAJOR \\
 & + \beta_6 MGT + \varepsilon
 \end{aligned}
 \tag{3}$$

---

<sup>34</sup> Oyer argues that companies offer employee compensation schemes as per the market conditions.

The estimated values in the first-stage regression (equation 3) predict the fitted value of employee share ownership (ESO). The latter is used in the second stage as an instrumental variable and test its relationship with UTILIZATION and AUDITFEES (Table 2-8).

The 2SLS regression analysis reveals an inverted-shaped effect of ESO on the two studied dependent variables, yielding statistically significant coefficients of the fitted values of ESO. As such, we conclude that the results of the 2SLS regression are qualitatively similar to the GLS regressions, suggesting that the primary results reported in Table 2-4, Table 2-5 and Table 2-6 are robust to endogeneity testing.

*Table 2-7: First Stage Regression to Predict the Fitted Value of ESO*

Variables	Predicted Signs	Coefficient
ESOMEAN	+	0.961*** (0.0296)
SIZE	+	0.001 (0.001)
EMPLDIRECTORS	+	0.002 (0.001)
BETA	+	0.003 (0.006)
MAJOR	-	-0.006 (0.012)
MGT	+	0.051* (0.027)
Constant		-0.014 (0.023)
Industry Effect		Included
Year Effect		Included
N		1,411
R <sup>2</sup>		18.78%
Adjusted R <sup>2</sup>		18.28%

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1



Table 2-8: Second Stage Regression: The Effect of ESO on UTILIZATION and AUDITFEES

VARIABLES	Predicted signs	UTILIZATION	AUDITFEES
ESO2	-	-11.910* (6.174)	-14.56*** (4.563)
ESO	+	3.856** (1.673)	3.703** (1.502)
TURN	+	-0.0516*** (0.018)	
AGE	-	-0.003*** (0.001)	
AUDITORS	+		0.164*** (0.0300)
BIG4	+		0.216* (0.112)
SIZE	+		0.611*** (0.0188)
DEBTRATIO	+		-0.171* (0.0898)
GROWTH	-		-0.0514 (0.0337)
UTILIZATION	-		-0.387*** (0.0524)
ROA	-		-0.380** (0.180)
LOSS	+		0.00899 (0.0262)
QUICK	-		-0.0586** (0.0233)
PTBV	+		-0.00127 (0.00304)
INT	+		0.0446 (0.0521)
BUSY	+		0.123* (0.0656)
Constant		-0.151 (0.387)	0.421 (0.466)
Industry effects			Included
N			1,433
R <sup>2</sup>		36.70%	87.91%
Adjusted R <sup>2</sup>		36.37%	87.79%

Robust standard errors in parentheses

\*\*\* p&lt;0.01, \*\* p&lt;0.05, \* p&lt;0.1

### **2.4.3.2. Regression of Observations With ESO $\neq 0$**

We then exclude the observations for which ESO is null, in order to avoid the biasness of absence of employee ownership plans (Table 2-9). The goal of this analysis is to verify if the level of ESO affects audit fees, only when the company develops employee ownership. The analysis is independent of firms that decide not to implement ESO. The analysis of the resulting panel of 1,395 observations does not differ from our main results and the inverted U-shaped relationship with audit fees remains significant.

### **2.4.3.3. Regression of Observations Before and After the Inflection**

Additionally, we calculate the maximum (inflection) point in each model<sup>35</sup>, and then run two linear regression model tests for each model; The first one includes ESO values that are lower than the inflection point, and the second one only includes greater values than the maximum (Table 2-10). Our results indicate, for all models, that ESO values lower than the maximum are significantly positively related to both our dependent variables (UTILIZATION and AUDITFEES), while greater values have significant negative effect on the dependent variables, thus validating the inverted U-shaped relationships obtained in the previous section.

### **2.4.3.4. Tobit Model Regression**

We also apply the Tobit statistical model (Tobin, 1958) that is a regression model used to study a truncated dependent variable. The model provides better estimates for similar variables. In this case, the dependent variable AUDITFEES is censored from below at zero—it is a nonnegative variable. The results support the evidence provided in the previous section (Table 2-11).

---

<sup>35</sup> The Inflection point represents the ESO level at which the curve its direction of curvature. The calculated values are presented in the final row of Table 2-4 and Table 2-5.

#### **2.4.3.5. U-Shaped Relationship Test**

Finally, we apply a test<sup>36</sup> developed by Lind & Mehlum (2010) that “gives the exact necessary and sufficient conditions for the test of a U-shape”. The test results indicate the existence of a statistically significant inverted U-shaped relationships (in models 1 and 2) and therefore, validate our main results and conclusions.

### **2.5. Conclusion**

This study examines the relationship between employee share ownership with agency costs and audit fees. It aims to contribute to a better understanding of ESO and its effects on the agency conflicts, the audit service pricing and the role of the auditor. Using a sample of French listed firms over the period of 2002–2016, our findings indicate an inverted U-shaped relationship between employee stock ownership and employee voting rights and both agency costs and audit fees.

This paper contributes to the empirical literature studying the effects of a particular corporate governance mechanism, ESO, on the audit pricing, by being the only research, we are aware of, to test the empirical link between ESO and audit fees. It indicates that audit fees are affected by the change in the ESO level. We also challenged previous findings indicating a negative linear relationship between ESO and agency costs by showing a curvilinear relationship between them. These results indicate that ESO is not free of drawbacks and that, in order to generate benefits from its advantages on employees, the company and even the overall economy (Carberry, 2011b; Kruse et al., 2010a), it has to be implemented properly. Overall, our evidence suggests that, in addition to direct effects on employee behavior (motivation, satisfaction, performance, involvement) and on firm performance (profitability,

---

<sup>36</sup> UTEST: Stata module to test for a U-shaped relationship (Lind & Mehlum, 2007).

turnover, culture), ESO can also have effects on risks, agency costs and audit pricing. Finally, we have explored an inverted U-shaped relationship between ESO and agency costs in the French context. Since French companies have high levels of concentrated ownership, leading to high information asymmetry and agency costs between majority and minority shareholders (La Porta et al., 1997), this paper suggests that high levels of ESO might provide a protection for minority owners in a similar civil law country.

Our study bears a few limitations. First, this article investigates ESO only on large French listed companies, which questions the generalizability of the results. The sample affects the implications of the results on companies outside France, and even to private firms in France. Future research should be made in other countries, to see if the inverted U-shaped relationship between ESO and audit fees is caused by a French particularity, or has the same effect in other countries as well. Second, the independent variable used to measure employee ownership, represents the percentage of shares owned by the firms' employees. A possibly better variable to measure the effect of employee ownership on agency costs and audit fees would be the percentage of employees — to the total number of employees—who own shares in the company. This measure can be a better proxy for the corporate culture created under ESO, that can affect agency costs between employees and shareholders. Kim and Ouimet (2014) prove that the number of employees who participate in ESO plans is as important as the number of shares owned by them, when measuring the effects of ESO on employee incentives.

## 2.6. Annex

Table 2-9: The Effect of Employee Ownership excluding null ESO on Audit Fees

VARIABLES	Predicted signs	A
ESO2	-	-13.650*** (4.532)
ESO	+	3.253** (1.372)
AUDITORS	+	0.147*** (0.051)
BIG4	+	0.475*** (0.088)
SIZE	+	0.581*** (0.040)
DEBTRATIO	+	-0.006 (0.128)
GROWTH	-	-0.007 (0.057)
UTILIZATION	-	-0.340*** (0.107)
ROA	-	-0.319 (0.350)
LOSS	+	-0.007 (0.035)
QUICK	-	-0.025 (0.048)
PTBV	+	-0.001 (0.003)
INT	+	-0.069 (0.079)
BUSY	+	-0.153* (0.086)
Constant		0.917 (0.940)
Industry effects		Included
N		1,559
R <sup>2</sup>		87.46%
Adjusted R <sup>2</sup>		87.38%

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

*Table 2-10: The Effect of Employee Ownership and Employee Voting Rights on Audit Fees before (A) and after (B) the inflection point*

VARIABLES	Predicted signs	A	B
ESO before inflection	+	2.365* (1.294)	
ESO after inflection	-		-1.695* (0.992)
AUDITORS	+	0.159*** (0.050)	0.436** (0.172)
BIG4	+	0.354*** (0.120)	Omitted
SIZE	+	0.572*** (0.036)	1.049*** (0.266)
DEBTRATIO	+	-0.199 (0.153)	-0.663 (0.567)
GROWTH	-	-0.065 (0.057)	-0.050 (0.155)
UTILIZATION	-	-0.397*** (0.100)	-0.537 (0.826)
ROA	-	-0.468 (0.348)	-0.581 (3.956)
LOSS	+	0.005 (0.037)	0.017 (0.293)
QUICK	-	-0.063 (0.039)	0.231 (0.465)
PTBV	+	0.001 (0.003)	-0.062 (0.040)
INT	+	0.044 (0.075)	-1.047* (0.634)
BUSY	+	0.004 (0.154)	0.067 (0.213)
Constant		1.203 (0.843)	-9.842 (6.830)
Industry effects		Included	Included
N		1,496	60
R <sup>2</sup>		88.17%	90.25%
Adjusted R <sup>2</sup>		88.10%	90.19%

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

*Table 2-11: The Effect of Employee Ownership and Employee Voting Rights on Audit Fees Using Tobit regression*

VARIABLES	Predicted signs	A
ESO2	-	-12.700*** (3.073)
ESO	+	2.968*** (0.946)
AUDITORS	+	0.166*** (0.029)
BIG4	+	0.347*** (0.096)
SIZE	+	0.578*** (0.019)
DEBTRATIO	+	-0.142 (0.087)
GROWTH	-	-0.063* (0.033)
UTILIZATION	-	-0.361*** (0.051)
ROA	-	-0.441** (0.182)
LOSS	+	0.006 (0.026)
QUICK	-	-0.060** (0.024)
PTBV	+	0.001 (0.003)
INT	+	0.0330 (0.053)
BUSY	+	-12.700*** (3.073)
Constant		1.087** (0.472)
Industry effects		Included
N		1,559
R <sup>2</sup>		86.23%
Adjusted R <sup>2</sup>		86.15%

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 2-12: The Effect of Employee Ownership and Employee Voting Rights on ADJUSTEDUTIL

VARIABLES	Predicted signs	A	B	C	D
ESO2	-	-11.000*** (2.718)		-10.940*** (2.749)	
ESO	+	3.046*** (0.790)		3.041*** (0.797)	
EVR2	-		-8.690*** (1.420)		-8.621*** (1.435)
EVR	+		2.750*** (0.672)		2.737*** (0.675)
TURN	-	-0.067*** (0.010)	-0.068*** (0.010)	-0.069*** (0.010)	-0.070*** (0.010)
AGE	+	0.001** (0.001)	0.001** (0.001)	0.001** (0.001)	0.001** (0.001)
MAJOR	-			-0.141 (0.176)	-0.137 (0.175)
MGT	-			-0.191* (0.105)	-0.179* (0.105)
Constant		1.297*** (0.220)	1.320*** (0.217)	1.405*** (0.219)	1.422*** (0.217)
Year effects		Included	Included	Included	Included
Industry effects		Included	Included	Included	Included
N		1,711	1,711	1,689	1,689
R <sup>2</sup>		4.87%	4.90%	7.26%	7.34%
Adjusted R <sup>2</sup>		4.04%	4.06%	6.33%	6.41%
Inflection Point		13.85%	15.82%	13.90%	15.87%

Robust standard errors in parentheses

\*\*\* p&lt;0.01, \*\* p&lt;0.05, \* p&lt;0.1



## **Part III: Essay 2**

# 3. Employee Share Ownership and Auditor Independence

## Evidence from France<sup>37</sup>

### Abstract

This paper studies if the level of Employee Share Ownership (ESO) impacts the independence of the external auditor, measured by the level of non-audit service fees (NASF). We suggest that managers perceive ESO as a method that aligns the interests of employees with those of the company, allowing them to demand more NAS without any impairment of auditor independence. We test this link on a sample of 125 companies listed in Euronext Paris. The analysis indicates a positive relationship between ESO and NASF ratio, as well as between ESO and unexpected NASF. The results indicate that high ESO allows companies to take advantage of joint engagement (audit and non-audit) benefits from their external auditors without compromising the auditor's independence.

**Keywords:** Non-audit service fees; employee share ownership; agency costs; auditor independence.

---

<sup>37</sup> Paper presented in:

- 40<sup>ème</sup> Congrès de l'Association Francophone de Comptabilité – Paris 2019.

### 3.1. Introduction

Shared capitalism refers to a series of arrangements that links the gain of the employees to the performance of the company they work at (Freeman et al., 2010). Extant research showed that shared capitalism is related to several benefits for both companies and the employees, such as reduced employee turnover, increase in employees' loyalty and motivation—especially in the presence of low levels of supervision—as well as an increase in the company's financial performance (Blasi et al., 2010a). In this article, we study a specific form of shared capitalism in French-listed companies, and check its effect on managerial decisions, specifically on the extent of the external auditor's independence.

Employee Share Ownership (ESO) is one of the tools used in shared capitalism, consisting of employees of a firm owning part of its stocks and, consequently, becoming entitled to several rights, mainly voting rights and profit-sharing dividends. Thus, employees can increase their personal wealth if companies over-perform. At a professional level, ESO is becoming more ubiquitous, as companies are trying to involve employees in the capital ownership and decision-making of the firm. The European Federation of Employee Share Ownership (EFES) indicated, in their “Annual Survey of Employee Share Ownership in European Countries - 2018” (Mathieu, 2018)<sup>38</sup>, that ESO has been increasing significantly in Europe and specifically in France, the country has the highest percentage of capital held by non-executive employees in Europe, and the highest number of employee shareholders, with 40% of all European employee-owners working in French companies<sup>39</sup>. Additionally, employee shareholders are most represented on the board of large French listed companies, and less frequently in smaller companies and in other European countries, making our

---

<sup>38</sup> <http://www.efesonline.org/Annual%20Economic%20Survey/2017/Survey%202017.pdf>

<sup>39</sup> As per 2017, there are 2,983,961 employee-shareholders in France, 1,982,137 in the UK, and the remaining 2,540,729 employee-shareholders are spread between 29 other countries.

context. 36.78% of French employees own shares in their companies, the highest in Europe, followed by Malta with 25.77%, while the European average employee-shareholders to employees ratio is 21.02%.

Several studies have tested how ESO benefits both the company and the employee shareholders. ESO aligns the interests of the firm and its employees (Rosen et al., 2005), increases the level of firm disclosure, thus decreasing information asymmetry (Bova et al., 2015). In general, ESO is considered as mitigation of agency problems thus reducing agency costs (Aubert et al., 2017).

In the presence of high levels of agency costs, firms demand higher audit quality to assure the stakeholders that the financial statements fairly reflect the financial position of the company, which would result in higher audit fees. Another way used by managers to guarantee a higher audit quality and to reduce agency costs is the reduction in the non-audit services (NAS) purchased from the external auditor. Indeed, large NAS from the company's external auditor might increase the economic bond between both parties. A strong auditor-auditee economic relationship decreases auditor's independence, or at least the perceived independence (Parkash & Venable, 1993; Schmidt, 2012), which can negatively affect the quality of the audit. However, during a joint engagement (audit and non-audit), synergies are created between both types of services provided, allowing the auditors to provide these services at a lower marginal cost than that of separate engagements (DeFond et al., 2002; Firth, 1997). The knowledge spillovers (Beck et al., 1988a) resulting from the joint audit service provided, help the auditors execute NAS more efficiently than other external consultants. The trade-off between the perceived impairment of the auditor's independence and knowledge spillovers (Simunic, 1984, p. 681), drives the company's purchases of NAS, based on the level of agency problems (Whisenant et al., 2003). Accordingly, in the presence of ESO and a consequent decrease in agency costs, a firm can capitalize on that, purchasing

more NAS from its external auditor without worrying about the economic bond between them.

Based on the above, this article investigates the effect of employee share ownership on the managers' perception of agency costs in a firm, by testing its relationship with the apparent auditor independence, measured by the NAS part of the total fees paid to the auditors. This study adds additional evidence of the relationship between corporate governance and NAS, and it is the first one, to the best of our knowledge, to link ESO to NAS purchases, and to the auditor's independence.

Using a sample of 125 French enterprises listed in Euronext Paris, for the period between 2002 and 2016, we find a significant positive relationship between the ratio of non-audit service fees to total fees paid to the auditor and the percentage of shares owned by employees, suggesting that ESO decreases the management's perception of agency costs, and companies are more likely to purchase additional NAS without worrying about the economic bond with the auditor. On the contrary, low levels of ESO push the company to purchase less NAS from its external auditor, to keep the auditor independence intact. The evidence is supported by a set of additional tests.

The following section discusses the literature review and hypothesis development. It is followed by the methodology, described in section 3.3, the results presented in section 3.4 and, finally, section 3.5 concludes the paper.

## 3.2. Literature Review

### 3.2.1. Employee Share Ownership

ESO has been impressively developing worldwide but in particular in Europe where there has been an increase of more than 29% in the employees' total capital ownership of European companies (Mathieu, 2017) and more than 15% in their ownership of French companies in the 10 years preceding this study. ESO practices bring benefits to both companies and employees. From a human resources perspective, ESO ameliorate the involvement, the satisfaction, the motivation, and the commitment of employees (Kruse et al., 2010c). It also decreases the rates of absenteeism and turnovers (Buchko, 1992), and thus, increases employees' work attitudes and behaviors inside the firm (Kruse et al., 2010b), which is beneficial to the firm value (Edmans, 2011; Ginglinger et al., 2011). These attitudinal improvements result in an increase of corporate performance and profitability (Kaarsemaker, 2006; Kruse, 2002; O'Boyle et al., 2016), as the company's financial success becomes a main concern for employee-owners as well (Klein, 1987). Carberry (2010) explained these effects of ESO by arguing that it aligns employees' behaviors with the long-term interests, goals and objectives of companies, resulting in a loyal and cooperative workforce, willing to do whatever it takes to improve firms' results (Rosen et al., 2005). Accordingly, ESO can also be seen as a tool that may partially replace physical employee monitoring, which is costly to implement, and can reduce agency problems (Harden et al., 2010).

Blasi et al. (2010) explained more about the link between ESO and agency costs by suggesting that employees under shared capitalism plans aim to "keep work standards high", in order to compensate for the close supervision from owners, as a return (or as a "gift") for

the increased compensation resulting from the shared capitalism plans. This compensation differentiates from fixed salaries, by creating a special environment between workers, based on an easier and more trustful information exchange. It inspires employees to think and act on a more long-term basis (Pendleton, 2006), and decreases information asymmetry (Pendleton, 2006) between employees, and between employees and other owners as well. This situation decreases the costs of agency problems (Barney, 1990a), similarly to managerial ownership (Ang et al., 2000). Indeed, research in Japan provides evidence of agency benefits coming from ESO in terms of reduced cost of equity (Barney, 1990a) and cost of debt (Barney, 1990b). Similarly, Ivanov and Zaima (2011) and Aubert et al. (2017) also found the same results by proving that ESO decreases both the cost of equity and the cost of capital in the US and France respectively.

### **3.2.2. Auditor Independence**

In June 2014, a new European Union (EU) audit legislation was introduced, concerning all European companies, and applicable to financial years starting on or after the 17<sup>th</sup> of June, 2016. The legislation includes new restrictions to the non-audit services (NAS) that auditors can provide to their audit clients as well as a fee cap for these services. The prohibition of certain NAS is based on the assumptions that they impair the independence of the auditor and, thus, reducing audit quality.

Even before the EU reform on NAS, the French code has always persisted on the auditor independence. The article 24 of the chartered accountant's code of ethics (2010)<sup>40</sup> states that if any non-audit services are provided for the client, the auditor must assess the situation and its risks and take appropriate action if need be. The auditor cannot carry on with

---

<sup>40</sup> Annex 8-1 of book VIII of the French commercial code. This article was modified in 2016 to match the EU reform of 2014.

the audit mission unless they can prove that these services do not affect his profession judgment, the delivery of his opinion or the course of their mission.

NAS are all those services provided by an external auditor that are not directly connected with the audit of the company's financial statement. These services can be provided by any other consultant as well, but the external auditor is supposed to perform them more efficiently, due to the synergies between them and the audit services executed (Antle & Demski, 1991; Joe & Vandervelde, 2007). The auditor also charges less than an outsider per consulting hour, due to the economies of scale between the total services provided (Kornish & Levine, 2004) and cost savings from knowledge spillovers in the joint engagement (Krishnan & Yu, 2011). However, regulators fear that the provision of NAS might affect the auditor's independence, by strengthening the economic bond with the company (Kinney et al., 2004). Therefore, the EU Commission restricted the provision of some NAS to audit clients to prevent the impairment of auditor independence, as a guarantee for a better reporting.

Despite these restrictions and the NAS fee caps applied, many believe that a high level of "permitted" NAS has the same effect of harming the auditor's independence, leading to a lower quality of the audit conducted, and a higher risk for shareholders. Beck et al. (1988a, 1988b), Abbott et al. (2003a) and Krishnan & Yu (2011) provide analytical and empirical evidence on how the auditor's independence can be impaired when providing audit and non-audit services simultaneously. They identify the situations that increase the economic bonding between the auditor and the auditee, and discuss the former's motivation to offer fee incentives for joint services. Numerous studies tried to examine the validity of the effect of NAS on the auditor's independence. The results do not always go in the same direction. For example, Frankel et al. (2002) show that the auditor's independence is positively (negatively) related to non-audit (audit) fees, while Ashbaugh et al. (2003) found



an insignificant relationship, and argued that this effect is sensitive to choices in the research design. Abbott et al. (2007) along with many others, tried to differentiate between routine and non-routine services provided by the auditor, and test the effect of each on the auditor's independence. They found that recurring services, i.e., those that occur on a regular basis, are more likely to impair the auditor's independence than non-recurring NAS.

Nevertheless, and despite the divergent results, Firth (1997) states that even if high NAS fees do not necessarily affect the auditor's independence, they devalue the "appearance of independence" (p. 514). Abbott et al. (2003a) also note that non-audit services impair the auditor independence "if not in fact, then certainly in appearance" (p. 219), following the former chair of the SEC's concern speech that NAS "shorten the distance between the auditor and management" (Levitt, 2000). Therefore, managers tend to decrease the level of NAS purchased from the external auditor every time they feel that shareholders or other stakeholders perceive a strong economic bond with the auditor, which might weaken the credibility and reliability of the audited financial statements.

### **3.2.3. Ownership Structure and Auditor Independence**

"Ownership structure of a firm determines the level of monitoring and impacts its risk environment" (Mitra & Hossain, 2007, p. 349). Shareholders try to monitor the managers' work to make sure they work in line with their interests and objectives. This monitoring is mainly exercised by external auditors who give assurance to the shareholders that the financial statements fairly represent the true financial performance and position of the company. Management, however, usually asks the auditor to provide other services than certifying the financial statements. As discussed above, regulators (and other stakeholders) fear that an excess of these non-audit services might impair the auditor's objectivity when

carrying out the audit. Therefore, the managers try to keep these services reduced when they perceive high agency costs with the company's stockholders.

Research on non-audit services has mainly focused on ownership structure. For example, Mitra & Hossain (2007) find that owners, especially institutional shareholders, try to influence management's decisions about purchasing NAS if they perceive that it might impair the auditor's objectivity. They also argue that in the presence of increased agency costs, institutional shareholders demand a better audit quality and attempt to limit the provision of NAS as an assurance for the auditor's independence, despite the limited evidence of this effect. Abbott et al. (2003b) find that independent audit committees decrease the level of NAS purchased from external auditors, as an effort to improve the appearance of auditor independence. Additionally, Larcker and Richardson (2004) prove that a poor corporate governance allows a significant positive association between NAS and opportunistic earnings management.

Zerni (2012) found that the agency costs between major and minor shareholders affect the level of NAS fees since firms attempt to improve the appearance of the auditor's independence. Thus, the management has the interest of reducing agency costs via the external audit, not exposing the firm to any impairment (or perceived impairment) of auditor independence. Parkash & Venable (1993) show that agency conflicts significantly affect the demand for recurring non-audit services. They claimed that "when managerial ownership is high, agency costs are likely to be lower, so auditees can take advantage of joint production benefits and purchase a higher level of non-audit services" (1993, p. 118). The "joint production benefits" are the economic discounts an auditor offers during a joint engagement, and are based on the cost savings from knowledge spillovers.

We believe that employee ownership has a similar effect on non-audit services; managers use ESO as a mechanism that gives other shareholders an assurance that they have

employee representatives inside the company. More precisely, in the presence of high levels of ESO, managers perceive a decrease in agency costs and will have a higher tendency to purchase more NAS from the auditor, without worrying about the economic bond between them. On the other hand, low levels of ESO may be associated with higher agency costs; thus firms would purchase less NAS to reassure shareholders that the auditor's independence is intact. Accordingly, our hypothesis can be stated as follows:

*Hypothesis: There is a positive relationship between the percentage of employee share ownership and non-audit service fees paid to the auditor.*

### **3.3. Methodology**

#### **3.3.1. Sample**

The sample used focuses on French firms listed on the Euronext Paris Stock Exchange over the years 2002 to 2016. ESO allows the participation of employees in decision-making in publicly traded firms more than in private companies (Guery & Stevenot, 2017), hence our focus on listed firms. Starting from the population of the companies included in the IODS (Insead OEE\*Data Services) database (the biggest 165 French listed firms), the sample has been reduced to 125 unique firms based on the availability of data. We could retrieve those data about employee ownership only for a limited number of companies. Financial data, instead, were first collected from the database of Thomson Reuters and verified, corrected and completed using the companies' published financial statements (registration documents) through a hand collection of data. All our tests use an unbalanced panel data composed of 1,559 firm-year observations.

### 3.3.2. Models and Variables

#### 3.3.2.1. Auditor independence

The level of auditor independence used in the analysis is the ratio of non-audit fees to the total fees paid to the auditor (audit + non-audit). Non-audit service fees include all fees paid to the auditor and not directly related to his audit service. The level of non-audit services purchased compared to the total fees paid to the auditor is an important criterion for investors in evaluating the auditor's independence (Abbott et al., 2003a; Mitra & Hossain, 2007; Schmidt, 2012). This measure is also consistent with the EU reform that regulates the amount of permitted non-audit services using a fee cap based on the total fees paid to the auditor.

#### 3.3.2.2. Employee Stock Ownership

We use two proxies for ESO. The first measure is based on the percentage of shares owned by the company's own employees over the total number of shares (*ESO*) (Guedri & Hollandts, 2008; Kruse et al., 2010a). These shares are either bought by employees or rewarded to them as bonuses and remuneration. The second measure considers the employee voting rights (EVR) i.e., how many votes employee owners get in the general meetings of the company over the total votes in the assembly. The values of this variable are on average higher than ESO, since shareholders' voting rights in France are multiplied when their share is nominative and owned for a minimum of 2 years.

#### 3.3.2.3. The Models

The following models will be used to test the effect of ESO auditor independence. (Variables are described in Table 3-1).

$$\begin{aligned}
 NASFRATIO = & \beta_0 + \beta_1 ESO + \beta_2 SIZE + \beta_3 ROA + \beta_4 LOSS + \beta_5 LEVERAGE + \beta_6 \\
 & AUDITORS + \beta_7 BIG4 + \beta_8 PTBV + \beta_9 QUICK + \beta_{10} GROWTH + \beta_{11} INT \\
 & + \beta_{12} BUSY + \beta_{13} AUDITCOMMITTEE
 \end{aligned} \tag{1}$$

$$\begin{aligned}
NASFRATIO = & \beta_0 + \beta_1 EVR + \beta_2 SIZE + \beta_3 ROA + \beta_4 LOSS + \beta_5 LEVERAGE + \beta_6 \\
& AUDITORS + \beta_7 BIG4 + \beta_8 PTBV + \beta_9 QUICK + \beta_{10} GROWTH + \beta_{11} INT \\
& + \beta_{12} BUSY + \beta_{13} AUDITCOMMITTEE \quad (2)
\end{aligned}$$

The models control for additional determinants of NASF. SIZE (Total Assets) is used to account for the firm's size (Hay et al., 2006), PTBV is the common shares' market price to book value ratio and (Ashbaugh et al., 2003), while ROA (Return on assets) and LOSS (a binary variable of 1 if the company reported losses) control for the company's performance and its extreme economic situations respectively (Frankel et al., 2002), and LEVERAGE (Debt to assets ratio) for its risk (Quick et al., 2013). QUICK (Quick ratio) (Antle et al., 2006) and INT (Foreign sales scaled by total sales) (Whisenant et al., 2003) capture the complexity of the audit process, GROWTH (change in sales) controls the effect of the company's growth (Quick et al., 2013), and AUDITCOMMITTEE is a binary variable that changes depending on the existence of an audit committee, and indicates a better corporate governance (Zaman et al., 2011). We also include some of the auditors' characteristics to control the number of auditors (AUDITORS), the existence of a big-four audit company among the firm's auditors (BIG4) (Ashbaugh et al., 2003), and whether the audit was conducted during the auditor's busy period (BUSY) (Firth, 2002).

We applied the Hausman specification test (Hausman, 1978) to our models by comparing the estimations that resulted from a fixed effect and another random effect model (Annex 3: Hausman Tests). It highlighted a significant difference between the estimations of both methods; thus the fixed effect method has been used. All continuous variables are winsorized at the 1<sup>st</sup> and 99<sup>th</sup> percentiles. The model is estimated using OLS with standard errors clustered by firm.

Table 3-1: Variables Description

Variable	Definition	Source	Thomson Field
NASFRATIO	Non-Audit Service Fees divided by the Total Fees paid to the auditor	- Thomson Reuters - Financial statements	ECSLDP066
ESO	Employees' Ownership of the firm's capital	- Financial statements	-
EVR	Employees' voting rights	- Financial statements	-
SIZE	Natural logarithm of the company's Total Assets	- Thomson Reuters - Financial statements	WC 02999
ROA	Return on Assets	- Thomson Reuters	WC 08326
LOSS	A dummy variable of 1 if the company reported loss during the year; 0 otherwise	- Thomson Reuters - Financial statements	WC 01651
LEVERAGE	Total Debt to Total Assets Ratio	- Thomson Reuters	WC 08236
AUDITORS	The number of the company's external auditors	- Financial statements	-
BIG4	A dummy variable of 1 if the firm has at least one big-four external auditor; 0 otherwise	- Financial statements	-
PTBV	Market Price to Book Value	- Thomson Reuters	PTBV
QUICK	Total Cash and its equivalents divided by Current Liabilities	- Thomson Reuters - Financial statements	WC 08101
GROWTH	Change in Sales divided by the previous years' Total Sales	- Thomson Reuters - Financial statements	WC 01001
INT	Foreign Sales divided by Total Sales	- Thomson Reuters - Financial statements	WC 08731
BUSY	A dummy variable of 0 if the company's fiscal year ends on December 31 <sup>st</sup> ; 1 otherwise	- Thomson Reuters	WC 05350
AUDIT-COMMITTEE	A dummy variable of 1 if an audit committee exists in the company	- Financial statements	ECSLDP005

## 3.4. Results and discussions

### 3.4.1. Descriptive Statistics

Table 3-2 provides the descriptive statistics of the variables used in the study. The mean (median) of the total fees paid to the auditors (TOTALFEES) is €8,769,000 (€4,085,000), while the non-audit service fees' is €609,000 (€160,000), which explains why the mean and median of our dependent variable (NASFRATIO) is relatively low. In our sample, NASF represent only, on average, 6.3% of the total fees paid to the external auditors with the median of 3.3%. In 24% of the observations, the auditors did not provide any non-audit service (NASF = 0)<sup>41</sup>. Despite all companies being components of the CAC All-tradable French index, we see a very big variation in the sizes of the firms forming our sample; the minimum (maximum) of the total assets is €97.6 million (€1,530 billion). Moreover, an average of 51.4% of the firms' sales were based on exports (foreign sales), and companies realized losses in 15.3% of the observations. Employee voting rights (mean = 2.8%) are on average slightly higher than their capital ownership (mean = 2.3%), as expected.

---

<sup>41</sup> The means of the remaining 76% of the observations is €803,000 of non-audit service fees, and 8.26% of NAS to total auditor fees ratio.

Table 3-2: Descriptive statistics

Variable		N. Observations	Mean	Median	Std. Dev.	Min	Max
1	NASFEES (in €000)	1,559	493	141.5	862.5	0.000	5,885
2	TOTALFEES (in €000)	1,559	7,484	3,746	8,812	219	51,000
3	NASFRATIO	1,559	0.062	0.032	0.083	0.000	0.648
4	ESO	1,559	0.022	0.010	0.040	0.000	0.328
5	EVR	1,559	0.028	0.011	0.050	0.000	0.420
6	TOTALASSETS (in €000,000)	1,559	17,200	5,080	31,600	97.6	276,000
7	ROA	1,559	0.043	0.044	0.062	-0.229	0.254
8	LOSS	1,559	0.157	0.000	0.364	0.000	1.000
9	LEVERAGE	1,559	0.264	0.249	0.159	.004	0.859
10	AUDITORS	1,559	2.184	2.000	0.423	1.000	4.000
11	BIG4	1,559	0.961	0.100	0.193	0.000	1.000
12	PTBV	1,559	2.010	1.610	2.834	-20.810	57.410
13	QUICK	1,559	0.991	0.870	0.547	0.195	3.720
14	GROWTH	1,559	0.014	0.037	0.267	-1.869	0.636
15	INT	1,559	0.531	0.587	0.290	0.000	1.000
16	BUSY	1,559	0.129	0.000	0.336	0.000	1.000
17	AUDITCOMMITTEE	1,559	0.931	1.000	0.253	0.000	1.000



Table 3-3 presented the correlation table. ESO and EVR are significantly positively correlated with NASF and TOTALFEES, but not significantly correlated with NASFRATIO. This indicates that the measuring the level of NAS provided by the auditor without considering the audit fees, can lead to altered deductions. The non-audit service fees (NASF) have to be scaled by the total fees paid by the auditor (TOTALFEES) in order to measure the appearance of the auditor independence (Frankel et al., 2002; Schmidt, 2012). NASF is significantly correlated with all variables. Many control variables, such as SIZE, LEVERAGE, AUDITORS, PTBV, INT and AUDITCOMMITTEE, are significantly correlated with our dependent variable, NASFRATIO. Since Table 3-3 exhibits several significant correlations between variables that will be included in the regression models, only a multivariate analysis can provide statistically reliable evidence to test the hypotheses.

Table 3-3: Correlations table

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. NASFEES	1.00																
2. TOTALFEES	0.63***	1.00															
3. NASFRATIO	0.54***	0.07***	1.00														
4. ESO	0.09***	0.21***	-0.03	1.00													
5. EVR	0.09***	0.22***	-0.03	0.98***	1.00												
6. SIZE	0.49***	0.77***	0.05**	0.26***	0.26***	1.00											
7. ROA	-0.06**	-0.09***	0.04	-0.05**	-0.04	-0.07***	1.00										
8. LOSS	-0.04*	-0.03	-0.01	-0.08***	-0.08***	-0.11***	-0.57***	1.00									
9. LEVERAGE	-0.07***	-0.07***	-0.09***	-0.01	-0.04	0.02	-0.07***	0.12***	1.00								
10. AUDITORS	0.17***	0.19***	0.09***	0.06**	0.03	0.23***	-0.01	-0.03	-0.03	1.00							
11. BIG4	0.09***	0.12***	0.07***	0.04*	0.05**	0.13***	-0.04	0.07***	0.06**	-0.02	1.00						
12. PTBV	-0.23	-0.06**	0.03	-0.06**	-0.05**	-0.13***	0.14***	-0.04	-0.15***	-0.05**	-0.01	1.00					
13. QUICK	-0.10***	-0.21***	-0.01	-0.10***	-0.09***	-0.36***	-0.04	0.06**	-0.28***	-0.07***	-0.09***	0.12***	1.00				
14. GROWTH	-0.05**	-0.06**	-0.01	-0.02	-0.02	-0.08***	0.16***	-0.14***	0.01	0.01	-0.08***	0.12***	0.13***	1.00			
15. INT	0.08***	0.06***	0.17***	-0.04*	-0.01	0.01	0.07***	-0.04	-0.16***	-0.19***	0.05**	0.05*	0.02	-0.06**	1.00		
16. BUSY	-0.12***	-0.15***	-0.01	-0.07***	-0.08***	-0.22***	-0.06**	0.10***	0.14***	-0.09***	0.08***	0.04	-0.09***	-0.02	0.06**	1.00	
17. AUDIT COMMITTEE	0.07***	0.14***	-0.05**	-0.01	-0.01	0.21***	-0.02	-0.02	-0.01	0.01	0.11***	-0.05**	-0.01	-0.07***	0.01	-0.02	1.00

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

### 3.4.2. Regression Analyses

Table 3-4: Regression of NASFRATIO on ESO, EVR and other control variables

VARIABLES	(1)	(2)
ESO	0.334** (0.135)	
EVR		0.232* (0.126)
SIZE	-0.012** (0.005)	-0.012** (0.005)
ROA	0.034 (0.045)	0.031 (0.045)
LOSS	0.006 (0.006)	0.006 (0.006)
LEVERAGE	0.067*** (0.022)	0.068*** (0.022)
AUDITORS	0.043*** (0.007)	0.042*** (0.007)
BIG4	-0.084*** (0.026)	-0.083*** (0.026)
PTBV	0.001 (0.001)	0.001 (0.001)
QUICK	-0.006 (0.006)	-0.005 (0.006)
GROWTH	0.005 (0.008)	0.005 (0.008)
INT	0.023* (0.014)	0.022 (0.014)
AUDITCOMMITTEE	-0.027*** (0.008)	-0.026*** (0.008)
BUSY	-0.019 (0.018)	-0.017 (0.018)
Constant	0.299*** (0.112)	0.304*** (0.112)
N	1,556	1,556
R <sup>2</sup>	6.10%	5.92%
Adjusted R <sup>2</sup>	5.31%	5.13%

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 3-4 reports the results of our models' regressions. Column (1) reports the estimation of Model (1) while column B focuses on Model (2). Column (1) reports a positive and significant coefficient associated to ESO (coefficient: 0.323; p-value: 0.017) which suggest that the proportion of NASF increases with the level of employees' ownership. It conveys that for a single standard deviation increase of the level of employee ownership in an average firm causes a 1.34% increase in the ratio of non-audit service fees to total auditor fees (NASFRATIO). The regression provides sufficient evidence in favor of not rejecting our hypothesis, implementing that the percentage of shares owned by the company's employees and their respective voting rights, gives the directors more flexibility in benefiting from auditor joint-engagement benefits and consequently purchasing NAS from their external auditor without worrying about the auditor-auditee economic bond. These results suggest that ESO compensates for the lack of auditor independence and reassures the company's stakeholders about the company's health.

Similarly, the model (2) supports these results by indicating that EVR also has a significant positive effect on NASFRATIO (coefficient: 0.220; *p*-value: 0.080) and therefore when employees have more voting rights, the company can purchase more NAS from its auditor without worrying about the auditor-client economic bond. However, this effect is less significant than ESO's effect, and therefore, we can conclude that employees do not necessarily need voting rights to decrease agency costs, and that the effect of employee ownership on agency costs is not driven by their involvement decision-making but by the alignment of interests and the motivation that results from the ownership.

Our models indicate that larger companies<sup>42</sup> tend to purchase fewer NAS from their external auditors (SIZE: coefficient. -0.012, p-value<0.05), and that the existence of at least one big-four auditor and of an audit committee significantly decreases the NASFRATIO as

---

<sup>42</sup> As per their total assets.

well. The number of external auditors is positively associated with NASFRATIO, as a larger number of auditors provides extra assurance about the audit report quality.

### 3.4.3. Additional Tests

#### 3.4.3.1. Endogeneity Test

We run a set of robustness tests. Firstly, we address the basic limitation of endogeneity in the models. Endogeneity is expected to exist if ESO is correlated with unobserved variables in the regression models. To address this potential problem, we apply a two-stage least-squares (2SLS) regression analysis. We use the following first-stage regression (3) to estimate the constant and the coefficients of the dependent variables of ESO (Table 3-5):

$$ESO = \beta_0 + \beta_1 MEANESO + \beta_2 SIZE + \beta_3 EMPLDIRECTORS + \beta_4 BETA + \beta_5 MAJOR + \beta_6 MGT + \varepsilon \quad (3)$$

We instrument employee ownership (in the first stage regression) with the industry mean of ESO, the average ESO level among companies in the same industry, to control for the competition in attracting employees with ESO plans (MEANESO), the SIZE which is significantly correlated with ESO (Table 3-3)—bigger companies in France tend to offer more ESO plans resulting from the resulting economies of scale in ESO implementation—and the company's BETA to control for the share's volatility in comparison to the market risk (Blair et al., 2000; Oyer, 2004)<sup>43</sup>. We also expect that ESO is related to the number of employees represented in the board of directors (EMPLDIRECTORS) who can influence the ESO implementation and to ownership structure characteristics (MGT and MAJOR) as managerial and major shareholders have the power to implement ESO plans.

---

<sup>43</sup> Oyer argues that companies offer employee compensation schemes as per the market conditions.

The estimated values in the first-stage regression (equation 3) predict the fitted value of employee share ownership (ESO). The latter is used in the second stage as an instrumental variable and test its relationship with NASFRATIO (Table 3-6).

*Table 3-5: First Stage Regression to Predict the Fitted Value of ESO*

Variables	Coefficient
ESOMEAN	0.961*** (0.0296)
SIZE	0.001 (0.001)
EMPLDIRECTORS	0.002 (0.001)
BETA	0.003 (0.006)
MAJOR	-0.006 (0.012)
MGT	0.051* (0.027)
Constant	-0.014 (0.023)
Industry Effect	Included
Year Effect	Included
N	1,411
R <sup>2</sup>	18.78%
Adjusted R <sup>2</sup>	18.28%
Robust standard errors in parentheses	
*** p<0.01, ** p<0.05, * p<0.1	

The 2SLS regression analysis reveals a positive relationship between ESO and the dependent variable NASFRATIO, bearing a statistically significant coefficient of the fitted values of ESO (Table 3-6). Therefore, we conclude that the results of the 2SLS regression are qualitatively similar to the Fixed effects regressions, suggesting that the primary results reported in Table 3-4 are robust to endogeneity testing.

Table 3-6: Second Stage Regression: The Effect of ESO on NASFRATIO

VARIABLES	NASFRATIO
ESO	3.031** (1.536)
SIZE	-0.010 (0.007)
ROA	0.106 (0.069)
LOSS	0.0122 (0.008)
LEVERAGE	0.0554** (0.259)
AUDITORS	0.0558*** (0.011)
BIG4	-0.153*** (0.044)
PTBV	0.001 (0.001)
QUICK	-0.016* (0.008)
GROWTH	0.011 (0.009)
INT	0.026 (0.016)
AUDITCOMMITTEE	-0.036*** (0.012)
BUSY	-0.043 (0.025)
Constant	0.253 (0.156)
N	1,464
R <sup>2</sup>	4.70%
Adjusted R <sup>2</sup>	3.85%

Robust standard errors in parentheses

\*\*\* p&lt;0.01, \*\* p&lt;0.05, \* p&lt;0.1

### 3.4.3.2. Unexpected Non-Audit Fees

After analyzing the effect of employee ownership using the non-audit service fees ratio, we re-estimate our model using an alternative measure for the economic bond between the auditor and the client: the unexpected non-audit fees which reflect the “excess profitability” of the client and more accurately the increases in the auditor-client economic bond (Kinney & Libby, 2002). This variable has been used by many studies as an estimation for auditor independence since it measures the unusually excessive (or low) fees (Defond et al., 2002; Frankel et al., 2002; Krishnan et al., 2005). The level of the unexpected component of the non-audit service fees is obtained by the residuals from a model that links the logarithmic value of the non-audit service fees (NASF) to a series of the control variables in line with Defond et al. (2002). It is illustrated by the following model (3).

$$\begin{aligned} \text{Unexpected NASF} = & \beta_0 + \beta_1 \text{ ESO} + \beta_2 \text{ SIZE} + \beta_3 \text{ ROA} + \beta_4 \text{ LOSS} + \beta_5 \text{ LEVERAGE} + \beta_6 \\ & \text{AUDITORS} + \beta_7 \text{ BIG4} + \beta_8 \text{ PTBV} + \beta_9 \text{ QUICK} + \beta_{10} \text{ GROWTH} + \beta_{11} \\ & \text{INT} + \beta_{12} \text{ BUSY} + \beta_{13} \text{ AUDITCOMMITTEE} \end{aligned} \quad (3)$$

The results are reported in Table 3-7 below. Similarly to the main regression model, they indicate that ESO positively affects the auditor independence.



Table 3-7: Regression of Unexpected NASF on ESO and other control variables

VARIABLES	Unexpected NASF
ESO	15.610** (6.894)
Constant	-4.804 (5.691)
SIZE	0.124 (0.251)
ROA	3.689 (2.286)
LOSS	0.462 (0.327)
LEVERAGE	4.829*** (1.104)
AUDITORS	1.063*** (0.377)
BIG4	0.308 (1.328)
PTBV	0.014 (0.034)
QUICK	-0.066 (0.299)
GROWTH	0.146 (0.408)
INT	-2.113*** (0.688)
AUDITCOMMITTEE	-0.570 (0.426)
BUSY	-1.227 (0.931)
N	1,556
R <sup>2</sup>	3.40%
Adjusted R <sup>2</sup>	2.52%

Robust standard errors in parentheses

\*\*\* p&lt;0.01, \*\* p&lt;0.05, \* p&lt;0.1

### **3.4.3.3. Tobit Model Regression**

Knowing that NASFRATIO is a nonnegative dependent variable, a more appropriate method to estimate the effect of the independent variable ESO on NASFRATIO, would be by using the Tobit statistical model (Tobin, 1958). The results, reported in the chapter's Annex

Table 3-8, support our main findings.

### **3.4.3.4. Regression of Observations With ESO $\neq 0$**

Next, to avoid the biasness of absence of employee ownership plans, we drop the observations in which the firms' employees do not own company shares. The goal of this analysis is to verify if the level of ESO affects the auditor's independence, only when the company develops employee ownership. The analysis is independent of firms that decide not to implement ESO. Seven firms have been fully dropped for a total of 164 observations. The results reported in Table 3-9 are in line with the conclusions taken from the previous tests.

### **3.4.3.5. Regression of Observations Excluding 0 NASF**

Finally, we eliminate the observations in which companies do not buy any non-audit services from their external auditors, under the assumption that the decision of buying non-audit services is independent from the level of employee ownership in the firm. This analysis aims to understand if ESO affects the auditor's independence, independently from the company's decision not purchase any non-audit services. The results, reported in Table 3-10, support once again our main findings.

## **3.5. Conclusions**

This study examines the link between the percentage of shares held by employees and the auditor independence, in the wave of the new EU regulations on NAS fee caps and the limitation of NAS service provided by external auditors.

We hypothesize that ESO aligns the interests of employees and that companies with high levels of ESO are more likely to purchase NAS from the external auditor. The latter generally provides these services more efficiently than other consultants, due to synergies between NAS and audit services supplied. However, the trade-off between these knowledge spillovers from the audit service provided, and the auditor's independence, drives the level of NAS purchase, depending on the relative agency costs. Explicitly, in the presence of higher agency costs, companies require a higher quality of audits, and therefore sacrifice the 'cost-saving' synergies between audit and NAS, in favor of an increased auditor independence. On the contrary, in the presence of lower agency costs, managers worry less about the auditor's independence level, and tend to purchase more NAS to benefit from the joint engagement synergies.

Using a sample of French-listed firms, we find that ESO and NASF ratio are positively related. It supports the argument that high levels of ESO are perceived to lower agency costs; thus companies tend to purchase more NAS, benefiting from knowledge spillovers resulting from the audit activities. At lower levels of NAS, instead, entities tend to decrease their NAS purchases to reassure shareholders about the auditor independence, keeping their relationship intact.

The evidence from this study indicates that managers may implement ESO as an assurance mechanism for shareholders that employees in the company work in the company's interests and may capitalize on that to benefit from the joint-engagement benefits with the auditor. We advocate the empirical results of this paper as an extension to the existing literature on both employee ownership and auditor independence. Indeed, it contributes to the literature on several ways. Firstly, while most studies gave the relationship between agency costs and ESO for granted, i.e., without real empirical evidence, this study provides empirical evidence of the link between ESO and management's estimation of agency costs. Secondly, it

adds to the existent literature on NAS fees and supports the new EU regulations on NAS fees that claim that the auditor's independence is driven by agency costs. Finally, to the best of our knowledge, this is the first study that provides evidence of an empirical effect of ESO on the level of auditor independence.

This study has some limitations as well that are specifically related to the context. In France, other unobserved shared capitalism practices (mainly profit sharing) exist and are equally significant. Thus, they might reduce the perceived effect of ESO on agency costs. Additionally, since the EU reform, auditors have provided much less NAS than before, as the list of prohibited NAS have grown bigger, and the purchase of any (permitted) NAS requires the authorization of the audit committee<sup>44</sup>, and should not exceed 15% of the average total fees paid to the auditor.

---

<sup>44</sup> Since the implementation of the EU reform, when a company's NASF surpass 15% of the average total fees (over 3 years), its audit committee has to assess whether the auditor's independence is safeguarded and it may not engage with the auditor after 2-year period.

### 3.6. Annex

Table 3-8: Regression of NASF ratio on ESO and other control variables using Tobit model<sup>45</sup>

VARIABLES	NASFRATIO
ESO	0.259** (0.129)
SIZE	0.001 (0.004)
ROA	0.069 (0.055)
LOSS	0.006 (0.008)
LEVERAGE	0.047* (0.026)
AUDITORS	0.052*** (0.009)
BIG4	-0.021 (0.025)
PTBV	0.002** (0.001)
QUICK	-0.009 (0.007)
GROWTH	-0.002 (0.003)
INT	0.056*** (0.015)
AUDITCOMMITTEE	-0.036*** (0.010)
BUSY	-0.008 (0.016)
Constant	-0.0669 (0.093)
N	1,556

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

<sup>45</sup> The Tobit regression does not have an equivalent to the  $R^2$  found in OLS regressions.

Table 3-9: Regression of NASF ratio on ESO and other control variables only when ESO≠0

VARIABLES	NASFRATIO
ESO	0.359*** (0.137)
SIZE	0.033 (0.048)
ROA	0.011 (0.006)
LOSS	0.058** (0.023)
LEVERAGE	0.045*** (0.007)
AUDITORS	-0.131*** (0.029)
BIG4	0.001 (0.001)
PTBV	0.001 (0.006)
QUICK	0.000 (0.001)
GROWTH	0.026* (0.015)
INT	-0.019** (0.009)
AUDITCOMMITTEE	0.005 (0.021)
BUSY	0.359*** (0.137)
Constant	-0.015*** (0.005)
N	1,392
R <sup>2</sup>	7.60%
Adjusted R <sup>2</sup>	6.67%

Robust standard errors in parentheses

\*\*\* p&lt;0.01, \*\* p&lt;0.05, \* p&lt;0.1

*Table 3-10: Regression of NASF ratio on ESO and other control variables only when NASF≠0*

VARIABLES	NASFRATIO
ESO	0.329* (0.171)
SIZE	-0.0196*** (0.00626)
ROA	0.0102 (0.0622)
LOSS	0.00569 (0.00842)
LEVERAGE	0.0894*** (0.0302)
AUDITORS	0.0469*** (0.00978)
BIG4	-0.104*** (0.0314)
PTBV	-0.000512 (0.000827)
QUICK	-0.0158* (0.00905)
GROWTH	0.00617 (0.00766)
INT	0.00184 (0.0172)
AUDITCOMMITTEE	-0.0410*** (0.0111)
BUSY	-0.0233 (0.0231)
Constant	0.552*** (0.144)
N	1,556
R <sup>2</sup>	8.00%
Adjusted R <sup>2</sup>	7.16%

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.

## **Part IV: Essay 3**



## 4. The Type of Earnings Management in France and the Effect of Employee Share Ownership<sup>46</sup>

### Abstract

This article investigates earnings management on a sample of 125 French listed companies. Following Jiraporn et al. (2008)'s model to reveal the type of earnings management, we find a positive relationship between discretionary accruals and agency costs, implying that managers of French companies manage earnings rather opportunistically than beneficially. We also find evidence that the level of employee share ownership is negatively linked to the level of opportunistic earnings management. Additionally, employee share ownership moderates the relationship between the level of discretionary accruals and agency costs. These results suggest that (1) ESO decreases the level of opportunistic earnings management, and that (2) its implementation makes the use of earnings management less opportunistic.

**Keywords:** Employee share ownership, Earnings Management, Discretionary Accruals, Agency costs, Managerial Entrenchment.

---

<sup>46</sup> Paper presented in:

- Mid-year Kelso Fellows Workshop—New Jersey 2020.

## 4.1. Introduction

Managers often use a certain level of flexibility and discretion in financial reporting—allowed under the generally accepted accounting principles—to present a more favorable image of the firm's performance. These techniques, called earnings management, are used to adjust or manipulate the level of the reported income (Davidson III et al., 2010).

Earnings management has been a vague and interesting field of research in several contexts and from different standpoints. Earnings management studies have focused on the managers' motives and incentives (Pham et al., 2017), its estimations and measurements (Dechow et al., 2010), causes and implications (Dechow et al., 2003; Healy & Wahlen, 1999), and factors influencing it (Mard & Marsat, 2012; Xie et al., 2003). The main debate about it has involved the reasons of executives for using these techniques; whether they use discretion to manipulate earnings opportunistically (i.e., for their personal interests) (Chung et al., 2005; Surroca & Tribó, 2008) or beneficially (i.e., to communicate information to outside investors) (Jiraporn et al., 2008; Pham et al., 2017). The earnings management literature has also specifically emphasized how corporate governance mechanisms have an effect on it in several contexts (Cornett et al., 2008; Sáenz González & García-Meca, 2014).

This paper investigates the nature of earnings management and the effect of a specific corporate governance mechanism, employee share ownership (ESO). In particular, we test whether the implementation of ESO affects the behavior of executives in terms of managing earnings. We expect that ESO improves corporate governance, and lowers (increases) the use of opportunistic (beneficial) earnings management.

We focus on the French context where employee shareholders have the highest representation on the boards of the largest companies and the biggest number of employee owners in Europe (Mathieu, 2017). These specifications allow ESO in France to create a

strong “labor voice” (Faleye et al., 2006, p. 507), and to resist management decisions that challenge the shareholders’ interests. We also focus on publicly traded companies in which ESO allows employees to participate more in decision-making and enhances the flow of information at the operational and intermediate levels (Guery & Stevenot, 2017).

We first use the agency theory as a tool to assess the opportunistic or beneficial nature of earnings management in French-listed companies. Opportunistic earnings management occurs when managers use discretionary accruals to generate personal benefits, against shareholders’ or other stakeholders’ interests. Beneficial earnings management represents the use of accruals to signal information to shareholders and outside investors i.e., managers expect shareholders to properly interpret the disclosed accruals enclosing information about future profitability.

Earnings management has received little interest in the French context. This interest has often been shown by studying the relationship with corporate governance and ownership structure mechanisms (Jeanjean & Stolowy, 2008; Mard & Marsat, 2012; Piot & Janin, 2007). The motives for which French executives manipulate earnings have been ignored in these studies. Therefore, we use Jiraporn et al. (2008)’s model to answer this research question. This model links the absolute value of discretionary accruals to the level of agency costs in order to specify if executives are managing earnings for opportunistic reasons or to disclose inside information to outside investors. We find that managers are more likely to manage earnings opportunistically i.e., to maximize their bonuses, meeting the earnings threshold, avoiding reporting losses, securing their job positions...

We then study employee share ownership’s effect on earnings management. While many studies have argued and found empirical evidence about the relationship between a firm’s ownership structure and the level of earnings management, none has given any interest to the effect employee ownership might have on the latter. They have mainly focused on

institutional, managerial, family, governmental and blockholder ownership. After specifying that discretionary accruals are rather used opportunistically in France, we find that they are negatively affected by the level of employee share ownership; a higher percentage of ESO limits the use of these opportunistic accruals. This relationship is influenced by first, the effect of ESO on agency costs, and second by its positive effect on managerial entrenchment. ESO literature argues that executives implement ownership plans for employees in order to entrench themselves in the company. Nonetheless, entrenched managers are less likely to manage earnings opportunistically, mainly because they do not seek job security, which is guaranteed by their entrenchment, and therefore have fewer incentives to hide the company's actual performance from outside shareholders.

The rest of the paper is organized as follows. Section 4.2 frames this study within the context of extant literature and develops the hypotheses. Section 4.3 presents the methodology used to test both hypotheses mentioned in the second section. It describes the estimation of earnings management used and the models that test the hypotheses. Section 4.4 displays the results of our models and findings with their analysis, and finally, the section 4.5 presents the concluding remarks of the paper.

## **4.2. Literature Review and Hypothesis Development**

### **4.2.1. Opportunistic Vs. Beneficial Earnings Management**

Managers manage earnings either to mislead the stakeholders about the actual performance of the firm or to influence any contract that depends on financial results (Healy & Wahlen, 1999). Walker (2013) defines earnings management as the use of managerial discretion in accounting and reporting “to influence how underlying economic events are

reflected in one or more measures of earnings” (p. 446). This definition, contrary to previous ones, indicates that earnings management has significant consequences, without precisising if they are always negative and if its use is restricted to “misleading”. Indeed, managing earnings can either be regarded as opportunistic or beneficial behaviors of managers. The debate between the informative and opportunistic use of earnings management has been proven to depend on the context of the studies, as results differ between countries and cases.

#### **4.2.1.1. The Opportunistic Use of Earnings Management**

Prior research presents the various incentives that allow executives to engage with earnings management, and most of the studies have concluded that the majority of them are linked to opportunistic scenarios which include, but are not limited to, maximizing bonuses (Matsunaga & Park, 2001), meeting or beating earnings threshold (Gilliam et al., 2015; Gunny, 2010), avoiding reporting losses or declines in earnings (Park & Shin, 2004; Peasnell et al., 2005), securing their own job positions (Surroca & Tribó, 2008), incurring lower costs of debt (Pham et al., 2017) and minimizing tax payables (Beatty & Harris, 1998). For instance, one opportunistic use of earnings management occurs when executives use discretionary accruals and different accounting methods to decrease the reported earnings when their bonuses are reaching their maximum, and to increase earnings otherwise (Healy, 1985; Holthausen et al., 1995). Another example is the case of low-growth firms with high agency costs of free cash flow—that is the investment of cash flows in projects of negative net present value (NPV) (Jensen, 1986). Managers in these companies tend to use discretionary accruals to increase reported earnings and hide the effect of these negative NPV projects on the reported income of the firm (Chung et al., 2005).

Provided with these incentives to decrease (increase) the reported income, managers aim to mislead stockholders and outside investors about the financial results of the company, by using income-decreasing (income-increasing) discretionary accruals (Chung et al., 2002).

#### **4.2.1.2. The Beneficial Use of Earnings Management**

In contrast, other studies argued that managers use earnings management tools to reduce information asymmetry with shareholders and investors, by signaling private information about the firm (Healy & Palepu, 1993; Holthausen, 1990). This perspective considers discretionary accruals beneficial to outside stakeholders, who interpret the enhanced earnings' information, to predict the future profitability of the company. Subramanyam (1996) first found empirical evidence for this argument, by showing that stock market prices are linked to discretionary accruals, which are also related to future firm performance, cash flows and dividends. Arya et al. (2003) find that the level and the pattern of earnings can reveal information. They argue that information in a company is dispersed and, therefore, "different people know different things and nobody knows everything. In such an environment, a managed earnings stream can convey more information than an unmanaged earnings stream" (p. 111); thus earnings management should not be eliminated, but rather interpreted more properly to reduce information asymmetry. These arguments have been empirically confirmed by other studies that found that discretionary accruals have a higher beneficial value than an opportunistic one, but this conclusion depends on their specific context (Jiraporn et al., 2008; Louis & Robinson, 2005; Pham et al., 2017).

#### **4.2.1.3. Earnings Management in France: Opportunistic or Beneficial?**

Prior studies on earnings management evaluate the settings in which managers are more likely to behave opportunistically. These settings include the managers' incentives and governance mechanisms. When their incentives are aligned with the shareholders', managers tend to use "predictable earnings" (Adut et al., 2013, p. 131), rather than opportunistic discretionary accruals to reduce information asymmetry and the cost of capital thereafter (Francis, 1984; Kravet & Shevlin, 2010). Similarly, improved corporate governance enhances the quality of financial reporting and provides an effective monitoring for earnings

management, restraining the opportunistic behavior of managers (Bowen et al., 2008; Jaggi et al., 2009).

Accordingly, Jiraporn et al. (2008) offer an agency theory approach to understand if managers' use of earnings management is opportunistic or beneficial. They argue that the executives' behavior is determined by comparing the value of discretionary accruals to the level of agency costs in the company. In other words, a firm whose level of agency conflicts is low and whose managers' and shareholders' interests are aligned, should experience an increased beneficial use of earnings management and a less opportunistic use of earnings management against the shareholders. In this case, managers try to signal information to outside shareholders and investors through discretionary accruals. On the other hand, high levels of agency costs and an increased level of information asymmetry imply that managers use earnings management opportunistically for their own personal benefits, rather than the shareholders'. In fact, if earnings management's use is opportunistic, a firm with high (low) agency costs would exhibit an increased (limited) level of earnings management.

Thus, a positive relationship between agency costs and earnings management, implies that the latter is used opportunistically by managers, while a negative relationship between the two implies a beneficial usage.

We apply Jiraporn et al. (2008)'s approach on a sample of French-listed companies, to understand the usage of earnings management in France, a civil law country characterized by high concentration of ownership, significant family ownership in the biggest listed companies (Mard & Marsat, 2012) and a low protection for minority shareholders (La Porta et al., 1997).

The financial reporting and taxation systems are very related in France. Lamb et al. (1998) find that in France and Germany, the taxation system has a greater influence on the choice of operational accounting policies than in the US and the UK. This linkage provides French managers with incentives to manipulate profits downwards to avoid or delay tax

payments (García Lara et al., 2005). For instance, several obligations exist on the reporting system of expenses, to allow their income tax deduction. This limits the need for disclosures to legal requirements only, and stipulates a low usage of discretionary accruals that aims to inform external stakeholders about the upcoming events. When comparing the use of earnings management in France and Canada, Othman and Zeghal (2006) find that managers of French firms use income-increasing accruals to keep a lower cost of debt. Additionally, Jeanjean and Stolowy (2008) study the effect of the IFRS<sup>47</sup> adoption on earnings management and find that there is a significant increase in the number of firms suspiciously reporting small profits in France, suggesting that managers use discretionary accruals to meet or beat their budgeted earnings, an indication of an opportunistic practice. Moreover, profit sharing is compulsory for all large French companies, provided the financial year ended with a profit. This may be a motive for many executives to manage earnings upwards to reach their targeted profits and obtain the variable part of their compensation (Gao & Shrieves, 2002).

Therefore, we expect that managers in France use earnings management for rather opportunistic than signaling reasons. To test this hypothesis, we study the relationship between agency costs and the volume of discretionary accruals.

*Hypothesis 1: The level of earnings management is positively linked to agency costs among French-listed firms.*

### **4.2.2. Employee Share Ownership and Earnings Management**

Several corporate governance mechanisms are usually employed in companies, with the ultimate purpose of aligning the interests of the agents and the principals. They can take

---

<sup>47</sup> International Financial Reporting Standards.



numerous forms, either related to the ownership structure, board characteristics, incentive mechanisms or internal committees (Filatotchev & Wright, 2011; Singh & Davidson III, 2003). The misalignment of interests between owners and managers is an important factor for the presence of opportunistic earnings management. Managers' use of discretionary accruals, as an earnings management tool, may allow the dissemination of inaccurate information about the company and its profitability (Rahman & Ali, 2006).

Consequently, it is very important for every company to improve its corporate governance in order to allow investors to receive the actual information from the published financial statements and decrease information asymmetry. Therefore, extant research has focused on how corporate governance around the world can help limiting opportunistic earnings management providing improved information for all stakeholders. For instance, Peasnell et al. (2005) and Jaggi et al. (2009) find that the proportion of outsiders on the board—in UK and Hong Kong firms respectively—decreases the use of opportunistic discretionary accruals, proving that the board independence and characteristics enhance the integrity of financial reporting. Sáenz González & García-Meca (2014) uncover similar results in Latin American markets, and that the meeting frequency of the board decreases opportunistic discretionary accruals as well. Siregar and Utama (Siregar & Utama, 2008) reveal that family ownership in Indonesia use more efficient earnings management than other firms. In Korea, Kim and Yi (2006) show that publicly held firm manage earnings more than privately held firms to satisfy the expectations of various market participants and attract more investors. Additionally, Lafond & Roychowdhury (2008) and Bao & Lewellyn (2017) find that opportunistic earnings management decreases with managerial and institutional ownership respectively, as manager-owners and institutional shareholders' incentives allow them to promote accurate reporting. Noting that the effectiveness of corporate governance mechanisms in reducing opportunistic discretionary accruals depends on the institutional

characteristics, legal system, reporting system and shareholder protection level of the country (Aguilera et al., 2008; Filatotchev et al., 2013).

In France, only a handful of studies tested the effects of corporate governance on earnings management; Particularly, Piot and Janin (2007) studied the effect of the auditor's and the audit committee's characteristics on the level of earnings management and find that the existence of an audit committee and of a Big Five auditor do not reduce the use of earnings management. On the other hand, Mard and Marsat (2012) reviewed several ownership structures—namely ownership concentration and various types of shareholding (managerial, family, governmental, financial, institutional and industrial)—and verified how each one affects the level of earnings management. They find that ownership concentration and family ownership decrease the managers' use of discretionary accruals. In this study, we add to the corporate governance and earnings management literature by examining the effect of one particular form of ownership structure on the level of earnings management in French-listed companies. Specifically, we study the effect of employee share ownership on earnings management in France.

The corporate governance theory has linked employee share ownership to two different types of effects: the alignment of incentives and entrenchment of managers.

#### **4.2.2.1. Alignment of Incentives**

The agency theory (Jensen & Meckling, 1976) literature, which has offered the main theoretical framework for studies on employee ownership, that offering shares to employees help aligning the interests of employees with the shareholders' (Brown et al., 2006). It therefore enhances the firm performance and profitability (Kruse, 2016), leading to an improved corporate governance in the company (Bova et al., 2015) which consequently decreases the opportunistic behavior of management “monotonically” (Teshima & Shuto, 2008, p. 108). In fact, studies on employee financial participation have emphasized its

capabilities to lower agency costs, particularly when the work contracts are incomplete (Pendleton, 2006). The arguments focus on the employees' expropriation abilities when their interests deviate from the firms', due to moral hazard and adverse selection costs (Eisenhardt, 1989). McNabb and Whitfield (1998, p. 173) explain the two approaches used by managers to deal with these asymmetric information costs; the "stick" and the "carrot" approach. The "stick" approach is the traditional direct supervision and close monitoring, which can be very costly and may imply a lack of trust in employees. The "carrot" approach represents an incentive system that motivates employees through financial compensations and participatory management. This approach hypothesizes that shared capitalism plans (employee ownership for example) align both parties' (employees and the firm) interests (Rosen et al., 2005) and allows the firm's employees and managers of the firm to work in the sole interest of the company and its shareholders (Freeman et al., 2010). Therefore, the agency theory literature predicts that the implementation of employee ownership plans promotes beneficial earnings management over opportunistic manipulation, as managers are more likely to use discretionary accruals to inform shareholders and other investors rather than expropriate them. Blasi et al. (2013) argue that better work conditions for employees and a better productivity are not only provided by the implementation of an employee stock ownership plan, but also by the size of their individual share in the company and the value of the firm's employee-owned shares. Hence, we expect the percentage of shares held by employees to be positively (negatively) related to the level of beneficial (opportunistic) earnings management.

#### **4.2.2.2. Managerial Entrenchment**

On the other hand, Faleye and Trahan (2011), among others, argue that employee ownership increases managerial entrenchment, as managers implement ESO to acquire control over the company (Rauh, 2006) as employees would not vote against their managers who offered them company shares (Pagano & Volpin, 2005). While agency theorists believe

that managerial entrenchment is detrimental to firm value (Faleye, 2007) and therefore triggers an increased opportunistic use of discretionary accruals (Walker, 2013), Di Meo et al. (2017) prove that entrenched managers tend to manage earnings less opportunistically than non-entrenched executives, as they find negative association between the level of managerial entrenchment and opportunistic discretionary accruals.

Chang and Zhang (2015) argue that managerial entrenchment is very detrimental to firm value, as entrenched managers control the company and are disciplined by neither corporate governance mechanisms nor by the threats of their dismissal and the takeover of the company (Berger et al., 1997)<sup>48</sup>. Therefore, managerial entrenchment has been considered as an indicator of weak corporate governance (Bebchuk & Cohen, 2005). This perspective, also known as the “managerial expropriation” view (Shleifer & Vishny, 2007, p. 742), claims that managerial entrenchment tolerates shareholder expropriation by managers, increasing the likelihood of managing earnings opportunistically.

Another belief, known as the “quiet life” view (Bertrand & Mullainathan, 2003, p. 1047), states that the protection from takeover provided by managerial entrenchment, allows executives to focus on managing the company without engaging in costly expropriation behaviors. This view also argues that non-entrenched managers have more motives in opportunistically managing earnings (Stein, 1989)<sup>49</sup> and in hiding the true performance of the company, specifically to enhance their personal job security and protect the company from takeovers (Surroca & Tribó, 2008), which is not the situation of entrenched managers. Aubert et al. (2014) prove that low-performing managers of French companies use employee

---

<sup>48</sup> Berger et al. (1997, p. 1411) define managerial entrenchment as “the extent to which managers fail to experience discipline from the full range of corporate governance and control mechanisms, including monitoring by the board, the threat of dismissal or takeover, and stock- or compensation-based performance incentives”.

<sup>49</sup> By adjusting discretionary accruals, real activity manipulation or increasing reported performance.

ownership to entrench themselves and assure their job security, which reduces their need to opportunistically manage earnings. We therefore expect employee ownership, even when implied as an entrenchment mechanism, to substitute the managers' need of opportunistically managing earnings to gain the shareholder's trust.

#### **4.2.2.3. Employee Share Ownership and Opportunistic Earnings Management**

Lowitzsch & Hashi (2014)—among others—discuss how employee ownership presents a tool that improves corporate governance. They argue that ESO switches the company's incentives from short-term to long-term, as it creates a bloc of shareholders formed of its own employees who know and understand the firm more than any outsider. This bloc “supports management in resisting short-term actions of the financial markets and imposes some constraint on opportunistic management and short-term policies”. Therefore, ESO is expected to lead to fewer manipulation of earnings by the firm's management and to increase the informative disclosures (Bova et al., 2015).

*Hypothesis 2: There is a negative (positive) relationship between employee share ownership and opportunistic (beneficial) earnings management.*

### **4.3. Research Methods and Measurement of Variables**

#### **4.3.1. Agency Costs**

To estimate the level of agency conflicts in every company, we use the asset utilization ratio, a proxy for agency costs, as defined by Ang et al. (2000) and Singh and Davidson III (2003). This measure is represented by the ratio of the company's total sales to

total assets. This ratio indicates if the managers in the company are effectively using the assets to generate sales, i.e., it represents the loss in revenues linked to an ineffective utilization of assets, resulting from bad investment decisions (negative net present value projects) or from management shirking (not putting much effort into their responsibility of generating revenues). This ratio is inversely related to agency costs<sup>50</sup>, and therefore we use the opposite number of the asset utilization ratio:

$$\text{UTILIZATION} = -1 * \text{Asset Utilization Ratio}$$

### **4.3.2. Employee Share Ownership**

Two measures are used to assess employee share ownership. The first is the “employee share ownership” (ESO). It is the most widely used variable to measure ESO in corporate governance studies (Blasi et al., 1996; Kim & Ouimet, 2014) and it is estimated as the ratio of non-executive employee-owned shares divided by the total shares outstanding. The second variable, “employee voting rights” (EVR), reflects instead the percentage of the total voting rights held by employees and represents the “labor voice” (Faleye et al., 2006, p. 507), that influences employees’ ability to affect the decisions in the company.

Both variables were collected from the IODS database (Insead OEE\*Data Services) for the period of 2002–2014 and hand-collected from companies’ financial statements for the period of 2015–2016.

---

<sup>50</sup> A company A whose asset utilization ratio is lower than the ratio of company B, means that the generated revenue of A is lower than that of B, and therefore, the managers of B are using their assets more effectively, indicating lower level of agency costs in B than in A.

### 4.3.3. Discretionary Accruals

Discretionary accruals are estimated using two methods: a modified Jones (1991)<sup>51</sup> model based on Dechow et al. (1995) and the Kothari et al. (2005)'s model. The former has been the most used model to detect earnings management in previous literature (Dechow et al., 2010). Indeed, Guay et al. (1996) argue that both the Jones model and the modified Jones model deliver great estimates of the discretionary accruals, and are the only models to consistently detect earnings management (Bartov et al., 2000). The latter, instead, provides a “performance-matched discretionary accrual measure” (p. 195), and resolves the performance-related problems related to the Jones and modified Jones models (Dechow et al., 2010).

In accordance with the models mentioned above, discretionary accruals are estimated as the residuals of a first stage regression. The modified Jones model is based on the following equation (1) while Kothari et al. (2005) model also controls for firm performance in line with the following equation (2).

$$\frac{TA_{i,t}}{ATA_{i,t}} = \alpha_1 \left( \frac{1}{ATA_{i,t}} \right) + \alpha_2 \left( \frac{\Delta SALES_{i,t} - \Delta REC_{i,t}}{ATA_{i,t}} \right) + \alpha_3 \left( \frac{GPPE_{i,t}}{ATA_{i,t}} \right) + \epsilon \quad (1)$$

$$\frac{TA_{i,t}}{ATA_{i,t}} = \gamma_1 \left( \frac{1}{ATA_{i,t}} \right) + \gamma_2 \left( \frac{\Delta SALES_{i,t} - \Delta REC_{i,t}}{ATA_{i,t}} \right) + \gamma_3 \left( \frac{GPPE_{i,t}}{ATA_{i,t}} \right) + \gamma_4 \left( \frac{ROA_{i,t-1}}{ATA_{i,t}} \right) + \epsilon \quad (2)$$

Where TA represents the firm's total accruals, ATA designates the company's average total assets,  $\Delta$  Sales is the increase in total net sales (total revenues) from the previous year,  $\Delta$  REC denotes the increase in accounts receivables and GPPE indicates the gross amount of the

---

<sup>51</sup> The modified Jones model used is developed by Dechow et al. (1995).

company's property, plant and equipment. The fitted values of the models represent non-discretionary accruals or the normal levels of earnings management, while the error term  $\epsilon$  represents the estimation of discretionary accruals. Similar to Larcker and Richardson (2004) and Frankel et al. (2002), we use the absolute value of the discretionary accruals as the dependent variable in our models, to proxy for earnings management. The absolute value of the residual from each of the equations represents one measure of earnings management.

We use two estimations for total accruals in the model reported above. First, we follow Richardson et al. (2005)'s measure for the total net accruals (TNA hereafter), which is the increase in net operating assets, or the difference between the income and the free cash flows. This measure is more comprehensive than Sloan's (1996) measure<sup>52</sup>, and includes less persistent components, allowing a better estimation of earnings management (Dechow et al., 2010). Second, we use the net operating accruals (NOA hereafter), which is more widely used in corporate governance studies, since these accruals are more easily manipulated by managers (Xie et al., 2003).

TNA and NOA are calculated by the following variables, collected from the Thomson Reuters Worldscope database:

$$\text{TNA} = \text{Net Income} - \Delta \text{Cash} - \text{Cash Dividends} - \text{Stock Repurchases} + \text{Equity Issuance}$$

$$\text{NOA} = \text{Net Income} - \text{Cash Flow from Operating Activities}$$

Table 4-1 indicates the measure of earnings management estimated from each model (the absolute value of the computed residuals).

---

<sup>52</sup> Sloan (1996) defines accruals as the sum of non-cash working capital and depreciation.



Table 4-1: Measurements of earnings management

Model	(1)	(2)	(3)	(4)
Method	Modified Jones	Modified Jones	Kothari et al.	Kothari et al.
Measure of total accruals	TNA	NOA	TNA	NOA
Absolute value of the residuals	DAC1	DAC2	DAC3	DAC4

Since every industry has distinctive operating characteristics (Pham et al., 2017), we estimate each of the four equations separately for each combination of year and industry.<sup>53</sup>

We then test our hypotheses 1 and 2 using the following equations A, B and C. For each equation, we use four different estimations of earnings management as dependent variables, as described in Table 4-1 above (DAC1, DAC2, DAC3 and DAC4).

Equation A uses UTILIZATION as an independent variable to study the nature of discretionary accruals (opportunistic Vs. beneficial) in our context and to test the first hypothesis. To validate the latter, we expect UTILIZATION's coefficient ( $\beta_1$ ) to be positive and significant.

$$DAC_{i,t} = \beta_0 + \beta_1 UTILIZATION_{i,t} + \beta_2 SIZE_{i,t} + \beta_3 ROA_{i,t} + \beta_4 BOARD_{i,t} + \beta_5 CLOSELYHELD_{i,t} + \beta_6 BIG4_{i,t} + \beta_7 TOTALAUDIT_{i,t} + \beta_8 PTBV_{i,t} + \varepsilon \quad (A)$$

Afterwards, we test our second hypothesis, using our two proxies for employees participation, *ESO* and *EVR* in equation (B) and (C) respectively.

<sup>53</sup> We use the first number of the SIC (standard industrial classification) code to identify the 8 different industries in our sample.

$$DAC_{i,t} = \sigma_0 + \sigma_1 ESO_{i,t} + \sigma_2 SIZE_{i,t} + \sigma_3 ROA_{i,t} + \sigma_4 BOARD_{i,t} + \sigma_5 CLOSELYHELD_{i,t} + \sigma_6 BIG4_{i,t} + \sigma_7 TOTALAUDIT_{i,t} + \sigma_8 PTBV_{i,t} + \varepsilon \quad (B)$$

$$DAC_{i,t} = \delta_0 + \delta_1 EVR_{i,t} + \delta_2 SIZE_{i,t} + \delta_3 ROA_{i,t} + \delta_4 BOARD_{i,t} + \delta_5 CLOSELYHELD_{i,t} + \delta_6 BIG4_{i,t} + \delta_7 TOTALAUDIT_{i,t} + \delta_8 PTBV_{i,t} + \varepsilon \quad (C)$$

The second hypothesis claims that employee ownership's relationship with earnings management is negative (positive) if the latter are opportunistic (beneficial). Therefore, depending on the sign of  $\beta_1$  in the equation (A), we predict the sign of  $\sigma_1$  and  $\delta_1$  in equations (B) and (C). More explicitly, if the regression of equation (A) generates a positive (negative) relationship between UTILIZATION and DAC, the second hypothesis expects ESO and EVR's coefficients ( $\sigma_1$  and  $\delta_1$  respectively) to be negative (positive) as an indication of the negative (positive) relationship between ESO and opportunistic (beneficial) discretionary accruals.

#### 4.3.3.1. Control Variables

The determinants of the level of earnings management can include firm performance, governance characteristics, auditor attributes, capital market incentives and other external factors (Dechow et al., 2010). We therefore use the natural logarithm of the company's total assets (SIZE) and its return on assets (ROA) to control for the firm's size (Mard & Marsat, 2012; Siregar & Utama, 2008) and profitability (Dechow et al., 1998; Kothari et al., 2005) respectively. Governance mechanisms are controlled for by including the number of the members of the board of directors (BOARD) (Xie et al., 2003) and the percentage of shares

held by insiders<sup>54</sup> (CLOSELYHELD) (Teshima & Shuto, 2008; Warfield et al., 1995). We also include two variables for auditor specifications; the number of big-4 auditors (BIG4) and the natural logarithm of the total fees paid to the auditors (TOTALAUDIT), including both audit and non-audit services fees (Krishnan, 2003; Pham et al., 2017). The market price to book value (PTBV) represents the capital market incentives, as it has a predictive ability for the market returns (Krishnan, 2003; Pontiff & Schall, 2006). Table 4-2 indicates the reference codes of the variables collected from the Thomson Reuters Worldscope database. The other variables (ESO, EVR, BOARD, BIG4) were partially collected from the IODS database, and partially from the published financial statements.

*Table 4-2: Thomson Reuters Worldscope Data item fields*

Net Income	WC 01751	Operating Cash Flow	WC 04860
Δ Cash (Change in Cash)	WC 04851	Average Total Assets	WC 02999
Cash Dividends	WC 04551	Sales	WC 01001
Stock Repurchases	WC 04751	Receivables	WC 02051
CLOSELYHELD (Shares Held by Insiders)	WC 05474	GPPE (Gross Total Assets)	WC 02501
SIZE (Total Assets)	WC 02999	ROA (Return on Assets)	WC 08326
PTBV (Price to Book Value)	PTBV	TOTALAUDIT (Total Auditor Fees)	WC 01801
Equity Issuance	WC 05251	Industry effects	WC 07021—07028

<sup>54</sup> The percentage held by insiders represents the sum of shares held by directors, by executives, by other corporations and by individuals who own more than 5% of the company's total shares divided by the total outstanding shares.

After running a robust Hausman test (Arellano, 1993) to find the model that better fits our data (Annex 3: Hausman Tests) and the Breusch-Pagan test (1979) to detect heteroscedasticity, we perform the regression of the models using generalized least-squares random effects (RE) model regressions. Robust standard errors are used to compute *p*-values, and industry effects are included in all models. All continuous variables are winsorized at the 1<sup>st</sup> and 99<sup>th</sup> percentiles.

### **4.3.3.2. Sample Selection**

The IODS database includes corporate governance data for the biggest 165 French listed firms, covering the period of 2002–2015. Financial data were collected from the Thomson Reuters database and added to the initial database to form our study sample. After excluding all firms missing some necessary data for the analyses, our final sample is composed of 125 unique companies and 1,487 firm-year observations. Table 4-3 and Table 4-4 present the sample characteristics. They comprise the distribution of observations by industry and year. We notice that manufacturing companies (SIC Codes 2 and 3) occupy the biggest part of our sample with 41% of the sample. The services industry (SIC codes 7 and 8) follows with 22% of the total sample.

*Table 4-3: Descriptive Statistics: Distribution by Industry*

SIC code	Industry	N	%
1	Mining, Engineering and Construction	145	10%
2	Manufacturing: Food, Furniture and Chemical	216	15%
3	Manufacturing: Metal, Leather, Industrial, Electronic and Transportation	385	26%
4	Transportation, Communications, Electric, Gas and Sanitary Services	207	14%
5	Trading	102	7%
6	Finance, Insurance and Real Estate	103	7%
7	Services: Renting, Advertising, Computer and Repair	233	16%
8	Services: Health Care, Legal, Educational and Management	96	6%
Total		1,487	100%

*Table 4-4: Descriptive Statistics: Distribution by Year*

Year	N	%
2002	62	4%
2003	82	6%
2004	88	6%
2005	95	6%
2006	108	7%
2007	112	8%
2008	113	8%
2009	116	8%
2010	121	8%
2011	123	8%
2012	122	8%
2013	116	8%
2014	117	8%
2015	112	8%
Total	1,487	100%

## 4.4. Results

### 4.4.1. Descriptive statistics

Table 4-5 provides a summary of descriptive statistics of the sample's variables. We notice that the absolute values of discretionary accruals generated by the modified Jones (1991) model (DAC1 and DAC2) are on average greater than those generated by the Kothari et al. (2005) model (DAC3 and DAC4), which is expected since a performance-related index is included in non-discretionary accruals estimations of the Kothari model. Additionally, our first measure of total accruals, TNA (Total Net Accruals), generates greater values of discretionary accruals than our second measure, NOA (Net Operating Accruals). The means (medians) of DAC1 to DAC4 are 0.044, 0.034, 0.043 and 0.035 (0.028, 0.025, 0.026 and 0.026) respectively. The average (median) percentage of shares owned by employees is 2.2% (0.9%) and their average voting rights is 2.7% (1.0%).<sup>55</sup> It is also worth noting that the level of CLOSELYHELD is relatively high in French listed companies (a mean of 37.1%), indicating a high concentration of shares.

The Pearson correlation matrix is reported in Table 4-6. The agency costs proxy (UTILIZATION) is significantly positively correlated to three of our measures of the discretionary accruals (DAC1, DAC3 and DAC4), and not significantly correlated with DAC2. These correlations are in line with our first hypothesis that predicts a positive relationship between agency costs and discretionary accruals, indicating an opportunistic use of earnings management in French-listed companies. However, all four measures of earnings management have significant correlations with variables that will be used as control variables

---

<sup>55</sup> In France, nominative shares give double the voting rights when they are nominative and owned for a minimum of 2 years (As per the Law no 2014-384—The Florange Law—of 29 March 2014).

in the linear regression, and therefore, only a multivariate analysis can provide us with enough statistical evidence to reject or accept our hypothesis. Similarly, we notice that both ESO and EVR are significantly negatively related to all four variables of discretionary accruals (DAC1 to DAC4), which is also in line with our prediction of a negative link between ESO and opportunistic earnings management.<sup>56</sup> We also notice that bigger companies (SIZE) have a significantly lower tendency to manage earnings (negatively correlated to DAC1, DAC2, DAC3 and DAC4), and higher levels of employee-owned shares than smaller firms. Finally, we also notice a negative association of all four measures of discretionary accruals to the size of the board of directors (BOARD) and the total fees paid to the external auditors (TOTALAUDIT). All four measures of earnings management have significant correlations with variables that will be used as control variables in the linear regression, and therefore, only a multivariate analysis can provide us with enough statistical evidence to reject or accept our hypothesis.

---

<sup>56</sup> This prediction is conditioned by the positive relationship between DAC and UTILIZATION.

Table 4-5: Descriptive Statistics: Means, Medians, Standard Deviations, Maximums and Minimums

Variable		Mean	Median	Std. Dev.	Min	Max
1	DAC1	.044	.028	.049	.000	.240
2	DAC2	.034	.025	.036	.000	.207
3	DAC3	.043	.026	.049	.000	.232
4	DAC4	.035	.026	.034	.000	.180
5	Asset Utilization ratio <sup>57</sup>	.723	.691	.429	.00001	2.338
6	ESO	.022	.009	.040	.000	.328
7	EVR	.027	.010	.050	.000	.420
8	ASSETS <sup>58</sup> (in billion €)	23.300	5.220	72.000	0.098	87.600
9	ROA	.043	.044	.062	-.229	.254
10	BOARD	11.457	11.000	3.587	3.000	24.000
11	PTBV	2.002	1.605	2.822	-20.810	57.410
12	BIG4	1.411	1.000	.580	0.000	3.000
13	AUDITOR FEES (in million €)	7.871	3.780	6.643	0.219	51.000
14	CLOSELYHELD	.371	.363	.256	0.00	1.00

<sup>57</sup> We use the original asset utilization ratio (AUR) =  $\frac{SALES}{ASSETS}$ , but in the correlation and multivariate analysis later, we use UTILIZATION = -1 \* AUR.

<sup>58</sup> The total assets of the firms, collected from Thomson Reuters data item WC 02999.



# The Type of Earnings Management in France and the Effect of Employee Share Ownership

Table 4-6: Descriptive Statistics: Correlations between Variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
DAC1	1													
DAC2	0.364***	1												
DAC3	0.919***	0.321***	1											
DAC4	0.367***	0.943***	0.352***	1										
UTILIZATION	0.071***	0.035	0.092***	0.049**	1									
ESO	-0.113***	-0.071***	-0.1***	-0.074***	-0.021	1								
EVR	-0.11***	-0.078***	-0.099***	-0.079***	-0.017	0.979***	1							
SIZE	-0.233***	-0.207***	-0.207***	-0.221***	0.382***	0.245***	0.254***	1						
ROA	-0.205***	-0.19***	-0.169***	-0.156***	-0.126***	-0.043*	-0.03	0.004	1					
BOARD	-0.123***	-0.164***	-0.107***	-0.17***	0.282***	0.216***	0.243***	0.653***	0.02	1				
PTBV	-0.009	-0.1***	0.036	-0.043*	-0.087***	-0.053**	-0.046*	-0.098***	0.13***	-0.104***	1			
BIG4	0.023	-0.12***	0.027	-0.117***	0.086***	0.007	-0.001	0.316***	-0.012	0.254***	-0.027	1		
TOTALAUDIT	-0.2***	-0.21***	-0.17***	-0.221***	0.114***	0.212***	0.229***	0.885***	-0.021	0.627***	-0.058**	0.307***	1	
CLOSELY-HELD	-0.027	-0.028	-0.034	-0.016	-0.016	-0.095***	-0.12***	-0.149***	0.083***	0.002	0.02	0.008	-0.217***	1

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

## **4.4.2. The Relationship Between Agency Costs and Earnings Management**

### **4.4.2.1. Regression Analysis**

Table 4-7 shows results from the regression of equation (A), which tests the first hypothesis. Each column of Table 4-7 reports results from estimating the equation (1) for each measure of earnings management (DAC1, DAC2, DAC3 and DAC4). The coefficient associated to the main variable of interest, UTILIZATION is positive and significant for all four earnings management measures (cf. 0.02, p-value<0.05 for DAC1, cf. 0.024, p-value<0.01 for DAC2, cf. 0.008, p-value<0.1 for DAC3, cf. 0.011, p-value<0.1 for DAC4). This positive association indicates that firms with higher (lower) agency costs experience more (less) discretionary accruals. It is consistent with the first hypothesis that in general, executives of French listed firms use earnings management rather opportunistically than to inform outside investors and other stakeholders. The opportunistic use of earnings management in France can be explained from a legislative perspective and a corporate governance perspective. Firstly, the attachment of the financial reporting in France to the French taxation system allows taxes to be closely tied with the reported earnings. This link gives French managers an incentive to manage earnings to influence their taxes payables (García Lara et al., 2005). Additionally, the mandatory profit sharing schemes in France provides extra incentives for the managers to manipulate earnings in an opportunistic way to trigger the sharing of profits. Moreover, the high concentration of ownership decreases the likelihood of usage of informative discretionary accruals, limiting their usage to opportunistic behaviors only.

We also detect significantly less discretionary accruals in more profitable companies, indicated by the significantly negative coefficient of ROA in all four regressions (cf. -0.121, p-value<0.01 for DAC1, cf. -0.086, p-value<0.05 for DAC2, cf. -0.124, p-value<0.01 for DAC3, cf. -0.096, p-value<0.01 for DAC4). This supports our conclusion that executives in France tend to manage earnings opportunistically, as higher (lower) performing companies use less (more) discretionary accruals. Finally, the negative relationship between SIZE and all four measures of discretionary accruals (cf. -0.018 for DAC1 and DAC2, and cf. -0.007 for DAC3 and DAC4), provides evidence that bigger companies manage earnings less than smaller ones.

Table 4-7: GLS regression of Discretionary Accruals on UTILIZATION and control variables (A)

VARIABLES	DAC1	DAC2	DAC3	DAC4
UTILIZATION	0.020** (0.008)	0.024*** (0.007)	0.008* (0.004)	0.011* (0.007)
SIZE	-0.018*** (0.003)	-0.018*** (0.003)	-0.007*** (0.002)	-0.007*** (0.003)
ROA	-0.121*** (0.047)	-0.086** (0.041)	-0.124*** (0.016)	-0.096*** (0.029)
BOARD	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)
PTBV	-0.001 (0.001)	0.001 (0.001)	-0.002*** (0.001)	-0.001 (0.001)
BIG4	0.006** (0.003)	0.006** (0.003)	-0.005* (0.002)	-0.008 (0.005)
TOTALAUDIT	0.009*** (0.003)	0.011*** (0.004)	0.001 (0.003)	0.001 (0.003)
CLOSELYHELD	-0.002 (0.007)	-0.002 (0.007)	0.003 (0.005)	0.001 (0.005)
Constant	0.311*** (0.0456)	0.287*** (0.0469)	0.187*** (0.0299)	0.195*** (0.0396)
Industry effects	Included	Included	Included	Included
N	1,487	1,487	1,487	1,487
R <sup>2</sup>	32.11%	35.00%	17.71%	22.62%
Adjusted R <sup>2</sup>	31.37%	34.29%	16.81%	21.78%

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

#### **4.4.2.2. Additional Tests**

In order to check for the results' robustness, we estimate the same model while adjusting for industry specific sales turnover ratios. We calculate the median asset utilization ratio for each industry (MEDIANUTIL), and then use the variable ADJUSTEDUTIL, calculated as follows, as an independent variable to proxy for agency costs.

$$\text{ADJUSTEDUTIL} = \text{UTILIZATION} - \text{MEDIANUTIL}$$

The analysis results, reported in Table 4-12, support our results from the initial test.

Next, we replace the asset utilization ratio by the audit service fees, another widely used proxy for agency costs (Jensen & Payne, 2005; Nikkinen & Sahlstrom, 2004). Our results, reported in Table 4-13, indicate the same significant positive relationship between agency costs and the level of discretionary accruals, indicating that earnings management in France is used rather opportunistically.

#### **4.4.3. The Effect of Employee Ownership on Earnings**

##### **Management**

##### **4.4.3.1. Regression Analysis**

After concluding that earnings management is rather opportunistic in our sample, we evaluate, in this section, whether ESO has an impact on the level of opportunistic earnings management. Table 4-8 reports the generalized least square regression results of the above-mentioned relationship, described in equation (B). As described in the methodology section, we run four models, each using a different estimation of discretionary accruals (DAC1 to DAC4). As predicted in hypothesis 2, ESO has a significant negative coefficient ( $\sigma_I$ ) in all four models (cf. - 0.102, p-value<0.01 for DAC1, cf. -0.054, p-value<0.05 for DAC2, cf. -

0.082, p-value<0.05 for DAC3, cf. -0.048, p-value<0.1 for DAC4). This indicates that ESO has a negative effect on opportunistic discretionary accruals. We then run equation (C), replacing ESO by EVR (Results reported in Table 4-9) and we observe the same results, as we find a significant negative coefficient for EVR ( $\delta_1$ ) (cf.- 0.076, p-value<0.01 for DAC1, cf. -0.043, p-value<0.05 for DAC2, cf. -0.039, p-value<0.1 for DAC3, cf. -0.039, p-value<0.1 for DAC4).

Table 4-8: GLS regression of Discretionary Accruals on ESO and control variables (B)

VARIABLES	DAC1	DAC2	DAC3	DAC4
ESO	-0.102*** (0.034)	-0.054** (0.028)	-0.082** (0.037)	-0.048* (0.026)
SIZE	-0.014*** (0.003)	-0.005** (0.003)	-0.013*** (0.003)	-0.004* (0.002)
ROA	-0.132*** (0.049)	-0.127*** (0.034)	-0.098** (0.044)	-0.101*** (0.029)
BOARD	0.0012* (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)
PTBV	-0.001 (0.001)	-0.002** (0.001)	0.001 (0.001)	-0.001 (0.001)
BIG4	0.006* (0.003)	-0.005* (0.003)	0.006* (0.003)	-0.004 (0.002)
TOTALAUDIT	0.005* (0.003)	0.001 (0.003)	0.006* (0.003)	-0.001 (0.003)
CLOSELYHELD	-0.004 (0.007)	0.003 (0.006)	-0.004 (0.007)	0.001 (0.005)
Constant	0.268*** (0.042)	0.167*** (0.036)	0.237*** (0.0451)	0.161*** (0.0314)
Industry effects	Included	Included	Included	Included
N	1,487	1,487	1,487	1,487
R <sup>2</sup>	28.57%	17.55%	28.20%	21.98%
Adjusted R <sup>2</sup>	27.84%	16.71%	27.47%	21.18%

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

The results of the regression of equations (B) and (C) confirm the negative effects of the company size and the profitability of the company on the extent to which executives manage earnings opportunistically. Bigger (smaller) firms with high (low) profitability are associated with lower (higher) absolute values of discretionary accruals. In addition, the results for the other control variables do not indicate a significant relationship of earnings management with the existence of a big-four audit firm, with the total fees paid to the auditor or with the percentage of insiders' ownership, and with the number of executives on the board of directors.

Table 4-9: GLS regression of Discretionary Accruals on EVR and control variables (C)

VARIABLES	DAC1	DAC2	DAC3	DAC4
EVR	-0.076** (0.031)	-0.043** (0.022)	-0.039* (0.021)	-0.039* (0.021)
SIZE	-0.014*** (0.003)	-0.005** (0.003)	-0.013*** (0.003)	-0.004* (0.002)
ROA	-0.132*** (0.049)	-0.127*** (0.034)	-0.097** (0.044)	-0.101*** (0.029)
BOARD	0.0012* (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)
PTBV	-0.001 (0.001)	-0.002** (0.001)	0.001 (0.001)	-0.001 (0.001)
BIG4	0.006* (0.003)	-0.005* (0.003)	0.006* (0.003)	-0.004 (0.002)
TOTALAUDIT	0.005* (0.003)	0.001 (0.003)	0.006* (0.003)	-0.001 (0.003)
CLOSELYHELD	-0.004 (0.007)	0.003 (0.006)	-0.004 (0.007)	0.001 (0.005)
Constant	0.269*** (0.042)	0.167*** (0.036)	0.238*** (0.0450)	0.161*** (0.0315)
Industry effects	Included	Included	Included	Included
N	1,487	1,487	1,487	1,487
R <sup>2</sup>	28.25%	17.54%	27.96%	21.91%
Adjusted R <sup>2</sup>	27.52%	16.70%	27.23%	21.13%

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

#### 4.4.3.2. Endogeneity Test

We address the basic limitation of endogeneity in the models. Endogeneity is expected to exist if ESO is correlated with unobserved variables in the regression models. To address this potential problem, we apply a two-stage least-squares (2SLS) regression analysis. We use the following first-stage regression (3) to estimate the constant and the coefficients of the dependent variables of ESO (Table 4-10):

$$ESO = \beta_0 + \beta_1 MEANESO + \beta_2 SIZE + \beta_3 EMPLDIRECTORS + \beta_4 BETA + \beta_5 MAJOR + \beta_6 MGT + \varepsilon \quad (D)$$

We instrument employee ownership (in the first stage regression) with the industry mean of ESO, the average ESO level among companies in the same industry, to control for the competition in attracting employees with ESO plans (MEANESO), the SIZE which is significantly correlated with ESO (Table 4-6)—bigger companies in France tend to offer more ESO plans resulting from the resulting economies of scale in ESO implementation—and the company's BETA to control for the share's volatility in comparison to the market risk (Blair et al., 2000; Oyer, 2004)<sup>59</sup>. We also expect that ESO is related to the number of employees represented in the board of directors (EMPLDIRECTORS) who can influence the ESO implementation and to ownership structure characteristics (MGT and MAJOR) as managerial and major shareholders have the power to implement ESO plans.

The estimated values in the first-stage regression (equation D) predict the fitted value of employee share ownership (ESO) Table 4-10. The latter is used in the second stage as an instrumental variable and test its relationship with our four measures of discretionary accruals.

---

<sup>59</sup> Oyer argues that companies offer employee compensation schemes as per the market conditions.

The 2SLS regression analysis reveals a positive relationship between ESO and the dependent variable NASFRATIO, bearing a statistically significant coefficient of the fitted values of ESO (Table 4-11). Therefore, we conclude that the results of the 2SLS regression are qualitatively similar to the Fixed effects regressions, suggesting that the primary results reported in Table 4-8 are robust to endogeneity testing.

*Table 4-10: First Stage Regression to Predict the Fitted Value of ESO*

Variables	Predicted Signs	Coefficient
ESOMEAN	+	0.961*** (0.0296)
SIZE	+	0.001 (0.001)
EMPLDIRECTORS	+	0.002 (0.001)
BETA	+	0.003 (0.006)
MAJOR	-	-0.006 (0.012)
MGT	+	0.051* (0.027)
Constant		-0.014 (0.023)
Industry Effect		Included
Year Effect		Included
N		1,411
R <sup>2</sup>		18.78%
Adjusted R <sup>2</sup>		18.28%

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1



Table 4-11: Second Stage Regression: The Effect of ESO on Discretionary Accruals

VARIABLES	DAC1
ESO	-0.071* (0.043)
SIZE	-0.012*** (0.003)
ROA	-0.001** (0.001)
BOARD	0.001 (0.001)
PTBV	-0.001 (0.001)
BIG4	0.006* (0.003)
TOTALAUDIT	0.003 (0.003)
CLOSELYHELD	-0.009 (0.007)
Constant	0.254*** (0.0441)
Industry dummies	Included
N	1,486
R <sup>2</sup>	17.56%
Adjusted R <sup>2</sup>	17.11%

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

#### 4.4.4. The Moderation Effect of ESO on the Nature of Earnings Management

Our second hypothesis states that employee ownership is more likely to decrease the opportunistic use of earnings management and to increase the beneficial use. This means that employee ownership should make the use of earnings management less opportunistic and more beneficial. To verify this effect of ESO, we analyze whether it moderates the relationship between earnings management and agency costs.

ESODUMMY, a binary variable of 1 when the firm's employees own a part of its shares has been added to the model (A), along with its interaction term with UTILIZATION (ESO\*UTILIZATION), to perform a moderation analysis.

$$\begin{aligned}
 DAC1_{i,t} = & \beta_0 + \beta_1 UTILIZATION_{i,t} + \beta_2 ESODUMMY_{i,t} + \beta_3 \\
 & ESODUMMY*UTILIZATION_{i,t} + \beta_4 SIZE_{i,t} + \beta_5 ROA_{i,t} + \beta_6 BOARD_{i,t} + \beta_7 \\
 & CLOSELYHELD_{i,t} + \beta_8 BIG4_{i,t} + \beta_9 TOTALAUDIT_{i,t} + \beta_{10} PTBV_{i,t} + \varepsilon \quad (E)
 \end{aligned}$$

The results of the moderation analysis, presented in Table 4-14 and graphically represented in Figure 4-1, indicate how ESO plans negatively moderates the effect of agency costs on earnings management. The regression shows that when ESO=0%, the slope of discretionary accruals for the average firm can be estimated by:  $DAC1 = 0.038*UTILIZATION + 0.068$ . In contrast, an average firm where employees own part of its shares, have  $DAC1=0.0129*UTILIZATION + 0.039$ .

These findings support the belief that good corporate governance helps reduce the opportunism of managers (Choi et al., 2013; Tangjitprom, 2013), by demonstrating that earnings management practices are used in a more opportunistic manner when the company has no ESO plans. However, when ESO plans are implemented, discretionary accruals become more beneficial for the company, as companies with ESO tend to use earnings management to disclose information and reduce information asymmetry (Bova et al., 2015).

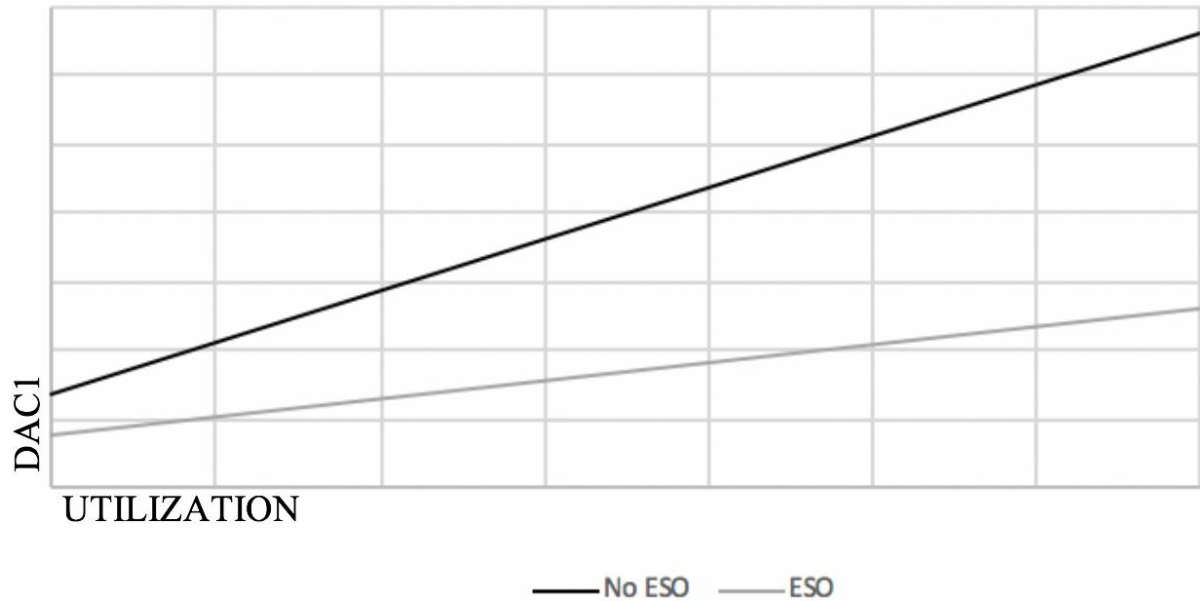


Figure 4-1: Moderation effect of ESO on the nature of earnings management

## 4.5. Conclusion

The goal of this paper is to explore earnings management and add to the corporate governance literature in France. More precisely, it investigates whether earnings management of these firms is opportunistic or beneficial and whether the presence of employees' representatives in the shareholdings of entities limits earnings manipulation behaviors.

On the one hand, managers can use discretionary accruals to communicate positive private information, which can reduce information asymmetry between them and outside shareholders, aiming to adjust the share prices (Louis & Robinson, 2005). On the other hand, they can use their discretion to manage earnings opportunistically, which reduces the informativeness of the reported earnings (Cheng & Warfield, 2005). Many studies have provided evidence of both types of discretionary accruals, that have proven to depend on the managers' incentives to use either (Pham et al., 2017). This study places an emphasis on the

French context and finds that earnings management in French listed companies are opportunistic in nature.

Moreover, the opportunistic use of earnings management can be limited by several effective corporate governance applications (Siregar & Utama, 2008; Walker, 2013). After uncovering the opportunistic nature of earnings management in France, we study their relationship with a developing form of corporate governance, employee share ownership, and reveal a negative association, indicating that ESO limits the use of opportunistic earnings management. We also check the moderation effect of ESO plans on the nature of discretionary accruals and discover that ESO makes earnings management less opportunistic, as companies with ESO tend to disclose more information.

This study contributes to the extant research in several ways: it extends the very limited research on the relation between corporate governance (ownership structure specifically) and earnings management in France and provides a more comprehensive picture of this association in the French context. It studies the type of earnings management in France (informative or opportunistic), a point ignored by previous earnings management research on French companies. It is the first paper to study a link between employee ownership and the level earnings management.

Our paper provides evidence that earnings management is opportunistic and limited by ESO plans. Several academic studies prove that it is informative and allows executives to communicate private information to outside shareholders in different contexts (Dutta & Gigler, 2002; Jiraporn et al., 2008; Trueman & Titman, 1988; Walker, 2013). Additionally, earnings management can have various effects on the value of the firm using them (De Jong

et al., 2014)<sup>60</sup>. Therefore, further research is needed to evaluate if earnings management is detrimental in the French context, or managers use it without damaging the firm value. Another possible further research avenue is to see how ESO affects the level of discretionary accruals, in a context where earnings management is used beneficially; to communicate private information with outside shareholders and other stakeholders.

---

<sup>60</sup> Opportunistic earnings management can help reaching earnings benchmarks which increases the valuation of the company by externals, but can also be detrimental to firm value when used to hide information from outside shareholders.

## 4.6. Annex

*Table 4-12: GLS regression of Discretionary Accruals on AJUSTEDUTIL and control variables*

VARIABLES	DAC1
ADJUSTEDUTIL	0.017*** (0.006)
SIZE	-0.017*** (0.003)
ROA	-0.122*** (0.047)
BOARD	0.001 (0.001)
PTBV	-0.001 (0.001)
BIG4	0.007** (0.003)
TOTALAUDIT	0.007** (0.003)
CLOSELYHELD	-0.003 (0.007)
Constant	0.308*** (0.045)
Industry effects	Included
N	1,487
R <sup>2</sup>	30.72%
Adjusted R <sup>2</sup>	30.01%

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 4-13: GLS regression of Discretionary Accruals on AUDIT and control variables

VARIABLES	DAC1
AUDIT	8.58e-10*** (2.64e-10)
SIZE	-0.015*** (0.003)
ROA	-0.128*** (0.047)
BOARD	0.001* (0.001)
PTBV	-0.001 (0.001)
BIG4	0.006** (0.003)
CLOSELYHELD	-0.002 (0.007)
Constant	0.353*** (0.053)
Industry effects	Included
N	1,487
R <sup>2</sup>	32.66%
Adjusted R <sup>2</sup>	32.01%

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 4-14: Moderation effect of ESO on the nature of earnings management

VARIABLES	DAC1
UTILIZATION	0.038*** (0.0137)
ESODUMMY	-0.029** (0.015)
ESODUMMY*UTILIZATION	-0.025* (0.013)
SIZE	-0.016*** (0.003)
ROA	-0.121*** (0.046)
BOARD	0.001* (0.001)
PTBV	-0.001 (0.001)
BIG4	0.006** (0.003)
TOTALAUDIT	0.007** (0.003)
CLOSELYHELD	-0.005 (0.007)
Constant	0.326*** (0.046)
Industry dummies	Included
N	1,487
R <sup>2</sup>	33.35%
Adjusted R <sup>2</sup>	32.58%

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1



# **Part V: General Conclusion**

## 5. General Conclusion

There exist many arrangements that tie the workers' wealth to the wealth of the company they work at, including profit-sharing, gain-sharing, employee share ownership and stock options. Together, they form what is known as shared capitalism, which has been considered by many to be a scheme that improves the economic outcomes for employees, companies and the general economy, by helping in reducing inequalities and distributing wealth between employees (Carberry, 2011b; Freeman, 2015). Hundreds of studies evaluated shared capitalism plans around the world and connected it to improved performance, productivity, turnover rate, job stability and employee behavior (Kim & Ouimet, 2011; Kruse et al., 2010a). Shared capitalism plans have been studied from several business management approaches; Human Resources (Rosen et al., 2005), Employee Behavior (Blasi et al., 2010a), Finance (O'Boyle et al., 2016), Strategy (Dube & Freeman, 2010), Economics (Blasi et al., 2013)... One aspect that has been ignored by research is the possible effect of shared capitalism plans on accounting and audit practices. Although management literature constantly links several corporate governance arrangements to changes in the external auditor's mission and in the management's accounting behavior, none has studied the case of shared capitalism arrangements.

### 5.1. Main Findings

This thesis analyzes how shared capitalism plans affect the accounting and audit practices in a company in three separate essays. The studies focus on one particular form of shared capitalism plans, that is employee share ownership (ESO). ESO occurs when the employees of a certain company own a part (or the totality) of their company's shares. This

creates a special type of attachment between the firm and its employee-owners and increases their performance, as their wealth is directly affected by the company's value and results through the shares they hold (Caramelli & Briole, 2007; Klein, 1987). As a result, ESO is expected to reduce the rates of turnover and absenteeism (Hollandts & Aubert, 2015; Kruse et al., 2012) and improve the employees' work effort and loyalty (Aubert, 2006; Blasi et al., 2003). It also gives employees the opportunity of being represented on the company's board and participating in corporate decision-making (Freeman et al., 2010; Hallock et al., 2004).

The goal of this dissertation is to study ESO's effect on accounting and audit practices, based on French listed companies. We try to find evidence of a well theoretically assumed negative relationship between ESO and agency costs, before evaluating its effect on the external auditor's effort. We then study the effect of ESO on auditor-auditee relationship and finally on the managers' discretionary behavior in managing earnings. The dissertation consists of three different essays summarized below. Table 5-1 presents a summary of the performed studies in this dissertation and includes the studied relationships, the methodology used, the findings and the conclusions.

The first essay (Part II) examines the effect of ESO on Agency Costs and on Audit Fees. We find, on a panel database of 125 firms listed in Euronext Paris, an inverted U-shaped relationship between employee ownership and both agency costs and audit fees. While previous studies expected a negative effect of ESO on agency costs, the results indicate that the relationship has an inverted U-shape. These results suggest that ESO's effects on information asymmetry and alignment of interests are negative for low levels, operating as a managerial entrenchment mechanism at first. But after reaching a certain point, ESO serves the interests of external shareholders by aligning their benefits and with the employees' interests, thus decreasing agency costs. The results are in line with Blasi et al. (1996)'s results

Essay	Independent Variable	Dependent Variable	Dependent Variable's Proxy	Method	Result	Conclusion
1	Percentage of shares held by employees	Agency Costs	Asset Utilization Ratio*(-1)	Random Effects Model Regression	Inverted U-Shaped Relationship	ESO increases agency costs (and as a consequence the audit effort) for its low values as managers benefit from its implementation to entrench themselves. However, high values of ESO help aligning interests of employees with the company's and decrease the agency costs and the audit fees thereafter.
	Percentage of shares held by employees	Audit Effort	Natural Logarithm of Audit Fees	Random Effects Model Regression	Inverted U-Shaped Relationship	
2	Percentage of shares held by employees	Auditor Independence	Non-Audit Service Fees Ratio	Fixed Effects Model Regression	Positive Linear Relationship	The increase in employee ownership reassures managers, who eventually demand a lower level of assurance, considering that ESO plans guarantees the alignment of interests. This allows the company to purchase more NAS to benefit from joint-engagement benefits.
3	Agency Costs	Earnings Management	Discretionary Accruals	Random Effects Model Regression	Positive Linear Relationship	The positive relationship between Agency Costs and Earnings Management signifies that a high (low) level of agency costs is associated with high (low) level of earnings management. This indicates that managers of French companies manage earnings rather opportunistically than beneficially.
	Percentage of shares held by employees	Earnings Management	Discretionary Accruals	Random Effects Model Regression	Negative Linear Relationship	ESO decreases the level of opportunistic earnings management, which can be the result of the alignment of interests caused by ESO and the increased level of information disclosure under ESO plans. An additional moderation analysis indicates that ESO makes earnings management less opportunistic as well.

Table 5-1: Summary of Conducted Studies

that questioned the ability of low percentages of employee ownership to motivate employees and align their interests with the company's.

The second essay (Part III) studies the impact of the level of Employee Share Ownership (ESO) on the independence of the external auditor, measured by the ratio of non-audit service fees (NASF) to total auditor fees. We suggest that managers perceive ESO as an arrangement that aligns the interests of employees with those of the company, allowing them to benefit from the joint-engagement benefits with the auditor and to demand more NAS without any impairment of auditor independence. We test this link on a sample of 125 companies listed in Euronext Paris. The analysis indicates a positive relationship between ESO and NASF ratio. The results signify that for low levels of ESO, managers tend to preserve the audit quality by keeping the auditor independence intact and provide higher assurance from the external auditor about the integrity of the financial statements. However, high values of ESO give managers more flexibility in purchasing NAS from the external auditor, who can provide joint-engagement benefits due to knowledge spillovers between the audit and non-audit missions, without worrying about the auditor independence.

The third and final essay (Part IV) investigates earnings management from a corporate governance perspective on a sample of 133 French listed companies. Following Jiraporn et al. (2008)'s model to reveal the type of earnings management, we find a positive relationship between discretionary accruals and an agency costs proxy, implying that managers of French companies manage earnings rather opportunistically (for their personal benefits) than beneficially (to communicate information with outsiders). We also find evidence that the implementation ESO plans and the level of employee ownership are negatively linked to the level of discretionary accruals, implying that ESO helps decrease the use of opportunistic earnings management. Finally, an additional analysis shows that ESO negatively moderates the relationship between the level of discretionary accruals and agency costs, signifying that

ESO can, aside from decreasing the level of opportunistic earnings management, affect the type of earnings management, making their usage less opportunistic.

By comparing results of our three studies, we find that ESO has a curvilinear relationship with agency costs and audit fees (in the first article), but is linearly associated with the independence of the auditor and the earnings management (in the second and third essays respectively), two variables that are highly linked to the level of agency costs in a company (Bao & Lewellyn, 2017; Beatty & Harris, 1998; Parkash & Venable, 1993; Whisenant et al., 2003). This apparent contradiction in the results proves that the managers do not perceive the agency problems similarly to the auditors and other externals. In fact, the external auditor's mission is to evaluate the financial statements and give an independent opinion about the fairness representation of the financial structure of the company. Therefore, the audit effort is highly linked to the risk assessed before conducting the audit. Companies with high agency costs demand an improved audit quality to compensate for the high-existent risk, which increases the audit effort and audit fees accordingly. Furthermore, managers tend to purchase relatively less non-audit services from the external auditor when they perceive elevated agency costs, in an attempt to reassure the external shareholders about the independence of the auditor and audit quality thereafter. Therefore, one would imagine that the independence of the auditor and the audit fees are both linearly related to agency costs; while agency costs are positively correlated with audit fees, they are negatively connected with the auditor's independence. However, our study shows that ESO has a curvilinear relationship with the asset utilization ratio (an agency costs proxy) and the audit fees, but the independence of the auditor varies linearly with ESO. This shows that externals (shareholders and auditors) do not perceive agency costs the same way that internals (managers and employees) do. Even though managers perceive ESO as an interest alignment tool and their behavior becomes more harmonious with the company's objectives after its implementation,

the externals might regard ESO as a managerial entrenchment mechanism, specifically for its low values, which are positively related to agency costs (as per our results in the first essay). However, high values of employee ownership are negatively related with agency costs and audit fees and are positively associated with the independence of the auditor, which is in line with the traditional prediction of the association between agency costs, audit fees and auditor independence. The third essay provides additional evidence for the linear relationship between ESO and managerial behavior, as we find a negative correlation between the percentage of shares owned by the company's employees and the managers' use of opportunistic earnings management.

## **5.2. Main Contributions of the Research**

### **5.2.1. Theoretical Contributions**

This research contributes to the business management literature in several aspects. First, it shows that the implementation of shared capitalism arrangements does not only affect the employees on an individual level. By finding evidence for our group of hypotheses in this dissertation, we prove that ESO's effects go beyond the individual level and generate consequences on the corporate level. While a large part of previous research studies on the corporate effects of ESO focused on the performance of employee-owned companies (Guedri & Hollandts, 2008; Kruse, 2002; O'Boyle et al., 2016), this dissertation is the first scientific research that we are aware of, which links ESO to accounting and audit variables. Particularly, by revealing significant relationships between ESO, on the one hand, and audit fees, non-audit service fees ratio and discretionary accruals, on the other hand, we prove that ESO can – indirectly – affect the effort of the external auditor, the independence of the external auditor and the accounting behavior of managers respectively.

Secondly, it empirically reviews the continuously theoretically mentioned relationship between ESO and agency costs from several viewpoints. Most research on employee ownership assumes a negative relationship between ESO and agency costs (Barney, 1990a; Kim & Patel, 2017), arguing that ESO helps reducing the agency problems by aligning the interests of employees, managers and shareholders. Our results highlight other effects of ESO – mainly managerial entrenchment – that assist in increasing agency costs for low levels of employee ownership. The explored U-shaped relationship in the first study contradicts the belief that ESO can either have a positive or a negative effect, and brings evidence that it can have a bright side as well as a dark side. The existence of both sides of ESO suggests that – in order to generate benefits from its advantages on employees, the company and even the overall economy (Carberry, 2011b; Kruse et al., 2010a) – it has to be properly implemented.

Thirdly, this research differentiates between the agency costs perceived by externals and how managers perceive them. While the first essay proves that ESO has a parabolic effect on agency cost proxies (asset utilization ratio and audit fees), the second and third essays find a linear relationship between ESO and managerial behavior variables, which are directly linked to agency costs (auditor independence and earnings management). For instance, in comparing our results from different studies in this dissertation, we find that low values of ESO increase the level of agency cost proxy (Part II) but decreases the opportunistic behavior of managers in managing earnings (Part IV). This denotes that even when the traditional measures of agency costs indicate an increase in these costs, managers' actions can be associated with a less opportunistic behavior.

Fourthly, French companies are known to have high levels of concentrated ownership, which leads to increased information asymmetry and agency costs between majority and minority shareholders (La Porta et al., 1997). Our results, notably the inverted U-shaped relationship between ESO and agency costs and the negative relationship between ESO and



the opportunistic earnings management in the French context, suggests that high levels of ESO might provide a protection for minority owners in a similar civil law country with low minority shareholder protection.

Finally, the third essay extends the very limited research on the relation between corporate governance mechanisms (ownership structure specifically) and earnings management in France and provides a more comprehensive picture of this association in the French context. While previous research evaluated the association between some corporate governance mechanisms and the level of earnings management, this dissertation studies the type of earnings management in France (informative or opportunistic), a point ignored by previous earnings management research on French companies. It provides evidence that earnings management is used rather opportunistically, and the implementation of certain corporate governance mechanisms can reduce the amplitude and severity of this behavior.

Overall, our evidence suggests that, in addition to direct effects on employee behavior (motivation, satisfaction, performance, involvement, turnover) and on firm performance (profitability, turnover, culture), ESO can also have effects on corporate risk, agency costs, audit effort, auditor independence, managerial behavior and earnings management.

### **5.2.2. Managerial Implications**

The managerial contributions of this research concern the different protagonists of shared capitalism plans generally and employee share ownership particularly. They mainly address the managers controlling shareholders and external auditors of companies that offer ESO plans to employees. Considering the fact that the automation of jobs is threatening job opportunities and employees' salaries (OECD, 2019), employee share ownership might be a solution to employees who will be replaced by machines (Freeman, 2015). ESO is a tool that

would allow employees to keep a part of their wealth invested in their companies' shares, helping them maintaining their capital. It can also boost the employees' motivation (Wu et al., 2008) triggering an increased company performance (Kruse, 2002).

Firstly, the research provides confirmation that low levels of ESO do not have the same outcomes as high levels. While low ESO values tend to increase agency costs as managers mainly implement ESO to entrench themselves, its high values can be an important solution to the existent agency problems between managers and shareholders and an interest alignment tool. The inverted U-shaped relationship found in Part II suggests that ESO should not be implemented solely for legal or tax incentive purposes. Previous ESO literature has also linked ESO to enhanced employee behavior and commitment (Kruse et al., 2010a), as well to increased corporate financial performance (O'Boyle et al., 2016). Our results suggest that in order to benefit from all these upshots of ESO, employees should own a significant part of the company shares and that minimal implementation of ESO might be harmful to the company.

Moreover, the third essay (Part IV) proves that managers of French listed companies use discretionary accruals to manage earnings opportunistically for their personal benefits, rather than beneficially to communicate information to external shareholders. Nonetheless, we find that the implementation of ESO plans can make the use of accruals less opportunistic and more beneficial. Therefore, ESO might be a tool that can be used to limit the opportunistic behavior of executives in managing earnings, and even help companies communicate internal information with externals and provide greater firm voluntary disclosure (Bova et al., 2015).

Additionally, the contrast in the results between the different studies in this thesis signifies that insiders and outsiders do not regard agency costs similarly. The difference in the obtained results prove that managers' actions and decisions, though based on agency costs, diverge from externals' estimations of the latter. Our evidence indicates that ESO has a

curvilinear relationship with the Asset Utilization Ratio and with the Audit Fees (proxies that help measure agency costs from an external point of view), as opposed to a linear relationship with non-audit service fees ratio and discretionary accruals (managerial behavior variables that are highly linked to agency costs). It suggests that even if ESO is regarded as an entrenchment mechanism by externals, and thus increasing agency costs, it would still improve the behavior of managers and align their interests with those of the company.

Finally, our dissertation also presents some implications for external auditors' planning of their audit mission. The research finds evidence of ESO's effect on agency costs, audit fees, non-audit service fees and opportunistic earnings management. The existence of ESO plans and, more specifically, the percentage of employee ownership can affect the whole audit planning. Auditors should be interested in ESO companies that present lower agency costs in which managers' behavior tend to be less opportunistic. However, they should be aware that low levels of employee ownership might serve only as a managerial entrenchment mechanism.

### **5.3. Limitations of the Research and Future Research**

The dissertation presents some limitations as well which need to be discussed to better understand the contributions of the research and to help presenting the suggestions for future research.

The first limitation is related to the choice of the main independent variable used in the studies. Emphasizing the shared capitalism literature, we study, in all three essays, the implementation of employee ownership plans. ESO does not reflect the effects that the totality of shared capitalism plans can have on accounting and audit practices, but only the effects of a specific type of these arrangements. Profit-sharing, gain-sharing and stock options

arrangements can be the basis of future research linking shared capitalism to studies in accounting and audit.

Our choice of variable also presents another limitation, as we only focus on the percentage of shares held by employees, without concentrating on the number of employees owning these shares. The ratio of employee-owners to the total number of employees in a company can be a better proxy for the corporate culture created under ESO, that can affect agency costs between employees and shareholders. Kim and Ouimet (2014) prove that the number of employees who participate in ESO plans is as important as the number of shares owned by them, when measuring the effects of ESO on employee incentives.

Thirdly, our sample comprising only French-listed firms allows us to focus solely on large French companies. Though the context is interesting and justifiable enough, our sample ignores firstly the non-listed French companies and secondly other geographical contexts. The sample affects the implications of the results on companies outside France, and even to smaller firms in France. Future research should be made in other countries, to check if the various results found in our dissertation vary in other countries or when focusing on smaller companies in France.

Fourthly, the legal existence of a mandatory profit-sharing scheme for all French companies employing more than fifty employees - hence, all the firms in our sample - might counterweigh for the studied effect of ESO. Profit-sharing and ESO are two forms of shared capitalism arrangements, and therefore, share many of the same effects on the participating employees and companies that build our theoretical models in this dissertation. Consequently, this legal obligation might be the cause of a decrease in the perceived effects of ESO, as profit-sharing can have very similar outcomes. Future research should replicate our studies in contexts where profit-sharing is optional and not mandatory. The comparison of results would allow the understanding of the effects of aggregating several shared capitalism arrangements.

It would help us study whether profit-sharing enhances or reduces the effects of ESO plans on accounting and audit practices.

Finally, the second essay that evaluates the relationship between ESO and auditor independence focuses on a sample of French companies over a period that ends in 2016. In 2014, a new European Union (EU) audit legislation was introduced, concerning all European companies, and applicable to financial years starting on or after the 17<sup>th</sup> of June, 2016. The legislation includes new restrictions to the non-audit services (NAS) that auditors can provide to their audit clients as well as a fee cap for these services. However, since the implementation of the EU reform, when a company's NASF surpass 15% of the average total fees (over 3 years), its audit committee has to assess whether the auditor's independence is safeguarded and it may not engage with the auditor after 2-year period. This reform has extremely reduced the NAS provided by external auditors to their audited companies in France. Therefore, this reform questions the implications of our results on the auditor's independence after the year 2016. To measure the effect of ESO on the auditor-auditee relationship post-2016, future research should focus on different measures of the independence of the auditor and the quality of the audit than the non-audit service fees ratio.

# **Bibliography**

## 6. Bibliography

- Abbott, L. J., Parker, S., Peters, G. F., & Raghunandan, K. (2003a). An empirical investigation of audit fees, nonaudit fees, and audit committees. *Contemporary Accounting Research*, 20(2), 215–234. <https://doi.org/10.1506/8YP9-P27G-5NW5-DJKK>
- Abbott, L. J., Parker, S., Peters, G. F., & Raghunandan, K. (2003b). The association between audit committee characteristics and audit fees. *Auditing: A Journal of Practice & Theory*, 22(2), 17–32. <https://doi.org/10.2308/aud.2003.22.2.17>
- Abbott, L. J., Parker, S., Peters, G. F., & Rama, D. V. (2007). Corporate governance, audit quality, and the Sarbanes-Oxley Act: Evidence from internal audit outsourcing. *The Accounting Review*, 82(4), 803–835. <https://doi.org/https://doi.org/10.2308/accr.2007.82.4.803>
- Adut, D., Holder, A. D., & Robin, A. (2013). Predictive versus opportunistic earnings management, executive compensation, and firm performance. *Journal of Accounting and Public Policy*, 32(3), 126–146. <https://doi.org/10.1016/j.jaccpubpol.2013.02.007>
- Aguilera, R. V., Filatotchev, I., Gospel, H., & Jackson, G. (2008). An organizational approach to comparative corporate governance: Costs, contingencies, and complementarities. *Organization Science*, 19(3), 475–492. <https://doi.org/10.1287/orsc.1070.0322>
- Amul. (2018). *AMUL is 9th large and the fastest growing dairy organization in the world*. <https://amul.com/files/pdf/Press-Release-AMUL-9th-largest-organization-in-world-26-09-2018.pdf>
- Anderson, R. C., Mansi, S. A., & Reeb, D. M. (2003). Founding family ownership and the agency cost of debt. *Journal of Financial Economics*, 68, 263–285. [https://doi.org/10.1016/S0304-405X\(03\)00067-9](https://doi.org/10.1016/S0304-405X(03)00067-9)
- Ang, J. S., Cole, R. A., & Lin, J. W. (2000). Agency costs and ownership structure. *Journal of Finance*, 55(1), 81–106. <https://doi.org/https://doi.org/10.1111/0022-1082.00201>
- Antle, R., & Demski, J. S. (1991). Contracting frictions, regulation, and the structure of CPA firms. *Journal of Accounting Research*, 29, 1–24. <https://doi.org/10.2307/2491000>

- Antle, R., Gordon, E., Narayanamoorthy, G., & Zhou, L. (2006). The joint determination of audit fees, non-audit fees, and abnormal accruals. *Review of Quantitative Finance and Accounting*, 27(3), 23–266. <http://link.springer.com/article/10.1007/s11156-006-9430-y>
- Arellano, M. (1993). On the testing of correlated effects with panel data. *Journal of Econometrics*, 59(1–2), 87–97. [https://doi.org/10.1016/0304-4076\(93\)90040-C](https://doi.org/10.1016/0304-4076(93)90040-C)
- Arya, A., Glover, J. C., & Sunder, S. (2003). Are unmanaged earnings always better for shareholders? *Accounting Horizons*, 17(Supplement), 111–116. <https://doi.org/10.2308/acch.2003.17.s-1.111>
- Ashbaugh, H., LaFond, R., & Mayhew, B. W. (2003). Do nonaudit services compromise auditor independence? Further evidence. *The Accounting Review*, 78(3), 611–639. <https://doi.org/10.2307/3203219>
- Aubert, N. (2006). Understanding Employer's Stock Holdings in the French Company Savings Plans Using the Literature on the American 401(k) plans. *Gestion 2000*, 6(6), 61–77. <https://halshs.archives-ouvertes.fr/halshs-00188518v2>
- Aubert, N., Garnotel, G., Lapied, A., & Rousseau, P. (2014). Employee ownership: A theoretical and empirical investigation of management entrenchment vs. reward management. *Economic Modelling*, 40, 423–434. <https://doi.org/10.1016/j.econmod.2013.12.011>
- Aubert, N., Kern, A., & Hollandts, X. (2017). Employee stock ownership and the cost of capital. *Research in International Business and Finance*, 41, 67–78. <https://doi.org/10.1016/j.ribaf.2017.04.007>
- Babenko, I., & Sen, R. (2015). Do nonexecutive employees have valuable information? evidence from employee stock purchase plans. *Management Science*, 62(7), 1878–1898. <https://doi.org/10.1287/mnsc.2015.2226>
- Ballwieser, W., Bamberg, G., Beckmann, M., & Bester, H. (2012). *Agency theory, information, and incentives*. <https://doi.org/10.1007/978-3-642-75060-1>
- Bao, S. R., & Lewellyn, K. B. (2017). Ownership structure and earnings management in emerging markets—An institutionalized agency perspective. *International Business Review*, 26(5), 828–838. <https://doi.org/10.1016/j.ibusrev.2017.02.002>
- Barney, J. B. (1990a). Employee stock ownership and the cost of equity in Japanese electronics firms. *Organization Studies*, 11(3), 353–372.



<https://doi.org/10.1177/017084069001100302>

- Barney, J. B. (1990b). Profit sharing bonuses and the cost of debt: business finance and compensation policy in Japanese electronics firms. *Asia Pacific Journal of Management*, 7(1), 49–64. <https://doi.org/10.1007/BF01731883>
- Barroso, R., Ben Ali, C., & Lesage, C. (2018). Blockholders' ownership and audit fees: The impact of the corporate governance model. *European Accounting Review*, 27(1), 149–172. <https://doi.org/10.1080/09638180.2016.1243483>
- Bartov, E., Gul, F. A., & Tsui, J. S. L. (2000). Discretionary-accruals models and audit qualifications. *Journal of Accounting and Economics*, 30(3), 421–452. [https://doi.org/10.1016/S0165-4101\(01\)00015-5](https://doi.org/10.1016/S0165-4101(01)00015-5)
- Beatty, A., & Harris, D. G. (1998). The effects of taxes, agency costs and information asymmetry on earnings management: A comparison of public and private firms. *Review of Accounting Studies*, 4(3–4), 299–326. <https://doi.org/10.1023/A:1009642403312>
- Bebchuk, L. A., & Cohen, A. (2005). The costs of entrenched boards. *Journal of Financial Economics*, 78(2), 409–433. <https://doi.org/10.1016/j.jfineco.2004.12.006>
- Beck, P. J., Frecka, T. J., & Solomon, I. (1988a). A model of the market for MAS and audit services: Knowledge spillovers and auditor-auditee bonding. *Journal of Accounting Literature*, 7(1), 50–64.
- Beck, P. J., Frecka, T. J., & Solomon, I. (1988b). An empirical analysis of the relationship between MAS involvement and auditor tenure: Implications for auditor independence. *Journal of Accounting Literature*, 7(1), 65–84.
- Bell, T. B., Landsman, W. R., & Shackelford, D. A. (2001). Auditors' perceived business risk and audit fees: Analysis and evidence. *Journal of Accounting Research*, 39(1), 35–43. <http://doi.wiley.com/10.1111/1475-679X.00002>
- Benartzi, S., Thaler, R. H., Utkus, S. P., & Sunstein, C. R. (2007). The law and economics of company stock in 401(k) plans. *The Journal of Law and Economics*, 50(1), 45–79. <https://doi.org/10.1086/508312>
- Berger, P. G., Ofek, E., & Yermack, D. L. (1997). Managerial entrenchment and capital structure decisions. *Journal of Finance*, 52(4), 1411–1438. <https://doi.org/10.1111/j.1540-6261.1997.tb01115.x>

- Berry, D. P., & Schneider, S. (2011). Improving the quality of home health aide jobs: A collaboration between organized labor and a worker cooperative. In *Employee ownership and shared capitalism: New directions in research* (pp. 1–41). <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.377.5094&rep=rep1&type=pdf>
- Bertrand, M., & Mullainathan, S. (2003). Enjoying the quiet life? Corporate governance and managerial preferences. *Journal of Political Economy*, 111(5), 1043–1075. <https://doi.org/10.1086/376950>
- Blair, M. M., Kruse, D. L., & Blasi, J. R. (2000). Employee ownership: An unstable form or a stabilizing force? In *The new relationship: Human capital in the American corporation* (pp. 241–298). <https://doi.org/10.2139/ssrn.142146>
- Blasi, J. R., Conte, M., & Kruse, D. L. (1996). Employee stock ownership and corporate performance among public companies. *Industrial and Labor Relations Review*, 50(1), 60–79. <https://doi.org/10.1177/001979399605000104>
- Blasi, J. R., Freeman, R. B., & Kruse, D. L. (2013). The citizen's share: Putting ownership back into democracy. In *Yale University Press*. <https://doi.org/10.1093/jahist/jau570>
- Blasi, J. R., Freeman, R. B., & Kruse, D. L. (2016). Do broad-based employee ownership, profit sharing and stock options help the best firms do even better? *British Journal of Industrial Relations*, 54(1), 55–82. <https://doi.org/10.1111/bjir.12135>
- Blasi, J. R., Freeman, R. B., Mackin, C., & Kruse, D. L. (2010a). Creating a bigger pie? The effects of employee ownership, profit sharing, and stock options on workplace performance. In *Shared Capitalism at Work: Employee Ownership, Profit and Gain Sharing, and Broad-Based Stock Options* (pp. 139–165). <https://doi.org/10.3386/w14230>
- Blasi, J. R., & Kruse, D. L. (2019). *Understanding support for ESOPs*. <https://parade.com/621697/ccopelan/this-is-americas-favorite-pie/>
- Blasi, J. R., Kruse, D. L., & Bernstein, A. (2003). *In the company of owners : the truth about stock options (and why every employee should have them)* (Vol. 25). <https://doi.org/10.5465/amp.2006.21903491>
- Blasi, J. R., Kruse, D. L., & Freeman, R. B. (2010b). Epilogue (and prologue). In *Shared Capitalism at Work: Employee Ownership, Profit and Gain Sharing, and Broad-based Stock Options* (pp. 377–386). <https://www.nber.org/chapters/c11827.pdf>

- Blasi, J. R., Kruse, D. L., & Markowitz, H. M. (2010c). Risk and lack of diversification under employee ownership and shared capitalism. In *Shared Capitalism at Work: Employee Ownership, Profit and Gain Sharing, and Broad-Based Stock Options* (pp. 105–136). <https://www.nber.org/chapters/c8088.pdf>
- Bova, F., Dou, Y., & Hope, O.-K. (2015). Employee ownership and firm disclosure. 2, 32(2), 639–673. <https://doi.org/10.1111/1911-3846.12084>
- Bowen, R. M., Rajgopal, S., & Venkatachalam, M. (2008). Accounting discretion, corporate governance, and firm performance. *Contemporary Accounting Research*, 25(2), 351–405. <https://doi.org/10.1506/car.25.2.3>
- Breusch, T. S., & Pagan, A. R. (1979). A simple test for heteroscedasticity and random coefficient variation. *Econometrica: Journal of the Econometric Society*, 47(5), 1287–1294. <https://www.jstor.org/stable/pdf/1911963.pdf>
- Brown, J. R., Liang, N., & Weisbenner, S. (2006). 401 (k) matching contributions in company stock: costs and benefits for firms and workers. *Journal of Public Economics*, 90(6–7), 1315–1346. <https://doi.org/10.1016/j.jpubeco.2005.05.007>
- Brown, S., & Sessions, J. G. (2003). Attitudes, expectations and sharing. *Labour*, 17(4), 543–569. <https://doi.org/10.1111/j.1121-7081.2003.00252.x>
- Broye, G. (2009). Honoraires d’audit et comités d’audit : le cas de la France. *Comptabilité - Contrôle - Audit*, 15(1), 199–224. <https://doi.org/10.3917/cca.151.0199>
- Buchko, A. A. (1992). Employee ownership, attitudes, and turnover: An empirical assessment. *Human Relations*, 45(7), 711–733. <https://doi.org/10.1177/001872679204500704>
- Caramelli, M. (2011). Employee ownership and corporate performance: Toward unlocking the black box. In *Employee ownership and shared capitalism: New directions for research* (pp. 177–210). <http://www.cornellpress.cornell.edu/book/?GCOI=80140100731920>
- Caramelli, M., & Briole, A. (2007). Employee stock ownership and job attitudes: Does culture matter? *Human Resource Management Review*, 17(3), 290–304. [www.elsevier.com/locate/humres](http://www.elsevier.com/locate/humres)
- Carberry, E. J. (2010). Who benefits from shared capitalism? The social stratification of wealth and power in companies with employee ownership. In *Shared Capitalism at*

- Work: Employee Ownership, Profit and Gain Sharing, and Broad-based Stock Options* (pp. 317–349). <https://www.nber.org/chapters/c8095.pdf>
- Carberry, E. J. (2011a). Employee ownership and shared capitalism: Assessing the experience, research, and policy implications. In *Employee ownership and shared capitalism: New directions in research* (pp. 1–26).
- Carberry, E. J. (2011b). *Employee ownership and shared capitalism: New directions in research*. <https://digitalcommons.ilr.cornell.edu/books/73/>
- Chan, P., Ezzamel, M., & Gwilliam, D. (1993). Determinates of audit fees for quoted UK companies. *Journal of Business Finance & Accounting*, 20(6), 765–786. <https://doi.org/10.1111/j.1468-5957.1993.tb00292.x>
- Chaney, P., Jeter, D., & Shivakumar, L. (2004). Self-selection of auditors and audit pricing in private firms. *The Accounting Review*, 79(1), 51–72. <https://doi.org/10.2308/accr.2004.79.1.51>
- Chang, S., & Mayers, D. (1992). Managerial vote ownership and shareholder wealth. *Journal of Financial Economics*, 32(1), 103–131. [https://doi.org/10.1016/0304-405X\(92\)90027-U](https://doi.org/10.1016/0304-405X(92)90027-U)
- Chang, X., & Zhang, H. F. (2015). Managerial entrenchment and firm value: A dynamic perspective. *Journal of Financial and Quantitative Analysis*, 50(5), 1083–1103. <https://doi.org/10.1017/S0022109015000423>
- Cheng, Q., & Warfield, T. D. (2005). Equity incentives and earnings management. *The Accounting Review*, 80(2), 441–476. <https://doi.org/10.2308/accr.2005.80.2.441>
- Choi, B. B., Lee, D., & Park, Y. (2013). Corporate social responsibility, corporate governance and earnings quality: Evidence from Korea. *Corporate Governance: An International Review*, 21(5), 447–467. <https://doi.org/10.1111/corg.12033>
- Choi, J.-H., Kim, J.-B., Liu, X., & Simunic, D. A. (2008). Audit pricing, legal liability regimes, and Big 4 premiums: Theory and cross- country evidence. *Contemporary Accounting Research*, 25(1), 55–99. <https://doi.org/10.1506/car.25.1.2>
- Chung, R., Firth, M., & Kim, J.-B. (2002). Institutional monitoring and opportunistic earnings management. *Journal of Corporate Finance*, 8(1), 29–48. [https://doi.org/10.1016/S0929-1199\(01\)00039-6](https://doi.org/10.1016/S0929-1199(01)00039-6)

- Chung, R., Firth, M., & Kim, J.-B. (2005). Earnings management, surplus free cash flow, and external monitoring. *Journal of Business Research*, 58(6), 766–776. <https://doi.org/10.1016/j.jbusres.2003.12.002>
- Clinch, G., Stokes, D., & Zhu, T. (2012). Audit quality and information asymmetry between traders. *Accounting & Finance*, 52(3), 743–765. <https://doi.org/10.1111/j.1467-629X.2011.00411.x>
- Cornett, M. M., Marcus, A. J., & Tehranian, H. (2008). Corporate governance and pay-for-performance: The impact of earnings management. *Journal of Financial Economics*, 87(2), 357–373. <https://doi.org/10.1016/j.jfineco.2007.03.003>
- Cremer, D. De, & Tao, T. (2015). Huawei: A case study of when profit sharing works. *Harvard Business Review*, 24, 2–6. <https://hbr.org/2015/09/huawei-a-case-study-of-when-profit-sharing-works>
- Davidson III, W. N., Jiraporn, P., & Nemec, C. (2010). Earnings management following duality-creating successions: Ethnostatistics, impression management, and agency theory. *Academy of Management Journal*, 47(2), 267–275. <https://doi.org/10.2307/20159577>
- De Jong, A., Mertens, G., Van Der Poel, M., Van Dijk, R., De Jong, A., Van Der Poel, Á. M., ... Van Dijk, R. (2014). How does earnings management influence investor's perceptions of firm value? Survey evidence from financial analysts. *Review of Accounting Studies*, 19(2), 606–627. <https://doi.org/10.1007/s11142-013-9250-y>
- Dechow, P. M., Ge, W., & Schrand, C. (2010). Understanding earnings quality: A review of the proxies, their determinants and their consequences. *Journal of Accounting and Economics*, 50(2–3), 344–401. <https://doi.org/10.1016/j.jacceco.2010.09.001>
- Dechow, P. M., Kothari, S. P., & Watts, R. L. (1998). The relation between earnings and cash flows. *Journal of Accounting and Economics*, 25(2), 133–168. [https://doi.org/10.1016/S0165-4101\(98\)00020-2](https://doi.org/10.1016/S0165-4101(98)00020-2)
- Dechow, P. M., Richardson, S. A., & Tuna, I. (2003). Why are earnings kinky? An examination of the earnings management explanation. *Review of Accounting Studies*, 8, 355–384. <https://doi.org/10.1023/A:1024481916719>
- Dechow, P. M., Sloan, R. G., & Sweeney, A. P. (1995). Detecting earnings management. *The Accounting Review*, 70(2), 193–225. <https://www.jstor.org/stable/248303%0A>

- DeFond, M. L., Raghunandan, K., & Subramanyam, K. R. (2002). Do non-audit service fees impair auditor independence? Evidence from going concern audit opinions. *Journal of Accounting*. <https://doi.org/10.1111/1475-679X.00088>
- Dube, A., & Freeman, R. B. (2010). Complementarity of shared compensation and decision-making systems: Evidence from the American labor market. In *Shared Capitalism at Work: Employee Ownership, Profit and Gain Sharing, and Broad-based Stock Options* (pp. 167–199). <https://www.nber.org/chapters/c8090.pdf>
- Dutta, S., & Gigler, F. (2002). The effect of earnings forecasts on earnings management. *Journal of Accounting Research*, 40(3), 631–655. <https://doi.org/10.1111/1475-679X.00065>
- Edmans, A. (2011). Does the stock market fully value intangibles? Employee satisfaction and equity prices. *Journal of Financial Economics*, 101(3), 621–640. <https://doi.org/10.1016/J.JFINECO.2011.03.021>
- Eisenhardt, K. M. (1989). Agency theory: An assessment and review. *Academy of Management Journal*, 14(1), 57–74. <https://doi.org/10.2307/258191>
- Employee Ownership Association. (2019). *The employee ownership top 50*. <https://www.rm2.co.uk/resources/eo-top-50/employee-ownership-top-2017>
- Faleye, O. (2007). Classified boards, firm value, and managerial entrenchment. *Journal of Financial Economics*, 83(2), 501–529. <https://doi.org/10.1016/j.jfineco.2006.01.005>
- Faleye, O., Mehrotra, V., & Morck, R. (2006). When labor has a voice in corporate governance. *Journal of Financial and Quantitative Analysis*, 41(3), 489–510. <https://doi.org/10.1017/S0022109000002519>
- Faleye, O., & Trahan, E. A. (2011). Labor-friendly corporate practices: is what is good for employees good for shareholders? *Journal of Business Ethics*, 101(1), 1–27. <https://doi.org/10.1007/s10551-010-0705-9>
- Filatotchev, I., Jackson, G., & Nakajima, C. (2013). Corporate governance and national institutions: A review and emerging research agenda. *Asia Pacific Journal of Management*, 30(4), 965–986. <https://doi.org/10.1007/s10490-012-9293-9>
- Filatotchev, I., & Wright, M. (2011). Agency perspectives on corporate governance of multinational enterprises. *Journal of Management Studies*, 48(2), 471–486. <https://doi.org/10.1111/j.1467-6486.2010.00921.x>

- Firth, M. (1997). The provision of nonaudit services by accounting firms to their audit clients. *Contemporary Accounting Research*, 14(2), 1–21. <https://doi.org/10.1111/j.1911-3846.1997.tb00524.x>
- Firth, M. (2002). Auditor-provided consultancy services and their associations with audit fees and audit opinions. *Journal of Business Finance and Accounting*, 29(5–6), 661–693. <https://doi.org/10.1111/1468-5957.00446>
- Flamisch, S. (2019). 72% of republicans and 74% of democrats agree on this: They prefer to work for an employee-owned company, study finds. *School of Management and Labor Relations*. <https://smlr.rutgers.edu/news/72-percent-republicans-74-percent-democrats-agree-they-prefer-work-employee-owned-company-study-finds>
- Francis, J. R. (1984). The effect of audit firm size on audit prices: A study of the Australian market. *Journal of Accounting and Economics*, 6(2), 133–151. [https://doi.org/10.1016/0165-4101\(84\)90010-7](https://doi.org/10.1016/0165-4101(84)90010-7)
- Francis, J. R., & Yu, M. D. (2009). Big 4 office size and audit quality. *The Accounting Review*, 84(5), 1521–1552. <https://doi.org/10.2308/accr.2009.84.5.1521>
- Frankel, R. M., Johnson, M. F., & Nelson, K. K. (2002). The relation between auditors' fees for nonaudit services and earnings management. *The Accounting Review*, 77, 71–105. <https://doi.org/10.2307/3203326>
- Frankel, R. M., & Li, X. (2004). Characteristics of a firm's information environment and the information asymmetry between insiders and outsiders. *Journal of Accounting and Economics*, 37, 229–259. <https://doi.org/10.1016/j.jacceco.2003.09.004>
- Freeman, R. B. (2008). When workers share in profits: Effort and responses to shirking. *Revista de Política Economia*, 97(6), 9–38. <http://eprints.lse.ac.uk/28499/1/dp0882.pdf>
- Freeman, R. B. (2015). Who owns the robots rules the world. *IZA World of Labor*. <https://doi.org/10.15185/izawol.5>
- Freeman, R. B., Kruse, D. L., & Blasi, J. R. (2008). Worker responses to shirking under shared capitalism. In *Shared Capitalism at Work: Employee Ownership, Profit and Gain Sharing, and Broad-based Stock Options* (pp. 77–103). <http://www.nber.org/papers/w14227>
- Freeman, R. B., Kruse, D. L., & Blasi, J. R. (2010). Introduction. In *Shared Capitalism at Work: Employee Ownership, Profit and Gain Sharing, and Broad-based Stock Options*

- (pp. 1–37). <https://doi.org/10.1111/j.1475-4932.2012.00840.x>
- Gamble, J. E. (2000). Management commitment to innovation and ESOP stock concentration. *Journal of Business Venturing*, 15, 433–447. [https://doi.org/10.1016/S0883-9026\(99\)00037-3](https://doi.org/10.1016/S0883-9026(99)00037-3)
- Gao, P., & Shrieves, R. E. (2002). Earnings management and executive compensation: A case of overdose of option and underdose of salary? *EFA 2002 Berlin Meetings Presented Paper*. Available at SSRN. <https://doi.org/10.2139/ssrn.302843>
- García Lara, J. M., Osma, B. G., & Mora, A. (2005). The effect of earnings management on the asymmetric timeliness of earnings. *Journal of Business Finance and Accounting*, 32(3–4), 691–726. <https://doi.org/10.1111/j.0306-686X.2005.00610.x>
- Gerhart, B. (2007). Horizontal and vertical fit in human resource systems. In *Perspectives on organizational fit* (pp. 317–348). <https://psycnet.apa.org/record/2007-15682-010>
- Gilliam, T. A., Heflin, F., & Paterson, J. S. (2015). Evidence that the zero-earnings discontinuity has disappeared. *Journal of Accounting and Economics*, 60(1), 117–132. <https://doi.org/10.1016/J.JACCECO.2014.07.001>
- Ginglinger, E., Megginson, W. H., & Waxin, T. (2011). Employee ownership, board representation, and corporate financial policies. *Journal of Corporate Finance*, 17(4), 868–887. <https://doi.org/https://doi.org/10.1016/j.jcorpfin.2011.03.005>
- Gladden, W. (1888). *Working people and their employers* (F. & Wagnalls, Ed.). Funk & Wagnalls.
- Gonthier-Besacier-Cerag, N., & Schatt, A. (2007). Determinants of audit fees for French quoted firms. *Managerial Auditing Journal*, 22(2), 139–160. <https://doi.org/10.1108/02686900710718654>
- Guay, W. R., Kothari, S. P., & Watts, R. L. (1996). A market-based evaluation of discretionary accrual models. *Journal of Accounting Research*, 34(34), 83–105. <https://doi.org/10.2307/2491427>
- Guedri, Z., & Hollandts, X. (2008). Beyond dichotomy: The curvilinear impact of employee ownership on firm performance. *Corporate Governance: An International Review*, 16(5), 460–474. <https://doi.org/10.1111/j.1467-8683.2008.00703.x>
- Guery, L., & Stevenot, A. (2017). L'actionnariat salarié favorise-t-il la diffusion



- d'information aux salariés et leur participation aux décisions stratégiques ? Une question de gouvernance d'entreprise. *Management International*, 21(4), 61–75. <https://doi.org/10.7202/1053578ar>
- Gul, F. A., Chen, C. J. P., & Tsui, J. S. L. (2003). Discretionary accounting accruals, managers' incentives, and audit fees. *Contemporary Accounting Research*, 20(3), 441–464. <https://doi.org/10.1506/686E-NF2J-73X6-G540>
- Gul, F. A., & Tsui, J. S. L. (2001). Free cash flow, debt monitoring, and audit pricing: Further evidence on the role of director equity ownership. *Auditing*, 20(2), 71–84. <https://doi.org/10.2308/aud.2001.20.2.71>
- Gunny, K. A. (2010). The relation between earnings management using real activities manipulation and future performance: Evidence from meeting earnings benchmarks. *Contemporary Accounting Research*, 27(3), 855–888. <https://doi.org/10.1111/j.1911-3846.2010.01029.x>
- Haans, R. F. J., Pieters, C., & He, Z.-L. (2015). Thinking about U: Theorizing and testing U- and inverted U-shaped relationships in strategy research. *Strategic Management Journal*, 37(7), 1177–1195. <https://doi.org/10.1002/smj.2399>
- Hackenbrack, K. E., Jenkins, N. T., & Pevzner, M. (2014). Relevant but delayed information in negotiated audit fees. *Auditing: A Journal of Practice & Theory*, 33(4), 95–117. <https://doi.org/10.2308/ajpt-50830>
- Hallock, D. E., Salazar, R. J., & Venneman, S. (2004). Demographic and attitudinal correlates of employee satisfaction with an ESOP. *British Journal of Management*, 15(4), 321–333. <https://doi.org/10.1111/j.1467-8551.2004.00422.x>
- Handel, M. J., & Levine, D. I. (2004). Editors' Introduction: The Effects of New Work Practices on Workers. *Industrial Relations: A Journal of Economy and Society*, 43(1), 1–43. <https://onlinelibrary-wiley-com.lama.univ-amu.fr/doi/pdf/10.1111/j.0019-8676.2004.00317.x>
- Harden, E. E., Kruse, D. L., & Blasi, J. R. (2010). Who has a better idea? Innovation, shared capitalism, and human resources policies. In *Shared Capitalism at Work: Employee Ownership, Profit and Gain Sharing, and Broad-based Stock Options: Vol. ISBN* (pp. 225–253). <http://www.nber.org/books/krus08-1>
- Hausman, J. A. (1978). Specification tests in econometrics. *Econometrica: Journal of the*

- Econometric Society*, 46(6), 1251–1271. <https://www.jstor.org/stable/1913827>
- Hay, D. C., Knechel, R. W., & Wong, N. (2006). Audit fees: A meta-analysis of the effect of supply and demand attributes. *Contemporary Accounting Research*, 23(1), 141–191. <https://doi.org/10.1506/4XR4-KT5V-E8CN-91GX>
- Healy, P. M. (1985). The effect of bonus schemes on accounting decisions. *Journal of Accounting and Economics*, 7(1), 85–107. [https://doi.org/10.1016/0165-4101\(85\)90029-1](https://doi.org/10.1016/0165-4101(85)90029-1)
- Healy, P. M., & Palepu, K. G. (1993). The effect of firms' financial disclosure strategies on stock prices. *Accounting Horizons*, 7(1), 1–11. <https://doi.org/Article>
- Healy, P. M., & Wahlen, J. M. (1999). A review of the earnings management literature and its implications for standard setting. *American Accounting Association Accounting Horizons*, 13(4), 365–383. <https://doi.org/10.2308/acch.1999.13.4.365>
- Hogan, C. E., & Wilkins, M. S. (2008). Evidence on the audit risk model: Do auditors increase audit fees in the presence of internal control deficiencies? *Contemporary Accounting Research*, 25(1). <https://doi.org/10.1506/car.25.1.9>
- Hollandts, X., & Aubert, N. (2015). How shared capitalism affects employee withdrawal: An econometric case study of a French-listed company. *Journal of Applied Business Research*, 31(3), 925–937.
- Hollandts, X., Aubert, N., Abdelhamid, A., Prieur, V., & Beyond, V. P. (2017). Beyond dichotomy: The curvilinear impact of employee ownership on CEO entrenchment. *Management International*, 22(2). <https://halshs.archives-ouvertes.fr/halshs-01495427v2/document>
- Holthausen, R. W. (1990). Accounting method choice: Opportunistic behavior, efficient contracting, and information perspectives. *Journal of Accounting and Economics*, 12(1–3), 207–218. [https://doi.org/10.1016/0165-4101\(90\)90047-8](https://doi.org/10.1016/0165-4101(90)90047-8)
- Holthausen, R. W., Larcker, D. F., & Sloan, R. G. (1995). Annual bonus schemes and the manipulation of earnings. *Journal of Accounting and Economics*, 19(1), 29–74. [https://doi.org/10.1016/0165-4101\(94\)00376-G](https://doi.org/10.1016/0165-4101(94)00376-G)
- Huawei. (2019). Who owns Huawei. <https://www.huawei.com/en/facts/question-answer/who-owns-huawei>

- ISA 200. (2009). Overall objectives of the independent auditor and the conduct of an audit in accordance with international standards on auditing. *Handbook of International Standards on Auditing and Quality Control*, 71–99. <https://www.ifac.org/system/files/downloads/a008-2010-iaasb-handbook-isa-200.pdf>
- Ivanov, S. I., & Zaima, J. K. (2011). Analysis of the effects of ESOP adoption on the company cost of capital. *Managerial Finance*, 37(2), 173–188. <https://doi.org/10.1108/03074351111103695>
- Jaggi, B., Leung, S., & Gul, F. A. (2009). Family control, board independence and earnings management: Evidence based on Hong Kong firms. *Journal of Accounting and Public Policy*, 28(4), 281–300. <https://doi.org/10.1016/j.jaccpubpol.2009.06.002>
- Jeanjean, T., & Stolowy, H. (2008). Do accounting standards matter? An exploratory analysis of earnings management before and after IFRS adoption. *Journal of Accounting and Public Policy*, 27(6), 480–494. <https://doi.org/10.1016/j.jaccpubpol.2008.09.008>
- Jensen, K. L., & Payne, J. L. (2005). Audit procurement: Managing audit quality and audit fees in response to agency costs. *Auditing: A Journal of Practice & Theory*, 24(2), 27–48. <https://doi.org/10.2308/aud.2005.24.2.27>
- Jensen, M. C. (1986). Agency costs of free cash flow , corporate finance , and takeovers. *The American Economic Review*, 76(2), 323–329. <https://www.jstor.org/stable/1818789%0A>
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3, 305–360. [https://doi.org/http://dx.doi.org/10.1016/0304-405X\(76\)90026-X](https://doi.org/http://dx.doi.org/10.1016/0304-405X(76)90026-X)
- Jensen, M. C., & Meckling, W. H. (1979). Rights and production functions: An application to labor-managed firms and codetermination. *The Journal of Business*, 52(4), 469. <https://doi.org/10.1086/296060>
- Jiraporn, P., Miller, G. A., Yoon, S. S., & Kim, Y. S. (2008). Is earnings management opportunistic or beneficial? An agency theory perspective. *International Review of Financial Analysis*, 17(3), 622–634. <https://doi.org/10.1016/j.irfa.2006.10.005>
- Joe, J. R., & Vandervelde, S. D. (2007). Do auditor-provided nonaudit services improve audit effectiveness? *Contemporary Accounting Research*, 24(2), 467–487. <https://doi.org/10.1506/Y6H1-7895-774T-5TM1>
- Jones, J. J. (1991). Earnings management during import relief investigations. *Journal of*

- Accounting Research*, 29(2), 193–228. <https://doi.org/10.2307/2491047>
- Kaarsemaker, E. C. (2006). *Employee ownership and its consequences: Synthesis-generated evidence for the effects of employee ownership and gaps in the research literature*. York, UK.
- Kaiser, B. (2014). RHAUSMAN: Stata module to perform Robust Hausman Specification Test. *Statistical Software Components from Boston College Department of Economics*.
- Kato, T. (2003). The recent transformation of participatory employment practices in Japan. In *Labor Markets and Firm Benefit Policies in Japan and the United States* (pp. 39–80). <https://doi.org/10.7208/chicago/9780226620954.003.0003>
- Kato, T., Miyajima, H., & Owan, H. (2016). Does employee stock ownership work? Evidence from publicly-traded firms in Japan. In *IZA Discussion Paper* (No. 11671). <https://ssrn.com/abstract=3217488>
- Khalil, S., Magnan, M. L., & Cohen, J. R. (2008). Dual-class shares and audit pricing: Evidence from the canadian markets. *Auditing: A Journal of Practice & Theory*, 27(2), 199–216. <https://doi.org/10.2308/aud.2008.27.2.199>
- Kim, E. H., & Ouimet, P. (2011). Employee Capitalism or Corporate Socialism? Broad-Based Employee Stock Ownership. In *Center for Economic Studies, U.S. Census Bureau*. <https://doi.org/10.2139/ssrn.1529631>
- Kim, E. H., & Ouimet, P. (2014). Broad-based employee stock ownership: Motives and outcomes. *Journal of Finance*, 69(3), 1273–1319. <https://doi.org/10.1111/jofi.12150>
- Kim, J.-B., & Yi, C. H. (2006). Ownership structure, business group affiliation, listing status, and earnings management: Evidence from Korea. *Contemporary Accounting Research*, 23(2), 427–464. <https://doi.org/10.1506/7T5B-72FV-MHJV-E697>
- Kim, K. Y., & Patel, P. C. (2017). Employee ownership and firm performance: A variance decomposition analysis of European firms. *Journal of Business Research*, 70, 248–254. <http://dx.doi.org/10.1016/j.jbusres.2016.08.014>
- Kinney, W. R., & Libby, R. (2002). The relation between auditors' fees for nonaudit services and earnings management: Discussion. *The Accounting Review*, 77, 107–114. <https://doi.org/10.2307/3203327>
- Kinney, W. R., Palmrose, Z.-V., & Scholz, S. (2004). Auditor independence, non-audit

- services, and restatements: Was the U.S. government right? *Journal of Accounting Research*, 42(3), 561–588. <https://doi.org/10.1111/j.1475-679X.2004.t01-1-00141.x>
- Klein, K. J. (1987). Employee stock ownership and employee attitudes: a test of three models. *Journal of Applied Psychology*, 72(2), 319–332. <https://doi.org/10.1037/0021-9010.72.2.319>
- Kornish, L. J., & Levine, C. B. (2004). Discipline with common agency: The case of audit and nonaudit services. *The Accounting Review*, 79(1), 173–200. <https://doi.org/10.2308/accr.2004.79.1.173>
- Kothari, S. P., Leone, A. J., & Wasley, C. E. (2005). Performance matched discretionary accrual measures. *Journal of Accounting and Economics*, 39(1), 163–197. <https://doi.org/10.1016/j.jacceco.2004.11.002>
- Kramer, B. (2010). Employee ownership and participation effects on outcomes in firms majority employee-owned through employee stock ownership plans in the US. *Economic and Industrial Democracy*, 31(4), 449–476. <https://doi.org/10.1177/0143831X10365574>
- Kravet, T., & Shevlin, T. (2010). Accounting restatements and information risk. *Review of Accounting Studies*, 15(2), 264–294. <https://doi.org/10.1007/s11142-009-9103-x>
- Krishnan, J., Sami, H., & Zhang, Y. (2005). Does the provision of nonaudit services affect investor perceptions of auditor independence? *Auditing: A Journal of Practice & Theory*, 24(2), 111–135. <https://doi.org/10.2308/aud.2005.24.2.111>
- Krishnan, G. V. (2003). Does big 6 auditor industry expertise constrain earnings management? *Accounting Horizons*, Vol. 17, pp. 1–16. <https://doi.org/10.2308/acch.2003.17.s-1.1>
- Krishnan, G. V., & Yu, W. (2011). Further evidence on knowledge spillover and the joint determination of audit and non-audit fees. *Managerial Auditing Journal*, 26(3), 230–247. <https://doi.org/10.1108/02686901111113181>
- Kruse, D. (1998). Profit sharing and the demand for low-skill workers. In *Generating Jobs: Increasing the Demand for Low-Skill Workers*.
- Kruse, D. L. (2002). Research evidence on prevalence and effects of employee ownership. *Journal of Employee Ownership Law and Finance*, 14(4), 65–90. <http://esop.com/pdf/esopHistoryAndResearch/researchEvidence.pdf>

- Kruse, D. L. (2016). Does employee ownership improve performance? *IZA World of Labor*.  
<https://doi.org/10.15185/izawol.311>
- Kruse, D. L., Blasi, J. R., & Freeman, R. B. (2010a). Shared capitalism at work: Employee ownership, profit and gain sharing, and broad-based stock options. In *University of Chicago Press*. <https://doi.org/10.1111/j.1475-4932.2012.00840.x>
- Kruse, D. L., Blasi, J. R., & Freeman, R. B. (2012). *Does linking worker pay to firm performance help the best firms do even better?* (No. w17745).  
<https://doi.org/http://www.nber.org/papers/w17745.pdf>
- Kruse, D. L., Blasi, J. R., & Park, R. (2010b). Shared capitalism in the US economy: Prevalence, characteristics, and employee views of financial participation in enterprises. In *Shared Capitalism at Work: Employee Ownership, Profit and Gain Sharing, and Broad-Based Stock Options* (pp. 41–75). <https://www.nber.org/chapters/c8086.pdf>
- Kruse, D. L., Freeman, R. B., & Blasi, J. R. (2010c). Do workers gain by sharing? Employee outcomes under employee ownership, profit sharing, and broad-based stock options. In *Shared Capitalism at Work: Employee Ownership, Profit and Gain Sharing, and Broad-Based Stock Options* (pp. 257–289).  
<https://doi.org/10.7208/chicago/9780226056968.003.0009>
- Kurtulus, F. A., Kruse, D. L., & Blasi, J. R. (2011). Worker attitudes toward employee ownership, profit sharing and variable pay. In *Advances in the Economic Analysis of Participatory and Labor-Managed Firms* (pp. 143–168). [https://doi.org/10.1108/S0885-3339\(2011\)0000012010](https://doi.org/10.1108/S0885-3339(2011)0000012010)
- La Porta, R., Lopez-De-Silanes, F., Shleifer, A., & Vishny, R. W. (1997). Legal determinants of external finance. *The Journal of Finance*, 52(3), 1131–1150.  
<https://doi.org/10.1111/j.1540-6261.1997.tb02727.x>
- Lafond, R., & Roychowdhury, S. (2008). Managerial ownership and accounting conservatism. *Journal of Accounting Research*, 46(1), 101–135.  
<https://doi.org/10.1111/j.1475-679X.2008.00268.x>
- Lamb, M., Nobes, C. W., & Roberts, A. (1998). International variations in the connections between tax and financial reporting. *Accounting and Business Research*, 28(3), 173–188.  
<https://doi.org/10.1080/00014788.1998.9728908>
- Larcker, D. F., & Richardson, S. A. (2004, June). Fees paid to audit firms, accrual choices,

- and corporate governance. *Journal of Accounting Research*, Vol. 42, pp. 625–658.  
<https://doi.org/10.1111/j.1475-679X.2004.t01-1-00143.x>
- Levitt, A. (2000). *Renewing the covenant with investors. Speech before the New York University Center for Law and Business, May 10.*  
<https://www.sec.gov/news/speech/spch370.htm>
- Lind, J. T., & Mehlum, H. (2007). UTEST: Stata module to test for a U-shaped relationship. *Statistical Software Components*. <http://ideas.repec.org/c/boc/bocode/s456874.html>
- Lind, J. T., & Mehlum, H. (2010). With or without u? the appropriate test for a U-shaped relationship. *Oxford Bulletin of Economics and Statistics*, 72(1), 109–118.  
<https://doi.org/10.1111/j.1468-0084.2009.00569.x>
- Louis, H., & Robinson, D. (2005). Do managers credibly use accruals to signal private information? Evidence from the pricing of discretionary accruals around stock splits. *Journal of Accounting and Economics*, 39(2), 361–380.  
<https://doi.org/10.1016/j.jacceco.2004.07.004>
- Lowitzsch, J., & Hashi, I. (2014). The promotion of employee ownership and participation. In *Inter-University Centre for European Commission's DG MARKT*.  
<https://doi.org/10.2780/1538>
- Mard, Y., & Marsat, S. (2012). Gestion des résultats comptables et structure de l'actionnariat : le cas français. *Comptabilité - Contrôle - Audit*, 18(3), 11.  
<https://doi.org/10.3917/cca.183.0011>
- Mathieu, M. (2017). *Annual economic survey of employee share ownership in European countries*. <http://www.efesonline.org/Annual Economic Survey/2016/Survey 2016.pdf>
- Mathieu, M. (2018). *Annual economic survey of employee share ownership in European countries*. <http://www.efesonline.org/Annual Economic Survey/2017/Survey 2017.pdf>
- Matsunaga, S. R., & Park, C. W. (2001). The effect of missing a quarterly earnings benchmark on the CEO's annual bonus. *The Accounting Review*, 76(3), 313–332.  
<https://doi.org/10.2308/accr.2001.76.3.313>
- McCarthy, D., Reeves, E., & Turner, T. (2010). Can employee share-ownership improve employee attitudes and behaviour? *Employee Relations*, 32(4), 382–395.  
<https://doi.org/10.1108/01425451011051604>

- McNabb, R., & Whitfield, K. (1998). The impact of financial participation and employee involvement on financial performance. *Scottish Journal of Political Economy*, 45(2), 171–187. <https://doi.org/10.1111/1467-9485.00088>
- Mitra, S., & Hossain, M. (2007). Ownership composition and non-audit service fees. *Journal of Business Research*, 60(4), 348–356. <https://doi.org/10.1016/j.jbusres.2006.10.025>
- Mitra, S., Hossain, M., & Deis, D. R. (2007). The empirical relationship between ownership characteristics and audit fees. *Review of Quantitative Finance and Accounting*, 28(3), 257–285. <https://doi.org/10.1007/s11156-006-0014-7>
- NCEO. (2019). Employee ownership by the numbers. *National Center for Employee Ownership*.
- Nikkei. (2015). Japanese companies warm up to employee stock plans. *Nikkei Asian Review*. <https://asia.nikkei.com/Business/Japanese-companies-warm-up-to-employee-stock-plans>
- Nikkinen, J., & Sahlstrom, P. (2004). Does agency theory provide a general framework for audit pricing? *International Journal of Auditing*, 8(3), 253–262. <https://doi.org/10.1111/j.1099-1123.2004.00094.x>
- O’Boyle, E. H., Patel, P. C., & Gonzalez-Mulé, E. (2016). Employee ownership and firm performance: a meta-analysis. *Human Resource Management Journal*, 26(4), 425–448. <https://doi.org/10.1111/1748-8583.12115>
- OECD. (2019). OECD employment outlook 2019: The future of work. In *OECD Publishing, Paris*. <https://doi.org/10.1787/9ee00155-en>
- Othman, H. Ben, & Zeghal, D. (2006). A study of earnings-management motives in the Anglo-American and Euro-Continental accounting models: The Canadian and French cases. *International Journal of Accounting*, 41(4), 406–435. <https://doi.org/10.1016/j.intacc.2006.09.004>
- Oyer, P. (2004). Why do firms use incentives that have no incentive effects? *Journal of Finance*, 59(4), 1619–1649. <https://doi.org/10.1111/j.1540-6261.2004.00674.x>
- Oyer, P., & Schaefer, S. (2005). Why do some firms give stock options to all employees?: An empirical examination of alternative theories. *Journal of Financial Economics*, 76(1), 99–133. <https://doi.org/10.1016/j.jfineco.2004.03.004>
- Pagano, M., & Volpin, P. F. (2005). Managers, workers, and corporate control. *Journal of*



- Finance*, 60(2), 841–868. <https://doi.org/10.1111/j.1540-6261.2005.00748.x>
- Park, R., Kruse, D. L., & Sesil, J. C. (2004). Does employee ownership enhance firm survival? *Advances in the Economic Analysis of Participatory and Labor-Managed Firms*, 8, 3–33. [https://doi.org/10.1016/S0885-3339\(04\)08001-9](https://doi.org/10.1016/S0885-3339(04)08001-9)
- Park, S., & Song, M. H. (1995). Employee stock ownership plans, firm performance, and monitoring by outside blockholders. *Financial Management*, 24(4), 52. <https://doi.org/10.2307/3665950>
- Park, Y. W., & Shin, H. H. (2004). Board composition and earnings management in Canada. *Journal of Corporate Finance*, 10(3), 431–457. [https://doi.org/10.1016/S0929-1199\(03\)00025-7](https://doi.org/10.1016/S0929-1199(03)00025-7)
- Parkash, M., & Venable, C. F. (1993). Auditee incentives for auditor independence: The case of nonaudit services. *The Accounting Review*, 68, 113–133. <https://doi.org/10.2307/248369>
- Peasnell, K., Pope, P., & Young, S. (2005). Board monitoring and earnings management: do outside directors influence abnormal accruals? *Journal of Business Finance & Accounting*, 32(7–8), 1311–1346. <https://doi.org/10.1111/j.0306-686X.2005.00630.x>
- Pendleton, A. (2002). *Employee ownership, participation and governance: A study of ESOPs in the UK*. <https://doi.org/10.4324/9780203185971>
- Pendleton, A. (2006). Incentives, monitoring, and employee stock ownership plans: New evidence and interpretations. *Industrial Relations*, 45(4), 753–777. <https://doi.org/10.1111/j.1468-232X.2006.00450.x>
- Pham, H. Y., Chung, R., Roca, E., & Bao, B. H. (2017). Discretionary accruals: Signalling or earnings management in Australia? *Accounting and Finance*. <https://doi.org/10.1111/acfi.12275>
- Pierce, J. L., Rubinfeld, S. A., & Morgan, S. (1991). Employee ownership: A conceptual model of process and effects. *Academy of Management Review*, 16(1), 121–144. <https://doi.org/10.1016/j.jfineco.2005.07.004>
- Piot, C., & Janin, R. (2007). External auditors, audit committees and earnings management in France. *European Accounting Review*, 16(2), 429–454. <https://doi.org/10.1080/09638180701391030>

- Pontiff, J., & Schall, L. D. (2006). Book-to-Market Ratios as Predictors of Market Returns. *CFA Digest*, 29(2), 21–22. <https://doi.org/10.2469/dig.v29.n2.459>
- Quick, R., Sattler, M., & Wiemann, D. (2013). Agency conflicts and the demand for non-audit services. *Managerial Auditing Journal*, 28(4), 323–344. <https://doi.org/10.1108/02686901311311927>
- Rahman, R. A., & Ali, F. H. M. (2006). Board, audit committee, culture and earnings management: Malaysian evidence. *Managerial Auditing Journal*, 21(7), 783–804. <https://doi.org/10.1108/02686900610680549>
- Rauh, J. D. (2006). Own company stock in defined contribution pension plans: A takeover defense? *Journal of Financial Economics*, 81(2), 379–410. <https://doi.org/10.5465/amr.1991.4279000>
- Reuters. (2019). Huawei's 2019 revenue to jump 18%, forecasts "difficult" 2020. January 16, 2020, <https://www.reuters.com/article/us-huawei-tech-results/huaweis-2019-revenue-to-jump-18-forecasts-difficult-2020-idUSKBN1YY1JL>
- Richardson, S. A., Sloan, R. G., Soliman, M. T., & Tuna, I. (2005). Accrual reliability, earnings persistence and stock prices. *Journal of Accounting and Economics*, 39(3), 437–485. <https://doi.org/10.1016/j.jacceco.2005.04.005>
- Robinson, A. M., & Pendleton, A. (2019). *Employee ownership in Britain: Size and character*. <https://employeeownership.co.uk/wp-content/uploads/White-Rose-Centre-for-employee-ownership-survey-2019-report.pdf>
- Robinson, A. M., & Wilson, N. (2006). Employee financial participation and productivity: An empirical reappraisal. *British Journal of Industrial Relations*, 44(1), 31–50. <https://doi.org/10.1111/j.1467-8543.2006.00486.x>
- Rosen, C., Case, J., & Staibus, M. (2005). Every employee an owner. Really. *Harvard Business Review*, 83(6), 122–130. <https://europepmc.org/article/med/15938443>
- Sáenz González, J., & García-Meca, E. (2014). Does corporate governance influence earnings management in Latin American markets? *Journal of Business Ethics*, 121(3), 419–440. <https://doi.org/10.1007/s10551-013-1700-8>
- Schmidt, J. J. (2012). Perceived auditor independence and audit litigation: The role of nonaudit services fees. *The Accounting Review*, 87(3), 1033–1065. <https://doi.org/10.2308/accr-10217>

- Sesil, J. C., Kroumova, M. K., Kruse, D. L., & Blasi, J. R. (2007). Broad-based Employee Stock Options in the U.S. - Company Performance and Characteristics. *Management Revue*, Vol. 18, pp. 5–22. <https://doi.org/10.2307/41783539>
- Shivdasani, A. (1993). Board composition, ownership structure, and hostile takeovers. *Journal of Accounting and Economics*, 16, 167–195. <https://www.sciencedirect.com/science/article/abs/pii/0165410193900095>
- Shleifer, A., & Vishny, R. W. (2007). A survey of corporate governance. *The Journal of Finance*, 52(2), 52–90. <https://doi.org/10.4324/9780203940136>
- Simunic, D. A. (1984). Auditing, consulting, and auditor independence. *Journal of Accounting Research*, 22(2), 679–702. <https://doi.org/10.2307/2490671>
- Singh, M., & Davidson III, W. N. (2003). Agency costs, ownership structure and corporate governance mechanisms. *Journal of Banking & Finance*, 27(5), 793–816. [https://doi.org/10.1016/S0378-4266\(01\)00260-6](https://doi.org/10.1016/S0378-4266(01)00260-6)
- Siregar, S. V., & Utama, S. (2008). Type of earnings management and the effect of ownership structure, firm size, and corporate-governance practices: Evidence from Indonesia. *International Journal of Accounting*, 43(1), 1–27. <https://doi.org/10.1016/j.intacc.2008.01.001>
- Sloan, R. G. (1996). Do stock prices fully reflect info in accruals and cash flows. *The Accounting Review*, 7(3), 289–315. <https://www-jstor-org.lama.univ-amu.fr/stable/pdf/248290.pdf?refreqid=excelsior%3Af047a7b7f2793417b7e814f01f5983ce>
- Stein, J. C. (1989). Efficient capital markets, inefficient firms: A model of myopic corporate behavior. *The Quarterly Journal of Economics*, 104(4), 655–669. <https://doi.org/10.2307/2937861>
- Subramanyam, K. R. (1996). The pricing of discretionary accruals. *Journal of Accounting and Economics*, 22(1–3), 249–281. [https://doi.org/10.1016/S0165-4101\(96\)00434-X](https://doi.org/10.1016/S0165-4101(96)00434-X)
- Surroca, J., & Tribó, J. A. (2008). Managerial entrenchment and corporate social performance. *Journal of Business Finance and Accounting*, 35(5–6), 748–789. <https://doi.org/10.1111/j.1468-5957.2008.02090.x>
- Tangjitprom, N. (2013). The Role of Corporate Governance in Reducing the Negative Effect of Earnings Management. *International Journal of Economics and Finance*, 5(3).

<https://doi.org/10.5539/ijef.v5n3p213>

- Teshima, N., & Shuto, A. (2008). Managerial ownership and earnings management: Theory and empirical evidence from Japan. *Journal of International Financial Management and Accounting*, 19(2), 107–132. <https://doi.org/10.1111/j.1467-646X.2008.01018.x>
- Tobin, J. (1958). Estimation of relationships for limited dependent variables. *Econometrica*, 26(1), 24–36. <https://doi.org/10.2307/1907382>
- Trueman, B., & Titman, S. (1988). An explanation for accounting income smoothing. *Journal of Accounting Research*, 26, 127–139. <https://doi.org/10.2307/2491184>
- Walker, M. (2013). How far can we trust earnings numbers? What research tells us about earnings management. *Accounting and Business Research*, 43(4), 445–481. <https://doi.org/10.1080/00014788.2013.785823>
- Warfield, T. D., Wild, J. J., & Wild, K. L. (1995). Managerial ownership, accounting choices, and informativeness of earnings. *Journal of Accounting and Economics*, 20(1), 61–91. [https://doi.org/10.1016/0165-4101\(94\)00393-J](https://doi.org/10.1016/0165-4101(94)00393-J)
- Weitzman, M. (1984). *The share economy*. Cambridge, MA: Harvard University Press.
- Whisenant, S., Sankaraguruswamy, S., & Raghunandan, K. (2003). Evidence on the joint determination of audit and non-audit fees. *Journal of Accounting Research*, 41(4), 721–744. <https://doi.org/10.1111/1475-679X.00121>
- White, H. (1980). A heteroskedasticity-consistent covariance matrix estimator and a direct test for heteroskedasticity. *Econometrica*, 48(4), 817. <https://doi.org/10.2307/1912934>
- Wu, H. L., Su, W. C., & Lee, C. Y. (2008). Employee ownership motivation and individual risk-taking behaviour: A cross-level analysis of Taiwan's privatized enterprises. *International Journal of Human Resource Management*, 19(12), 2311–2331. <https://doi.org/10.1080/09585190802479546>
- Xie, B., Davidson III, W. N., & DaDalt, P. J. (2003). Earnings management and corporate governance: the role of the board and the audit committee. *Journal of Corporate Finance*, 9(3), 295–316. [https://doi.org/10.1016/S0929-1199\(02\)00006-8](https://doi.org/10.1016/S0929-1199(02)00006-8)
- Zaman, M., Hudaib, M., & Haniffa, R. (2011). Corporate governance quality, audit fees and non-audit services fees. *Journal of Business Finance & Accounting*, 38(1–2), 165–197. <https://doi.org/10.1111/j.1468-5957.2010.02224.x>

- Zerni, M. (2012). Do client firms manage the perception of auditor independence? Evidence from the Swedish non-audit service market. *Managerial Auditing Journal*, 27(9), 821–845. <https://doi.org/10.1108/02686901211263067>
- Zhu, Z., Hoffmire, J., Hoffmire, J., & Wang, F. (2013). Employee stock ownership plans and their effect on productivity: The case of Huawei. In *International Journal of Business and Management Invention* ISSN (Vol. 2). [https://www.ijbmi.org/papers/Vol\(2\)8/Version-2/C0282017022.pdf](https://www.ijbmi.org/papers/Vol(2)8/Version-2/C0282017022.pdf)

# **Annexes**

## 7. Annexes

### Annex 1: List of the Main Regression Models

#### Model 1.1:

$$UTILIZATION = \beta_0 + \beta_1 ESO^2 + \beta_2 ESO + \beta_3 TURN + \beta_4 AGE + \beta_4 MAJOR + \beta_5 MGT + \beta_6 BOARD + \varepsilon$$

#### Model 1.2:

$$AUDITFEES = \beta_0 + \beta_1 ESO2 + \beta_2 ESO + \beta_3 AUDITORS + \beta_4 BIG4 + \beta_5 SIZE + \beta_6 DEBTRATIO + \beta_7 GROWTH + \beta_8 UTILIZATION + \beta_9 ROA + \beta_{10} LOSS + \beta_{11} QUICK + \beta_{12} PTBV + \beta_{13} INT + \beta_{14} BUSY + \beta_{15} MAJOR + \beta_{16} MGT + \varepsilon$$

#### Model 2.1:

$$NASFRATIO = \beta_0 + \beta_1 ESO + \beta_2 SIZE + \beta_3 ROA + \beta_4 LOSS + \beta_5 LEVERAGE + \beta_6 AUDITORS + \beta_7 BIG4 + \beta_8 PTBV + \beta_9 QUICK + \beta_{10} GROWTH + \beta_{11} INT + \beta_{12} BUSY + \beta_{13} AUDITCOMMITTEE + \varepsilon$$

#### Model 3.A:

$$DAC = \beta_0 + \beta_1 UTILIZATION + \beta_2 SIZE + \beta_3 ROA + \beta_4 BOARD + \beta_5 CLOSELYHELD + \beta_6 BIG4 + \beta_7 TOTALAUDIT + \beta_8 PTBV + \varepsilon$$

#### Model 3.B:

$$DAC = \sigma_0 + \sigma_1 ESO + \sigma_2 SIZE + \sigma_3 ROA + \sigma_4 BOARD + \sigma_5 CLOSELYHELD + \sigma_6 BIG4 + \sigma_7 TOTALAUDIT + \sigma_8 PTBV + \varepsilon$$

## Annex 2: Heteroscedasticity Tests

Before running the regression of each of our regression models, we used the Breusch-Pagan tests to test for heteroscedasticity. It is a  $\chi^2$  test that tests whether the variance of the error terms from the regression is dependent on the values of the independent variables. The null hypothesis assumes homoscedasticity. If the test has a p-value below the significance level, homoscedasticity (the null hypothesis) is rejected and heteroscedasticity existence is assumed.

The results of the Breusch-Pagan Test of our models in all essays are presented below Table 7-1. The results indicate that the models contain conditional heteroscedasticity. Therefore, clustered robust standard errors were used in the regressions to account for heteroscedasticity across clusters of observations (in this dissertation the clusters are French companies individually observed over time).

Additionally, to double check the results obtained in the Breusch-Pagan Test, we conduct a series of White Tests for heteroscedasticity (White, 1980) on the models. The White Test is different than the Breusch-Pagan Test as it relaxes the assumption of normally distributed standard errors. Similarly to the Breusch-Pagan Test, the null hypothesis assumes that the variances of the error terms are equal, i.e., homoscedasticity. Therefore, rejecting the null hypothesis assumes the existence of heteroscedasticity in the data. The results of the White test, reported in Table 7-2 are consistent with those obtained with the Breusch Pagan Test and indicate the existence of heteroscedasticity in our models.



*Table 7-1: Results of the Breusch-Pagan Tests*

Model	Dependent Variable	Independent Variable	$\chi^2$	Degrees of Freedom	p-value
1.1	UTILIZATION	ESO	35.32	1	0.000
1.2	AUDITFEES	ESO	6.29	1	0.012
2.1	NASFRATIO	ESO	102.81	1	0.000
3.A.1	DAC1	UTILIZATION	99.34	1	0.000
3.A.2	DAC2	UTILIZATION	359.53	1	0.000
3.A.3	DAC3	UTILIZATION	79.78	1	0.000
3.A.4	DAC4	UTILIZATION	224.91	1	0.000
3.B.1	DAC1	ESO	60.85	1	0.000
3.B.2	DAC2	ESO	274.93	1	0.000
3.B.3	DAC3	ESO	35.64	1	0.000
3.B.4	DAC4	ESO	153.96	1	0.000

*Table 7-2: Results of the White Tests*

Model	Dependent Variable	Independent Variable	$\chi^2$	Degrees of Freedom	p-value
1	UTILIZATION	ESO	246.49	216	0.076
1	AUDITFEES	ESO	344.54	114	0.000
2	NASFRATIO	ESO	293.92	99	0.000
3.A.1	DAC1	UTILIZATION	543.72	107	0.000
3.A.2	DAC2	UTILIZATION	722.19	107	0.000
3.A.3	DAC3	UTILIZATION	381.70	107	0.000
3.A.4	DAC4	UTILIZATION	575.01	107	0.000
3.B.1	DAC1	ESO	372.40	107	0.000
3.B.2	DAC2	ESO	542.95	107	0.000
3.B.3	DAC3	ESO	297.11	107	0.000
3.B.4	DAC4	ESO	458.39	107	0.000

## Annex 3: Hausman Tests

The Hausman specification test (1978) is a statistical hypothesis test in econometrics named that evaluates the consistency of an estimator when compared to an alternative, less efficient estimator which is already known to be consistent. It helps one evaluate if a statistical model corresponds to the data.

Its most widespread application is to differentiate between random effects model and fixed effects model in panel data. The test presumes that under the null hypothesis, both models are consistent but the random effects model is preferred due to higher efficiency. However, under the alternative hypothesis, the random effects is not consistent, unlike the fixed effects model, which is favored. Hence, when the null hypothesis is rejected ( $p\text{-value} < 0.01$ ) the fixed effects model is preferred. Otherwise, we use the random effects model.

However, and as noted in the previous appendix, our data presents heteroscedasticity problem, and therefore, we use a robust Hausman specification test (Kaiser, 2014). This Cluster-Robust Hausman test is based on 100 bootstrap repetitions ran to compare the fixed and random effects models.

### Cluster-Robust Hausman Tests

*Table 7-3: Results of the Cluster-Robust Hausman Tests*

Model	Dependent Variable	Independent Variable	$\chi^2$	Degrees of Freedom	p-value
1	UTILIZATION	ESO	8.32	4	0.081
1	AUDITFEES	ESO	10.70	14	0.709
2	NASFRATIO	ESO	293.92	99	0.000
3.A.1	DAC1	UTILIZATION	18.63	11	0.068
3.A.2	DAC2	UTILIZATION	15.96	11	0.143
3.A.3	DAC3	UTILIZATION	15.14	11	0.176
3.A.4	DAC4	UTILIZATION	17.26	11	0.101
3.B.1	DAC1	ESO	18.35	11	0.074
3.B.2	DAC2	ESO	16.43	11	0.126
3.B.3	DAC3	ESO	17.46	11	0.950
3.B.4	DAC4	ESO	13.03	11	0.291

# Appendix

## 8. Appendix

### **New Features of Labor Participation in France in 2019**

The PACTE law was voted by the French parliament in 2019. It includes some important changes that intend to boost profit sharing and employee ownership and employees' participation in corporate governance.

The new measures will affect:

- All aspects of existing financial participation systems: Employee ownership, profit sharing and gainsharing;
- Employees' participation in corporate governance.

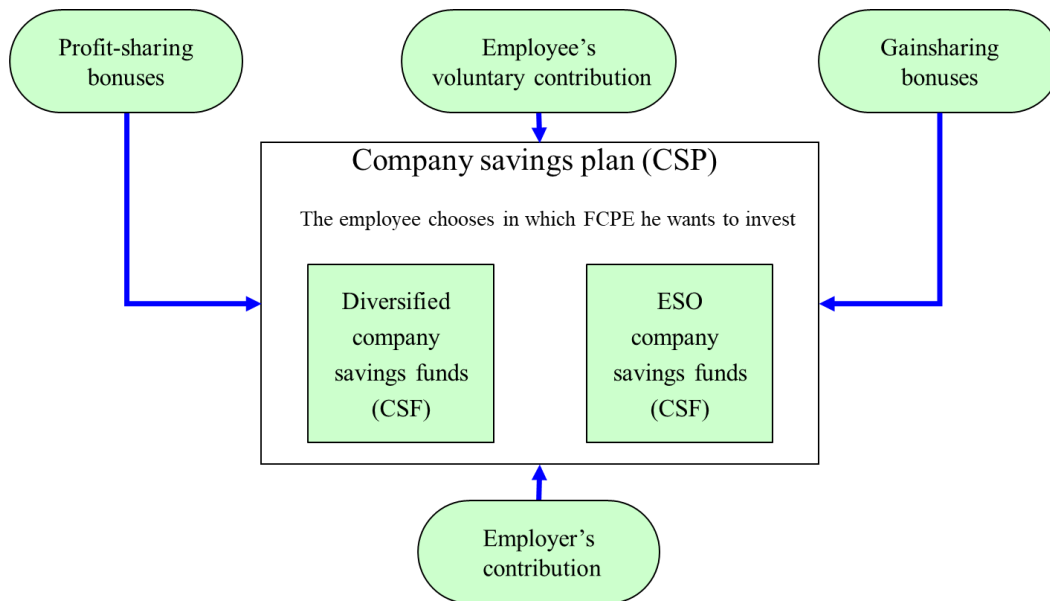
#### **New measures to boost financial participation included in the PACTE Law**

##### *Quick reminder of the French financial participation system*

##### Financial participation in France

- ✓ Shared capitalism schemes exist in France since 1959: mandatory profit sharing above 50 employees, gainsharing and employee ownership
- ✓ 3 million employee owners or 12% of France's workforce (first EU country)
- ✓ Employee ownership is mainly developed in large corporations since 1986 privatizations and since then. Less than 20% of the SMEs have a scheme
- ✓ Employee ownership is not related a retirement scheme like the ESOP and cannot be included as an investment option in a pension plan

How does ESO work and how it interacts with other schemes? (see Figure 8-1)



*Figure 8-1: Financial participation schemes in France*

- ✓ The French company savings plan (CSP) offers many investment company savings funds (CSF). There are ESO and diversified CSF. Each CSF has a board with elected trustees (often unionists). Money invested in the CSP is frozen 5 years with early withdrawals cases
- ✓ ESO is one investment option employees can choose from (much like in the 401k)
- ✓ Savings come from: the employee voluntary contributions, profit and gainsharing bonuses, the employer's contributions
- ✓ Pension plans were introduced in France in 2003 and can also be fueled by the same

*New measures in the PACTE law to develop financial participation:*

- ✓ The law cut taxation (it was 20% of the money granted before) on: - profit-sharing bonuses in companies with less than 50 employees implementing a new profit-sharing scheme, - gainsharing bonuses in companies with less than 250 employees, - employers' contribution in new CSP and pension plans.

- ✓ Reduced tax rate (10% instead of 20%) for company financial support of employee investment in company's shares.
- ✓ The law makes the system more flexible. For instance, project gainsharing schemes are created, and bonuses can now be computed over several years.
- ✓ The law intends to boost ESO by: - cutting the tax on employers' contribution from 20% to 10% when directed to ESO in companies with less than 50 developing free shares granted to employees, - creating the discretionary unilateral employer's contribution to ESO with a maximum of 822 euros in 2020 (before, contributions had always to match employees' contributions), - increasing the maximum discount on stock price from 20% to 30%., - widening to all companies where it owns at least 10% of the equity, the obligation for the State to propose to company's employees 10% of the shares it wants to sell to investors.

### **New measures on employees' participation in corporate governance**

#### *Quick reminder of employees and ESO representation in corporate governance*

##### At the corporate level

- ✓ Employees (not only employee owners) are represented in the board of directors in French companies. There were several systems (not always consistent between them) to promote such a representation
- ✓ ESO representation in the quoted company board of directors is mandatory when employees hold at least 3% of the equity (since 2006)

##### At the level of the company savings funds (CSF)

- ✓ The CSF (ESO or diversified) is managed by a board of directors/trust. At least half of the members must be employees, the other half is appointed by the company
- ✓ Employee owners have voting rights that can be exercised directly or indirectly (by the trustees of the CSF)

*New measures in the PACTE law to develop employees' participation in corporate governance:*

At the corporate level

- ✓ For board of directors has more than 8 members, at least 2 of them must be directors representing the employees. If there are less than 8 members, there must be at least 1 employee
- ✓ The 2006 rule (mandatory employee ownership representation in the board of directors above 3% of equity) is extended to unlisted companies employing 1,000 people in France or 5,000 people in total for two consecutive years.

At the CSF level

- ✓ The members of the CSF trust appointed by the company no longer participate in the preliminary vote of the CSF board on in order to determine the General Assembly resolutions final vote attached to the employees' shares held by the FCPECSF on General Assembly resolutions
- ✓ From 2021, all employee members of CSF board must be elected by shareholders within CSF, on the basis of the number of shares owned by each of them
- ✓ Training for employees' trust members of 3 days is compulsory.

# **Table of Figures**



# Table of Figures

Figure 1-1: Total Sales of Huawei in the last decade Sources: Huawei— Statistic.com/Huawei-revenue—Statcounter.com.....	25
Figure 1-2: Number of employees participating in ESOPs in the USA Source: NCEO (National Center for Employee Ownership) .....	28
Figure 1-3: Capital Held by Employee Owners in European Companies Source: Annual economic survey of employee share ownership in European countries (Mathieu, 2018, p. 14) .....	29
Figure 1-4: Percentage of Capital Held by Non-Executives Employees in European companies by Country Source: Annual economic survey of employee share ownership in European countries (Mathieu, 2018, p. 53) .....	30
Figure 1-5: Number of French companies participating in Company Savings plans Source: Data from Association Française de la Gestion Financière – AFG .....	33
Figure 1-6: Employee Savings Plans' total Deposits in France (in billion Euros) Source: Data from Association Française de la Gestion Financière – AFG .....	34
Figure 1-7: Breakdown of Employee Savings Plan funds in France as per December 2018 Source: Data from Association Française de la Gestion Financière – AFG .....	35
Figure 1-8: Number of SBF120 Companies Launching ESPP Source: Eres- Employee Ownership France 2019 Study .....	37
Figure 1-9: Employee Ownership Causal Mode a: Instrumental Route (the indirect effects caused by employee participation) b: Intrinsic Route (the direct effects based on the ownership itself) c: Extrinsic Route (The indirect effects related to the employees' wealth) Source: McCarthy et al., 2018, p. 385 .....	41
Figure 4-1: Moderation effect of ESO on the nature of earnings management .....	147
Figure 8-1: Financial participation schemes in France .....	197

# **Table of Tables**

# Table of Tables

Table 1-1: Summary of Main ESO Effects .....	39
Table 2-1: Variables description .....	61
Table 2-2: Descriptive Statistics: Means, Medians, Standard Deviations, Maximums and Minimums .....	63
Table 2-3: Descriptive Statistics: Correlations between Variables .....	64
Table 2-4: The Effect of Employee Ownership and Employee Voting Rights on UTILIZATION.....	65
Table 2-5: The Effect of Employee Ownership on AUDITFEES.....	69
Table 2-6: The Effect of Employee Voting Rights on AUDITFEES.....	70
Table 2-7: First Stage Regression to Predict the Fitted Value of ESO .....	72
Table 2-8: Second Stage Regression: The Effect of ESO on UTILIZATION and AUDITFEES .....	73
Table 2-9: The Effect of Employee Ownership excluding null ESO on Audit Fees .....	77
Table 2-10: The Effect of Employee Ownership and Employee Voting Rights on Audit Fees before (A) and after (B) the inflection point .....	78
Table 2-11: The Effect of Employee Ownership and Employee Voting Rights on Audit Fees Using Tobit regression .....	79
Table 2-12: The Effect of Employee Ownership and Employee Voting Rights on ADJUSTEDUTIL.....	80
Table 3-1: Variables Description .....	94
Table 3-2: Descriptive statistics .....	96
Table 3-3: Correlations table.....	98
Table 3-4: Regression of NASFRATIO on ESO, EVR and other control variables.....	99
Table 3-5: First Stage Regression to Predict the Fitted Value of ESO .....	102
Table 3-6: Second Stage Regression: The Effect of ESO on NASFRATIO.....	103
Table 3-7: Regression of Unexpected NASF on ESO and other control variables.....	105
Table 3-8: Regression of NASF ratio on ESO and other control variables using Tobit model .....	109
Table 3-9: Regression of NASF ratio on ESO and other control variables only when ESO $\neq$ 0 .....	110

Table 3-10: Regression of NASF ratio on ESO and other control variables only when NASF $\neq$ 0 .....	111
Table 4-1: Measurements of earnings management.....	129
Table 4-2: Thomson Reuters Worldscope Data item fields .....	131
Table 4-3: Descriptive Statistics: Distribution by Industry.....	133
Table 4-4: Descriptive Statistics: Distribution by Year .....	133
Table 4-5: Descriptive Statistics: Means, Medians, Standard Deviations, Maximums and Minimums .....	136
Table 4-6: Descriptive Statistics: Correlations between Variables .....	137
Table 4-7: GLS regression of Discretionary Accruals on UTILIZATION and control variables (A) .....	139
Table 4-8: GLS regression of Discretionary Accruals on ESO and control variables .....(B) .....	141
Table 4-9: GLS regression of Discretionary Accruals on EVR and control variables .....(C) .....	142
Table 4-10: First Stage Regression to Predict the Fitted Value of ESO .....	144
Table 4-11: Second Stage Regression: The Effect of ESO on Discretionary Accruals .....	145
Table 4-12: GLS regression of Discretionary Accruals on AJUSTEDUTIL and control variables .....	150
Table 4-13: GLS regression of Discretionary Accruals on AUDIT and control variables ....	151
Table 4-14: Moderation effect of ESO on the nature of earnings management.....	152
Table 5-1: Summary of Conducted Studies .....	156
Table 7-1: Results of the Breusch-Pagan Tests.....	193
Table 7-2: Results of the White Tests .....	193
Table 7-3: Results of the Cluster-Robust Hausman Tests.....	194

# **Table of Contents**

# Table of Contents

<i>Acknowledgment</i> .....	5
<i>Abstract</i> .....	7
<i>Résumé</i> .....	8
<i>Table of Contents</i> .....	10
<b>1. General Introduction</b> .....	<b>13</b>
<b>1.1. Shared Capitalism</b> .....	<b>13</b>
1.1.1. The Definition of Shared Capitalism .....	14
1.1.2. Different Forms of Shared Capitalism .....	15
1.1.3. The Positive Outcomes of Shared Capitalism .....	17
1.1.4. Criticism and Negative Effects .....	21
<b>1.2. Employee Share Ownership around the World</b> .....	<b>24</b>
1.2.1. The Case of Huawei .....	24
1.2.2. ESO Numbers around the World .....	27
<b>1.3. Employee Share Ownership in France</b> .....	<b>29</b>
1.3.1. Employee Share Ownership Figures in France .....	29
1.3.2. The forms of Employee Share Ownership in France .....	32
1.3.2.1. Company Savings Plans—PEE .....	32
1.3.2.2. Employee Share Purchase Plan (ESPP) .....	36
<b>1.4. Employee Ownership: Inducements and Outcomes</b> .....	<b>38</b>
<b>2. Employee Share Ownership, Agency Costs and Audit Fees</b> .....	<b>46</b>
<b>Abstract</b> .....	<b>46</b>
<b>2.1. Introduction</b> .....	<b>47</b>
<b>2.2. Literature Review</b> .....	<b>51</b>
2.2.1. Employee ownership and the agency theory .....	51
2.2.2. Agency theory and audit fees .....	54
<b>2.3. Methodology</b> .....	<b>56</b>
2.3.1. Sample .....	56
2.3.2. Models and Variables .....	57
2.3.2.1. Agency Costs .....	57
2.3.2.2. Audit Fees .....	58
<b>2.4. Results</b> .....	<b>62</b>
2.4.1. Descriptive Statistics .....	62
2.4.2. Regression Analysis .....	66
2.4.2.1. Asset Utilization Ratio .....	66
2.4.2.2. Audit Fees .....	67
2.4.3. Robustness Analysis .....	71
2.4.3.1. Endogeneity Test .....	71
2.4.3.2. Regression of Observations With ESO $\neq 0$ .....	74
2.4.3.3. Regression of Observations Before and After the Inflection .....	74
2.4.3.4. Tobit Model Regression .....	74
2.4.3.5. U-Shaped Relationship Test .....	75
<b>2.5. Conclusion</b> .....	<b>75</b>
<b>2.6. Annex</b> .....	<b>77</b>

<b>3. Employee Share Ownership and Auditor Independence .....</b>	<b>82</b>
<b>Abstract.....</b>	<b>82</b>
<b>3.1. Introduction.....</b>	<b>83</b>
<b>3.2. Literature Review .....</b>	<b>86</b>
3.2.1. Employee Share Ownership .....	86
3.2.2. Auditor Independence .....	87
3.2.3. Ownership Structure and Auditor Independence.....	89
<b>3.3. Methodology .....</b>	<b>91</b>
3.3.1. Sample.....	91
3.3.2. Models and Variables.....	92
3.3.2.1. Auditor independence .....	92
3.3.2.2. Employee Stock Ownership.....	92
3.3.2.3. The Models .....	92
<b>3.4. Results and discussions.....</b>	<b>95</b>
3.4.1. Descriptive Statistics .....	95
3.4.2. Regression Analyses .....	99
3.4.3. Additional Tests .....	101
3.4.3.1. Endogeneity Test .....	101
3.4.3.2. Unexpected Non-Audit Fees.....	104
3.4.3.3. Tobit Model Regression.....	106
3.4.3.4. Regression of Observations With ESO $\neq 0$ .....	106
3.4.3.5. Regression of Observations Excluding 0 NASF.....	106
<b>3.5. Conclusions.....</b>	<b>106</b>
<b>3.6. Annex .....</b>	<b>109</b>
<b>4. The Type of Earnings Management in France and the Effect of Employee Share Ownership.....</b>	<b>113</b>
<b>Abstract.....</b>	<b>113</b>
<b>4.1. Introduction.....</b>	<b>114</b>
<b>4.2. Literature Review and Hypothesis Development.....</b>	<b>116</b>
4.2.1. Opportunistic Vs. Beneficial Earnings Management .....	116
4.2.1.1. The Opportunistic Use of Earnings Management .....	117
4.2.1.2. The Beneficial Use of Earnings Management .....	118
4.2.1.3. Earnings Management in France: Opportunistic or Beneficial? .....	118
4.2.2. Employee Share Ownership and Earnings Management.....	120
4.2.2.1. Alignment of Incentives.....	122
4.2.2.2. Managerial Entrenchment.....	123
4.2.2.3. Employee Share Ownership and Opportunistic Earnings Management .....	125
<b>4.3. Research Methods and Measurement of Variables .....</b>	<b>125</b>
4.3.1. Agency Costs .....	125
4.3.2. Employee Share Ownership .....	126
4.3.3. Discretionary Accruals.....	127
4.3.3.1. Control Variables.....	130
4.3.3.2. Sample Selection .....	132
<b>4.4. Results .....</b>	<b>134</b>
4.4.1. Descriptive statistics.....	134
4.4.2. The Relationship Between Agency Costs and Earnings Management .....	138
4.4.2.1. Regression Analysis.....	138
4.4.2.2. Additional Tests.....	140
4.4.3. The Effect of Employee Ownership on Earnings Management .....	140
4.4.3.1. Regression Analysis.....	140
4.4.3.2. Endogeneity Test .....	143
4.4.4. The Moderation Effect of ESO on the Nature of Earnings Management.....	145

4.5.	Conclusion .....	147
4.6.	Annex .....	150
5.	<i>General Conclusion</i> .....	154
5.1.	Main Findings.....	154
5.2.	Main Contributions of the Research .....	159
5.2.1.	Theoretical Contributions.....	159
5.2.2.	Managerial Implications.....	161
5.3.	Limitations of the Research and Future Research.....	163
6.	<i>Bibliography</i> .....	167
7.	<i>Annexes</i> .....	191
	Annex 1: List of the Main Regression Models.....	191
	Annex 2: Heteroscedasticity Tests .....	192
	Annex 3: Hausman Tests .....	194
8.	<i>Appendix</i> .....	196
	New Features of Labor Participation in France in 2019 .....	196
	<i>Table of Figures</i> .....	201
	<i>Table of Tables</i> .....	203
	<i>Table of Contents</i> .....	206



