

Board of Director's Composition and Corporate Cash Holdings: Evidence from French Listed Companies

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Abstract

This study aims to determine the relationship between board of director's composition and stockpiling of corporate cash. Using a sample of French listed companies belonging to the SBF 120 index from 2006 to 2014, the study provides significant intermediate results concerning implementation of Copé-Zimmermann law. We find that, on average, French firms hold 7% of their total net assets as cash and cash equivalents, over the period of 2006-2014. The empirical findings reveal that, board of director's composition significantly reduces corporate cash holdings through board independence and thus agency conflict of high cash holding would be lower in presence of more independent directors.

Keywords: Agency Conflict; Board Composition; Cash Holdings; Board Gender Quota

1. Introduction

Hoarding of significant cash often referred to as a conundrum, or a paradox by financial experts is a mystery: - Because, collectively, American businesses currently have \$1.9 trillion in cash and traditionally, these business organizations have been borrowers, not savers. Now, General Motors holds nearly half its value in cash, Apple holds more than a third and Google:- Its new parent company is Alphabet, that roughly worth \$500 billion, has around \$80 billion in Google's bank accounts (The New York Times, 2016). This pattern of high cash holding in USA is not an isolated phenomenon. (Iskandar-Datta & Jia, 2012) argue that, cash holding is almost ubiquitous and systemic across seven industrialized countries, over the period 1981–2008, with France displaying a modest rise and Japan a significant decline.

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In this regard, the questions as to what prompted upward trend of corporate cash holdings? And is holding high levels of cash justifiable-? In practice, it seems puzzle to answer these questions. Because (Uyar & Kuzey, 2014) report that, cash is a ‘two edged sword’;- By keeping idle cash, firms reduces probability of financial distress, and on other side, (M. C. Jensen, 1986) proposed free cash flow theory which postulates that managers have incentives to hold cash, as it increases the amount of assets in their control. In this theory, the author conjectures an agency problem, based on a fact that due to separation of ownership and control, the insufficiently controlled agents waste the liquid assets of firms. The empirical study by (Dittmar, Mahrt-Smith, & Servaes, 2003) confirms that, agency motive is an important determinant of corporate cash holdings. And further, (Nikolov & Whited, 2014) conclude that, due to agency problem, cash holdings are estimated to be 20% higher, resulting 6% drop in shareholder value.

For such agency problems, the mechanism of corporate board is a defense of investors against the inefficient use of corporate assets by insufficiently vigilant managers, who might abscond with money. However, board of directors who undertake both advisory and monitoring functions are responsible to curtail the opportunistic behavior of managers. And therefore, an important question to put forth is: do boards of directors remain sufficiently vigilant to defend the shareholders’- interest and resolve agency problems-? The corporate scandals of (e.g., Enron, Glitnir, and Lehman Brothers) raise doubt on corporate boards being sufficiently vigilant to defend shareholders. Amidst scandals and financial crisis, the contemporary and related issue concerns the corporate governance reforms. These reforms specifically set the mandatory quota of women directors on corporate boards. As reported in Table 1, to date eight countries, in European Union have legally enacted gender quota on corporate boards:- Austria, Belgium, France, Germany, Greece, Italy, Netherland, and Spain, whereas it is under discussion in many countries. Consequently, there has been steady, albeit incremental, increase in the presence of female on corporate board. And now in EU 28 countries, on average, women representation on corporate board is 23.3% in April 2016 as compared to 11.9% in 2010, (European Commission, 2016). In course of these reforms, the large and growing stream of research investigates how women directors influences;- Corporate Performance (Adams & Ferreira, 2009; Campbell & Mínguez-Vera, 2008; Merve Kılıç & Cemil Kuzey, 2016; Rose, 2007), corporate social responsibility (Azmat & Rentschler, 2015; Ben-Amar, Chang, & McIlkenny, 2015; Harjoto,

Lakshmana, & Lee, 2015; Rodríguez-Ariza, Cuadrado-Ballesteros, Martínez-Ferrero, & García-Sánchez, 2017) and corporate governance (Adams & Ferreira, 2009; D. Kim & Starks, 2016).

In contrast to the traditional studies, the present study extends the literature on women directors, by examining how they affect the one aspect of agency problems;- stockpiling of corporate cash. We extend the traditional literature on women, because in past, corporate board seats, predominantly remained a male prerogative, and as now more women represent on corporate boards, the decisions of board are expected to be different. Because having both Women and men involved in decision-making broadens the perspectives, diversifies the pool of talents and competences, increases creativity and innovation, and reduces the conflicts (Rose, 2007). Further, we particularly examine cash for four main reasons. First, as reported by (Moody's, 2016; The New York Times, 2016), that firms hold significant amount of cash reserves on their balance sheets and the value of these cash holdings is substantial. Secondly, these liquid assets are readily available to management at their own discretion which also exacerbate the risk of misappropriation of these funds and invoke agency problem (M. C. Jensen, 1986). Thirdly, the cash holding is important in the sense that it greatly affects the value of firms through its impact on choice of capital structure. And finally cash is a very sensitive asset, that is being closely monitored by shareholders i.e. high cash holdings by firms have raised resentment from shareholders. In, February 2013, Apple Inc shareholder, David Einhorn, filed a suit against company and demanded it to distribute a bigger piece of \$137 billion cash holdings, (Reuters, 2013).

Moreover, regarding the predicted empirical relation between corporate cash and women directors, the governance studies report that;-women are strict in monitoring function (Adams & Ferreira, 2009), and they enhance board effectiveness (Terjesen, Aguilera, & Lorenz, 2015). Increased board monitoring and board effectiveness curtails the managerial discretion, and therefore, lower cash holdings are expected. On other side, the study on risk taking behavior of women by (Barber & Odean, 2001) argues that, women have less risk appetite than men. And as cash is a proxy of risk and therefore cash hoarding can also be expected to be higher in presence of more women directors. In presence of these conflicting predictions, the present study seeks to determine how gender diversity on board affects the agency problem of cash hoarding.

We test the relationship between board of director's composition and corporate cash holdings; using a sample of French listed companies belonging to the SBF 120 index from 2006 to 2014. The specific reasons that make the case of France strong, unique and more interesting are; - First, in the year 2011, French legislators passed Copé-Zimmermann Law that legally requires women representation on corporate board in two phases; 20% by 2014, and 40% by 2017. Similarly, other European countries have also legally and voluntarily enacted women quota, but according to (European Commission, 2016), the improvement of gender balance in France is more drastic and swift, where 37.1% women represented on corporate board in April 2016, whereas, in January 2012 it was 22%,(European Commission, 2012). In addition, as shown in table 1, France and Spain are the only two countries that have legally enforced highest percentage of women representation on corporate board, 40% in each case, and till to date France is the only country that is close to achieve target, whereas Spain is far away. Thus higher change in board composition diversity in minimal time makes the case of France more interesting to explore underlying motivations.

Secondly, the trend has emerged to separate the position of chairmen and CEO, since this practice is viewed as enhancing board monitoring capability. Until 2001, French companies having unitary board structures were bound to appoint same person at the position of CEO and Chairmen. The Nouvelles Régulations Économiques Act of 2001 gives freedom to unify or separate the two main positions. Such legal change also provides an opportunity to examine whether freedom of separating or unifying the position of CEO and chairman at firms with a unitary structure is helpful in reducing agency conflict or not. Finally, French firms hold significant amount of cash on their balance sheets and trend of holding cash is positive. According to (Moody's, 2016), the cash holdings of rated EMEA non-financial firms increased by 5% , as of December 2015, compared to the last year. Further, study shows that Germany, France and the UK accounted for about 52% of total EMEA cash holdings, with France leading at 21%. Moreover, (Iskandar-Datta & Jia, 2012) argue that, cash holding is almost ubiquitous and systemic across seven industrialized countries, over the period 1981–2008, with France displaying a modest rise and Japan a significant decline. So, the uniqueness of “French Governance System” based on arguments discussed above makes it justifiable to consider the case of French Firms for this particular study. Furthermore, in the culture of France the women

have greater freedom; they are very open and being treated equal. And many women represent on corporate board today in France and therefore, the case of French Firms is more strengthened. The results show that, board of director's composition significantly reduces corporate cash holdings through board independence and thus agency conflict of high cash holding would be lower in presence of more independent directors. Furthermore, consistent with our expectation, the sign of gender diversity is positive but insignificant.

The present study offers four main contributions to the literature. First, there have been several studies on cash holdings and all of them are done in Anglo-Saxon countries, but France is a continental European country and major differences exist between both the systems. For instance according to (Rhodes & Apeldoorn, 1997) in former system: i) ownership is diffused; ii) board structure is unitary; iii) control system comes from market, but in continental system from large owners, and iv) market are highly liquid. (Shleifer & Vishny, 1996) argue that in Anglo Saxon countries, legal protection for investors is very high. Overall, such differences limit the generalizations of Anglo-Saxon findings over continental European countries. France is a continental European country and (Belot, Ginglinger, Slovin, & Sushka, 2014) identify nine European countries whose legal code is inherited from the French civil law. Therefore, with the case of France, the findings can better be generalized on other Continental European countries. Secondly, the previous studies on cash holdings considered the traditional variables related to transaction and precautionary motives of cash holdings (Uyar & Kuzey, 2014). Present study, in addition to traditional variables focuses on board of directors' composition, because it is board of directors' composition that determines the major policies. Third, the previous studies on women directors have mainly focused on corporate performance (Merve Kılıç & Cemil Kuzey, 2016), and corporate social responsibility (Azmat & Rentschler, 2015; Harjoto et al., 2015) etc. The current study extends the scope of literature on women director, and is the first study that analyses impact of women directors on stockpiling of cash.

Finally, at distant and recent past, we have seen great deal of disagreements over existing corporate governance mechanism even in advanced economies, as we observed serious demand for reforms. For instance, (Lipton & Lorsch, 1992) , and (M. Jensen, 1993) have each made proposals that if adopted in their true spirit, would greatly impose restrictions on the workings of boards. After corporate scandals of (e.g., Enron, Glitnir, and Lehman Brothers) and financial

Crisis, we also heard call for reforms aimed at enacting mandatory quota of women on corporate board. These reforms as shown in Table 1, have already been introduced around many countries of the world, and thus have created a gap for researcher to answer questions like; - what is motivation behind gender quota? Are there economic or social reasons behind invoking gender balance? Are there economic reasons why not free market mechanism attracted female on corporate board in past? Finally, whether or not gender diversity reduces agency conflict of cash holdings? Current study contributes amidst these reforms that how board gender diversity impacts the agency problem of cash holding and thus also contribute in literature that are there economic reasons or not behind quota laws.

2. Theory and Hypothesis Development.

Our research examines how board composition diversity, particularly board gender diversity affects the corporate cash holdings. We begin this by theorizing about why firms hold cash and then we discuss the theory about behavioral differences of genders for predicting the mechanism that how women can influence corporate cash holdings. We draw on multiple theories and empirical studies for develop hypotheses.

2.1 Corporate Cash Holding Theories and Agency Problem of Cash Hoarding.

Traditionally, two main theoretical models explain the corporate cash holdings. First, pecking order theory emerges from work of (Myers, 1984) and (Myers & Majluf, 1984) who concluded that, owing to information asymmetry, firms do not maintain target cash, but they rely on internal funds primarily and then external funds secondarily. Thus firms do not have target cash, but prefer to hold as much cash as possible. Secondly, contrary to pecking order, the tradeoff theory predicts that, firms prefer to hold optimal amount of cash by doing tradeoff between additional benefits and costs associated with holding cash, (Al-Najjar & Belghitar, 2011). Apart from these two traditional theories, another theory named - Free Cash Flow Theory; - conjecture that holding excessive cash exacerbate the risk of misappropriation of these funds and invoke agency problem of high cash holdings. (M. C. Jensen, 1986) who proposed free cash flow theory argues that, managers have incentives to hold cash as it increases the amount of assets in their control.

Additionally, the study report that elevated cash are squandered on negative return projects. The author used example of oil industry that have spent on average \$ 20 per barrel for exploring new oil reserves rather than buying proven oil reserves at the average price of \$ 6 per barrel. In summary, the theory postulate the agency problem based on a fact that due to separation of ownership and control, the insufficiently controlled agents who possess the discretionary power can waste the resources of firms.

Empirical studies support the propositions of free cash flow theory- about the agency problem of cash. (Papaioannou, Strock, & Travlos, 1992) argue that agents prefer to hold more cash as a privilege and (Myers & Rajan, 1998) document that, managers can obtain more private benefits from liquid assets. Further, (Dittmar et al., 2003) find that agency motive is an important determinant of corporate cash holdings. On the basis of a sample from 45 cross countries, the authors document that, firms hold up to twice as much cash in countries where shareholders are not well protected by laws compared to countries where they are well protected. In addition, the authors report that the main factors of holding cash i.e. information asymmetry and growth opportunities become unimportant, where the shareholder laws are poor. Also, (Nikolov & Whited, 2014) conclude that due to agency problem, cash holdings are estimated to be 20% higher, resulting 6% drop in shareholder value. Further, firms that have high amount of cash invest them on negative return projects. (Harford, Mansi, & Maxwell, 2012) argue that, firms are involved in value destroying acquisition, where corporate governance is inadequate. Such agency problems create a conflict between managers and shareholders, but the mechanism of corporate board of directors is a defense of investors against the inefficient use of corporate resources. Because board of directors are suppose to undertake both the advisory and monitoring functions, and are responsible to curtail the opportunistic behavior of managers by their effective monitoring. (Dittmar & Mahrt-Smith, 2007) conclude that, good governance quality reduces the risk of misappropriation of available cash by managers and this research is centered on the idea that the composition of the board of directors specifically board gender diversity affects the corporate cash holdings.

2.2. Gender Role Theory and Leadership Roles

Leadership position has been predominantly a male prerogative in corporate, and other main segments of society. The phenomena of meager representation of women on elite leadership

positions is centered on the idea of a “glass ceiling”—a hurdle of discrimination and prejudice that rule out women from elite leadership roles (Federal Glass Ceiling Commission, 1995; Morrison, White, & Velsor, 1994). To further this discussion, (A. H. Eagly, 1987) advanced a social role theory also called gender role theory that pertains to gender similarities and differences in social behavior. The theory posits that, the gender differences and similarities we observe in social behavior primarily arise from distribution of social roles to male and female. These social roles are structured in a way that women are more likely than men to be homemakers, caretakers of children, and to hold caretaking jobs in the paid economy. Whereas, men are more likely than women to assume full-time positions in the paid economy, and are often involved in roles pertains to physical strength, assertiveness, and leadership skills etc. The theory further classifies the social role in two broader set of attributes – communal and agentic, and strongly associate both of them with the specific gender. The communal characteristics i.e. helpful, caretaker, kind, sympathetic, gentle, nurturant, interpersonally sensitive and affectionate etc are more strongly ascribed to women. In contrast, agentic attributes i.e. ambitious, dominant, independent, assertive, confident, aggressive, controlling, and leadership are strongly ascribed for men. In the context of organizations, the leadership attributes are more agentic, but women display more communal traits. These communal traits in women are expected to influence their behavior, while they are performing leadership roles. Further, the communal traits in women imply that, the strict monitoring, tight controlling and excessive risk taking does not fit to, and expected from women directors.

2.3 Hypothesis Development

2.3.1 Board Gender Diversity and Corporate Cash Holdings

Despite the strong association of communal traits, presence of discrimination, and other hurdles towards the women, the glass ceiling is cracking at corporate boards, where more women are representing now. Because of increased representation of women on corporate boards, they are likely to have more influence on corporate decisions. (Konrad & Kramer, 2006; Torchia, Calabrò, & Huse, 2011) report that, women influence on corporate board decisions increases with their numbers, particularly boards with more than one woman or three women. Decisions of corporate board are also expected to be different, as having both women and men involved in decision-making broadens the perspectives, diversifies the pool of talents and competences,

increases creativity and innovation, and reduces the conflicts (Rose, 2007). Further, there are some inherent and psychological differences between men and women going from altruism (Andreoni & Vesterlund, 2001), moral reasoning and ethics (Kennedy & Kray, 2014) to risk aversion (Sapienza, Zingales, & Maestripieri, 2009). According to (Andreoni & Vesterlund, 2001), women are more inclined to be equalitarian, whereas men are either perfectly selfish or selfless. And (Kennedy & Kray, 2014) documented that, women have higher ethical values than male.

The psychological differences between genders have implications on thinking and conduct pattern of both the genders. For instance, organizational literature report that female are more likely to raise questions (Bilimoria & Wheeler, 2000), debate issues (Ingley & Van Der Walt, 2005) display higher ethical standards (Pan & Sparks, 2012), generally hold participative leadership style (A. Eagly & Johnson, 1990) and are more likely to consider questionable business practices as unethical (Franke, Crown, & Spake, 1997). Further, (Francoeur, Labelle, & Sinclair-Desgagné, 2008) conclude that, women like ethnic minorities and foreigners bring a fresh perspective regarding complex matters that can help in correcting informational biases". (Alves, Couto, & Francisco, 2015) also argue that, board Independence and board gender diversity are expected to improve the quality and quantity of information. (F. A. Gul, Srinidhi, & Ng, 2011) also find that, corporate boards with more women have higher number of public disclosures. This better oversight of management reporting also enhances earnings quality (Srinidhi, Gul, & Tsui, 2011). So, overall, more women directors on corporate boards due to cognitive differences are expected to not only influence on what information is used in decision-making, but also influence on how decisions are made.

Moreover, amidst the growing presence of women on corporate board, the large and growing stream of research investigates how women directors affects firm performance (Merve Kılıç & Cemil Kuzey, 2016; Terjesen, Couto, & Francisco, 2016), corporate social responsibility (Byron & Post, 2016) and corporate governance (Adams & Ferreira, 2009; D. Kim & Starks, 2016). About the impact of board gender diversity on firm performance, the empirical studies report conflicting literature. For instance, (Campbell & Mínguez-Vera, 2008; Carter, Simkins, & Simpson, 2003; Krishnan & Park, 2005; Merve Kılıç & Cemil Kuzey, 2016; Terjesen et al.,

2016) document positive relation. This positive relation can be explained through two mechanisms. First, (D. Kim & Starks, 2016) conclude that, women directors bring unique skills to corporate boards, which results in enhanced board advisory effectiveness. In addition, the authors report that, women directors diversify the boards' expertise more than do their male counterparts. Enhanced advisory effectiveness leads to better decisions and thus firm performance. Second, (Carter, D'Souza, Simkins, & Simpson, 2010; Carter, Simkins, & Simpson, 2003; Erhardt, Werbel, & Shrader, 2003) report that, women directors improve monitoring effectiveness that prevent the wastage of valuable resources by agents and thus also leads to better performance. Some studies find negative impact. For instance, (Adams & Ferreira, 2009) argue that, on average, gender diversity has negative impact on firm performance in USA and (Ahern & Dittmar, 2012) find high negative impact of increasing women representation on firm value for Norwegian firms. (Dobbin & Jung, 2011; Fauzi & Locke, 2012) also document, significant negative impact of women representation on firm performance. Studies also report no significant impact (Erhardt, Werbel, & Shrader, 2003; Farrell & Hersch, 2005; Rietz & Henrekson, 2000). The possible explanation of inconclusive empirical results attributed to differences across studies in measures of performance, methodologies, omitted variable biases, time horizons, and other contextual issues.

Moreover, about the impact of gender diversity on CSR, the recent study by (Byron & Post, 2016) document that, women director are positively related to social performance and this positive relation is more strong for non family firms than family owned firms (Rodríguez-Ariza et al., 2017). Furthermore, concerning the impact of women directors on corporate governance, the literature report that they enhance board effectiveness (Terjesen et al., 2015). This high board effectiveness is perhaps achieved through three mechanisms. First, empirical studies by (Carter, D'Souza, Simkins, & Simpson, 2010; Carter, Simkins, & Simpson, 2003; Erhardt, Werbel, & Shrader, 2003) report that, women directors improve monitoring efficiency. Second, they bring unique skills to corporate boards, which results in enhanced board advisory effectiveness (D. Kim & Starks, 2016). Third, gender diversity on corporate boards enhance the governance quality, as heterogeneous group raises concerns that are less likely to be considered by homogeneous groups (Ely & Thomas, 2001). In addition, compare to male counterparts, female directors are more likely to take active functions on their boards (Virtanen, 2012). Empirical

studies also document that; women director outperforms man in monitoring agents. One arguments pertain to this is of inside v/s outside directors. Studies report that female directors are more likely than male to be outside directors (Adams & Ferreira, 2009; Carter et al., 2010), and Cope Zimmerman law in France also mandates the women representation to be 40% of non executive directors by 2017. Outside directors, in comparison to inside directors, experience less conflict of interests and are therefore more likely to play a greater role in monitoring efforts.

In another prominent study by (Adams & Ferreira, 2009) report that, women directors are associated with increased board meeting attendance, and they prefer to be part of monitoring committees. In addition, the results suggest that, chief executive officer turnover is more sensitive to stock performance and compensation received by directors is more equity-based in firms with more gender-diverse boards. Based on these indicators, the authors conclude that women directors are strict at monitoring of agents. In addition, female directors also face difficulties in establishing credibility and influencing. To preempt this they tend to be more thoroughly prepared for meetings (Carli, 1999; Pathan & Faff, 2013; Singh, Kumra, & Vinnicombe, 2002). This also shows the increased monitoring activity in presence of more female directors. Strict board monitoring is likely to curb inefficient spending and increase firm efficiency by reducing agency costs (Stroh, Brett, Baumann, & Reilly, 1996). And further, gender diversity also improves the management of the firm's resources (Kusnadi, 2011), thus investors also react positively to appointments of women director (Kang, Ding, & Charoenwong, 2010).

Concerning the impact of gender diversity on corporate cash holdings, we discussed four theories; - Pecking order, Tradeoff, and Free cash flow theory for corporate cash holdings and gender role theory for behavioral aspect of women. Broadly, the interaction of gender diversity with these theories predicts the mechanisms, at least in four ways, that how gender diversity on corporate boards impacts the corporate cash holdings. Among these four mechanisms two predicts negative relation and other two predicts positive relation :- Firstly, (Myers, 1984) and (Myers & Majluf, 1984) proposed pecking order theory which postulates that owing to information asymmetry and transaction cost, firms do not maintain target cash, but they rely on internal funds primarily and external funds secondarily. The empirical study by (F. A. Gul et al., 2011) associate women with more disclosures and reduced information asymmetry. Further,

lower information asymmetry reduces the transaction cost of raising external cash, and therefore, firms don't need to hold significant amount of cash, as when needed they can raise it at lower cost. Secondly, free cash flow theory posits that, the managers have incentives to hold cash, as it increases the amount of assets in their control. However, as discussed above, the empirical studies on agency literature report that , women are strict in monitoring function, (Adams & Ferreira, 2009; Carter et al., 2010, 2003; Ely & Thomas, 2001; Erhardt et al., 2003; Terjesen et al., 2016; Virtanen, 2012), effective at advisory function (D. Kim & Starks, 2016) and they also enhance board effectiveness (Terjesen et al., 2016). Increased board monitoring and board effectiveness curtails the managerial discretion, and therefore, lower cash holdings are expected in presence of more women director.

Thirdly, the tradeoff theory predicts that firms prefer to hold optimal amount of cash by doing tradeoff between additional benefits and costs associated with holding. Concerning women, the Studies in economics and psychology document that they tend to be more risk averse than men. A metaanalysis of 150 studies on risk-taking behavior by (Byrnes, Miller, & Schafer, 1999) find that women are less likely to be involved in 'intellectual risk taking' 'risky experiments', and 'gambling' than men. Further on risk taking behavior by (Barber & Odean, 2001; Byrnes et al., 1999; Hinz, McCarthy, & Turner, 1997) argue that, women have less risk appetite than men. Thus while doing tradeoff between the benefits and costs of holding cash, we expect women giving more weight age to risk, as they are more risk averse. Cash is a proxy of risk, because holding less cash can cause default, and therefore cash holding are expected to be higher in presence of more women. Finally, we expect that, gender role theory more strongly explains the influence of women on corporate cash holdings. (A. H. Eagly, 1987) document that, an individual's gender determines his/her conduct and its effectiveness with respect to influence. The author argues that female as expected are ascribed to more feminine roles such as helpful, kind, gentle, sympathetic and interpersonally sensitive. By contrast, men are expected to be assertive, dominant, aggressive and controlling. The communal characteristics in women imply that, the strict monitoring, tight controlling and while doing trade off of the cash, excessive risk taking does not fit to and expected from them, and therefore we expect high cash holdings.

In summary, the mechanism of pecking order and free cash flow theory predict negative relation of women on corporate cash holding and in contrast to that, positive through trade off and Gender role theory. In presence of these conflicting predictions, we relied on strengths of arguments for developing hypothesis. Firstly, concerning negative relation, the interaction of women and Pecking order theory, through information asymmetry have less empirical support, as there are few studies i.e. (F. A. Gul et al., 2011) that find lower information asymmetry in presence of more women director. But, the negative relation predicted through interaction of Free cash flow theory and women have strong empirical support, as there are many studies i.e. (Adams & Ferreira, 2009; Carter et al., 2010, 2003; Ely & Thomas, 2001; Erhardt et al., 2003; Terjesen et al., 2016; Virtanen, 2012) that associate women with strict and effective monitoring. Increased board monitoring and board effectiveness ultimately reduces managerial discretion and thus also expected cash holdings. However, these empirical studies lack the support of theory. In fact, Gender role theory associate women with feminine roles i.e. helpful, kind, gentle, sympathetic and interpersonally sensitive etc. These feminine roles imply that women can't be strict at monitoring. Therefore, based on this theory we hypothesize positive relation between gender diversity and cash holdings. And further, the interaction of women and tradeoff theory through risk aversion also predict positive relation and there are many empirical studies i.e. (Barber & Odean, 2001; Byrnes et al., 1999; Hinz, McCarthy, & Turner, 1997) that associate women with lower risk talking. And this argument is in line to feminine role postulated by Gender role theory, which further strengthen the hypothesis of positive relation.

H1 Corporate cash holdings are higher for more gender diversified Board.

2.3.2 Independence of Board and Corporate Cash Holdings

There seems to be a consensus in academia and practice about the relation between board independence and increased transparency and monitoring. (Fama & Jensen, 1983) argue that board is a monitoring device that aligns the interest of shareholders and management, added that independent boards have more incentive to work in the interest of shareholders. Similarly, (Rosenstein & Wyatt, 1990) also point that independent directors are appointed to promote shareholders' interest. According to (Adams, Hermalin, & Weisbach, 2010), independent directors have no financial interest in company, but they are concerned for their personal reputation and go to the greater length for preserving it, and therefore they are expected to have

objective monitoring of executives. Moreover, (Dahya, Dimitrov, & McConnell, 2008) point that an independent board is more effective when risk of expropriating outside investor is high. In addition, the protection of minority shareholder is strengthened in presence of independent directors (K. Kim, Kitsabunnarat-Chatjuthamard, & Nofsinger, 2007). Beside effective monitoring, (Black & Kim, 2011) argue that independent boards are effective at handling agency problems. Due to these reasons, legislations such as Sarbanes–Oxley Act encourage board independence.

In empirical studies, the recent study of (Liu, Miletkov, Wei, & Yang, 2015) on Chinese companies reveals positive impact of board independence on operating performance. Similarly, the previous studies of (Aggarwal, Erel, Ferreira, & Matos, 2011) and (Bruno & Claessens, 2010) also report a positive impact of board independence on firm performance. In addition, (Dahya et al., 2008) document a positive relation between board independence and firm performance, particularly in countries with lower levels of investors' protection. Furthermore, (Alves et al., 2015) argue that board independence is expected to improve quality and quantity of information that reduces information asymmetry. So firstly, based on agency theory perspective, it is conclusive to the extent that independent directors perform a tough monitoring of management to curb agency problem, and they also reduce information asymmetry, we expect board independence also exerts influence on cash holdings. More specifically, in the interest of shareholders, the independent board will curtail the opportunistic behavior of vigilant manager to spend excess cash flows on negative value projects. And therefore, the independent directors' denominated board reduces agency cost of holding high cash, and thus a negative relation is expected.

H₂ Corporate cash holdings are lower in the presence of more independent directors.

2.3.3 Board Size and Corporate Cash Holdings

Boards' size is a matter of debate (Dalton, Daily, Johnson, & Ellstrand, 1999; Hermalin & Weisbach, 2003; M. Jensen, 1993). The size of boards affects the monitoring function of the board. (Lipton & Lorsch, 1992) argue that larger boards face problem of free riding and social loafing. Moreover, the quality of monitoring in small boards is high as coordination is efficient

in small boards. (M. Jensen, 1993) support small boards, because of efficiency in decision making due to more coordination and lesser communication problems. Similarly, (Eisenberg, Sundgren, & Wells, 1998; Yermack, 1996) also argue in favor of smaller boards, as smaller boards are associated with higher firm value. Board size affects the quality of monitoring and agency problem which is better in smaller board. Therefore, based on agency perspective, we expect a positive relation between board size and cash holdings.

H₃ Corporate cash holdings are higher for firms with larger board size.

2.3.4 CEO Duality and Corporate Cash Holdings:

CEO duality happens when the same person holds both the positions of CEO and board chairman (Rechner & Dalton, 1991). According to leadership literature, CEO duality creates strong sense of leadership and unity of command but on the other hand, agency literature report that it creates agency problems by challenging boards' ability to effectively monitor, as duality can firmly entrench a CEO. These two divergent views have created conflicting literature on CEO duality. The support of organizational theories, who studies leadership and structure, promotes CEO duality, but on the other hand, agency theory backers argue for avoiding duality to limit potential CEO entrenchment. According to (Fama & Jensen, 1983), boards can be seen as a monitoring devices but combining the position of CEO and Chairmen adversely affects the performance of board members in discharging their fiduciary duties. In support of this view, (M. Jensen, 1993) also argues that independent boards are unlikely to encourage duality. Moreover, according to (Vance 1983), boards of directors are responsible for ensuring that CEO is performing in the best interest of shareholders, but (Daily & Dalton, 1997) argue that the CEO, as compared to other board members is able to acquire more information and knowledge about the firm and thus CEO duality matters for board monitoring effectiveness.

Empirical studies also document that CEO duality considerably impair the monitoring function of board. For instance, (F. Gul & Leung, 2004) document that dual leadership structure is associated with fewer voluntary disclosures. With respect to diversification strategies, (K.-H. Kim, Al-Shammari, Kim, & Lee, 2009) conclude that diversification strategies are more likely to destroy value of firm when the CEO also chairs the board of director. So, based on agency theory

arguments that: CEO duality hinders the effective monitoring function of boards, and increases information asymmetry that makes it costly to raise external capital. And thus we expect higher cash holdings in presence of CEO.

H₄ Corporate cash holdings are higher for firms where the CEO also chairs the board.

2.3.5 Non Executive Board Members and Corporate Cash Holdings

From previous literature we have not found any direct relation and explanation of link between non executive board members and cash holdings. Theoretically there should be a link between cash holdings and non executive board members through the monitoring function of latter. Generally, non executive board members are considered as objective in monitoring function as compare to executive board member. According to Hart (1995), non executive board members are “delegated monitors” appointed by shareholders for monitoring management use of firm resources. Similarly, Fama and Jensen (1983), also argue that non executive director have concern for their future career and reputation and therefore they monitor more effectively. In line to above studies, Mura (2007) also find that non executive directors are effective monitor. Furthermore, according to Holmstrom and Kaplan (2003), the regulation in US NYSE and NASDAQ, has also encouraged the appointment of non executive directors due to their effective monitoring. So, based on effective monitoring function of non executive director, we expect that non executive director denominated board members reduce the agency conflict of high cash holding and thus we hypothesize inverse relation between them.

H₅ Corporate cash holdings are expected to be lower for firms dominated by non executive board of directors.

3. Empirical Analysis

In this section we discuss sample, data sources, and identification strategy.

3.1 Sample and Data Sources

The data sources used for this study are World scope and Thomson Reuter-Asset4 ESG database. The World scope is a global databases and premier source of detailed financial statements data of public companies. The main source of data for World scope is companies themselves, since they share all the publically floated information to them. However, in some cases data is obtained by

World scope directly from the exchange commissions. Moreover, there is a criterion for companies to be included in database. The preferences are given to companies having membership with global or local indices and companies having high market capitalization. The governance data has been retrieved from Thomson Reuter Asset4 ESG database. This database also has a global coverage and companies listed in major indices are preferred. Overall, our sample consists of 81 French firms over the period 2006-2014 that makes total observation 729. These 81 companies are large and listed companies at SBF 120 index; in addition they are also true representative of French economy as they are listed in major index SBF 120 which is comprised of large companies from different sectors. Though, the index is of 120 companies but due to unavailability of governance or finance data we could not include the firms more than 81. Furthermore, we have not considered the firms belonging to financial industry because their cash holding and liquidity is governed by special regulations. In addition the data for proxy of capital market is retrieved from World Bank development indicators database.

3.2. Identification Strategy

In this section, firstly, we discuss why the relation between corporate cash holding and explanatory variables is influenced by unobservable heterogeneity. Secondly, we introduce the regression model with fixed effect, as a more suitable method for controlling unobservable heterogeneity.

3.2.1 Omitted Unobservable variables

Corporate cash holding is affected by many variables, but some of them have not been taken in consideration for this study, can affect both corporate cash holdings and explanatory variables. For example, i) in case of cash shortage firm may appoint particular board directors that have good reputation in financial industry ii) economic characteristics like growth, monetary and fiscal policy may have impact on firm cash holdings and its explanatory variables like growth rate, dividend policy and capital expenditure etc. In other words during easy monetary policy firm may have high cash holdings and capital expenditure etc. So, estimators cannot be consistent, if we don't take these factors into account.

3.2.2 Model Specification

To accurately measure the influence of board characteristics and other control variables on corporate cash holdings, we require empirical method that takes into account the potential issue of unobservable heterogeneity. Thus we used panel data regression model with fixed effect that control for time invariant characteristics of firms and tackle unobservable heterogeneity. Furthermore, we conduct Hausman test to determine which method fixed v/s random is the most appropriate for our sampled companies. The results of Hausman are significant thus we used panel method with fixed effect specification. Furthermore, for validating our research hypothesis we included board composition related variables in the regression model of (Opler, Pinkowitz, Stulz, & Williamson, 1999) on determinants of cash holdings. These board composition related variables that reduces the agency cost of high cash holdings are expected to have an inverse relation with corporate cash holdings. The model specification to be tested is following.

$$Cash_hd_{i,t} = \beta_0 + \beta_1 Board_Comp_{i,t} + \beta_2 OWN_{i,t} + \beta_3 Debt_{i,t} + \beta_4 F_size_{i,t} + \beta_5 NWC_{i,t} + \beta_6 CFO_{i,t} + \beta_7 CFV_{i,t} + \beta_8 Cap_Exp_{i,t} + \beta_9 Div_{i,t} + \beta_{10} M_B_{i,t} + \alpha_i + \mu_t + \varepsilon_{i,t}$$

α_i , μ_t , represent firm and time fixed effect. In addition i represent firms and t to time.

Dependant Variable

Cash_hd is a dependant variable and refers to corporate cash holding. It is cash to net assets ratio, whereas net assets include total assets less cash and cash equivalents.

Independent Variables

Board_Comp is a proxy for board composition characteristics and it includes 5 different independent variables related to board of director's composition: Brd_Div is board diversity. It is a ratio of total women on corporate board of directors. About board gender diversity we expect an inverse relation with corporate cash holdings because literature suggests that women stimulate better monitoring. Brd_Ind refers to board independence and calculated as a ratio of total independent board members on corporate board of directors. We expect inverse relation between Brd_Ind and cash holdings, because independent board members have no financial interest and they are concerned for their reputation, thus they will put extra efforts to reduce agency conflict of high cash holdings. Brd_Size is a board size and derived by taking a natural logarithm of

board members on corporate board of directors at the end of fiscal year. (Lipton & Lorsch, 1992) argue that small boards are better, because larger boards face problem of free riding and social loafing. Thus due to better monitoring in smaller board we expect a positive relation of board size with corporate cash holdings. CEO_Dual is a CEO duality. It is a dummy variable that takes value 1, if CEO is also a chair of corporate board and 0 otherwise. We expect positive relation of CEO duality and corporate cash holdings because, (Fama & Jensen, 1983; M. Jensen, 1993) argue that vigilant board favor non duality because duality promotes CEO entrenchment and that can lead to inefficient and opportunistic behavior. Non_EBM is a non executive board member. It is a ratio of non executive board members on corporate board of directors. We expect a inverse relation of Non_EBM with corporate cash holdings because, they are considered as delegated monitors and therefore, they do not allow managers to hold high cash.

Control Variables

Cash holdings in firms are not only affected by board composition related characteristics but literature on cash holding also suggest other variables, that can have significant impact on corporate cash holdings. For this study, we include following control variables.

Ownership (OWN) OWN refers to controlling ownership. It is a dummy variable that takes value of 1, if firm is controlled by reference shareholder who has a majority of shares or voting rights, and 0 otherwise. (Shleifer and Vishny 1997) document that when large owners gain controlling interest of the corporation; they prefer to generate private benefits of control that are not shared by minority shareholders. Consequently, large shareholders may have incentive to increase the amounts of funds under their control to consume private benefits at the expense of minority shareholders. Therefore, we expect positive impact of controlling shareholder on cash holdings of firm.

Debt This is a ratio of total debt divided by total assets. We expect inverse relation between cash holdings and debt, because according to pecking order theory, firms go for debt when investment is lower than retained earnings and thus cash is lower.

Firm Size (F_Size) F_size is a firm size and derived by taking natural logarithm of total assets. Previous literature reports an inverse relation between cash holdings and firm size. One possible explanation is that larger size firms need not to hold much cash is that they can obtain it relatively in easier terms. According to (Miller and Orr 1966) there is a economy of scale in cash

management and (Bigelli & Sánchez-Vidal, 2012) argue that due to economies of scale large firms can obtain cash at lower cost. For our study we also expect inverse relation between cash holdings and firm size.

Net Working Capital (NWC) NWC is a net working capital ratio. It is calculated by taking current assets less current liabilities and cash holdings, divided by net assets. Net working capital is liquid assets other than cash and (Ozkan & Ozkan, 2004) call them substitute of cash, since in case of cash shortage, they can be converted into cash without significant loss of value. Therefore, in presence of higher liquid assets other than cash, the cash holdings are expected to be lower.

Cash flows from Operations (CFO). CFO is a cash flow generated from operations divided by net assets. There seems to be no consensus on impact of cash flows generated from operations. And, two different views have emerged from previous researches on corporate cash holdings. According to (C.-S. Kim, Mauer, & Sherman, 1998) firms do not need to hold cash, if cash flows generation is high from operation. Thus inverse relation is expected between cash holdings and cash flows from operations. Whereas, (Opler et al., 1999) suggest a positive relation and explains that firms generating high cash flows are expected to hold high cash for precautionary measures. In support to latter view (Ozkan & Ozkan, 2004) have found positive relation and we also expect positive relation.

Cash Flows Volatility (CFV). . CFV is cash flows volatility and measured by taking standard deviation of cash flows from operations to net assets. It is a proxy for uncertainty associated with volatility of internally generated cash. Higher uncertainty in cash holdings requires higher cash holdings. (Ozkan & Ozkan, 2004) highlights that, higher cash volatility makes firms more prone to liquidity constraints. To avoid that firms are expected to hold more cash and thus we expect positive relation.

Capital Expenditure (Cap_Exp) Cap_Exp is a capital expenditure and calculated as capital expenditure to net assets. Capital expenditure improves new assets of firms (Black & Kim, 2011). These new assets are investment that can generate high amount of cash in long run, but in short run capital expenditure requires outflow of cash and thus inverse relation is expected.

Dividends (Div). Div refers to dividends and calculated as a ratio of dividends to net assets. We expect inverse relation between dividend ratio and cash holdings because firms that regularly pay dividend actually distribute cash which ultimately reduces cash holdings.

Market to Book Value (M_B). M_B is a market to book value ratio. It is a proxy for growth opportunities and calculated by taking sum of book values of liabilities and market value of equity, divided by book value of total assets. In previous researches on cash holdings (Uyar & Kuzey, 2014) have taken as a proxy for growth opportunities of corporations. According to Trade off Theory, and precautionary motive, firms with high growth opportunities are expected to hold high amount of cash to reduce the probability of losing these valuable opportunities. Based on these theories, we also expect positive relation between cash holdings and M_B ratio.

3.3 Descriptive Analysis

Descriptive statistics of our sampled companies from period 2006-2014 are presented in Table 2, in appendix. Table 3 and 4 also shows descriptive analysis from period 2006-2011 and 2012 to 2014 respectively. On average, corporate cash holding of French companies is 7%, from period 2006-2014. The ratio is generally lower as compared to, 9.9% in the UK (Ozkan & Ozkan, 2004) Ozkan and Ozkan (2004), but consistent with Spain, 7.14–8.8% (García-Teruel & Martínez-Solano, 2008). The ratio of female directors on board is 17.21%. This ratio reflects lower representation of women on corporate board from period 2006-2014, but now it is expected to increase for all listed companies as according to new law, the representation of women is 20% by 2014, and 40% by 2017. Before the enforcement of law the female representation on average was 12% from period 2006-2011 as shown in Table 3. However the average representation of women become 27.9% for period 2012-2014, as shown in Table 4, which shows significant improvement in gender balance after legislation. Corporate board independence is high in France and on average, the representation of independent board is 50.49%. The mean value of board size is 13.3, indicating that French firms adapt large board. The firms in France are dominated by non-executive boards, as the representation of non-executive board members is 88.1%. Moreover, on average, in 53.9% cases, the CEO also holds the chair of board for period 2006-2014, but in 72.17% cases, CEO holds the chair of board for period 2001-2007 (Boubaker, Derouiche, & Nguyen, 2015). The debt ratio for French companies is 25.67%. Firms market to book value ratio is 2.08 that show the market value of firm is double than book value. In addition, the cash flows generated from operation have a mean value of 9% of net assets and variability in cash flows from operations is 1.3%, which is considerably small. The expenses for capital expenditure are 5.4% of net assets.

Table 5 in appendix presents the results of correlation among variables. The results indicate that, among board governance variables, board size and non executive board are significant and inversely related to corporate cash holdings. Beside governance related variables, all the variables are significantly correlated to cash holdings of firms except div. The debt has significant negative correlation with the corporate cash holdings, which confirms our expectation. F_size also shows significant negative correlation with cash holdings, because larger firms can easily arrange cash at relatively easier terms. In addition, Net working capital is significantly correlated to corporate cash holdings, as firm can easily convert net working capital into cash and therefore, they do not need to hold high amount of cash. The variable that have positive association at 1% with corporate cash holdings are CFO, CFV, and CAP_EXP. These results are in line to our expectation. Moreover, the proxy for growth M_B is also positively correlated to corporate cash holdings at 5% significance level. It indicates that firms hold cash for precautionary motive. Contrary to our expectation, the correlation between credit and cash holdings of firms is positive and significant at 10%. The positive correlation reveals that in presence of more perfect debt market firms cash holdings are high. Moreover, the high correlation among variables is a sign of collinearity, as according to Gujarati, (Pg,73) “It is believed that high pair wise correlations between repressors are a sign of collinearity.” But as shown in table 4 there is no any variable that have high correlation magnitude of .5 or greater, thus multicollarity is unexpected in this study.

3.4 Results

The results of fixed effect regression analysis are presented in table 6. These results are based on panel data of 81 French firms for period 2006-2014. We estimate our results by using all variables of model specification. The coefficient of determination (R^2) is 70.89%. The value of R^2 is high, and it indicates that variation in corporate cash holdings, to the greater extent, is explained by independent and control variables considered in study. Moreover, the value of Durbin-Watson is 1.689 which is close to 2, therefore, autocorrelation is unexpected.

Regarding board governance related variables; Board gender diversity shows a positive but insignificant relation. About board independence, as expected it displays a significant negative impact on corporate cash holdings. And concerning board size, CEO Duality, and Non Executive Board Members, our regression analysis do not find any significant relation with corporate cash holdings. Among control variables, controlling ownership as expected, exhibit significant positive impact on corporate cash holdings. Other control variables generally also show the expected sign. In particular debt is significant at 10%. We expect negative impact of firm size on cash holdings, and results reveals negative but insignificant impact. Thus firm size does not play a significant role in determining corporate cash holdings. Net working capital other than cash shows negative and statistically significant impact at 1% with corporate cash holdings in both models. This shows that firms avoid keeping high cash in presence of more liquid assets as they can readily be converted into cash when needed. As predicted, the relation between cash flows from operations and corporate cash holding is positive and statistically significant at 1%. The results are consistent with the view of (Myers, 1984) and (Myers & Majluf, 1984) Myers who argue that, owing to information asymmetry and transaction cost firms do not maintain target cash but they rely on internal funds primarily, and external funds secondarily. Cash flows volatility has positive impact with corporate cash holdings at 5% significance level. This confirms our prediction. The relation is positive because high cash volatility from operations increases the liquidity risk, and to avoid that firms hold high amount of cash. Moreover, the variables Capital expenditure and dividends also shows expected negative sign, but they do n't exhibit significant relation. The proxy we have taken for growth opportunity is market to book value and the relation between growth and cash holdings is positive and significant at 5%. The positive relation confirms the precautionary motive of corporate cash holdings.

3.5 Robustness Check

In this section, we perform robustness test to examine the validity of our results. About explanatory variables other than board, (Guney et al. 2003) argue that, the random disturbances affecting decisions about the corporate cash level can also affect other variables such as growth opportunities and leverage. Similarly, (Bigelli & Sánchez-Vidal, 2012) also report that shocks affecting companies cash holdings can also have impact on other explanatory variables of cash like growth, risk, bank debt etc. Therefore, we suspect that endogeneity affect our results and

finance related variables may be endogenous with cash holding. To deal with this issue, we removed finance related variables and re-estimated our model by including only board composition related variables; the same robustness test was also done by (Boubaker et al., 2015). We find same results as reported in table 7. And again board independence has significant negative impact. About other variables they are again insignificant, but now coefficient of CEO duality and nonexecutive board member is negative.

4. Discussions

We found significant negative relation between board independence and corporate cash holdings (See Table 6). Though our findings do not confirm all hypothesis of our main interest, but the results are still very interesting. To the best of our knowledge the study that has developed the link between board composition characteristics and corporate cash holdings is done by (Boubaker et al., 2015). In relation to this recent study, we incorporate additional variables of board composition characteristics that include board gender diversity and Non executive board members, whereas three variables of main interest including; board independence, CEO Duality and Board size are common in both studies. About board independence, the results of (Boubaker et al., 2015) reveal inverse relation with the corporate cash holding. Our results validate the above finding. These findings of board independence are according to our expectation. The cash is highly liquid asset and managers prefer to hold more cash, as according to (Myers & Rajan, 1998), managers can obtain more private benefits from liquid assets. Our findings are evident that independent directors do tough monitoring of the liquid assets, and they don't allow managers to hold high amount of cash. Thus the risk of using cash for private purposes is low in presence of more independent board. Furthermore, high amount of cash on corporate balance sheet is often a source of conflict between managers and shareholders, and independent board does not allow managers to hold high amount of cash. Therefore, agency conflict of high cash holding would be lower in presence of more independent board members. Concerning CEO duality, (Boubaker et al., 2015) conclude the positive relation between CEO duality and corporate cash holdings. Our findings exhibit positive but insignificant relation. The results indicate that cash holding does not increase significantly in presence of CEO duality. Therefore, CEO Duality does not increase the agency conflict of high cash holdings. Our results do not

support the findings of (Boubaker et al., 2015). This might be because on average CEO duality has been declining in France; in 72.17% cases, CEO holds the chair of board for period 2001-2007 (Boubaker et al., 2015) but in 53.9% cases, the CEO holds the chair of board for period 2006-2014. Thus to protect the chair of board in the declining trend of CEO duality, CEO who is also chair of board may avoid one aspect of agency conflict of high cash holdings. Moreover, about board size the results are statistically insignificant and does not confirm our hypothesis 3. The findings indicate that board size is irrelevant to corporate cash holdings and results are consistent with that of (Boubaker et al., 2015), who also find insignificant impact of board size on cash holdings.

In addition to variables discussed above, we hypothesize that corporate cash holdings are higher for more gender diversified firms. Consistent with the prediction of gender role and tradeoff theory, the sign of coefficient is positive, but insignificant. Furthermore about Non Executive Board Members we hypothesize inverse relation with corporate cash holdings. Because, according to (Mura 2007), the Non Executive Board Members are effective at monitoring. Due to effective monitoring by non executive directors, we believe they reduce corporate cash holdings. However, the results indicate positive, but insignificant impact of Non Executive Board Members on cash holdings of firms. Therefore, the effective monitoring of Non Executive Board Members does not help in reducing the high amount of cash. Furthermore, we expect negative coefficient of non executive board members, but results indicate positive and it might be due to influence of other factors on Non Executive Board Members. Like, though they are outside directors, but they may not be completely independent due to their ownership or other relation with the firm, that has influence on its monitoring function.

Moreover, we cannot exclude the fact that our results are driven by the data. Regarding the results of board composition and other control variables, they are based on 81 firms over the period, 2006-2014. And for French economy this sample is representative but relatively small over cross sections, however, good enough over time period. Based on our sample, the implications are important for shareholders who appoint board of directors. Because, the literature document that manager prefer to have high amount of cash (Papaioannou et al., 1992), and high cash holdings often creates the conflict between managers and shareholder. Our findings reveals that independent directors significantly reduces the cash holdings, thus agency

conflict of cash holding would be lower in independent director denominated board. Therefore, shareholder takes these findings in account before appointing directors. Furthermore, CEO Duality, board gender and non executive board have positive coefficient but insignificant. This indicates that CEO Duality, board gender and non executive board member do not allow managers to hold significantly higher cash.

In Summary, our results do not confirm all governance related hypothesis, but despite they are innovative in several ways. First of all, this study incorporates additional variables of board composition characteristics that include board gender diversity and Non executive board members. Secondly, the period of our sample is very important; due to new regulation passed, that sets the quota for women representation on corporate board, 20% by 2014 and 40% by 2017. Thus corporate composition characteristics are expected to change due to legislation and our sample includes the period in which change has taken place. Finally, in many European countries the law for women representation on corporate board has been passed including; Austria, Belgium, France, Germany, Italy, Norway, and Spain etc. And this study shed light on how women deal in resolving the one aspect of agency conflict; corporate cash holding.

5. Conclusion

Previous studies of (Opler et al., 1999; Uyar & Kuzey, 2014) mainly focus on transaction cost and precautionary motives of cash holdings. But less focus has been given to board of directors, who decide the key policies and monitor the agents' activities. In this study, in addition to precautionary and transaction motive, we incorporated the variables related to board of director's composition, to determine how they affect the corporate cash holdings. We examined our research questions, based on a panel dataset of French companies, for period 2006-2014. Based on our results we conclude that among composition variables, the board independence significantly reduces the corporate cash holdings but other governance variables are not significantly related to corporate cash holdings. Thus agency conflict of cash hoarding would be lower in presence of more independent directors. In addition results reveal that cash holding increases significantly in presence of controlling Ownership. Among finance related control variables, as expected, the debt ratio and net working capital have significant negative impact, and Cash flows from operations, cash flows volatility, and Market to book value have significant positive impact on cash holdings of firm.

Overall, the results indicate that board of director's composition has impact on corporate cash holdings through board independence. And these results are important for shareholders, who appoint board of directors to monitors agents activities. According to (Myers & Rajan, 1998), agents can obtain more private benefits from liquid assets. Thus they will prefer to hold high cash which often create conflict between managers and shareholders. And our study reveals that, independent directors significantly reduce the corporate cash hoarding.

There are some limitation of results and therefore, due diligence should be given before generalizing the results. First, due to unavailability of governance or finance related data for many firms, we could not include more than 81 companies for period 2006-2014, and this sample is representative, as all the companies are listed at SBF 120 stock exchange but sample is relatively small for French economy. Secondly, to control unobserved heterogeneity we used fixed effect but there can be reverse causality like the observed relation between cash and its explanatory variables can reflect the impact of cash on latter which is not controlled in our study. For future studies we recommend these limitations to be considered.

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Appendix

Gender Quota Legislation and Current Representation of Women in EU-28

Country	Share of women*	Quota in Place
Austria	20.1 %	Yes: For state owned companies (35 % for supervisory boards by Year 2018).
Belgium	26.6%	Yes: 33% for executives and nonexecutives in state-owned and listed companies-by 2017 and in listed SMEs-by 2019.
Bulgaria	17.9%	No
Cyprus	22.2%	No
Czech Republic	10.9 %	No
Denmark	27.0 %	No
Estonia	8.20%	No
Finland	29.9%	No
France	37.1%	Yes: 20% by 2011 & 40 % by 2017. Applicable to non-executive Directors in large listed and non-listed companies.
Germany	27.2%	Yes: from 2016 - 30 % for supervisory boards of the listed companies that are submitted to parity co-determination.
Greece	9.40%	Yes, 33 % for companies owned by the State. Applicable to all board positions (executives and non-executives).
Hungary	11.2%	No
Ireland	16.6%	No
Italy	30.0%	Yes: 33 % by 2015 for listed companies and state-owned companies. Applicable to both management boards and supervisory boards.
Latvia	27.7%	No
Lithuania	13.0%	No
Luxemburg	12.9%	No
Malta	5.00%	No
Netherlands	28.1%	Yes, Target of 30 % in the supervisory and executive boards of large companies - “comply or explain” mechanism, no sanctions. Measure to expire in 2016.
Poland	19.9%	No
Portugal	14.2%	No
Romania	10.1%	No
Slovakia	14.3%	No
Slovenia	23.9%	No
Spain	20.2%	Yes: 40 % (For executives and non-executives) by 2015 (but no sanctions, thus rather a recommendation by nature) in state-owned companies with 250 or more employees.
Sweden	36.1%	No
United Kingdom	27.1%	No

(*) Data: Compiled in April, 2016; Source: Based on Database of European Commission, “Database on women and men in decision-making”
Source: Compiled Based on Repo

**Table 2: Descriptive statistics of the variables included in the regression analyses
Period 2006-2014**

Variables	Mean	Median	SD
CASH_HD	0.070	0.051	0.071
BRD_DIV	0.173	0.177	0.125
BRD_IND	0.505	0.5	0.198
BOARD_SIZE	13.3	13	3.794
CEO_DUAL	0.539	1	0.499
NON_EBM	0.882	0.917	0.119
OWN	0.258	0	0.438
DEBT	0.28	0.234	0.262
F_SIZE	16.15	16.084	1.382
CFO	0.09	0.077	0.067
CFV	0.014	0.008	0.019
DIV	0.024	0.014	0.125
CAP_EXP	0.055	0.044	0.064
M_B	2.083	1.73	2.247
NWC	0.001	-0.001	0.161

Table 3: Descriptive statistics of the Cash Holding and Governance variables included in the regression analyses Period 2006-2011

Variable	Mean	Median	SD
CASH_HD	0.064	0.046	0.062
BRD_DIV	0.12	0.1	0.105
BRD_IND	0.494	0.471	0.206
BOARD_SIZE	13.134	13	3.865
CEO_DUAL	0.51	1	0.5
NON_EBM	0.879	0.917	0.126
OWN	0.243	0	0.429

Table 4: Descriptive statistics of the Cash Holding and Governance variables included in the regression analyses Period 2011-2014

Variable	Mean	Median	SD
CASH_HD	0.083	0.061	0.086
BRD_DIV	0.279	0.286	0.091
BRD_IND	0.528	0.5	0.18
BOARD_SIZE	13.642	13	3.637
CEO_DUAL	0.597	1	0.492
NON_EBM	0.886	0.917	0.103
OWN	0.288	0	0.454

Table 5 : Correlation Matrix

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. CASH_HD	1														
2. BRD_DIV	0.05	1													
3. BRD_IND	0.00	0.07**	1												
4. BOARD_SIZE	-0.10*	0.19*	-0.11*	1											
5. CEO_DUAL	-0.01	0.05	-0.13*	0.13*	1										
6. NON_EBM	-0.18*	0.07***	0.24*	0.15*	-0.18*	1									
7. OWN	0.02	-0.03	-0.27*	-0.03	0.04	-0.12*	1								
8. DEBT	-0.10*	-0.04	-0.14*	0.03	-0.03	0.04	0.04	1							
9. F_SIZE	-0.23*	0.09**	0.15*	0.49*	-0.02	0.21*	-0.10*	-0.07**	1						
10.NWC	-0.13*	-0.01	0.05	-0.05	-0.06	0.04	-0.04	-0.46*	-0.25*	1					
11.CFO	0.28*	-0.07**	-0.15*	-0.27*	-0.05	-0.37*	0.15*	0.15*	-0.40*	0.03	1				
12.CFV	0.22*	-0.13*	-0.03	-0.16*	0.03	-0.21*	0.06	0.05	-0.29*	0.08*	0.32*	1			
13.CAP_EXP	0.10*	-0.05	0.00	-0.22*	0.03	-0.33*	0.02	-0.03	-0.17*	-0.04	0.42*	0.26*	1		
14.Div	0.02	-0.01	-0.07**	0.04	-0.07**	0.03	0.09**	0.36*	-0.11*	-0.11*	0.27*	0.14*	-0.03	1	
15.M_B	0.08**	0.00	-0.07***	-0.09**	-0.03	-0.01	0.12*	-0.19*	-0.11*	0.16*	0.21*	-0.03	0.05	-0.06***	1

Note: * p<.01,p<.05, *** p<.1**

Table 6 : The Relationship Between Corporate Cash holdings and Board composition Characteristics, Period(2006-2014)-Fixed Effect

Independent Variables	Predicted Sign	Model
C		0.042 (0.149)
BRD_DIV	-	0.017 (0.026)
BRD_IND	-	-0.029*** (0.017)
BOARD_SIZE	+	-0.002 (0.014)
CEO_DUAL	+	0.003 (0.005)
NON_EBM	-	0.022 (0.029)
OWN	+	0.057* (0.012)
DEBT	-	-0.047*** (0.025)
F_SIZE	-	-0.002 (0.009)
NWC	-	-0.314* (0.023)
CFO	+	0.452* (0.055)
CFV	+	0.226** (0.11)
CAP_EXP	-	-0.002 (0.035)
Div	-	-0.022 (0.015)
M_B	+	0.002** (0.001)
R²		0.709
Durbin Watson		1.689
Observations		729
No. of Firms		81

Note: Standard Error are in parenthesis and * p<.01, **p<.05, * p<.1**

Table 7: The Relationship Between Corporate Cash holdings and Board composition Characteristics: Excluding Control Variables Period(2006-2014)-Fixed Effect

Independent Variables	Predicted Sign	Model
C		0.1346 (0.050)
BRD_DIV	-	0.0012 (0.031)
BRD_IND	-	-0.036*** (0.020)
BOARD_SIZE	+	-0.0081 (0.016)
CEO_DUAL	+	-0.0017 (0.006)
NON_EBM	-	-0.0276 (0.034)
R²		0.56
Durbin Watson		1.34
Observations		729
No. of Firms		81

Note: Standard Error are in parenthesis and * p<.01, **p<.05, * p<.1**