Université de Montréal

Does the mandatory adoption of IFRS in Canada improve the quality of financial reporting for companies characterized by controlling minority shareholders structures?

par:

Soukaina Mahfoud

Ecole des hautes études commerciales

Mémoire présenté à la Faculté des études supérieures en vue de l'obtention du grade de Maîtrise es en sciences de la gestion, option contrôle de gestion.

Août, 2014

REMERCIEMENTS

Tout d'abord, je tiens à remercier deux exceptionnels professeurs, Jacqueline Di Vito et Yves Bozec, pour l'encadrement de qualité qu'ils m'ont offerts tout au long de mon travail. En effet, au delà de bénéficier d'un suivi rigoureux de mon progrès, j'ai eu la chance de rencontrer deux personnes qui ont nourri en moi une passion incontestable pour la recherche en sciences comptables et financières.

Ensuite, je tiens à remercier la direction du programme de la Msc d'HEC Montréal et plus particulièrement la directrice du programme de la Msc Professeur Anne Bourhis. En effet, le soutien financier qui m'a été octroyé à travers les bourses a largement contribué au succès de mes études. Ensuite, la qualité de l'enseignement du programme de la Msc d'HEC Montréal m'a permis d'acquérir des compétences qui vont au delà de mes attentes.

Je tiens aussi à reconnaitre la qualité de l'enseignement qui m'a été dispensé par les professeurs de l'Université Al Akhawayn au Maroc. En effet, les bases solides que j'ai pu développer dans cet établissement ont indéniablement facilitées mon intégration et mon apprentissage au sein d'HEC Montréal.

Je tiens aussi à remercier chaleureusement mes amis et ma famille pour leur soutien. Plus particulièrement, je tiens à souligner le soutien d'Andréa Monguilod, de Loubna Rais, de Benoit Huméry, d'Hervé Pignoges, de Jean-Pierre Braidy et de Mehdi Camara qui m'ont suivi du début à la fin de cette aventure. Je tiens aussi à remercier l'AECS d'HEC Montréal pour m'avoir permis de vivre une expérience humaine exceptionnelle durant mon passage à HEC Montréal.

Finalement, je dédie ce mémoire à mes parents Berrada Amina et Mahfoud Filali Mohamed Chafik ainsi qu'à mon petit frère Mehdi Mahfoud. J'espère que ce travail qui conclut une étape importante de mon apprentissage saura les rendre fiers. En effet, c'est à force de sacrifices que mes parents m'ont permis d'aspirer à avoir des ambitions à la hauteur de mes rêves. Le soutien moral de mes parents ainsi que de mon petit frère

depuis le jour de mon arrivé au Canada m'a indéniablement permis de développer une volonté de réussite importante. Pour tout cela, je les remercie encore une fois.

EXECUTIVE SUMMARY

The present study tests the impact of the mandatory adoption of IFRS in Canada on the quality of financial reporting for controlling minority shareholders (CMS) firms. We address this topic for the following reasons. First, Canada has a relatively high level of CMS firms (Gadhoum, 2006). The particularity of CMS firms, as explained by Bebchuck (1999), is that they tend to depict higher agency costs than non-CMS firms. Here, the asymmetry of information between minority shareholders and the ultimate owner is high and the quality of financial reporting is low.

In 2011, most Canadian companies where prompted to adopt IFRS. These better quality standards are expected to improve the quality of financial reporting (Pfeffer, Jacobs, DeLong &Tang, 2012). However, we support that the adoption of IFRS will not improve the quality of financial reporting for CMS firms. In fact, it seems that IFRS offer more discretion to statement preparers than former Canadian GAAP (Blanchette et al., 2013), and ultimate owners lack the incentives to apply the new set of standards effectively.

We test our hypothesis by applying two models of value relevance: the Ohlson (1995) price model, and the return model as used by Warfield et al. (1995). Our final sample is composed of 810 firm-year observations from companies listed on the S&P TSX Composite index between 2008 and 2013.

Our results show that the adoption of IFRS in Canada improves the quality of financial reporting when we do not distinguish CMS firms from non-CMS firms. However, our findings do not support that the quality of the accounting information decreases with the adoption of IFRS for CMS firms. Thus we are not able to support our hypothesis. Indeed, we find that while the value relevance of book values decreases for CMS firms with the adoption of IFRS, the value relevance of earnings improves.

Key words: Controlling minority shareholders, agency theory, accounting quality, IFRS, ownership concentration, value relevance, corporate governance.

RESUMÉ

Cette étude teste l'impacte de l'adoption des normes IFRS au Canada sur la qualité de l'information financière des firmes ayant un actionnariat à contrôle minoritaire. Tout d'abord, nous remarquons qu'il existe un nombre important d'entreprises ouvertes à actionnariat à contrôle minoritaire au Canada (Gadhoum, 2006). La particularité de ces entreprises est qu'elles sont sujettes à des coûts d'agence supérieurs aux autres types d'entreprises (Bebchuck, 1999). En conséquence, l'asymétrie d'information est plus importante entre les actionnaires minoritaires et l'actionnaire dominant et la qualité de l'information financière est moindre.

En 2011, l'adoption des normes IFRS est devenue obligatoire pour la majorité des entreprises ouvertes Canadiennes. Ces normes, dites de meilleure qualité que les PCGR Canadiens, ont été mises en place dans le but d'améliorer la qualité de l'information financière des entreprises (Pfeffer et al., 2012). Cependant, nous formons l'hypothèse que la qualité de l'information comptable ne s'améliore pas pour les entreprises à actionnariat à contrôle minoritaire. Ici, nous affirmons que la discrétion laissée par les normes IFRS, lorsque comparées aux PCGR Canadiens (Blanchette et al., 2013) ,ainsi que le comportement opportuniste des actionnaires à contrôle minoritaire, viennent limiter l'impact positif des IFRS sur la qualité de l'information comptable.

Nous testons notre hypothèse par l'application des modèles du prix de Ohlson (1995) et du modèle du rendement boursier comme décrit par Warfield et al. (1995). Ces deux modèles permettent de mesurer la pertinence de l'information comptable. Notre échantillon final est composé de 810 observations collectées à partir d'entreprises de l'indice S&P Composite entre 2008 et 2013.

Nos résultats soutiennent que l'adoption des IFRS au Canada améliore la qualité de l'information comptable pour l'ensemble de l'échantillon. Cela étant dit, nos résultats ne permettent pas d'affirmer ou de réfuter notre hypothèse de départ. En effet, nos résultats suggèrent qu'alors que la pertinence de la valeur comptable des entreprises à

actionnariat à contrôle minoritaire est réduite avec l'adoption des normes IFRS, la qualité des résultats comptables s'améliore.

Mots clefs : Actionnariat à contrôle minoritaire, théorie de l'agence, qualité de l'information comptable, concentration de propriété, IFRS, pertinence de l'information, gouvernance.

TABLE OF CONTENTS

TABLE OF FIGURES

CHAPTER 1 INTRODUCTION

The Canadian corporate environment is characterized by a high level of controlling minority structures firms (CMS firms) (Morck, Stangeland, & Yeung, 1998; Porta, Lopez de Silanes, & Shleifer, 1999; Gadhoum, 2006). The specificities of these structures have been for long studied apart from other conventional ownership organizations because they exhibit particular agency costs. Indeed, while in the agency framework described by Berle and Means (1932), agency issues occur between shareholders and the company's manager, in the case of CMS firms, agency costs arise because of the existence of an ultimate shareholder whose interests diverge from those of the remaining shareholders (Villalonga & Amit, 2006). This ultimate shareholder controls the firm's decisions while detaining a relatively low portion of shares, which leads to higher agency costs (Bebchuk, Kraakman, & Triantis, 2000). In Canada, such structures exist mainly because of the presence of a dual-share system and the incidence of pyramidal structures that create a wedge between cash flow and voting rights (Bozec & Laurin, 2004; Attig, 2007) .

Ultimate shareholders in Canadian CMS structures tend to take different actions in order to entrench themselves, secure their control, thereby enhance their ability to expropriate private benefits at the expense of minority shareholders (Gadhoum, 2006). In this context, the information asymmetry is high and increases with incentives to expropriate wealth (Attig, Fong, Gadhoum and Lang, 2006). Ultimate shareholders are insiders, have sufficient information on company's economic picture and lack incentives to communicate proper information to minority shareholders. Indeed, private information not disclosed to minority shareholders may represent opportunities to expropriate wealth through other companies (Dyck and Zingales, 2004). The independence of directors and managers is weak and impedes the ability of internal governance mechanisms to constrain opportunistic behavior (Bozec & Bozec, 2007) and thus to reduce asymmetry of information. As a result, the quality of accounting

information disclosed by companies where owners are entrenched tends to be lower than in other firms (Fan & Wong, 2002; Gabrielsen, Gramlich, & Plenborg, 2002). In this case, effective accounting standards act as an important governance mechanism since the quality financial of reporting is expected to decrease the asymmetry of information between insiders and outsiders (controlling and minority shareholders). Thus, good accounting standards and regulations can help discipline insiders' behavior and optimize firms' value creation (Baber, Fairfield, & Haggard, 1991; Dyck & Zingales, 2004).

The mandatory adoption of the International Financial Reporting Standards (IFRS) in Canada, in 2011, was in part motivated by the concern to adopt higher quality financial reporting standards (Pfeffer, Jacobs, DeLong, & Tang, 2012). More than 100 countries worldwide have or will mandatorily adopt IFRS, introduced by the IASB in 2001. In 2014, Deloitte Global Services Limited (2014) reports that at least 103 countries already mandated the adoption of IFRS for some or all of the companies under their respective jurisdictions. The idea behind global accounting standards is to push convergence toward more comparable information as to improve the quality of decision making, enabling investors to make more sound investments globally and locally (Ball, 2006). At the local level, IFRS standards are introduced to provide more relevant, comparable and informative accounting information to investors and other capital providers as to decrease asymmetry of information existing between insiders (I.e., managers) and shareholders and improve market efficiency. As a consequence, IFRS standards are likely to reduce the asymmetry of information inherent between insiders and outsiders of CMS firms, and limit the risk of adverse selection for small investors.

As such, improvements of the informative content of accounting numbers can be expected from the adoption of IFRS in a given country. This implies that IFRS differ from former local GAAP. In that sense, standards may diverge with regard to whether they are rule or principle based, to their purpose and to the process by which they are set (Gassen & Sellhorn, 2006). Here, larger differences between local GAAP and IFRS would lead to greater economic and quality effects associated with accounting standards

change (Daske, Hail, Leuz, & Verdi, 2008). In Canada, even though IFRS and former GAAP are both principles based and have similar conceptual frameworks, reporting under IFRS displays several differences (Chlala and Lavingne, 2009), and the value relevance of accounting numbers of the two sets of standards are significantly different (Cormier & Magnan, 2013). Yet the results are mitigated. On one hand, IFRS may reduce the quality of accounting information as it makes earnings more volatile (Blanchette, Racicot, Sedzro, & Simonova, 2013). On the other hand, other recent findings suggest that IFRS adoption in Canada enhances the value relevance of accounting numbers and decreases earnings management (Cormier, 2013; Ledoux & Cormier, 2013).

Globally, based on the premise that IFRS generally differ from local GAAP, many scholars tested their association with accounting quality as compared to local standards. However, results vary across countries and even for firms within a given country.

First, many studies find positive relationships between accounting quality and the adoption of IFRS standards (Barth, Landsman, & Lang, 2008; Chen, Tang, Jiang, & Lin, 2010; Yip & Young, 2012; Horton, Serafeim, & Serafeim, 2013). Using different dimensions of accounting quality such as analysts' forecast accuracy, comparability, earning informativeness, conservatism and earnings management, they report improvement in reporting quality following IFRS adoption. Among them, Horton, Serafeim and al. (2013) report a significant positive relationship between forecast accuracy and financial reporting under IFRS as compared to non-IFRS financial reporting using a sample of more than 120 countries including Canada. Glaum, Baetge, Grothe & Oberdörster (2013) find similar results in Germany.

However, others report that IFRS do not improve the quality of accounting numbers and some even find evidence of lower quality financial reporting following the adoption of IFRS. Among them, Jeanjean and Stolowy (2008) do not find evidence of a decrease in earnings management following the mandatory adoption of IFRS in UK and Australia.

In addition, they find an increase in managerial discretion for France. Atwood, Drake et al. (2011) find no evidence of better earnings persistence or association between income and future cash flows following IFRS adoption for a sample of 33 countries. Finally, Ahmed, Neel and al, (2013) report more income smoothing and evidence of earnings management for a panel of 20 countries (excluding Canada) post IFRS mandatory implementation.

Thus, it seems that results are mitigated regarding the effectiveness of IFRS. Indeed, according to several articles (Daske et al., 2008; Hail, Leuz, & Wysocki, 2010; Jeanjean & Stolowy, 2008), the adoption of IFRS may not alone explain the quality of financial reporting. Some determinants affect the quality of accounting numbers and interact with IFRS to reduce their effect. In that sense, quality accounting standards alone may fail to give expected positive benefits when not accompanied by adapted institutional and regulatory frameworks and right disclosure incentives (Renders & Gaeremynck, 2007; Aksu, Muradoglu, & Tansel Cetin, 2013) . Here, firms' incentives to disclose information in CMS firms may be driven by a trade-off between better costs of external equity financing and insiders' benefits of keeping the advantages provided by private information (Wang, 2006; Renders and Gaeremynck, 2007). And, when it comes to accounting quality, the prevalence of IFRS over financial incentives has not yet been clearly defined. Indeed, recent findings suggest that firms with concentrated ownerships do not experience expected improvement in accounting quality following the adoption of IFRS. For example, recent studies find no positive significant association between IFRS adoption and earnings quality when firms are characterized by concentrated ownership structures, (Aksu et al., 2013; Kao & Wei, 2014).

In general, while some scholars demonstrate disclosure quality improvement after the adoption of IFRS (Barth et al., 2008; Brochet, Jagolinzer, & Riedl, 2013; Glaum, Baetge, Grothe, & Oberdörster, 2013; Horton et al., 2013), questions remain as to the ability of these standards to decrease the information asymmetry of CMS firms. Indeed, previous research reports that everything else held equal, CMS firms tend to disclose

less value relevant financial information even when accounting systems are considered to be of quality (Chau & Gray, 2002; Fan & Wong, 2002; Gabrielsen et al., 2002). In Canada, Bozec (2008) documents that earnings management increases with the wedge between cash flow and voting rights under Canadian GAAP.

To our knowledge, no study has tested the financial reporting quality of CMS firms after the adoption of IFRS in Canada. Hence, in this study we question whether the mandatory adoption of IFRS in Canada improves the quality of financial reporting for companies characterized by controlling minority shareholders structures. In order to address this question, a pre and post IFRS comparison of accounting numbers informativeness is conducted. This comparison will use adapted versions of the Ohlson (1995) price model and the return model used by Warfield et al. (1995) in order to interpret empirical evidence of enhanced, decreased or unchanged value relevance of financial reporting after the adoption of IFRS in Canada. The interpretation of the results will help uncover and understand the relative importance of IFRS adoption considering the structure of Canadian corporations when adopting and adapting accounting standards.

We contribute to the current streams of research on financial reporting and ownership structure and try to address the concerns raised in the existent literature by testing whether accounting quality improves after IFRS adoption for CMS firms in a strong legal enforcement environment. We believe that Canada offers an interesting setting for our study for many reasons. First, Canada portrays a high level of controlling minority shareholder structures. And, while Aksu et al. (2013) focus on concentrated ownership structure, they do not explicitly account for the effect of the possible gap between cash flow and voting rights, which, according to previous findings has an impact on accounting quality (Fan & Wong, 2002). Then, Canada mandatorily adopted IFRS in 2011 and we believe that it is relevant to assess if it yielded homogeneous results in terms of accounting quality. In fact, recent findings report that differences between the two sets of standards result in differences in accounting quality (Ledoux & Cormier,

2013; Liu & Sun, 2013), and Cormier (2013) defends that corporate governance characteristics interact with IFRS to influence the quality of earnings. Finally, to our knowledge, studies on the association between the adoption of IFRS, ownership concentration and accounting quality were mainly conducted in code law countries. Although Canada is considered a common-law country with higher law enforcement (King & Santor, 2007), we question whether IFRS adoption in this setting leads to different results. As law enforcement is given as a determinant of accounting quality, our research would also enable to assess if reporting incentives prevail over regulatory enforcement in the case of Canada. Yet, in Canada, there are many companies with high levels of ownership concentration like in most code law countries. In addition, while in code law countries, accounting information is not primarily market oriented, in Canada, accounting information main purpose is to inform investors about the true economic value of the firm. Thus, even though CMS structures have a high incentive for lower quality financial disclosure as opposed to more diffused structures, the pressure of financial markets for more transparent information may force Canadian firms to effectively apply IFRS, resulting in better accounting quality.

To sum up, taking into consideration the particular characteristics of the Canadian environment and the recent findings on IFRS association with accounting quality, our research aims to provide additional evidence on the the actual effectiveness of the mandatory adoption of the new standards.

We expect our results to show no improvement in the quality of accounting information for CMS firms following the adoption of IFRS in Canada, as corporate governance is weak in CMS firms. These results would support Ball, Robin and Wu (2003) who argue that incentives prevail over effective accounting standards as determinants of accounting quality. First, the analysis of differences between former Canadian GAAP and IFRS suggest that IFRS give more discretion to insiders in term of financial disclosure. For example, property, plant and equipment are valued at their historical cost under Canadian GAAP and can only be reevaluated if their market value decreases. At the

opposite, under IFRS property plant and equipment are marked to market, and can be written up and down, mainly according to the judgment of the statement preparers (Blanchette et al., 2011). At the introduction of IFRS in 2011, this change in long-term assets' accounting alone caused increases in real estate companies incomes that are up to 700% (Salman and Shah, 2011). In addition, although Canada is characterized by high levels of law enforcement and a market oriented institutional framework, previous studies demonstrate the presence of high agency costs for Canadian CMS Firms (Ben-Amar & André, 2006; Bozec & Laurin, 2008; Di Vito, 2011). Our results would suggest that effective application of IFRS is linked to firm level specificities rather than country' characteristics. In addition, our results would provide insights on whether that information under IFRS should be interpreted while taking into consideration the actual incentives of those disclosing it. Finally, our results aim to help regulators and standard setters assess the actual effectiveness of IFRS implementation in specific economic and regulatory environments, and understand the dynamics influencing this relationship.

Chapter 2 exposes the theoretical framework of our research. Here we explain how agency problems existing in corporate organizations influence insiders' behavior and incentives. Chapter 3 describes the literature on CMS firms, accounting quality, IFRS adoption and value relevance. We end this chapter by explaining why we expect that the adoption of IFRS in Canada will have an impact on accounting quality. Chapter 4 details the reasoning behind the development of our hypothesis. Chapter 5 describes the methodology of our research. Chapter 6 reports the results of our statistical analysis. Finally, we conclude our study in Chapter 7.

CHAPTER 2 THEORITICAL FRAMEWORK

Agency theory emerged and evolved from to the continuous work of many scholars. However, its origin goes back to Berle & Means (1932), who first expose agency problems emerging with the separation of ownership and control in diffused ownership structures. Literature often refers to this definition as Type I agency costs. In this setting, managers control decisions of the firm and shareholders try to make optimal investment choices based only on information publicly disclosed by these managers. However, an asymmetry of information exists between the two sides and investors are constrained in their ability to monitor management. Agency costs are translated through investment decisions and value creation that are not optimal for investors, as managers and shareholders interests are not completely aligned (Jensen & Meckling, 1976). Companies characterized by Type I agency costs often depict a positive relationship between concentration of managerial ownership and performance (Salancik & Pfeffer, 1980) and earnings informativeness (Warfield, Wild, & Wild, 1995).

However, this relationship does not hold for all companies. Firms characterized by high levels of concentration and by controlling minority shareholders (CMS) structures are often subject to what Villalonga and Amit (2006) call Type II agency costs. In this setting, divergent interests exist between controlling and minority shareholders. Controlling shareholders often entrench themselves and expropriate private benefits through less efficient investment decisions not optimal to minority shareholders (Cronqvist & Nilsson, 2003). These authors find that CMS structures have lower ROA figures. Other research shows a negative relationship between the quality of accounting information and concentration of ownership. Gabrielsen, Gramlich et al. (2002) find evidence of lower earning informativeness for entrenched companies in Denmark. Fan and Wong (2002) report similar results for East Asian companies and support that "controlling owners are perceived to report accounting information for self-interested purposes, causing the reported earnings to lose credibility to outside investors".

2.1 Type I Agency Theory

2.1.1 Theory of economics: Rational individuals

Early economists consider the individual as a rational being whose actions and decisions are only guided by his/her own self interests and the goal of maximizing his/her own wealth and welfare (Mill, 1836). By seeking profit maximization, individuals should be induced to make the most efficient use of their resources. This holds for the resources they have access to when controlling a company. However, the existence of divergent individual visions and interests within a corporation impede efficiency and profit maximization.

2.1.2 The firm: a contract between unrelated parties

Jensen and Meckling (1976) argue that:

> **The private corporation or firm is simply one form of legal fiction which serves as a nexus for contracting relationships and which is also characterized by the existence of divisible residual claims on the assets and cash flows of the organization which can generally be sold without permission of the other contracting individuals.**
>
> **Jensen and Meckling (1976)**

Jensen and Meckling (1976) expose a theory of the firm inspired from agency theory where they describe a corporation as a set of contracting relations among participants with conflicting objectives that are brought to equilibrium where value is created. These contracts establish how rights, costs and rewards are explicitly and implicitly distributed between those entering the contracting relation (Jensen & Meckling, 1976). As a consequence, contracts will determine expected participants' behaviors while interacting in the context of the firm. The different parties concerned by the contract are willing to set the most efficient and effective mechanisms as to optimize value creation taking into consideration the characteristics of the organization, the persons entering into the contract, and the availability of information (Eisenhardt, 1989). Indeed, it is assumed

here that individuals' preferences differ and that contracts set the conditions under which they agree on expected efforts in order to create a level of wealth that is not possible otherwise. Thus, even within firm's contract, the primary motive of the participants is to maximize their own wealth, which requires the combination of different resources to be attained. As in the theory of the firm, agency theory sees the firm as a set of contracting relations that makes divergent interests converge.

This being said, early definitions of corporate responsibility suggests that the firm acts in the sole interest of its owners (Berle & Means, 1932). Thus, managers, responsible for the firm's decisions and outcomes, are expected to behave in such a way to effectively answer shareholders' expectations. As shareholders main rational interest is to maximize their own wealth, managers are thus expected to make decisions guided with the goal of maximizing shareholders wealth. Implicit and explicit firm contracts articulate such objective. Taken from this view, any decision guided by any other incentive is considered suboptimal.

2.1.3 Ownership and control: the distinction between the two

At the beginning, agency theory as documented by Jensen and Meckling (1976) assumes that a single owner runs the company. This single owner has a limited amount of wealth that restricts his/her ability to take advantage of investment opportunities that can further increase his/her own wealth. This owner has the incentive to look for outside funding and starts selling part of his shares to outside investors in order to raise the required capital to increase firm size. As long as investment opportunities exist and that the cost of equity financing is the most efficient, the owner will keep selling part of his/her stake in the firm equity to a point where ownership of the firm become diffused (Demsetz & Lehn, 1985).

Berle and Means (1932) call this firm the "quasi-public corporation", a large company where ownership is extremely dispersed and that relies heavily on capital markets to raise funds. In this setting, ownership is so widely held that no unique shareholder can

exhibit control over firm's decisions. Because of the relatively low portion of shares they possess, shareholders' relationship with the firm is limited to the wealth increase or decrease they get as a result of its activities. The manager of the corporation is the one controlling decisions regarding firm's investments and activities. In this situation, ownership is thus separated from control. The separation creates what Berle and Means (1932) call a "revolution", as a firm's resources are no more used to maximize the wealth of its owners but can serve other interests. Indeed, the one in control, the manager, take decisions that may not ultimately serve the interests of those providing capital to the firm. Berle and Means (1932) predicted that the "quasi-public corporation" would become prevalent in the modern world.

2.1.4 Result: the conflict, what is the agent-principal problem?

Agency theory emerged and evolved from to the continuous work of many scholars. However, its origin goes back to Berle and Means (1932) who first expose agency problems emerging with the separation of ownership and control in the diffused ownership structure described above. Literature often refers to this conflict as Type I agency problem. According to Eisenhardt (1989), agency issues arise when the principal, the shareholder, and the agent, the manager, have divergent goals and it is costly for the principal to ensure and know that the agent is engaging sufficient efforts to optimize firm value. Dispersion of ownership thus plays in managers' favor. Indeed, free from shareholders' ability to supervise and direct them, managers can make decisions fulfilling their own interests ratter than those of the asset claimants (Berle & Means, 1932).

The theory addresses this uncertainty about agent effort as the risk of moral hazard. Here, the agent efforts are lower than anticipated by the principal, suboptimal and not reflecting the level expected from the contract (Eisenhardt, 1989). In this setting, managers control decisions of the firm and shareholders try to make optimal investment choices based only on information publicly disclosed by these managers. However, an asymmetry of information exists between the two sides and investors are constrained in their ability to monitor management and to get proper information. In addition, the

access to information beyond what is already available engender additional costs (Eisenhardt, 1989). The asymmetry of information creates a risk of adverse selection which refers to suboptimal choices due to misleading or incomplete information at the time of the decision (Akerlof, 1970; Eisenhardt, 1989).

Agency costs are translated through investment decisions and thus value creation that are not optimal for investors. One solution to reduce risks of moral hazard and adverse selection is to reduce the asymmetry of information. Indeed, more informed investors are able to exercise more effective monitoring and better secure expected investment outcomes (Eisenhardt, 1989). Thus, uncertainty about the future, lack of complete information about the agent, and inability and costs to exercise perfect monitoring create moral hazard[1] and risk of adverse selection for the principal. In this framework, agency theory portrays uncertainty in a risk/reward tradeoffs (Eisenhardt, 1989).

Jensen and Meckling (1976) identify three types of agency costs. First, positive monitoring costs are incurred by the principal and reflect all actions taken in order to control agent's actions and reduce his/her ability to behave in an opportunistic way. Then, the agent incurs positive bonding costs when he/she enters into a contract with the principal. Finally, residual losses reflect the differential between optimal value creation and actual value creation that results from suboptimal decisions taken by the agent with regard to the principal's preferences.

Eisenhardt (1989) documents two streams of research with regard to agency Type I agency theory. The first, called positivist agency theory focuses on describing and explaining how governance mechanisms can help mitigate agency costs. The second, called agent-principal theory tries to find optimal contracting frameworks and explains

[1] When different parties enter into a contract, the risk of moral hazard refers to the likelihood of one party not to fulfill the contract faithfully.

agent and principal's behaviors rather than contracting outcomes. The positivist view proposes that outcome based contracts are effective in reducing agency costs.

Companies characterized by Type I agency costs often depict a positive relationship between concentration of managerial ownership and performance (Salancik & Pfeffer, 1980). Jensen and Meckling (1976) expose how agency theory can explain this relationship.

2.1.5 Understanding agency costs from Jensen and Meckling (1976) perspective

As described earlier, individuals' behavior is guided by their rational self-interest seeking goals. Thus, an individual who completely owns a firm will ultimately run the firm in such a way to maximize his/her own wealth. This wealth can take the form of pecuniary or non-pecuniary benefits according to his/her preferences and will represent his/her utility. Here, reputation or friendship with employees can represent valuable non-pecuniary benefits to the owner-manager. An owner-manager entitled with all residual claims of the company will be maximizing his/her utility when the value derived from any dollar spent on any source of benefit (inside or outside the firm) is equivalent.

However, once the manager-owner start selling his/her shares to external investors for the reasons stated earlier, agency costs arise because of divergent utility maximizing preferences of the two parties. Now, every dollar spent inside the firm by the owner will result in a loss of value for the new shareholder, while at the same time spending inside the firm is more attractive to the owner. Indeed, he/she no more incurs all the costs from consuming on the job. The following example helps understand this concept.

An owner-manager sells 10% of his/her shares to an outside investor. The owner-manager can consume a dollar inside the firm, which would give him/her an equivalent utility as if he/she had the same dollar to spend outside the firm, or to convert into profits. However, since he/she is only entitled to 90% of the company's shares, he/she

will only get 90 cents if the dollar is converted into profits (assuming not taxes are paid). Since the owner-manager behaves in a selfish utility maximizing way, he/she will have the incentive to internalize the dollar and not distribute it as profits. The 10 cents not received by the shareholders represent residual losses described earlier.

The explanation given above considers that shareholders exercise no monitoring and that markets do not perceive that the owner manager acts opportunistically. However, in the real world, shareholders can spend time and effort limiting opportunistic behaviors, and markets should efficiently perceive such costs (monitoring). As a result, stocks are priced accordingly, which pushes the manager-owner to behave in such a way to demonstrate to market players that he/she is meeting contracts expectations. These represent bonding costs and can take the form of contracts that legally put limits on the manager's discretion regarding firm's decisions.

However, as the owner-manager's stake in the company decreases, he/she will be less affected by negative stock price restatements and thus be less eager to bind him/herself to shareholders. As the owner-manager ownership decreases, more monitoring is needed, and this will be reflected by an increased cost of capital.

Jensen and Meckling (1976) postulate the following theorem based on the previous reasoning:

> **For a claim on the firm of (1-A) the outsider will pay only (1-A) times the value he expects the firm to have given the induced change in the behavior of the owner-manager**.
>
> **Jensen and Meckling (1976)**

If a firm's shares are sold to a wide range of participants, it becomes hard to reach agreements on how monitoring costs are being divided. Indeed, a unique investor having a little stake in the company is not willing to incur monitoring costs that would make his/her investment unattractive. This investor has the choice to move his/her funds to another company presenting an equivalent level of risk. At the same time, such

investor has no incentive to bear monitoring costs while other similar investors do not. This free rider issue, first raised by Coase (1960), portrays situations where individuals take all the benefits from a good that is publicly available, here the positive effects of monitoring, while not incurring the costs of providing such good. Two solutions to the free rider problem, which will be later detailed in this chapter, are the existence of large external shareholder groups or the institution of effective board of directors.

2.1.6 Understanding the agent's behavior

In the framework described by Jensen and Meckling (1976), the firm is controlled by the owner-manager. This individual has three main sources of wealth linked to the firm he/she operates: his/her stream of wages as a manager, the value created from the firm's activities and distributed to all residual assets' claimants accordingly, and all pecuniary and non pecuniary benefits he/she is getting on the job (Demsetz, 1983). In a rational world, this individual will strive to find the combination of these three sources of benefits that will provide him/her with the greatest utility. The optimal combination of pecuniary and non-pecuniary benefits from the owner-manager point of view is achieved when the marginal utility he/she takes from any additional dollar of expenditure in non-pecuniary or pecuniary benefits is equal.

2.1.7 The choice of equity financing

The presence of agency costs means that the firm barely attains value maximization, and still public diffused corporation exist. From the owner's perspective, he/she seeks outside financing due to investment opportunities that he/she cannot finance using her/his own wealth. Here, the owner perceives these investments as more attractive and thus generating more wealth than the actual utility he/she is obtaining from the firm. In other words, the cost of conceding a fraction of his/her ownership and incurring the consequent agency costs are lower than the value he/she can obtain from increasing the firm size. The owner-manager will continue to sell part of his/her ownership as long as the expected returns from potential investments outweigh expected agency costs.

However, since lower ownership leads to the emergence of agency costs, issuing debt may look more attractive. Jensen and Meckling (1976) advance that creditors will not be willing to lend large funds to highly leveraged firms due to the consequent owner's incentive to take extensive risks. Then, debt issuance is accompanied with a level of monitoring, through covenants and other mechanisms, which limit the ability of the owner to run the firm properly. Finally, high levels of debt increase the risk of bankruptcy. Thus to a certain point, the owner-manager and the lenders are not willing to enter in a contracting relationship when the resulting risk are high.

2.1.8 Sources of conflict

2.1.8.1 Risk Aversion

The risk sharing issue can be defined as the problems arising when different collaborating parties have divergent risk aversions (Eisenhardt, 1989). Here, the risk-sharing problem comes from the differences between the agent and the principal's personal interests and objectives, which induce inadequate actions by the agent according to the principal.

Agency theory assumes that the agent is risk averse while the principal is said to be risk-neutral. Indeed, the manager is limited in his/her ability to diversify his/her investment and has all his/her efforts and human capital invested in the company in which he/she operates. If the company is in financial distress because the manager made very risky investments, his/her reputation may be affected. As a result, he/she may not be able to secure further job opportunities that provide equivalent utility as in his/her previous position. Thus, when facing investment opportunities, the manager is reluctant to make choices where perceived risk is high, even though shareholders demand it.

On the other hand, the shareholder possesses a portfolio of diversified investments that enables him/her to reduce the risk invested in a single company. In this situation, the risk incurred by the principal is proportional to his/her investment in the company's assets.

His/her ability to diversify his/her personal risk through mechanisms external to the company makes him/her risk neutral toward a single investment. In the representation of Fama (1980), the shareholder is described as a residual claimant of firm's assets and a risk bearer. However, the existence of capital markets enables him/her to shift his/her investment from one firm at relatively low transaction costs or to diversify his/her total wealth across firms. Thus, capital markets enable shareholders to decrease their exposure to firm's systematic risk. Their only goal regarding firms' assets is to maximize the value they can earn from them. At the same time, the decreased risk regarding a single investment will make this shareholder less keen to spend effort and resources monitoring the activities of a single firm.

2.1.8.2 Time Horizon

A public corporation is said to have an infinite life. Thus, its shares equal to the discounted value of its expected cash flow stream. Shareholders interest is to maximize the value of these expected cash flows in order to increase the value of their stocks. Thus, shareholders are generally interested in the long-term success of the firm. At the opposite, managers, if not entitled with a sufficient portion of firm's stocks, will only value the expected cash flows they will be generating during the time they spend at the firm. Thus, managers will discount their expected wealth benefit from the firm for the period of time they will spend at the company (Byrd, Parrino, & Pritsch, 1998).

For these reasons, managers and shareholders have divergent time horizons regarding firm's value. And as managers expected time in the firm decreases, the time horizon divergence increases. For example, managers that are close to retire tend to have the highest short term oriented behavior (Byrd et al., 1998). Because there are short-term oriented, managers tend to make investment decisions that will optimize returns in the short run at the expense of long run stable value creation. For example, while R&D investments can increase firm value in the long run, their results are not perceived at the time of the initial investment while their costs are. As a result, managers are reluctant to make R&D investments as they become closer to retirement (Dechow & Sloan, 1991).

2.1.8.3 Aversion to effort

Labor economists postulate that an individual will value leisure as long as the marginal benefit from it equals the marginal benefit of forgone work income (Byrd et al., 1998). As individuals, managers may sometimes value leisure or any other non-pecuniary benefit over pecuniary ones. Thus, managers may have the tendency to shirk when they perceive the value of leisure as being superior to the value of putting more effort on the job. Shareholders on their side expect managers to exert substantial efforts to maximize the value of the firm.

The tendency of managers to shirk is negatively associated to their ownership in the firm. A manager having a large ownership will inevitably be more motivated to put efforts in order to increase firm value and will be more concerned by its long term performance (Byrd et al., 1998). This is explained by the fact that as manager's ownership increases, the opportunity cost of exchanging an hour of leisure against an hour of effort to improve firm's revenues increases. In fact, as manager's ownership increases, he/she is getting more wealth from any extra effort on the job when these are converted into profits.

2.1.8.4 Assets utilization: utility maximizing behavior of the agent

Consumption on the job or the inefficient use of firm's assets are also sources of agency costs (Byrd et al., 1998). More broadly, any manager's use of firm's assets that is perceived as being unproductive by shareholders is considered an agency cost. In addition, managers may have the incentive to internalize profits into firm's capital in order to increase firm size. By keeping high free cash flow levels, managers may increase their reputation, compensation and control while investors expect these free cash flows to be distributed as dividends (Byrd et al., 1998). High levels of free cash flows are considered unproductive when managers internalize them while there are no growth opportunities or use them to finance unproductive investments (Jensen, 1986).

In the presence of an owner-manager, who posses all stake of the company, any consumption or misuse of firm's assets directly affects his/her own and only wealth. This can take the form of inefficiencies or perquisites which utility, according to the owner-manager, equals benefits from wealth gained as a result of company's profits (Fama, 1980). Thus, decisions to consume, "inside or outside" the firm, are only made to fulfill his/her self-interest, and is not guided by the incentive to expropriate. However, from an economic point of view, these decisions might not be as optimal as perceived by the outside environment. In other words, firm's assets are not used in the most efficient way.

When there is a separation of ownership and control, then any extra consumption on the job will be perceived by a rational manager as additional wealth beyond what can be expected from firm's profits. Indeed, firm's outcome is now shared among all residual claimants, while consumption or misuse of firm's assets only benefits him/her. Thus managers have more incentive to make inefficient uses of firm's assets. On the other hand, as shareholders wealth increase only comes from the monetary benefit they get from firm's returns, any consumption on the job or misuse of firm's assets is a cost for them and is perceived as suboptimal (Demsetz, 1983).

2.1.9 Reducing Agency costs: governance mechanisms

2.1.9.1 Debt

The presence of debt can help managers reduce the size of agency costs (Bebchuk et al., 2000). In fact, creditors impose high covenants on companies and often monitor firm's activities. Covenants often translate in accounting figures and ratios that firms have to respect in order to avoid increases in the cost of debt, and in some situation the immediate reimbursement of borrowed funds. Thus, breaches in debt contracts can increase the risks of bankruptcy. On one hand, the risk of adverse penalties associated with the violation of debt contracts disciplines managers as it pushes them to adopt a behavior that prevents the firm to be in a situation of financial distress. Thus, managers tend to make decisions that enable the firm to respect debt contracts and to generate cash

in order to pay debt proceeds. On the other hand, the monitoring of creditors reduces the need and cost of monitoring by shareholders, thus reducing consequent agency costs.

2.1.9.2 Market for labor

Fama (1980) posits that one of the most effective monitoring devices of management behavior is the market for managerial labor. The manager in a firm has a contractual agreement to oversee the effective use of firm's resources and to ensure its sustainability. His/her ability to complete his/her tasks effectively will affect his/her reputation on the market for managerial labor, consequently increasing or decreasing its human capital. For Fama (1980), rational managerial labor markets are able to perceive the tendency of managers to enjoy private ex ante benefits, and thus will adjust ex post salaries accordingly. The author perceives the market for managerial labor as an important mechanism enabling the survival of the organizational model of diffused ownership structures. However, Fama (1980) postulates that managers' reputation also depends to a great extent on the information available to the public about them. Part of this reputation comes from shareholders as they evaluate the ability of managers to successfully fulfill their contractual tasks through their valuation of stock prices. Here the more talented the manager is perceived by investors, the less risky the stock is relative to similar investment, so the lower the cost of capital requested by investors will be. However, these premises hold with the hypotheses that capital markets are efficient which implies that quality information is available to market players. Thus, the quality of information available to capital and labor markets as well as the resulting signals sent from its interpretation, play a role in disciplining managers, limiting moral hazards and risk adverse selection.

2.1.9.3 Markets for products and markets for capital

External governance mechanisms help discipline managers' opportunistic behavior. As Demsetz (1983) explains, in competitive markets for products, consumers have the choice not to buy goods from companies where managers shrink the value they are delivering to the market. Then, the existence of competitive markets for labor prevents managers from transferring some of the wealth they should distribute to workers, to

themselves. Finally, efficient capital market should be able to see through managers' opportunism and price stocks accordingly. As a result, investors should be able to move their capital from a firm where managers make opportunistic decisions to another subject to a similar risk but with more aligned manager-shareholders interests. The subsequent decrease in firm's stocks attractiveness will be reflected in its price. Here, efficient markets can thus help discipline an opportunistic manager moving capital to more efficient investments and giving an incentive for managers to make better use of resources at their disposal. Manager are expected to be influenced more by capital markets reaction as their ownership of firm's stocks increases, as the decrease in stock prices directly affects their wealth.

2.1.9.4 Market for corporate control

When markets for corporate control are efficient, poor managerial performance makes the firm vulnerable to be taken over (Bebchuk, 1999). In fact, when managers' actual and expected performance is perceived by markets for corporate control as being lower than it would be under a different management, then more competent players tend to see the opportunity of buying the potentially attractive firm. Managers on their side perceive that such action threatens their position. As a result, managers are forced to achieve higher performances in order to reduce insecurity and the risk of losing their job.

2.1.9.5 Stock ownership

By managers

Jensen and Mackling (1976) explain that when a manager has large claims on the expected cash flows of the firm, he/she will be directly affected by any increase or decrease in firm value, at least to a greater extent than a manager who owns lower stakes in the firm. Thus, agency theory expects that a manager's opportunistic behavior decreases as his/her ownership of the firm stocks increases. However, this relation is not monotonic since at high levels of ownership, the owner-manager become entrenched, and is thus not subject to most internal and external governance mechanism effects. At these levels, as Jensen and Meckling (1976) explained, the owner-manager will have the incentive to consume benefits on the job as long as the marginal utility he/she has from

it is greater than the marginal utility of any fraction of wealth created through the firm's activities, and that he/she shares with other existing owners.

By outside shareholders

Demsetz and Lehn (1985) define control potential as any additional value created through more effective supervision of a manager's ongoing performance by a firm's owners. Indeed, the authors assume that failure of markets for corporate control and labor markets to discipline managers' opportunistic behavior create the need for closer monitoring by shareholders. At the same time, as the economic environment in which the firm operates becomes more uncertain, managers actions become more difficult to monitor and predict. Here, shareholders have the incentive to monitor the firm's activities more closely. However, closer monitoring also implies more concentrated ownership in order to justify extra monitoring costs and secure power to discipline opportunistic managers. In fact, the presence of bockholders (I.e. institutional investors) tends to have positive effect on firm's value and thus can reduce agency costs as large shareholders usually monitor managers' behavior (Agrawal & Mandelker, 1990).

2.1.9.6 Regulations and Law enforcement

The degree of investors' protection and law enforcement influences managers' opportunism. In fact, La Porta , Lopez de Silanes et al. (1998) explain that countries with strong investors' protection and law enforcement portray better overall economic development and lower agency costs. The authors explain that the existence of effective regulations does not reduce agency costs if not accompanied by strong enforcement mechanisms. They defend that when a country has effective regulations and strong law enforcement, investors are better protected and thus better off.

2.1.9.7 Board of directors

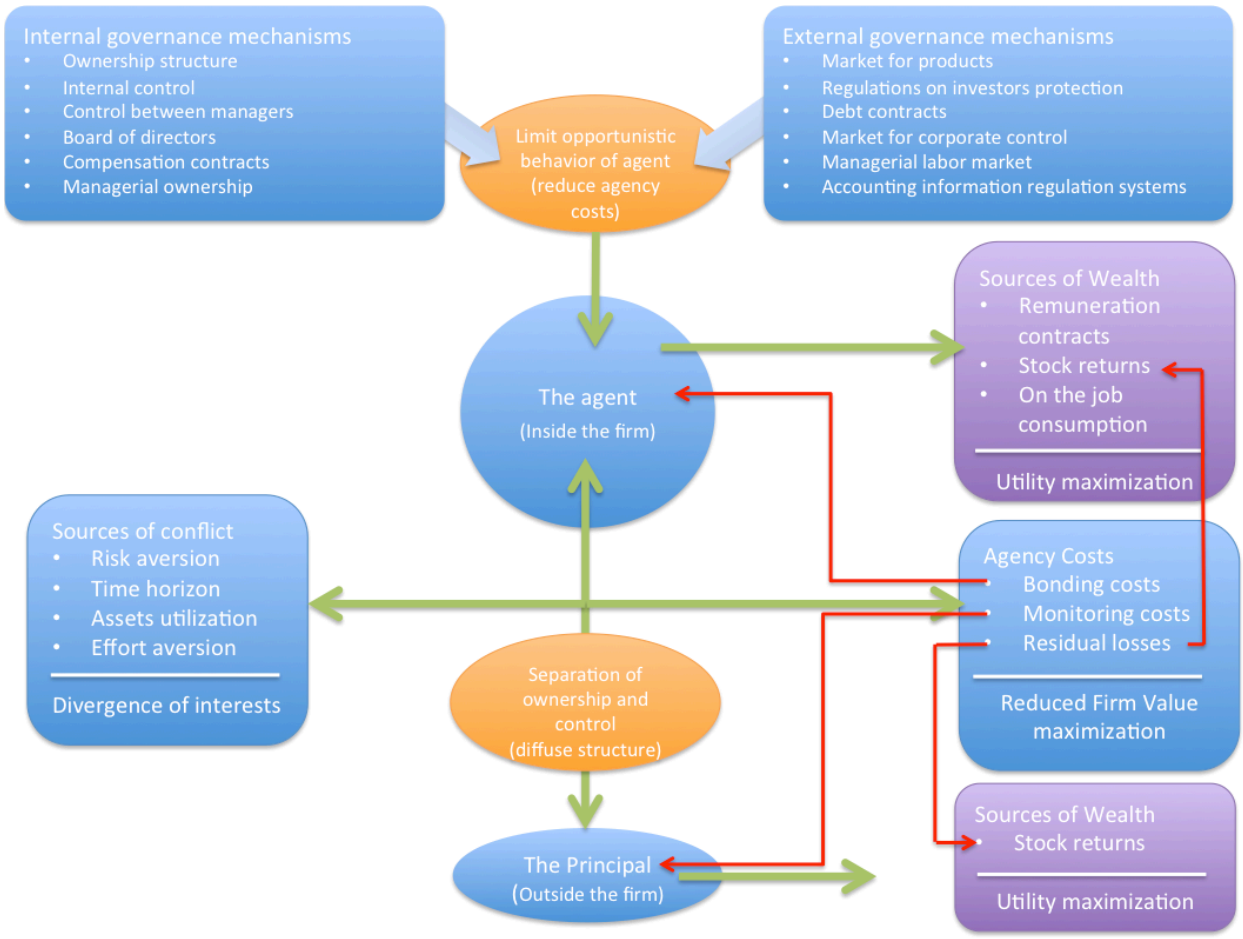
Jensen (1993) posits that the most important internal governance mechanism is the board of directors. In fact, the board of directors has the fiduciary responsibility to ensure that a firm's management works in the interest of its shareholders. In that sense, the board of

directors is the sole authority that hires, supervises, rewards and changes firm's management. However, research shows that the presence of a board of directors does not itself guaranty that its members will be able to limit the opportunistic behavior of managers. This is because a board's characteristics can either strengthen or weaken its supervision and monitoring (Byrd & Hickman, 1992; Klein, 2002). For example, Jensen (1993) explains that board members' equity ownership, members' affiliation, expertise, and CEO duality are factors that influence the effectiveness of a board.

2.1.9.8 Compensation

Compensation contracts are a governance mechanism that helps align managers and stockholders interests at a relatively low cost (Byrd et al., 1998). In addition, in firms characterized by high growth opportunities and high investments in intangibles, incentive contracts can decrease the inherent asymmetry of information by providing measurement of manager's actions to shareholders (Schiehll, 2009). However, although incentive contracts help decrease agency issues, they have many flaws. Indeed, wrong or incomplete indicators, uncertainty of expected desired outcomes, indicators based on accounting numbers or stock prices and the time dimension of an indicator can make contracts ineffective or give rise to manipulation (Landry & Schiehll, 2011). Indeed, inappropriate indicators may lack controllability or may not capture the whole picture of the expected actions. Here managers may concentrate on specific tasks at the expense of overall sound performance or they may lack motivation due to feeling on unfairness (Gibbs, 2005). Then indicators based on accounting numbers may lead managers to focus on short-term performance at the expense of long-term profitability or have the incentive to manipulate numbers (Healy, 1985). Here the information transmitted to shareholders may lack quality and relevance.

Figure 1: Agency theory conceptual framework



In the figure above, the blue squares indicate mechanisms and effects that influence the agent behavior. The blue circles represent the stakeholders involved in the relation. The purple squares represent the source of wealth for the different actors (the top one for the agent and the lower one for the principal). Finally, the red arrows indicate which actors or source of wealth are directly affected by agency costs.

2.2 Type II Agency Theory

2.2.1 Ownership Concentration Theory

Bebchuck (1999) exposes a theory to explain agency issues arising in firms with controlling shareholders and the incentives behind the construction of such structures.

Exercising control over a firm means having the ability and ultimate right to decide over the use of firm's assets (Fan & Wong, 2002). The right to vote is the mechanism by which shareholders can influence decision-making and exercise control. Cash flow rights on the other hand are claims to their holders over incomes produced as a result of firm's activities. Shareholders can either hold their shares, and exert their rights, or they can transfer these rights to other parties, receiving the immediate proceeds of such decision.

2.2.2 Incentives to concentrate ownership as seen by Bebchuck (1999)

Firms with concentrated ownership are characterized by the existence of a single party holding enough rights as to exercise control over the firm with little possible interference of other shareholders.

As do Jensen and Meckling (1976), Bebchuck (1999) assumes that a company's single owner is willing to take his/her company public in order to get capital to further invest. This owner has the choice between locking control over a firm's assets or making control contestable through a diffused structure.

When the initial owner-manager sells shares of his/her company to the public, outside investors receive shares with a value that reflects the underlying risks associated with the chosen structure if markets are efficient. In this setting, we assume that the owner-manager cannot make use of any arrangement to lock in control besides keeping 50% or more shares of the company, each share entitled with one vote. For example, we assume that the owner-manager cannot make use dual share to lock in control. Bebchuck (1999) exposes that the owner-manager either choses between keeping 50% or more of the shares and controlling the firm or selling a larger portion of his/her shares, giving up all the voting rights and only playing the role of a manager.

The manager-owner who keeps a large stake in the company is risk-averse because his/her investment is not diversified, while small investors are risk-neutral. His/her non-diversified investment and the related risk have a cost that only he/she assumes. Thus it is expected that as a rational being, the owner-manager should be willing to chose a diffused structure and diversify his/her investment in the market. Giving that no special mechanism is in place, the later decision will put the firm in a situation where it can be taken over without his/her consent.

However, control can bring some private benefits, pecuniary and non pecuniary, that increase the utility of the owner-manager. Indeed, through his/her control, the owner-manager can expropriate other shareholders and make decisions that can be perceived as sub-optimal by other shareholders. These private benefits will be detailed later.

Thus, when the total value of control is higher than the value of diversified investment, the owner-manager will chose to hold a large block, bear the cost of risk aversion and lock in control. Such situation occurs when the total value of the stocks required to keep control plus the value of private benefits of control, bearing the risk of non-diversification are higher than the value of a diversified investment. In other words, when private benefits of control are higher than the potential costs of non-diversification, then it is unexpected that equilibrium will hold under a diffused ownership structure. If the owner-manager does not lock in control, then it is likely that another manager makes a bid offer in such a way to bring the ownership structure to one in which he/she can enjoy the full value of private benefits of control.

As the risk of such bid happening exists, the owner-manager is likely to lock in control when going public. Thus the larger private benefits of control are, the more likely it is that the owner-manager will keep control over the firm's assets. At the opposite, when private benefits of control are too low to overcome the risks of holding a large portion of the firm's shares, for example in a country characterized by high investor protection,

owner-managers are less likely to keep control. In this situation, the probability of takeover by an external individual is also low (Bebchuck, 1999).

2.2.3 Agency costs of control

Bebchuck (1999) assumes that once the company runs, the value created can be divided between wealth distributed to asset claimants and private benefits that flow directly to whoever possess control. These private benefits of control represent agency costs of control and are commonly called agency costs of Type II. However, having a concentrated ownership structure does not necessarily mean that owners will enjoy private benefits of control. Indeed, Villalonga and Amit (2006) explain that the impact of concentration on firm value largely depends on the agency issues arising as a result of the interplay of the specific setting of firm's control, management and ownership. According to Bebchuck (1999), these private benefits of control are function of the effectiveness and degree of enforcement of the law and regulation system of the country in which the company operates.

2.2.4 The entrenchment and alignment effect

Ownership concentration leads to two distinctive effects (Fan & Wong, 2002) . In fact, when control-enhancing mechanisms enable controlling shareholders to separate cash flow and voting rights, then a higher differential between the two induces a situation where the controller is entrenched and has higher incentives to expropriate minority shareholders. Entrenchment occurs when a controlling owner can enjoy private benefits of control with low risks of being limited or adversely sanctioned by minority shareholders (Morck, Wolfenzon, & Yeung, 2004). At the opposite, when there is no distinction between voting rights and cash flow rights, the presence of a controlling shareholder can play as a governance mechanism, aligning the interests of the controller and other shareholders. In that case, any further increase in the ultimate shareholder's stake strengthens the alignment of interests. For example, Villalonga and Amit (2006) support that family ownership has a positive impact on firm's value only when cash flow and voting rights are not separated.

2.2.4.1 The alignment effect hypothesis

When ownership concentration occurs as a result of a large block holding and there are no control-enhancing mechanisms in place, the controlling shareholder has lower incentives to expropriate outside investors. For example, Villalonga & Amit (2006) find evidence that family firms with no control enhancing mechanisms, and where the CEO is a member of that family, experience better performances as measured by Tobin's q than any other ownership structures they tested. The authors explain that as family's stake in the firm increases, their interests align with those of outside shareholders as any dollar profit ultimately enhances their wealth further. In fact, if owners hold 60% of firms' assets, any dollar increase in a firm's profits results 0.6 dollar increase for them.

2.2.4.2 The entrenchment effect

Villalonga and Amit (2006) explain that owners may use control-enhancing mechanisms to entrench their position. In their research, when families make use of control-enhancing mechanisms, firm value is negatively impacted, and the magnitude of the discount in value is proportional to the wedge between cash flow and voting rights. This negative impact gives evidence of private benefits of control acquired by ultimate shareholders with higher incentives to expropriate minority shareholders when their share holding is low. Expropriation results in a cost that is supported to a larger extent by non-controlling shareholders. In fact, controlling shareholders only hold a small portion of shares in this case and the loss in value to them is function of the cash flow rights they hold. The lower that portion is, the more incentives they will have as to use their position to expropriate minority shareholders. This being said, at a level where control is locked, any further increase in ultimate shareholders' ownership can help decrease agency costs as the fraction of wealth they get from firm's benefits increases, thus aligning their interests with those of external shareholders (Fan & Wong, 2002).

2.2.5 Control-enhancing mechanisms and ownership structures, CMS structures

CMS structures are characterized by the existence of an ultimate shareholder who controls the decisions of the firm while possessing a relatively low portion of shares.

Here, owners can lock in control by using mechanisms that allow them to keep higher levels of voting rights than cash flow rights. In such cases, controllers have full power over decisions while not bearing significant costs linked to high ownership and non-aversion. Such control can be obtained through the use of dual-share systems, cross holdings and pyramids (Bebchuk et al., 2000). Bebchuck, Kraakman and Triantis (2000) name such structures controlling minority structures or CMS because control over the firm is exercised by a party who owns a lower fraction of equity than necessary when no such mechanism exist. In Canada, these structures exist mainly because of the presence of a dual-share system and the incidence of pyramidal settings (Bozec & Laurin, 2004; Attig, 2007) . Fan and Wong (2002) explain that in a CMS firms, the ultimate shareholder and the manager can be taken as one entity (often the same individual), having equivalent incentives.

Firm value is generally lower when owners use control-enhancing mechanisms to entrench themselves (Cronqvist & Nilsson, 2003). In fact, those firms tend to exhibit lower operating performance as a result of inefficient investment decisions. In addition, outside investors penalize firm value to account for the low probability of take over characteristic of CMS firms.

2.2.5.1 Dual-Shares Structures

A dual-share system means that in a company different shareholders will possess different classes of shares. Some shares are entitled to multiples voting rights while others do not give any voting rights (Bebchuk et al., 2000). Companies' owners use dual class shares to be able not to dilute their control over a company's decisions, while selling a substantial portion of their shareholding (Gry, 2005). By holding multiples voting shares, ultimate shareholders can possess less cash flow rights while holding the majority of voting rights. In fact, the owner-manager lock in control over firm's decisions if he/she keeps more than half of the stocks entitled with voting rights (Bebchuk, 1999). Levy (1983) suggests that voting shares are usually priced at premium and the price difference reflects the level of control and discretion to expropriate of the ultimate shareholder.

Cronqvist & Nilsson (2003) describe five different mechanisms that enable ultimate shareholders to lock in control using dual-share systems. First, the company issues two classes of shares, one with high voting rights and the second with no voting rights. Here, the two classes of shares can trade on the market. Then, the company possesses two classes of shares, but all the shares entitled with high voting rights are in the hands of one entity. In that case, control can only be passed through via negotiation with that controlling shareholders. The third mechanism, called right of preemption, gives the priority to owners of high voting shares to buy additional equivalent shares in case other owners want to sell them. In addition, the use of voting restrictions can also help ultimate shareholders entrench themselves by limiting the portion of votes other large investors can use during a voting contest. Here those possessing high voting shares find themselves in a position where it becomes hard for investors holding low voting shares to influence decision. Finally, shareholders can pass agreements under which they set special rules with regards to voting, transfer of shares and other related actions that can affect the decision power of controlling shareholders.

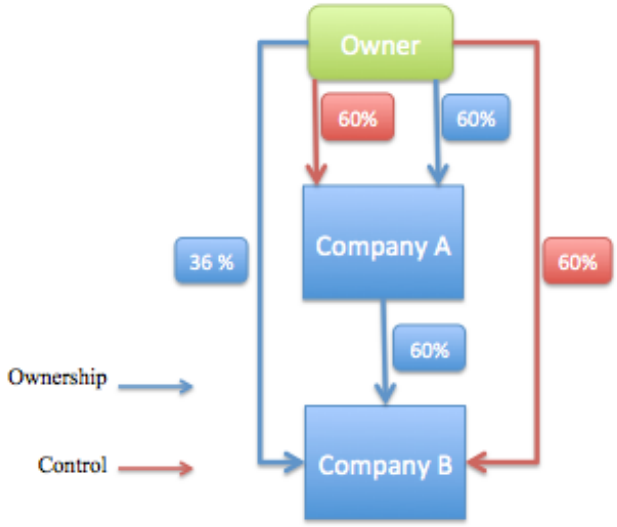
2.2.5.2 Pyramids

Pyramidal structures are the consequence of the sequential holding of a portion of shares in multiples companies by an ultimate shareholder (Bebchuk et al., 2000). At each layer of the pyramid, from the top to the bottom, the ultimate shareholder possesses gradually less cash flow rights while still exercising control over the firms' decisions. Attig (2007) describes this setting as a situation of excess control in which the ultimate shareholder bears only part of the financial risk associated with its decisions while being able to take actions to expropriate other shareholders. Literature uses the term tunneling to refer to the activities by which ultimate shareholders at the top of a pyramid expropriate companies at the bottom of the pyramid in which they hold few cash flow rights (Johnson, Rafael La, Lopez-de-Silanes, & Shleifer, 2000). In order to illustrate pyramid arrangement, we consider an investor A (a family, an individual, a company) that owns 60% of the voting shares in a given B company (1 share equals to one vote). Here, A exercises control over B's decisions and bears 60% of the risks associated with its cash flows. B in turn owns 60% of the voting shares in a company C resulting in the same

relation between B and C than between A and B. Through sequential control, A ultimately takes decisions in company C. However, A only owns 36% of C's cash flow rights while having 60% voting rights. Through the pyramidal arrangement A holds full control on C's decisions while bearing a reduced fraction of the risk associated its expected cash flows. As the number of layers in the pyramid increases the wedge between cash flow and voting rights increases widening the magnitude of agency costs associated with such arrangements.

Pyramids tend to exist only in countries where private benefits of control are large enough to outpace both agency and tax costs induced by such arrangements (Bebchuck et al., 2000). Indeed, if taxes on stocks and reduced value due to agency costs perceived by minority shareholders are greater than the opportunities offered by the control provided from such arrangements, then rational owners are unlikely to use such structures to secure control.

Figure 2: Ownership and control relationship in Pyramids

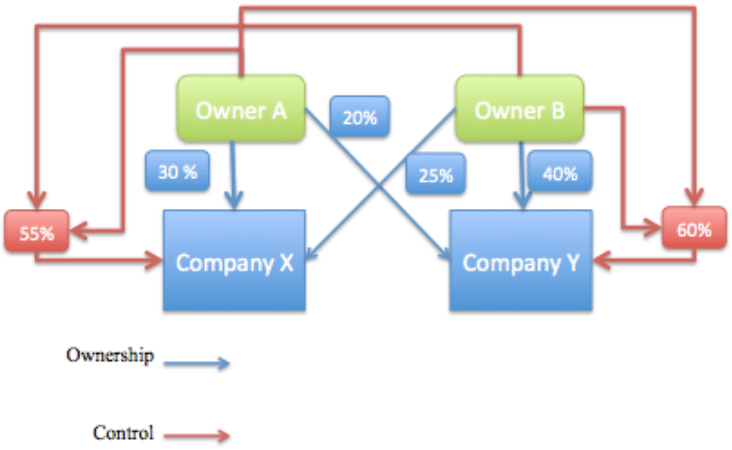


2.2.5.3 Cross-holding

Investors can engage in cross ownership relationships that reinforce control of a given number of owners through multiple holdings in different companies (Bebchuk et al., 2000). The figure below explains how these relationships work. On the one hand,

investor A owns 30% of company X's shares which does not give him ultimate control over decisions. A also owns 20% of company Y's shares. On the other hand, investor B owns 40% of company Y's shares and 25% of company X's shares. Thus, A and B together can entrench their power in X (holding together 55% of voting rights) and in Y (holding together 60% of voting rights). Such investors are likely to engage in cross company transactions with values below what would be expected by outside investors.

Figure 3: Ownership and control relationship in Cross-holding



2.2.6 Control-enhancing mechanisms not linked to ownership concentration

Other mechanisms can enable managers-owners to keep control over firms' decisions that are not linked to the ownership structure itself. In fact, prohibitions on takeovers enable managers-owners to protect themselves against losing their control and position with no obligation to hold significant shares. These include voting and veto requirements, antitakeover provisions, requirements on full acquisition and other arrangements that produce high transaction costs (Bebchuck et al., 2000). Using these mechanisms enable initial owners to secure higher outcomes from value-increasing ownership transfers in diffused structures. However, anti-takeover mechanisms may not be efficient, as they tend to reduce the discipline that can be imposed on manager-owners through markets for corporate control. In addition, they may impede the

occurrence of efficient control transfer when potential buyers can produce higher value from firm's assets.

2.2.7 CMS firms Agency Costs

Agency costs in CMS firms are expected to be higher than in diffused or conventional concentrated structure (with no dispersion between cash flow and voting rights). Indeed, because in CMS firms voting rights are in majority in the hand of one party, controlling shareholders are entrenched and protected from takeover threats that usually have a disciplining role in diffused structures. In addition, as in diffused structures decision-making is exerted by insiders with lower incentives to maximize the value of cash flow rights since they hold only a small portion of shares. Thus, CMS firms combine agency costs characteristic of both diffused and non-diffused structures making them even less efficient for outside investors. At the same time, holding control of the firm becomes less expensive for the controlling shareholder because their low shareholding decreases the risk related to their investment, making it even more attractive (Bebchuk, 1999)

2.2.8 Incentives to create dual share structures: the choice of going public

In the case of Type I agency costs, a concentrated ownership structure will emerge only when the value of going public while keeping control outpaces the value of complete ownership. As in Type I case, this will occur when expected value from growth opportunities give the incentive to the manager-owner to look for outside capital at a lower cost than debt. If the owner-manager chooses to keep control when first going public, growth opportunities are likely to emerge in the future making it attractive to sell additional shares. In settings where private benefits of control are large and outside investors do bear part of the agency costs, the owner-manager will be eager to keep control (Cronqvist & Nilsson, 2003). He/she will then rationally choose to separate cash flow and voting rights, selling non-voting shares in exchange for capital when incentive and tax costs are smaller than the additional private benefits internalized.

2.2.9 Sources of agency costs

Bebchuck et al., (2000) describe that agency costs in concentrated structures can arise when companies decide on investments, set investment policies or accept to transfer control to other investors. Fan and Wong (2002) on their side also refer to outright expropriation of firm's assets. In general, expropriation of cash by entrenched owners will affect income statements while the expropriation of equity and assets will be translated in the balance sheet (Bhaumik & Gregoriou, 2010).

2.2.9.1 Investment choices

Minority shareholders wealth might decrease as a result of investment decisions that are suboptimal according to their expectations (Fan & Wong, 2002). Indeed, ultimate shareholders might value personal benefits not necessarily pecuniary over higher profits while minority shareholders only interests reside in profit-maximizing activities.
Here, a controlling shareholder will choose project A over B if the total value he/she can get from A is higher than from B. Here the total value he/she can retrieve equals to the wealth increase from the portion of cash flow rights he/she owns plus the value of private benefits of control of such projects. Thus, while project B might be of higher value to outside shareholders, if the controlling owner can expect higher total wealth from investing in A, he/she will choose that project, even if it is sub-optimal to maximizing outside shareholders' wealth. Here we have a non-alignment of interests between outside shareholders and insiders and the differential between the forgone value of project B and the value of project A represents the agency cost of such situation.

2.2.9.2 Wealth disposure

Controlling shareholders can expropriate minority shareholders through the use they make of firms' assets. First, when entrenched, controlling shareholders can directly decrease income to minority shareholders through outright expropriation, a mechanism by which assets and/or profits are transferred to other entities in which the ultimate shareholders have interests. In addition, a controlling shareholder has, at some point, to make decisions on whether to distribute free cash flows and proceeds from a firm's

assets to shareholders as dividends, or to retain them in order to further invest and grow firm's size. In widely held structures, managers have incentives to keep increasing firm's size and hold assets even when it is not efficient (Jensen, 1986). The same relation holds in the case of CMS Firms. Here, controlling shareholders will not distribute dividends when it is most efficient if the total value they are getting from those dividends is lower than the value of the private benefits of control they get by keeping this wealth inside the firm. As the size of private benefits of control increases, the incentive to keep inefficient capital inside the firm increases too. As explained earlier as the wedge between cash flow and voting rights is positively associated with the size of these benefits, the lower the portion of shares a controlling shareholder owns, the more likely he/she is to make such inefficient choices concerning firm's size.

2.2.9.3 Restrictions on Takeovers

One of the critical differences between controlled and diffused structures lies in the relative power of shareholders and outside investors to take control of the company (Bebchuk, 1999). In diffused structures, any individual can gain control over firm assets without the consent of firm's majority shareholder. At the opposite, in the presence of a controlling shareholder, control is locked. No individual can take over control through market transactions but has rather to negotiate with and buy shares from the controlling shareholder in order to claim control over firm' assets. Here, Bebchuck (1999) considers the possibility that an outside investor, who is able to create a higher value from firm's assets than the initial shareholder, covets control. The transfer of control would yield to increased wealth for outside shareholders. However, when private benefits of control are high, it is unlikely that the ultimate shareholder makes the decision of transferring control to another party which reduces the wealth outside shareholders can get.

2.2.10 Governance Mechanisms

In the case of Type I agency issues, many factors can influence the opportunistic behavior of managers and constrain their willingness to expropriate shareholders.

However, in the case Type II agency issues, very few governance mechanisms are effective.

2.2.10.1 Charter Provisions

Managers-owners can discipline themselves and reduce the extent of their private benefits of control by setting up charter provisions (Bebchuk, 1999). However, those do not completely replace the role played by an effective law and regulation system. Managers-owners tend to adopt such mechanisms to give confidence to market players regarding their motives as to not take advantage of their position in an attempt to increase share prices.

2.2.10.2 Capital Markets

Capital markets through stock valuation can discipline the behavior of controlling shareholders. Indeed, CMS firms controlling shareholders' actions can be perceived by outside players, influencing the reputation that they portray. Reputation is important as investors may penalize inefficient decision by including part of the agency costs they expect in their evaluation of stock prices. Thus, if owners expect to further look for outside financing through equity, their behavior may be partly influenced by the consequent increase in cost of capital due to their reputation on the market.

2.2.10.3 Regulations and law enforcement

The strength of the law to protect minority shareholders and its enforcement might cause a burden on controlling shareholders as it reduces the size of the private benefits of control they can expect from their decisions. In that sense, a lax legal system would imply that decision makers have more discretion in their actions but also risk lower costs in case of litigation. Bebchuck (1999) explains that as a result, the incidence of diffused and non-diffused structures will be influenced by industry and country specific characteristics.

2.2.10.4 Debt

In the Type I agency problem, the presence of debt in a CMS firm can help discipline controlling shareholders and reduce the size of agency costs (Bebchuk et al., 2000). In fact, the authors explain that sophisticated investors should be more attracted toward leveraged CMS firms whose creditor is an entity who exhorts relatively high monitoring levels. This being said, they also posit that such relation can be weakened in situation where controlling shareholders and creditors are not independent.

2.2.10.5 Ownership structures

Ownership structures can also act as a governance mechanism. Beside the alignment effect of higher cash flow holdings, Jung & Kwon (2002) and Yeo, Tan Ho & Chen (2002) stress the monitoring role played by institutional ownership or blockholdings. In fact, they report that earnings are more informative for firms having a controlling owner when that same firm is also characterized by the presence of another shareholder that also holds large stakes in the firm.

2.2.10.6 Ineffective governance mechanisms

As for agency issues in the case of a diffused structure, controlling shareholders in CMS firms are protected from markets for corporate control and proxy contests, which increases the size of the agency costs in such structures. In addition, as owners and management are entrenched, internal governance mechanisms such as board of directors fail to discipline their behavior. In fact, Prencipe & Bar-Yosef (2011) report that the effectiveness of internal corporate governance mechanisms is weaker for family-controlled companies in Italy. They report that earnings management is higher for companies that are family-controlled even when there are more independent board members holding chairs in the board of directors.

2.2.11 CMS firms and accounting quality

Agency theory suggests that by being insiders, ultimate shareholders already have sufficient information on company's economic picture and lack incentive to

communicate proper information to minority shareholders for two main reasons. First, proper disclosure can be costly and ultimate shareholders may be reluctant to bear costs associated with it (Healy & Palepu, 2001). Then, ultimate shareholders are driven by personal interest and weak disclosure may for example help hide improper transactions such as transfers of wealth to the highest firm in a pyramid (Gordon & Henry, 2005). Dyck and Zingales (2004) expose that private information about the firm not disclosed by controlling shareholders may represent opportunities that can be exploited without bringing benefits to minority shareholders by being passed through other companies. This asymmetry of information represents a private benefit of control, as it can be source of expropriation for a controlling shareholder.

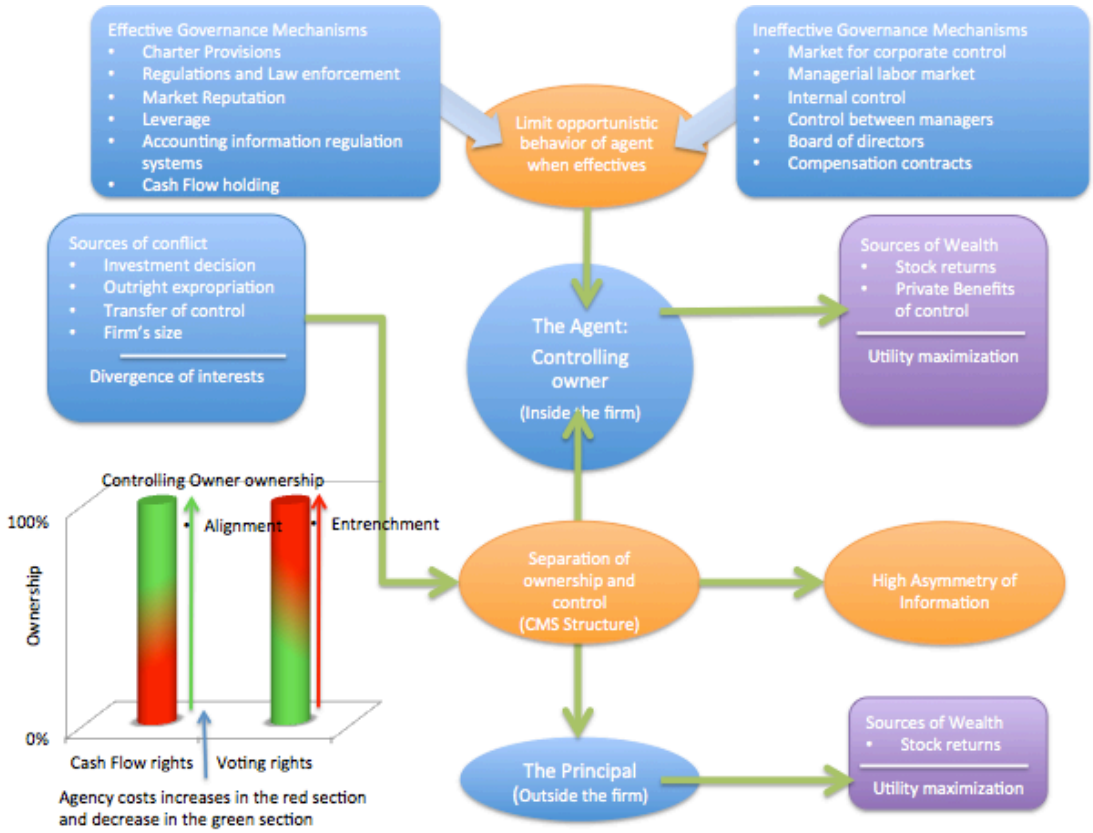
Fan and Wang (2002) hypothesize that when a controlling owner is entrenched, minority shareholders expect him/her to make decisions based on his/her own personal benefits. The ultimate shareholder also makes decisions on the type of accounting information he/she discloses to the market, taking advantage of the latitude offered by accounting standards to adjust disclosed information. As a result, minority shareholders may not consider disclosed information as relevant and representing the true economic reality of the firm. Indeed, they expect controlling shareholders to disclose information in such a way as to increase their ability to freely expropriate minority shareholders.

This being said, the asymmetry of information may not always lead to negative outcomes for minority shareholders. In fact, Fan and Wong (2002) describe that even in setting where there is no distinction between voting flow and cash flow rights and a controlling shareholder exists, the subsequent alignment of interests does not guarantee that accounting numbers are relevant. Here, controlling shareholders may deliberately aim to decrease the level of disclosure in an attempt to prevent leakage of information that could reduce the economic performance of the firm. For example, information protectionism can prevent the firm from disclosing too much information to competitors. In addition, a firm dealing with political or governmental institutions may be required not to disclose extensive information on their transactions. Thus, in the previous case,

keeping the information inside the company can be beneficial to both minority and controlling shareholders as it increases the expected economic value of the firm.

Wang (2006) advances another explanation of the relationship between family ownership and earnings quality. He bases his reasoning on the theory about the entrenchment and the alignment effects and introduces the concepts of supply of and demand for information. According to Wang (2006), when families are entrenched, their motives to expropriate minority shareholders push them to disclose lower quality information. At the same time, since markets expect owners to act opportunistically, they demand higher quality information to compensate for lower corporate governance practices. On the other hand, when families' interests align with minority shareholders, insiders are more eager to disclose higher quality accounting information. At the same time, since markets expect such non-opportunistic behavior from these firms, they will demand less disclosure, which results in less relevant accounting numbers.

Figure 4: Agency Theory II Conceptual Framework



In the figure above, the blue squares indicate mechanisms and effects that may influence the agent behavior. The blue circles represent the stakeholders involved in the relation. The purple squares represent the source of wealth for the different actors (the top one for the agent and the lower one for the principal).

CHAPTER 3 LITERATURE REVIEW

3.1 Ownership structures

3.1.1 CMS firms performance and investments

Ownership concentration can be considered as a governance mechanism that aligns the interests of controlling and minority shareholders. In that sense, the literature suggests that the concentration of cash flow rights held by insiders align their interests with those of outside shareholders. However, when there is a distinction between voting and cash flow rights, a higher proportion of voting rights increases the nonalignment of interests between insiders and minority shareholders and leads to the entrenchment of the controlling shareholder. In fact, as explained earlier, when owners are entrenched, their high incentives to dispose of private benefits of control impede optimal use of firms' assets. These translate into lower firm value, suboptimal investment choices and improper disposure of firms' assets. .

First, many scholars study the effects of the separation between voting and cash flow rights in CMS firms. They find that when there is a distinction between voting and cash flow rights, cash flow rights owned by controlling shareholders tend to have a positive impact on firm performance and investment choices, while voting rights on their side negatively impact firm performance (Morck, Shleifer, & Vishny, 1988). In addition, others find that the negative impact of entrenchment increases as the gap between voting and cash flow rights widens. For example, Claessens, Djankov et al., (2002) test the relationship between owners' entrenchment and firm value as measured by market to book ratio for a sample of East Asian countries. They report that cash flow rights are positively associated with firm value while voting rights negatively affect firm value. From their results, they suggest that the agency costs present in CMS firms are larger than those present in diffused structures. In addition, Joh (2003) shows that CMS firms underperform as compared non-CMS firms in Korea. He also advances that firms whose owners have higher equity stakes have higher performances as compared to other CMS firms. Finally, Gompers, Ishii et al. (2004) test how ownership concentration in CMS

firms is linked to firm value and operational performance. Their findings show that cash flow rights are positively associated with firm value and sales, while voting rights negatively affect these variables.

In addition, other scholars show that the presence of an ultimate shareholder affects firms' investment decisions. In that sense, the presence of a controlling owner is often associated with "creative destruction", a term that refers to the reluctance of controlling owners, especially families, to engage in extensive R&D activities that would bring innovation to the firm. For example, Czarnitzki and Kraft (2004) find that ownership concentration is negatively associated with R&D investment for a sample of German firms. In addition, Gompers, Ishii et al. (2004) test how ownership concentration is linked to R&D expenditures. Their findings show that cash flow rights are positively associated with R&D investments while voting rights negatively affect this association. Here again the distinction between ownership and control affects the relationship. Divito, Laurin & Bozec (2010) on their side find that the gap between voting and cash flow rights in CMS firms has a positive impact on the amount of cash invested but a negative impact on the return from those investments. They suggest that these investments are mainly made to increase private benefits of controlling shareholders rather than to create value for investors. In fact, investment in R&D at the discretion of insiders can hide improper transactions.

Here, some authors argue that controlling shareholders' private benefits of control translate into related party transactions when the firm is part of a pyramid or a cross holding structure. These suboptimal uses of firms' resources reduce minority shareholders' gains and often impact firm's value. For example, Cheung, Rau & Stouraitis (2006) demonstrate the existence of connected transactions in CMS firms lead to decreased returns for outside shareholders in Hong Kong stock exchange. In addition, Joh (2003) finds that CMS firms, which make related party transactions, perform less as compared to other firms. He interprets his results by suggesting that owners of Korean CMS firms use their position to expropriate minority shareholders.

3.1.2 CMS and earning quality

Owners can expropriate outside shareholders because an asymmetry of information exists between insiders and outsiders. Indeed, insiders have access to all the internal information about a firm's economic reality while outside investors can only rely on the information disclosed by insiders in order to make their judgment on a firm's performance (Akerlof, 1970; Eisenhardt, 1989). Investors' evaluation on a firm economic reality is translated into stock prices and should reflect the firm's value. Thus, poor management of firm resources, expropriation of minority investors' wealth and other adverse effects of entrenchment should lead to low stock prices if the information is of good quality (Cronqvist & Nilsson, 2003).

On one hand, low stock prices can impede the ability of insiders to look for efficient equity financing. On the other hand, the existence of private benefits of control implies that outside investors hold stocks which value does not reflect the economic reality of the firm. However, knowing that the firm is not optimally managed should prevent rational investors from buying such stocks. Thus, if all the information about insiders' true activities were disclosed to the outside market, the possibility of expropriation would be very limited, the size of private benefits of control small and thus the existence of such structures inefficient for insiders (Bebchuk, 1999). It is thus predictable that the size of private benefits of control is also function of the asymmetry of information existing between insiders and outside shareholders, and that the existence of CMS firms implies that private benefits of control are present in an economic environment.

Governance mechanisms role is to decrease the ability of insiders to expropriate minority shareholders. However, as explained earlier, few governance mechanisms can discipline the opportunistic behavior of insiders in the case of CMS firms. As stated previously, among those, accounting standards aim at reducing the asymmetry of information that exists by stating the rules under which accounting information is to be disclosed. However, due to the diversity and complexity of a firm's activities, accounting standards offer some latitude to statements preparers with regard their

application. Opportunistic insiders can thus take advantage of this discretion in order to portray an economic picture of the firm, which is different from its reality, nourishing the asymmetry of information existing between market players and themselves.

The opportunistic use of accounting standards is at the core of regulators concerns. In fact, better quality accounting standards reduce the discretion of insiders and thus results in better accounting information. Many scholars report that everything else held equal, quality accounting standards reduce the asymmetry of information between outside markets and insiders. This translates into more relevant accounting numbers and less earnings management. More relevant accounting numbers are reflected through a stronger association between a firm's market and accounting value. Here, informativeness of earnings means that market players believe that disclosed earnings reflect the actual performance of the firm.

Agency theory explains that ownership concentration can either help discipline insiders or can be a source of higher agency costs. In fact, when control is exercised due to the holding of high stakes in a company, and without the use of control-enhancing mechanisms, then ownership concentration can play as a governance mechanism by aligning the interests of insiders and outside shareholders. Here, low accounting informativeness can be interpreted as a sign of lower demand for accounting information because the monitoring role played by controlling shareholders reduces the need for more transparent information. Better quality accounting information is perceived as reflecting the motivation of controlling shareholders to be transparent.

However, when control is exercised due to the use of control-enhancing mechanisms, agency theory suggests that the incentives of controlling minority shareholders' and outside shareholders differ, which creates high agency costs. This is the case for CMS firms. Here, lower accounting quality can portray the incentives of controlling shareholders to take advantage of a larger asymmetry of information in order to increase the size of their private benefits of control. It can also demonstrate that market players

give less credibility to the accounting information. However, better accounting information in that case may be the result of a higher demand for quality information, or of effective governance mechanisms. It is thus not clear weather CMS firms and ownership concentration are associated with lower accounting quality accounting information and weather or not accounting standards reduce the asymmetry of information inherent when agency issues are high. Literature tries to answers these questions. In fact, many scholars studied the effect of CMS firms on accounting quality. These scholars cover different facets of accounting quality for CMS firms, in different economic and legal environments (Ali et al., 2007; Schipper & Vincent, 2005; Wang, 2006). Some scholars tried to see if the presence of a controlling shareholder with the incentive to expropriate minority shareholders leads to a higher asymmetry of information (Hind & Sabri, 2011; Liu & Lu, 2007). Other tested how the quality of accounting standards affects the relationship between accounting quality and ownership structure (Pae, Thornton & Welker, 2008; Wysocki, 2004).

3.1.2.1 Liquidity and ultimate shareholders

When market players expect controlling shareholders to expropriate minority shareholders, they can penalize stock prices. This can lead to a lower liquidity or/and an undervaluation of stock prices. In fact, Bar-Yosef &Prencipe (2013) analyze the effect of the presence of an ultimate shareholder on stock liquidity in Europe. They find that stock liquidity decreases with ownership concentration, and conclude that markets penalize a dominant shareholder's access to private information. Heflin & Shaw (2000), on the other hand, test the relationship between stock liquidity and ownership concentration in the United States. They report that block ownership is negatively associated with stock liquidity. They conclude that the high level of information asymmetry present in the context of a block ownership leads to lower stock liquidity. They explain that market players mitigate the effects of lower quality information through higher bid-ask spreads.

3.1.2.2 Earning quality reduced by ownership concentration, entrenchment

Many research reports that earnings quality is in general lower for CMS firms. For example, Liu & Lu (2007) find evidence of a positive relationship between the size of private benefits of control for Chinese CMS firms and earnings management. Ali et al. (2007) find that family firms whose control is enhanced by dual-shares exhibit lower quality corporate disclosure as compared to other family firms. They suggest that families that use control-enhancing mechanisms to secure control are entrenched and have consequently higher incentives to expropriate minority shareholders. Here control-enhancing mechanisms enable owners to secure control while holding a relatively low proportion of cash flow rights, which exacerbate divergences of interests between minority shareholders and insiders. In line with that reasoning, Francis, Schipper & Vincent (2005) test the relationship between earnings informativeness and the use of dual-class shares as compared to single-class shares for a sample of US companies. They find that earnings are less relevant for dual-class firms as compared single-class firms. In addition, the informativeness of earnings decreases as the gap between voting and cash flow rights increases. They interpret their results by suggesting that owners' entrenchment as a result of the use of control-enhancing mechanisms reduces the credibility of earnings for outside shareholders who, as a consequence, make less use of accounting numbers to construct their judgment about firm's economic value. Sabri and Hind (2011) on their hand test the relationship between accounting information and wedges between voting and cash flow rights for a sample of French firms. They report that the quality of earnings increases with ultimate shareholders' cash flow rights, in line with Wang (2006) alignment effect hypothesis. However, they find that excess voting rights, a situation where ultimate shareholders possess more voting rights than cash flow rights, have a negative impact on accounting quality. Here high incentives to expropriate minority shareholders push insiders to disclose lower quality information. In fact, lower quality information can help controlling shareholders hide improper transactions. For example, Gordon & Henry (2005) find a positive relationship between related party transactions and earnings management for a sample of US firms.

3.1.2.3 Earning quality enhanced due to ownership concentration, alignment and market pressure

Wang (2006) argues that ownership concentration, when not a result of control enhancing mechanisms, reduces the asymmetry of information between minority shareholders and insiders. He posits that as insiders' cash flow rights increases, the alignment of interests lead to more value relevant information. He also hypothesizes that the demand for higher quality information when owners are entrenched can force them to be more transparent. He tests the impact of family ownership on earnings quality and reports that founding family ownership is positively associated with accounting quality. He argues that his results may either support that markets demand for higher quality accounting information when companies are entrenched or that an alignment of interests lead to a higher supply of accounting information. Indeed, he does not distinguish for the use of control-enhancing mechanisms in his research. Ali, Chen & Radhakrishnan (2007) support the hypothesis of the alignment of interests. They test the relationship between family firms and corporate disclosure in the US. They use firms' earnings forecast of bad news and corporate governance practices disclosure as well as earnings quality to proxy for the quality of corporate disclosure. They report that US family firms tend to disclose better information than non-family firms. However, they add that family firms that do not use control-enhancing mechanisms are those driving their results. This suggests that for family firms with no control-enhancing mechanisms, high ownership concentration lead to an alignment of interests with other shareholders. Nguyen & Xu (2010) on their hand support the hypothesis of a higher demand for quality accounting information. They test weather firms with dual shares exhibit more earnings management than firms with single shares using absolute values of abnormal accruals and earnings concordance with analysts' forecasts as proxies for earnings management in the US. They report that earnings of dual shares firms are subject to less earnings management than firms with single class shares. They also find evidence that insiders' cash flow rights are positively associated with the intensity of earnings management, while voting rights are negatively associated with earnings management. Here more entrenched firms exhibit less earnings management than non-entrenched firms, which may reflect markets pressure on CMS firms to disclose better quality information.

3.1.2.4 Accounting standards quality and concentration

Many studies report that accounting quality is lower for CMS firms when compared to other types of firms in the same economic environment. Still, when CMS firms' disclosure quality is compared for firms across different accounting regulation environments, Accounting quality varies from one system to the other. Thus, it seems that accounting standards can help decrease the asymmetry of information inherent in such structures. For example, Wysocki (2004) report that better accounting standards and law enforcement are negatively associated with earnings management for CMS firms in 28 countries. He concludes that better quality accounting standards can reduce ultimate shareholders' discretion and incentives to report lower quality accounting information, thereby reducing the size of their private benefits of control. Pae, Thornton & Welker (2008) on their hand study the effect of the announcement of IFRS mandatory implementation in Europe on firm value for companies characterized by concentrated ownership. They report that firms' values increase after the announcement of the accounting reform in Europe. They conclude that better accounting standards act as a governance mechanism, prompting for better future transparency and quality of accounting information. They also report that their findings are stronger for firms with higher agency costs, suggesting that better accounting standards reduce the size of private benefits of control and help discipline insiders. As such, the authors suggest that IFRS can be effective governance mechanisms which effects reflect on firm' value.

3.2 Description of the Canadian environment

The Canadian corporate environment depicts a high level of CMS firms (Morck et al., 1998; Porta et al., 1999; Gadhoum, 2006; Bozec & Bozec, 2007) . Canada has been characterized by concentrated ownership for decades. In 1988, out of the 246 largest firms in Canada, only 53 were categorized as having a diffused ownership structure (Morck et al., 1998). More recently, Bozec & Bozec (2007) identify that 76% of all companies comprised in a panel of 244 firms listed in the Toronto stock exchange have a controlling shareholder holding more than 5% of the voting rights.

In general, ultimate shareholders are able to secure the control of a firm's assets through the use of dual shares or pyramidal settings (Bozec & Laurin, 2004; Attig, 2007; Bozec & Bozec, 2007). In 2005, more than 20% of all companies listed on the Toronto Stock Exchange had dual class stocks (Gry, 2005). Later, King and Santor (2007) report that Canada has an important number of firms with concentrated ownerships and that one company out of five uses mechanisms such as pyramids or dual-stocks. Many of these companies tend to give top management positions to insiders (Gadhoum, 2006) and are family controlled (Morck et al., 1998; Amoako-Adu & Smith, 2001) . Ultimate shareholders in Canadian CMS structures tend to take different actions in order to entrench themselves, secure their control, thereby enhancing their ability to expropriate private benefits at the expense of minority shareholders (Gadhoum, 2006). Here, independency of directors and managers is weak and may impede the ability of governance mechanisms to limit opportunistic behaviors. In this sense, Bozec & Bozec (2007) report that the gap between voting and cash flow rights is negatively associated with the quality of a firm's governance practices as measured by the ROB[2] index. Here, a larger wedge between cash flow and voting rights makes the ultimate shareholder more reluctant to promote monitoring mechanisms within the firm.

Finally, Canada is said to be a common law country with strong investor protection and law enforcement. In fact, Canada "features similar legal and regulatory institutions as the United States, with the same English common-law legal system, similar levels of minority shareholder protection, and comparable levels of disclosure" (King & Santor, 2007). It is interesting to note that common law countries tend to have more diffused structures than concentrated structures, as for example the United States (La Porta, Shleifer, & Vishny, 1998). However, Canada, although considered a common-law country exhibit higher level of CMS firms.

[2] The ROB developed by the Globe and mail rates Canadian companies according to the quality of their governance practices as proxied by board composition, compensation, shareholders' rights, and disclosure.

3.2.1 CMS firms in Canada

Many studies address the association between CMS firms and performance, earnings quality, investment decisions, and managerial discretion and expropriation in Canada.

3.2.1.1 Performance and CMS Structures in Canada

Many studies analyze the relation between CMS firms and performance in Canada. In some studies, ownership concentration is reported to be positively associated with performance, while the separation of ownership and control weakens this link. Among those, Bozec and Lorin (2004) find that cash flow rights holding is positively associated with performance, reflecting the alignment of interests' effect. They suggest that the alignment effect in Canada outperforms the incentives to expropriate wealth, and find no negative relationship between performance and gap between voting and cash flow rights up to a certain level. In fact, their results also suggest that the positive association between ownership and performance is weaker for companies using dual shares and where the ultimate shareholder exercises control while holding less than 25% of company's shares.

Other studies find that entrenched owners engender more agency costs for minority shareholders. In this sense, Attig (2007) argues that minority shareholders in Canada are exposed to more risk of expropriation than investors in the United Kingdom and the United States because of differences in ownership structures. He adds that in Canada, excess control, characteristic of CMS firms, leads to greater agency costs. Many studies report that entrenched firms in Canada exhibit lower performances (Attig, Fischer, & Gadhoum, 2004; Bozec & Laurin, 2004, 2008). Indeed, Bozec and Laurin (2004) find evidence that Canadian companies controlled by a dominant shareholder who has a low level of cash flow rights tend to exhibit lower performances (Bozec & Laurin, 2004). Attig, Fischer et al. (2004) on their hand suggest that Canadian firms at the bottom of a pyramid underperform as compared to other firms.

3.2.1.2 Investment decision and CMS firms in Canada

CMS firms in Canada tend to make less effective investment decisions. In fact, Di Vito, Bozec & Laurin (2010) find that companies with entrenched owners have less efficient R&D outcomes. Morck et al. (1998) on their hand support that inherited corporate ownership and control is inefficient in Canada because it is associated with lower creative destruction, investment and innovation. Finally, family owned companies tend to have even greater agency costs. Here, King & Santor (2007) find evidence that performance is lower by an average 17% for firms controlled by families and using dual shares in Canada.

3.2.1.3 Accounting information quality and CMS in Canada

Few authors tested the relationship between accounting quality and the presence of controlling minority shareholders in Canada. Among tem, Attig, Fong, Gadhoum & Lang (2006) make the assumption that incentives to disclose lower quality information can be captured by higher bid-ask spreads (lower stock liquidity). They find that the asymmetry of information is positively associated with the gap between voting and cash flow rights for CMS firms in Canada. In addition, Bozec (2008) documents that earnings management increases with the wedge between voting and cash flow rights in the context of Canadian GAAP. In fact, the author tests the relationship between ownership concentration and earnings management using a sample of 500 Canadian public firms. He reports that the separation of voting and cash flow rights in Canadian CMS firms is positively associated with earnings management.

3.3 Accounting quality

The International Accounting Standards Board (IASB) is the body that issues and regulates IFRS around the world. The IASB describes the conceptual framework that defines the essence and goal of financial reporting and explains the spirit that guides accounting standards establishments. In that sense, the IASB states that:

> **"The objective of general purpose financial reporting is to provide financial information about the reporting entity that is useful to existing and potential investors, lenders and other creditors in making decisions about providing resources to the entity."**
>
> **IASB, 2013a**

Thus, as the previous statement suggests, the main purpose of financial reporting is to help investors make optimal decisions with regard to their investments' choices. In that sense, mandatory disclosure enables minority shareholders and investors, whose have low power to access private information and high costs to look for that information, to make informed decisions about the allocation of their wealth.

The IASB describes several characteristics of quality accounting information. In fact, in order to be useful, the accounting information should be relevant, reliable, comparable, cost-effective, and should have a degree of materiality. This being, said, the IASB (2013a) stresses that reliability and faithfulness in the representation are the two most important characteristics of quality financial reporting.

In the present research, the focus is specifically on the quality of earnings. Here, Hodge (2003) states that earnings quality decreases as "income reported on the income statement differs from the true earnings". Here true income can be seen as the real income that reflects the economic reality of the firms, which in turn reflects the performance of its past, current and expected activities. Dechow, Ge & Schrand (2009) on their hand define earnings quality as the ability of earnings to "more faithfully

represent the features of the firm's fundamental earnings process that are relevant to a specific decision made by a specific decision-maker". Dechow, Ge & Schrand (2009) stress that the essential feature of earnings are their degree of usefulness when it comes to pricing and valuing equity in order to make decisions on asset allocations. The authors' definition is in line with the definition of the IASB in a sense that accounting numbers are of quality only if they are relevant and are a faithful representation of the economic reality of the firm. As accounting standards purpose is to produce quality financial reporting, then it is essential that the information under IFRS is relevant and represent faithfully the firm's situation.

3.3.1 Essential characteristics: relevance and faithful representation

First, relevance means that the information has "predictive value and confirmatory value" (IASB, 2013a). In other words, information has to be available at the right time in order to be useful in decision-making by enabling its users to form predictions on a firm's value. Then, faithful representation refers to the quality of financial reporting to depict a true picture of the economic reality of the firm in a neutral fashion and to be easily verifiable. Neutrality here means that statements preparers should make accounting choices with no predetermined interest and goal in mind.

3.3.2 Enhancing characteristics: comparability, verifiability, timeliness and understandability

The IASB (2013a) explains that comparability, verifiability, timeliness and understandability are four other characteristics that should be reflected in the accounting information. First, comparability means that statements' users should be able to compare an accounting measure across firms', industries, and across companies in different countries. Also, the accounting measure has to be comparable over time, from one period to the other, which implies that preparers should be consistent in their accounting choices and methods. Then, verifiability means that knowledgeable individuals outside the company are able to certify that the information disclosed in financial statements does reflect the situation of the firm. Finally, the IASB (2013a) explains that the information has to be timely in a sense it has to be available to users at the time needed

to make decisions. Finally, the information has to be understandable. Here the IASB stresses on the fact that the information has to be disclosed in such a way to make it clear and precise.

3.4 IFRS and accounting quality

3.4.1 IFRS conceptual framework

Financial reporting under International Financial Reporting Standards (IFRS), introduced by the IASB in 2001, is expected to be mandatorily used by more than 100 countries worldwide and was introduced for Canadian public companies in 2011. The idea behind global accounting standards is to push convergence toward more a comparable information as to improve the quality of decision-making, enabling investors to make more sound investments globally and locally (Barth, 2006). At the local level, IFRS standards are introduced to provide more relevant, comparable (between industries and within industries) and informative accounting information to investors and other capital providers as to decrease asymmetry of information existing between insiders (I.e., managers) and shareholders and improve market efficiency. Horton, Serafeim and al. (2013) expose from Ball (2006) and Choi & Meek's (2005) that "IFRS adoption has the potential to facilitate cross-border comparability, increase reporting transparency, decrease information costs, reduce information asymmetry, and thereby increase the liquidity, competitiveness, and efficiency of markets". Ball (2006) also suggests that in order to enable effective decision-making, IFRS should transmit the true economic performance of the firm, limit earnings management, and enable the disclosure of accounting numbers in a timely manner using conservatism in the recognition of good and bad news. He adds that IFRS have the ability to make financial disclosure more comprehensible for small investors, and to reduce the risk of adverse selection. The conceptual framework developed by the International Accounting Standards Boards sets the rules in this sense when it comes to disclosing financial statements (IASBb, 2013). Thus positive improvements of the informative content of accounting numbers can be expected from the mandatory adoption of IFRS standards by a given country.

3.4.2 IFRS and reporting quality

Many studies find positive relationships between accounting quality and the mandatory adoption of IFRS internationally (Barth et al., 2008; Yip & Young, 2012; Horton et al., 2013) . Using different dimensions of accounting quality scholars test for improvements in accounting quality due to IFRS adoption by comparing IFRS reporting to former accounting standards' reporting. Those use mainly analyst's forecast accuracy, comparability, earning informativeness, conservatism and earnings management as proxies of accounting quality.

Some argue that more persistent earnings can proxy for earnings management as managers use their discretion to reach or bet analysts' forecasts. Thus, improved forecast accuracy can be a sign of lower quality earnings. Other defend that an increase in forecast accuracy can suggest that as markets become more efficient, analysts can make better estimates of future income, which translates in more persistent earnings. Those use forecast accuracy to proxy for improved accounting quality. Among them, Horton, Serafeim et al. (2013) conduct a study on IFRS adoption, using a sample of more than 120 countries including Canada, and report a significant positive relationship between forecast accuracy and IFRS financial reporting as compared to non-IFRS financial reporting. The relationship is stronger for companies that adopted IFRS mandatorily. IFRS also reduce analysts' forecast error as a result of better financial information disclosure in Germany (Glaum et al., 2013). Based on report quality scores, Daske & Gebhardt (2006) support that the mandatory adoption of IFRS improves the quality of financial disclosure according to experts in Germany, Austria and Switzerland.

Comparability is another proxy used to measure accounting quality. Financial statements are comparable if they enable users to distinguish similarities and differences in accounting numbers across firms. Many research have shown that the adoption of IFRS help improve the comparability of financial reporting. For example, Horton, Serafeim et al. (2013) find evidence that increased information quality following IFRS adoption explains comparability improvement. Many support that IFRS mandatory adoption has

not only improved comparability for firms across countries but also for firms within the same country. For example, Brochet, Jagolinzer et al. (2013) find that by increasing comparability, IFRS implementation reduces the amount of private information use, contributing to capital market efficiency for a pool of UK domiciled countries. Yip & Young (2012) on their hand report evidence that IFRS improve comparability for companies within the same country. Using a sample of 26 mandatory adopting countries, Daske, Hail et al. (2008) find evidence of significant relationships between IFRS introduction and capital-market variables as proxied by liquidity (positive), cost of capital (negative) and Tobin's Q (positive).

Some scholars find no accounting quality improvement after the adoption of IFRS, and others even find contradictory results. Indeed as IFRS are principles based, some argue that they may in practice give more room for managerial discretion due to the use of fair value accounting. For example, Jeanjean & Stolowy (2008) do not find evidence of earnings management decrease following the mandatory adoption of IFRS in UK and Australia and even an increase in managerial discretion for France. Atwood, Drake et al. (2011) find no evidence of improved earnings persistence after the adoption of IFRS for a sample of 33 countries. Ahmed, Neel et al, (2013) on their hand report evidence of more income smoothing and earnings management for a panel of 20 countries post IFRS mandatory adoption. Their results are more solid for countries with higher law enforcement. They suggest that IFRS allowed for more managerial discretion in these countries. Although they suggest that their results may be driven by obstacles to adequately enforce principle based standards, they raise questions to look more closely at the countries' characteristics themselves to understand the reasons of their results and to correct any possible bias.

3.5 IFRS and Canadian GAAP

3.5.1 Accounting standards differences and accounting quality

The effect of IFRS adoption on accounting quality is positively associated with the magnitude of differences between former local GAAP and IFRS standards (Daske et al.,

2008). Horton, Serafeim et al. (2013) test whether the magnitude of standards' differences affects the information quality and find that the more differences between former local GAAP and IFRS, the larger the change in reporting quality for the firms. In that sense, standards may diverge with regard to their underlying fundamental type, to their purpose and to the process by which they are set (Gassen & Sellhorn, 2006). Here larger differences between local GAAP and IFRS would lead to greater economic and quality effects associated with accounting standards change (Daske et al., 2008).

3.5.2 Transition from Canadian GAAP to IFRS

The mandatory adoption of financial reporting under International Financial Reporting Standards (IFRS) in Canada started in January 2011. Canadian financial reporting is regulated by the Accounting Standards Board (AcSB) and the Public Sector Accounting Board (PSAB). The two bodies are supervised by the Accounting Standards Oversight Council (AsSOC). According to the CICA, the mandatory adoption of IFRS in Canada will enable local firms to improve their competitiveness on a global scale, to reduce their cost of capital and to remove the need to reconcile statements in some situations (Pfeffer et al., 2012). In addition, IFRS adoption is expected to improve the quality of financial reporting, enabling investors to have access to more relevant and transparent information. The adoption of IFRS in Canada is relatively new, and still many scholars have tackled subjects related to the consequences of IFRS adoption on the Canadian business environment.

First, some authors tried to see if Canadian GAAP and IFRS have differences. In fact, changes in financial quality can only be expected if accounting standards themselves differ (Daske et al., 2008). Even though IFRS and Canadian GAAP are both principles based and have similar conceptual frameworks, reporting under IFRS display several differences. Indeed, Chlala & Lavingne (2009) identify seven keys differences between Canadian GAAP and IFRS. For example, net income, the most value relevant element of financial statements could differ when translated from Canadian GAAP to IFRS (Benzacar, 2008). In general, assets, liabilities, stockholder equity, income statements and statements of cash flows are affected by the transition to IFRS reporting. As a result,

even financial ratios calculated under IFRS differ from those calculated under Canadian GAAP (Blanchette, Racicot, & Girard, 2011). These changes may impact analysts' judgment and decisions regarding investment decisions.

Then, authors tested if the adoption of IFRS affected accounting quality. However, as the mandatory adoption of IFRS occurred less than four years ago, the number of published articles on the subject is still limited. The results of these studies largely support that the mandatory adoption of IFRS is positively associated with the quality of financial reporting. This being said their results are sometimes mitigated.

Definition: Principle based accounting

The principle-based approach to accounting emphasizes on the application of accounting standards in such a way that the information is intended to fulfill specific purposes rather than to be prescriptive (Blanchette et al., 2011). In other words, accounting standards stress heavily in the substance rather than the form of the disclosed information. Rule based accounting, which opposes principle based accounting, preconizes the disclosure of information in such a way to fulfill legal and tax requirements. At the opposite, principle based accounting main purpose is to provide information to market players rather than to comply with some governmental requirement (as for tax purposes). As a result, statement preparers are given more discretion and can use more judgment for the primary purpose of disclosing information that is expected to better reflect the economic reality of the firm.

Definitions: Fair Value accounting

Fair value accounting principle, as opposed to historical cost principle, requires the estimation of assets and liabilities at current market value (Blanchette et al., 2011). This implies that assets and liabilities are compared and their value is measured according to the current information present in their respective markets. However, as the existence of active markets for various types of assets and liabilities is not always guaranteed, fair value accounting appeals to the use of judgment and subjectivity. Thus, fair value accounting may give room for more opportunistic use of accounting methods, while the

primary purpose of implementing fair value accounting relates to the concern of regulators to transmit more value relevant information to investors. Some fair value estimations are mandatory, as it is the case for investments held for trading, while other estimations are optional, as for plant, property and equipment.

3.5.3 Differences between IFRS and Canadian GAAP

Some studies recognize that differences exist between Canadian GAAP and IFRS. In fact, although both systems are principle based, differences in conceptual frameworks and reporting methods lead to differences in reported accounting numbers and ratios. Here, major IFRS differences are linked to the use of fair value accounting, to the recognition of non-controlling minority interests, and to the extension of the concept of comprehensive income (Blanchette et al., 2011). In addition, IFRS requires more notes and explanations of recording methods, which is expected to improve the transparency of financial reporting. However, Blanchette, Racicot and al. (2011) suggest that the amount of additional information disclosed is too extensive and creates noise. In general, preliminary research suggests that the introduction of IFRS has an increasing effect on earnings, and leads to an overall higher volatility of numbers and ratios.

Fair value accounting: direct impact on assets and liabilities

As sais earlier, the use of fair value accounting in IFRS differs from asset historical accounting in Canadian GAAP (Pfeffer et al., 2012). The use of fair value accounting in IFRS gives more discretion to preparers as the reevaluation of assets to market value is highly subject to judgment (Blanchette et al., 2011). As a result, it is argued that the largest differences between IFRS and Canadian GAAP lie in the use of fair value accounting that affect assets reevaluations, impairment and securitization. In fact, the conservative essence of Canadian GAAP only authorizes the reevaluation of assets when their market value declines (Blanchette et al., 2013). Under IFRS, assets are marked to market and can be written up and/or down according to the changes in their market values. These significantly frequent adjustments to the balance sheet items are directly reflected into unrealized gains and losses in the income statement and/or comprehensive income statement (Blanchette et al., 2011). These more frequent changes can form one

of the plausible explanations for the increased volatility in financial ratios under IFRS. Here, Blanchette, Racicot and al. (2011) affirm that the differences in financial ratios between IFRS and Canadian GAAP are in large part explained by a greater use of fair value accounting.

Minority interests

One of the main conceptual differences between Canadian GAAP and IFRS is linked to the consolidation of firms' non-controlling interests (mainly subsidiaries) (Blanchette et al., 2013). Under IFRS, non-controlling interests are recorded as part of stockholders' equity and their gains and losses are reported as a capital adjustment. Under Canadian GAAP, non-controlling interests are often recorded in as a separate item between liabilities and equity and their variations are directly reflected in the income statement. This change enable better transparency with regards to firms' subsidiaries, as their operating performance does impact the value of the parent institution. Here, Blanchette, Racicot et al. (2011) affirm that the differences in financial ratios between IFRS and Canadian GAAP are also explained by the changes in these consolidation methods.

Comprehensive income

IFRS introduce a larger use of comprehensive income that extends the amount of information disclosed and not included in the income statement (Blanchette et al., 2011). In essence, IFRS use of comprehensive income enables the recording of unrealized gains and losses that result form the application of fair value accounting in such a way that these changes do not directly affect the income statement (Blanchette et al., 2011). However, it is noted that not all changes due to fair value accounting are translated in the comprehensive income. For example, gains and losses from securities held for trading are directly recorded in the income statement. This being said, the comprehensive income was already introduced in Canadian GAAP in 2005. However, it is expected that the use of fair value accounting under IFRS increases the amount of information to be recorded in the comprehensive income. In that sense, Blanchette, Racicot & Sedzro (2013) report that comprehensive income is lower under IFRS for a sample of Canadian

firms. They explain that changes in pension and employee benefits, in currency translation, in consolidation and in strategic investment affect comprehensive income.

Statement of cash flows

In the absolute terms, accounting systems do not change real cash flow. However, the presentation of the statement of cash flows slightly differs between the two accounting systems. In fact, Blanchette et al. (2013) report that IFRS representation lead to higher reported operating cash flows (up to 32% higher in the sample they tested).

Reported items

Several reported items experience changes when translated from Canadian GAAP to IFRS. Theses changes affect items in the balance sheet and in the income statement. Here the study of Blanchette, Racicot et al. (2013) makes a comparative analysis of Canadian financial statements before and after the adoption of IFRS. They use IFRS and Canadian GAAP statements disclosed in 2010, a year where companies where required to report their financial information using both systems. Their sample comprises 150 Canadian public companies.

In general, Blanchette, Racicot et al. (2013) report that accounting numbers under IFRS are subject to significantly higher volatility than those reported with Canadian GAAP. This finding holds for most classes in financial statements, except for operating cash flow, revenues, and non-controlling interests. Salman & Shah (2011) find similar results for the real estate industry and argue that the transition to IFRS resulted in increased volatility in incomes. They report that in 2011 and under IFRS, earnings increased from 32% (senior housing) to 717% (multi-residential housing) in average, depending on the branch concerned. They explain that the changes are mainly due to differences in policies' choices, to the introduction of fair value accounting, or/and to the variations in requirements linked to the presentation of the information. Here, the large increases in incomes are in great part explained by the use of fair value accounting to estimate assets that directly translate into the income statement. Blanchette, Racicot et al. (2013) on their side expose that, when taken separately, assets, liabilities and profits are higher

under IFRS, while operating revenues and other comprehensive incomes adjustments are lower. Here, the authors note that the application of IFRS can lead to large changes in financial reporting. For example, a company reports total assets twice as large as under Canadian GAAP. They point out that profits reported under IFRS exceed profits under Canadian GAAP by up to 19% for the firms in their sample.

Blanchette, Racicot et al. (2013) look closely at the factors that lead to such differences. They explain that profits are respectively increased by changes in investment property valuation due to fair value accounting, impairment, capitalization of property, plant and equipment, and are decreased by consolidation and strategic investments. In addition, changes in derivatives and hedges along with the new recording method for non-controlling interests reduce profits, but to a lesser extent. In fact, non-controlling interests are no more recorded as expenses and revenues under IFRS, and since most of their variations in the current sample were positives, their exclusion from the statement of income lead to decreases in profits. Finally, estimates linked to financial instruments also slightly increase profits.

Ratios

Some authors support that financial ratios calculated under IFRS differ from and are more volatile than those calculated under Canadian GAAP. First, Blanchette, Racicot et al. (2011) assess if financial ratios computed under IFRS differ from ratios computed under Canadian GAAP. Their research uses a sample of companies that adopted IFRS prior to its mandatory adoption in Canada. It is noted that although their sample is relatively small, addressing only 9 companies, their results are interesting. Looking at profitability, leverage, liquidity and coverage ratios, they show that the volatility of ratios significantly increases with IFRS. Using regression tests, they demonstrate that the increased volatility is especially important for leverage and profitability ratios. This being said, the authors are not able to identify the reasons behind the increased volatility but suggest that it might be due to fair value accounting and to the increased discretion allowed under IFRS. Salman & Shah (2011) on their side argue that the transition to IFRS in the real estate industry resulted in changes in key ratios used in the sector. For

example, they explain that although most real estate companies registered an increase in debt issuance in 2011, the use of fair value accounting enabled them to increase assets to a point where the increase in debt did not translate in liquidity and debt ratios.

Table 1 below summarizes the main differences between Canadian GAAP and IFRS identified in the previous section.

Table 1: Differences between Canadian GAAP and IFRS

Difference	Canadian GAAP	IFRS
Fair value accounting	Less use of fair value accounting. For example, long-term assets may only be market to market to be written down.	More extensive use of fair value accounting. For example, long-term assets can be written up and down at the discretion of the statement preparer.
Non-controlling minority interests	Recorded in as a separate item between liabilities and equity and their variations are directly reflected in incomes.	Recorded as part of stockholders' equity and their gains and losses are reported as a capital adjustment
Cash Flow	-	IFRS differ in the presentation of the cash flow statement, which leads to higher reported operating income.
Comprehensive income	Comprehensive income introduced in 2005 but contains less information, as Canadian GAAP requires less use of fair value accounting.	More items disclosed as a result of adjustments due mainly to fair value accounting.
Notes to the financial statements	Lower requirements in terms of explanation of the methods used.	More extensive disclosure of notes and explanations linked to the methods used to record items in the financial statements.
Income	-	Increasing effect on income, and more volatility. Volatility is in part linked to the recording of unrealized gains and losses from financial instruments held for trading in the income statement.

3.5.4 IFRS, Canadian GAAP and accounting quality

According to recent articles, differences between Canadian GAAP and IFRS affect accounting quality. In fact, some authors tested if earnings under IFRS are of better quality as compared to Canadian GAAP. Among them, Cormier (2013) studies the impact of IFRS adoption in Canada on the informativeness of financial reporting using a sample of 187 companies. In general, he reports that IFRS adoption in Canada enhances accounting informativeness and reduces the asymmetry of information between insiders and outsiders. In fact, he finds that the cost of capital better grasps the information contained in earnings after IFRS adoption, that IFRS ameliorate the ability of market players to predict earnings, and that incomes are more value relevant. He also reports weak but still significant evidence of a decrease in earnings management. However, IFRS adoption seems to increase income smoothing as evidenced by the frequency of small losses and profits.

In addition, Liu & Sun (2014) test the effect of the mandatory adoption of IFRS by Canadian public firms on the quality of financial reporting. With a sample of 461 Canadian firms, they use earnings persistence, earnings response coefficients, small positive earnings and discretionary accruals as proxies of earnings quality with pre and post IFRS data. They find that IFRS adoption has positive impacts on earnings quality. In fact, they report less opportunistic use of discretionary accruals, lower frequency of small positive earnings, and more persistent incomes. Cormier & Magnan (2013) support these findings. They study the quality of accounting earnings after the mandatory adoption of IFRS in Canada for a sample of 220 Canadian firms and report that the value relevance of incomes improves under IFRS. Finally, Okafor (2014) finds that the value relevance of earnings improves with the adoption of IFRS in Canada for a sample of 624 firms. Indeed, using a regression model of earnings on prices, he finds that the value relevance of earnings improves by 3% with IFRS.

Ledoux & Cormier (2013) on their side tested the association between intangibles disclosure under IFRS and value relevance. Using a sample of 97 Canadian firms, they support that "the value relevance of intangible assets and expenses improves with the adoption of IAS 38", a standard that gives directives for the recognition of intangibles such as research and development in financial statements.

Finally, Cormier (2014) analyzes the interplay between effective governance and the mandatory adoption of IFRS in Canada on reporting quality and information asymmetry. Using a sample of 360 Canadian public companies, he tests for reporting quality pre and post IFRS. He uses two preset governance indexes, the Globe and Mail index and the ISS Governance Quick score to measure firms' governance effectiveness. The Globe and Mail index grades a firm's corporate governance on a scale of 0 to 100, with higher scores corresponding to better governance. The index contains a section on shareholders rights graded on 22 points, from which 8 are attributed directly to the absence of control-enhancing mechanisms (Klein, Shapiro, & Young, 2005). The ISS Governance Quick Score measures corporate governance effectiveness on a scale of 10 and uses four dimensions of corporate governance, of which one is linked to shareholders' rights (ISS, 2014). In this section, the index evaluates governance quality mainly through the degree of use of control-enhancing mechanisms by a firm's insiders (i.e. multiple voting rights, antitakeover mechanisms). Cormier (2014) finds that, generally, governance quality decreases with the presence of mechanisms aimed at enhancing insiders' control. Then, he reports that accounting quality improves after the mandatory adoption of IFRS only for firms with quality governance. Based of his results, the author argues that it is essential to account for corporate governance effectiveness when testing the impact of IFRS on value relevance in Canada.

Cormier (2014)'s results are interesting. In fact, ownership structure is by itself considered a corporate governance mechanism. And the literature shows that corporate governance quality is in general lower when control is locked. Here the author argues that the positive effect of IFRS adoption is positively associated with the quality of

governance mechanisms. This relationship suggests that in firms where control is locked, one can expect the positive effects of IFRS on the quality of financial reporting to be lower. In that sense, the author adds that the adoption of IFRS reduces the strength of the link between governance and reporting quality in Canada, which further reinforces our presumption.

3.6 Effect of IFRS adoption, incentives and ownership concentration

3.6.1 Positive accounting theory and signaling theory

The positive accounting theory explains how statements preparers make their decisions with regards to accounting choices (Watts & Zimmerman, 1986). Using personal interests as primary determinants of accounting choices, the theory explains and predicts how statements' preparers behave. In that sense, the positive accounting theory posits that they use certain accounting methods rather than others when those help them attain certain objectives rather than to disclose quality accounting information.

Then the signaling theory explains how insiders make use of voluntary corporate disclosure in order to send messages to outside players with regards to a firm's situation. Here, the high asymmetry of information that exist in a firm can have adverse effects on its market performance and cost of capital (Botosan, 1997). Thus, insiders have the incentive to disclose better quality or/and extended information in an attempt to influence market variables and portray an improved picture of a firm's performance. However, as the positive accounting theory explains, this disclosure behavior will be largely determined by a trade-off between positive expected effects on insiders' wealth of a higher disclosure and the privileges of private information.

The combination of these two theories help understand why some firms adopt and follow a set of standards, here IFRS, voluntarily and in advance while other firms try to postpone the adoption of IFRS even after it becomes mandatory. In fact, when agency costs and private benefits of control are high, it is be expected that companies delay the

adoption of a set of standards aimed at decreasing the asymmetry of information between insiders and outside shareholders. At the opposite, firms' adopting IFRS voluntarily may depict a behavior that favors transparency and less opportunistic behaviors in order to stimulate positive market reactions.

3.6.2 Mandatory and voluntary adoption and accounting quality

In general, scholars differentiate between voluntary and mandatory IFRS adoption. The first group of scholars studies early voluntary adopters in countries where mandatory adoption was scheduled later. Those often investigate if the voluntary adoption of the new standards leads to higher financial reporting quality, and try to uncover the common characteristics and the motivations of the adopting firms. They support that the voluntary adoption of IFRS has a positive effect on accounting quality (Gassen & Sellhorn, 2006; Christensen, Lee, & Walker, 2008). They also describe that resisting firms tend to postpone the adoption of IFRS in order to avoid being more transparent. In fact, they support that these firms tend to exhibit higher agency costs and among their characteristics they report less diffused ownership structures (Gassen & Sellhorn, 2006; Christensen, Lee, & Walker, 2008). Based on their results, the authors conclude that increases in financial informativeness as a result of IFRS adoption depend on the incentives of the adopting firms more than on the actual effectiveness of the new standards. They suggest that ownership structure is an influential factor of the association between IFRS adoption and accounting quality.

The second group of scholars studied the impact of IFRS on accounting quality after that their adoption became mandatory in given regions. Among them, Daske, Hail et al. (2008) explain that the increase in liquidity, decrease in firm's cost of capital and increase in Tobin's Q that accompany the mandatory adoption of IFRS are highly influenced by the degree of regulatory enforcement (positive relationship) and reporting incentives to manage earnings (negative relationship) in a given country. In fact, using a sample of companies from 26 countries, they report positive relationships between IFRS mandatory adoption and capital-market variables only for firms located in strong enforcement or strong reporting incentives environment. They link financial reporting

incentives to firms' tendency to disclose transparent information prior to IFRS or firms' ownership structure. Dividing their sample countries using these two proxies, they find evidence that liquidity effects significantly differ from one sample to the other. Their findings suggest that market positive effects of IFRS adoption only occur when firms already have the incentive to disclose high quality information and are located in strong law enforcement countries. Their original sample did not include Canada as an IFRS mandatory adopter as the study was conducted prior to 2011.

Thus as suggested above and according to several articles (Jeanjean & Stolowy, 2008; Daske et al., 2008; Hail et al., 2010), the application of high quality accounting standards, here IFRS, may not alone explain the quality of financial reporting. Indeed, some determinants impact the quality of accounting numbers and interact with IFRS to reduce their effect. In that sense, quality accounting standards alone fail to give expected positive benefits when not accompanied by adapted institutional and regulatory frameworks and right disclosure incentives (Renders & Gaeremynck, 2007; Aksu et al., 2013). In fact, some scholars argue that their results, which support a negative association between IFRS adoption and accounting quality, may not be generalized to all economic environments as all firms in their sample are from civil law countries that exhibit lower regulatory enforcement and lower market oriented disclosure (Renders & Gaeremynck, 2007; Aksu et al., 2013).

3.6.3 Reporting incentives and accounting quality

We differentiate between two major reporting incentives that can adversely affect the quality of accounting information: insiders' opportunism to enjoy private benefits (Dyck & Zingales, 2004; Renders & Gaeremynck, 2007) and the lack of pressure to raise capital through financial markets (Wang, 2006). In other words, firms' incentive to disclose quality information is driven by a trade-off between better costs of external equity financing and insiders' benefits of keeping the advantages provided by private information.

In that sense, Ball, Robin & Wu (2003) argue that concentrating on accounting standards as the primary determinants of accounting quality is not effective because financial reporting quality highly depends on the incentives of those disclosing such information. They test for the interplay between incentives and accounting standards on accounting quality as proxied by timeliness of loss recognition, using a sample composed of four Asian countries. They compare the quality of earnings in Malaysia, Singapore, Honk Kong and Thailand, which are considered to have good quality accounting standards due to their common law legacy, to a sample of code-law countries. The particularities of the legal and economic environment of the four common-law Asian countries create strong incentives to manage financial reporting. For example, companies in Malaysia, Singapore and Thailand are strongly influenced by government interventionism. In addition, a high level of family ownership and a low expected cost of investor litigation characterize the four countries. They find evidence of lower quality financial reporting in the common law countries, comparable to the results in the code-law countries, even though accounting standards were recognized of "better quality". They support that financial reporting incentives prevail over accounting standards in determining accounting quality in these countries.

Recent findings seem to support Ball, Robin & Wu (2003). In fact, some recent study find no positive association between IFRS adoption and earning quality for firms characterized by concentrated ownership structures (Aksu et al., 2013; Kao & Wei, 2014). Indeed, considering firms' corporate governance differences, Kao and Wei (2014) assess if the adoption of IFRS in China helps reduce the negative effects of insiders' ownership detention and concentration on earnings quality. Although they find evidence of financial reporting quality improvements due to the adoption of IFRS, their results do not hold for firms where ownership is concentrated in the hands of the government, of directors, supervisors and senior managers. Constructing their empirical analysis following Wang (2006), Aksu, Mine & Muradoglu (2013) report that the adoption of IFRS in Turkey improves the persistence pattern of earnings for family owned firms; however, it is not associated with lower levels of earnings management.

Thus, when it comes to accounting quality, the prevalence of accounting standards over financial incentives has not yet been clearly identified. In addition, recent findings suggest that firms with concentrated ownerships do not experience expected accounting quality improvement following IFRS adoption. In the context of the international adoption of IFRS, we believe that there is still room to empirically find evidence that would help shed the light on this question. Here, Soderstrom & Sun (2007) suggest that since countries exhibit differences in the determinants of accounting quality, implementing a common set of standards may not eliminate differences in accounting quality across countries and even within firms in a given country. Based on the results of previous studies, they suggest that future research should consider the effect of firms with controlling minority shareholders while studying the relationship between IFRS and accounting quality.

CHAPTER 4 HYPOTHESIS DEVELOPMENT

The theoretical framework in the first section explained how agency costs arise in a contractual setting, and how and why agency costs can become very high in the case of CMS firms. We have also seen that concentration of ownership can have positive effects when control is not locked through control-enhancing mechanisms (Villalonga & Amit, 2006). Here, cash flow rights concentration can lead to an alignment of interest between outside shareholders and insiders. On the other side, when control is locked, du to the presence of controlling minority shareholders, this shareholder becomes entrenched (Morck, Wolfenzon & Yeung, 2004). Here agency costs arise because of the ability of this ultimate owner to expropriate high benefits of control thanks to his/her position.

Literature shows that the higher the gap between voting and cash flow rights an owner holds, the higher are her/his incentives to expropriate minority shareholders (Claessens, Djankov et al., 2002; Bozec & Bozec, 2007). On the other side, the size of these agency costs can be exacerbated in some cases, as when asymmetry of information is high and/or law enforcement is low (Heflin & Shaw, 2000; Attig, Fong, Gadhoum & Lang, 2006). Indeed, ultimate owners, when entrenched, have low incentives to disclose quality information in part motivated by the fact that low quality information can hide outright expropriation and underperformance (Dyck & Zingales, 2004). The pre IFRS adoption literature corroborates this fact as many studies report that CMS firms exhibit lower quality information when compared to more diffused structures (Ali et al., 2007; Liu & Lu, 2007). Scholars also report that companies tend to disclose lower quality, and thus less relevant, earnings as the gap between voting and cash flow rights increases (Francis, Schipper & Vincent, 2005). At the same time, low quality information limits the ability of outside shareholders to monitor firm's activities or/and to make optimal decisions regarding their investments. Since the information asymmetry enables insiders to have higher benefits of control, it is expected that as rational beings, insiders will have high incentives to disclose low quality information. In addition, insiders decide on the amount of effort dedicated to preparing financial reporting. However, proper disclosure can be costly and insiders already have sufficient information on firm's activities thanks

to their privileged position (Eisenhardt, 1989). Thus, they will be even more reluctant to disclose quality information to outside markets.

In Canada, there is a high proportion of CMS firms, and some scholars have reported evidence of Type II agency costs for those firms. Among them, Attig, Fisher & Gadhoum (2004) and Bozec & Laurin (2004) report that CMS firms have lower performance than non-CMS firms. At the same time, Attig, Fong, Gadhoum & Lang (2006) and Bozec (2008) affirm that those firms also tend to have less relevant earnings and higher levels of earnings management. Indeed, theory explains that in those firms, both higher incentives to expropriate and weaker effects of governance mechanisms, lead to higher agency costs (Bebchuck et al., 2000; Prencipe & Bar-Yosef, 2011). At the same time, Wang (2006) posit that market players may rely to a lower extent on disclosed earnings to inform their judgment about CMS firms' performance as they expect their insiders to report earnings in an opportunistic manner. Here, quality accounting standards and high law enforcement can help limit insiders opportunistic behavior (Baber, Fairfirld &Haggard, 1991; La Porta, Lopez de Silanes et al., 1998).

The introduction of IFRS in Canada in 2011 was in part aimed at increasing the quality of financial reporting for all type of firms. In fact, IFRS are recognized as being quality standards, and scholars report that quality standards can help discipline opportunistic behavior of insiders (Dyck & Zingales, 2004). However, other scholars as Ball & all (2003) support that incentives prevail over accounting standards as determinant of accounting quality. In other words, adopting high quality standards, such as IFRS, may not be sufficient to get expected information quality improvement. In fact, enhanced quality will, to a great extent, depend on the willingness of statements preparers to use standards in a proper manner. Thus, since we expect insiders in CMS firms to use accounting standards in an opportunistic manner, we suggest that the adoption of IFRS in Canada may not improve the quality of financial reporting for those firms.

In that sense, even good accounting standards, here IFRS, give some latitude and discretion to preparers in the way they are applied (Blanchette et al., 2011). And recent studies tend to corroborate Ball et al. (2003) assertion. In fact, many scholars report decreased reporting quality reporting post IFRS adoption (Renders & Gaeremynck, 2007; Aksu et al., 2013). They argue that good accounting standards alone cannot proxy for good quality reporting. They affirm that the way standards are used and the behavior and purposes of those applying them highly influence IFRS quality effects. For example, Daske, Hail et al. (2008) and Jeanjean & Stolowy (2010) affirm that IFRS may improve reporting quality only when accompanied with right incentives to reduce the information asymmetry and high enforcement mechanisms. In Canada, the legal system is strong. However, there is an important proportion of CMS firms that depict evidence of high agency costs and incentives to disclose low quality information (Attig, Fischer & Gadhoum, 2004; Gadhoum, 2006; Attig, 2007).

When compared to Canadian GAAP, IFRS may give room to more discretion due to the increased use of fair value accounting. In fact, Salman & Shah (2011) report that IFRS alter earnings figures, and some changes resulting from the use of fair value accounting are reflected in reported earnings. They support that IFRS make earnings more volatile, and as a consequence less persistent. And persistence is a characteristic of earnings quality. In fact, by being less persistent, earnings can be more difficult to predict, which can in turn render them less relevant to outside users. In addition, the use of fair value accounting means that statements users will make use of greater judgment when valuing assets and translating those valuations to earnings. For example, impairment of assets under Canadian GAAP is only allowed once and cannot be reversed. Under IFRS, impairments can be made multiple times and can be reversed (Blanchette, Racicot, Sedzro & Simonova, 2013). These impairments are then translated as expenses and revenues in the income statement (Blanchette et al., 2011). Thus, reporting under IFRS is influenced by the discretion of preparers. If preparers use IFRS latitude in an opportunistic manner, as it can be predicted for CMS firms, then it is likely that expected information improvement does not happen. At the same time, the use of fair value accounting may reduce users confidence about earnings relevance. In fact, those may

expect insiders to use IFRS opportunistically. In addition, the increased volatility of earnings under IFRS can make the information even more difficult to understand for outsiders. As a result, those may rely even less than before on disclosed earnings. Following that reasoning, we posit the following hypothesis:

H1: The adoption of IFRS in Canada has a negative impact on the relationship between CMS firms and the financial reporting quality.

CHAPTER 5 RESEARCH DESIGN

5.1 Introduction

The following part describes the research design followed in order to test the hypothesis, the sample selection, and the choice of variables.

First, we compare CMS and non-CMS firms by looking at the means differences of accounting figures, performance measures, and market data. Indeed the literature describes that CMS firms tend to perform less than diffused structures as their owners make less optimal investment choices and do not have the incentive to maximize profits. For example, Fan and Wong (2006) defend that controlling shareholders favor investment where they can have higher benefits of control over higher profits. Then, Gompers, Ishii et al. (2004) report that operational performance and firm value are negatively affected by controlling shareholders behavior. Finally, Cheung, Rau & Stouraitis (2002) report that CMS firms in their sample have lower returns as a result of related party transactions. Thus, we first test for mean differences to see if CMS firms in our sample follow similar patterns.

Then, we will run two series of regressions based on two widely used models in the literature: the return and price model. Indeed, the present study assesses if the mandatory adoption of IFRS in Canada improves the quality of accounting earnings for CMS firms as compared to other ownership structures. In this sense, the IASB (2013) explains earnings are of quality if they are useful to outside users, and among them investors. Usefulness means that earnings are relevant to decision making. Dechow, Ge & Schrand (2009) on their side define value relevance as the usefulness of earnings in the process of pricing and valuing equity. Inspired from those definitions we decide to test for the value relevance of earnings using price model of Ohlson 1995, and the returns model as defined by Khotari & Zimmerman (1995). These models are widely used in the accounting literature in order to test for the information content of earnings.

We adapted these models following the literature on IFRS adoption, CMS firms' earnings quality, and the Canadian economic environment and selected appropriate independent and control variables.

5.2 Sample selection

We start by selecting all the firms listed on the TSX/ S&P Composite Index in 2014. We retrieve the list from the official website of the Toronto Stock Exchange (Tmxmoney, 2014). At the time of the sample selection, the index regroups 244 firms listed. These represent the largest market capitalizations listed on the Toronto stock exchange. In fact, these companies represent more than 70% of the total market value of all the companies listed on the Toronto Stock exchange.

We exclude from this sample all the companies for which financial and accounting information is not available between 2008 and 2013 on Stock Guide. This basically excludes all the companies that were not listed on the Toronto Stock Exchange for the whole period 2008-2013. We compare the effect of IFRS adoption on Canadian companies' information quality. Thus, it is important that accounting and financial information is available before the mandatory adoption of IFRS in 2011 and after this date. As we are able to gather data for three years following IFRS adoption, we decide to use the same number of years of observations before the adoption of IFRS. We obtain 227 firms with 6 years of available data.

From this sample we also exclude all the firms pertaining to the financial sector as determined by Stock Guide's classification. Indeed, these companies are subject to specific accounting rules because of their activities, which renders their reported financial information lack homogeneity when compared to companies in other sectors. We follow the procedure of previous researches on the quality of financial reporting such as Van der Meulen, Gaeremynck, & Willekens (2007), Gabrielsen, Gramlich, &

Plenborg (2002), and Jeanjean & Stolowy (2008). They regroup firms from the banking, investment, real estate and insurance industries. We are left with 182 companies.

We then gather information on the accounting standards used by those companies to disclose their audited financial statements for the fiscal years between 2008 and 2013. We are able to extract this information from Datastream. This information is important, as companies were able to use different accounting standards in Canada for various reasons during the period under study. First, some companies were required to adopt IFRS for their 2011 fiscal year while other companies where able to delay the adoption to the following fiscal year (Pfeffer et al., 2012). Indeed, companies for which the 2011 fiscal year began prior to January 1st 2011 were able to delay the adoption of IFRS to the following year (Pfeffer et al., 2012). Some companies adopted IFRS before 2011 on a voluntary basis. Finally, Canadian companies registered with the American Security Exchange Commission had and still have the ability to use American Generally Accepted Accounting Principles instead of Canadian GAAP or IFRS (Burnett & Jorgensen, 2013).

In our sample, 15 companies, cross-listed in the United States, used US GAAP before 2011 and decided not to convert to IFRS. 3 companies converted from US GAAP to IFRS. 8 companies decided to adopt US GAAP instead of IFRS in 2011 and 2012. 5 companies adopted IFRS prior to 2008. Finally, 17 companies adopted IFRS in 2012. As the purpose of the present study is to compare IFRS and Canadian GAAP, we exclude all the companies that used US GAAP in any year between 2008 and 2013, and the companies that converted to IFRS prior to 2008. After filtering those companies, we are left with 151 companies or 906 firm-year observations.

We gather the information on ownership concentration for the 151 companies left for 2013 and 2010. We assume that ownership concentration is constant between 2008 and 2010 and between 2011 and 2013. Indeed, ownership structures tend to be constant or to vary very slightly over time. To illustrate this fact, Table 2 depicts the ownership

structure of Bombardier Inc., Imperial Oil Limited, and The Jean Coutu Group between 2008 and 2013. From Table 2, we can see for example that the voting rights of the Bombardier family in Bombardier Inc. increase by only 17 basis points between 2008 and 2013, while they cash flow rights decrease by 3 basis points. After that, Exxon Mobil Corp. ownership of Imperial Oil Limited stays constant between 2008 and 2013. Finally, the voting rights of the Jean Coutu family only increase by 28 basis points while their cash flow holding increases by 356 basis points between 2008 and 2013.

Table 2: Sample selection procedure

Bomardier								
Year	Voting rights per Class A shares	Voting rights per Class B share	Total of Class A shares	Total of Class B shares	Controling owner Class A shares	Controlling owner Class B shares	Controlling owner voting rights	Controlling owner cash flow rights
2008	10	1	316582537	1437520360	249199909	1118275	54.16%	14.27%
2009	10	1	316133737	1438660906	249199909	1118275	54.20%	14.26%
2010	10	1	315084537	1438086644	249199910	1118275	54.33%	14.28%
2011	10	1	314537162	1438727131	249199910	1118275	54.39%	14.28%
2012	10	1	314537162	1440624381	249199910	1118275	54.36%	14.26%
2013	10	1	314530462	1443496418	249199910	1118275	54.33%	14.24%
Imperial Oil Limited								
Year	Voting rights per Class A shares	Voting rights per Class B share	Total of Class A share	Total of Class B shares	Controling owner Class A shares	Controlling owner Class B shares	Controlling owner voting rights	Controlling owner cash flow rights
2008	1	0	856836280	0	596357122	0	69.60%	69.60%
2009	1	0	847602581	0	589928303	0	69.60%	69.60%
2010	1	0	847607765	0	589928303	0	69.60%	69.60%
2011	1	0	847670521	0	589928303	0	69.59%	69.59%
2012	1	0	847599011	0	589928303	0	69.60%	69.60%
2013	1	0	847599011	0	589928303	0	69.60%	69.60%
The Jean Coutu Group								
Year	Voting rights per Class A shares	Voting rights per Class B share	Total of Class A share	Total of Class B shares	Controling owner Class A shares	Controlling owner Class B shares	Controlling owner voting rights	Controlling owner cash flow rights
2008	1	10	118607906	117385000	7695800	117385000	91.42%	53.00%
2009	1	10	118923782	117385000	7695800	117385000	91.40%	52.93%
2010	1	10	115120298	114385000	10695800	114385000	91.71%	54.50%
2011	1	10	104790188	114385000	10695800	114385000	92.46%	57.07%
2012	1	10	99989498	114385000	10695800	114385000	92.82%	58.35%
2013	1	10	85033164	104000000	2926310	104000000	92.70%	56.56%

Data on ownership structures is taken manually from firms' management proxy statements published in 2013 and 2010. We follow the procedure of La Porta et al., (1999) and Faccio and Lang (2002). For each company, we first determine if there is an entity or an individual who possesses 10% of the voting rights and or the cash flow rights of the company, in which case we assume that there is concentration of

ownership. If there is no individual or entity that owns 10% or more of the company's voting and/or cash flow rights, we consider the firm as diffused. In this case, we use the ownership data of the director possessing the greatest number of shares not to have missing cases for the analysis.

If we identify multiple owners possessing 10% or more of the voting or/and cash flow rights of the company, we keep the one holding the highest voting right percentage. If two owners are members of the same family or the same group, we sum up their shareholdings and assume they are just one entity. Then, if the controlling owner is a privately held company, an individual, a family, a financial institution (i.e., bank, pension fund, investment fund), a public company with diffused ownership, or a state, we assume that it is the ultimate owner. If the controlling shareholder is another public company, which is also closely held, then we look at its proxy statement and follow the same procedure until we find the ultimate owner. We assume that a firm is a CMS firm when there is a wedge between voting and cash flow rights. This happens when the company has multiple voting rights and the ultimate owner has more voting rights than cash flow rights, or/and the ultimate owner exercise control over the firm through a pyramid. A cash flow right is a share to which dividends are entitled.

We finally extract all the relevant financial and accounting data needed for the analysis on Stock Guide. Missing entries are completed using companies' financial statements on SEDAR. The original sample is composed of 151 companies. However, following Kothari and Zimmerman (1995) we exclude all the observations for any firm for which returns exceeded the 99% percentile or where lower to the 1% percentile in order to limit the impact of very extreme observations in our sample. The resulting sample contains 135 companies for a total of 810 firm-year observations. We estimate that our sample is still large enough. Then, we winsorized the remaining outliers that we identified using standardized residuals analysis and Malahanobis and Cook distances. We identified three outliers in the price model observations and three outliers in the returns model observations.

Table 3 below summarizes the data selection procedure.

Table 3: Sample selection procedure

Final sample size	Procedure	Source
244	We select all the companies in the S&P Composite Index	Tmxmoney.com
227	We delete all the firms for which data is not available for the whole period between 2008 and 2013.	Stock Guide
182	We delete all the companies pertaining to the financial, insurance or real estate sector	Stock Guide
151	We delete all the companies that use US GAAP in any year between 2010 and 2013, and all companies that adopted IFRS before 2008.	Datastream
135	We delete observations for companies which experience very extreme and abnormal returns during the period at the 99% percentile.	SPSS

5.3 Research Design

5.3.1 Model Definition

We assess how the mandatory adoption of IFRS in Canada affects earnings informativeness for CMS firms. In other words we try to see if earnings are more relevant, less relevant or if the introduction of IFRS has no effect on the relevance of earnings to stock prices valuation. In order to test our assumptions, which predict no effect of IFRS adoption on CMS firms' value relevance, we use the returns and price models. These two regression models have been widely used in the accounting literature in order to test for the value relevance of accounting figures (Barth et al., 2008; Fan & Wong, 2002; Kothari & Zimmerman, 1995; Warfield et al., 1995). Kothari and Zimmerman (1995) describe that both models have advantages and flaws. Indeed, the

authors explain that while the slopes in the price model regressions are less biased, the return model has less specification and heteroscedasticity issues. In addition, the return model often yields very low R2, which can mislead results interpretations. As a result, Kothari & Zimmerman (1995) recommend the complementary use of both models when testing for value relevance. We will follow Kothari and Zimmerman (1995) recommendation and test for value relevance using both price and return model specifications.

5.3.1.1 The price model

Kothari & Zimmerman (1995) explain that current stock prices reflect markets expectations about future earnings. As earnings tend to be persistent over time, current earnings should contain information about anticipated future earnings as well. Since future earnings are reflected in stock prices, then current prices should also reflect the information contained in current earnings. Thus, if current earnings are relevant, then they should help inform current stock prices. As a result, we expect a positive and significant relationship between stock prices and current earnings.

5.3.1.2 Regressions for the price model

We will run 7 series of regressions, all based on the price model of Ohlson (1995) used by Barth et al. (2008) and Van der Meulen, Gaeremynck, & Willekens (2007) in order to test the quality of accounting figures following the adoption of IFRS in 21 countries and in Europe respectively. The description of the dependent and independent variables used across the 7 models is detailed in section 5.3.2.

The first regression tests the price model as described by Ohlson (1995) and used by Barth et al. (2008).

(1) $Pit = \alpha + \beta 1\ EPSit + \beta 2\ BVSit + \varepsilon t$

Where

Pit: is firm i's stock price at year t.

EPSit: is the earning per share for firm i at year-end t.

BVSit: is the book value of equity per share for firm i at year-end t.

εt: is the residual form the model.

We are interested in the coefficient of determination of the regression model, that informs about the general relevance of accounting measures to stock prices (Barth et al., 2008), and more specifically to the significance and sign of β2. Indeed, The slope associated with the book value per share term of the equation informs about the relevance of accounting values to stock prices. If β2 is significant, a higher β2 indicates that the relationship between prices and book values is stronger, which means that book values are more value relevant. Thus, we expect β2 to be positive and significant.

The second regression depicted below, includes all the control variables we have selected to the previous model. The control variables were chosen according to the literature on earnings quality, to recent studies on IFRS and value relevance, and take into consideration the specificities of the Canadian environment (Warfield et al., 1995; Francis, Schipper, & Vincent, 2005; Niu, 2006; Daske et al., 2008; Cormier, 2013) . The next section details the calculation and choice of the control variables. The purpose of this test is to see how the different variables in our model interact, and to assess if our control variables are relevant to the model.

(2) $Pit = \alpha + \beta 1\ EPSit + \beta 2\ BVSit + \gamma 1\ Sizeit + \gamma 2\ Levit + \gamma 3\ Growthit + \gamma 4\ Lossit + \gamma 5\ Cross\ US + \gamma 6\ Ind + \gamma 7\ Year + \varepsilon t$

Sizeit: is calculated as the natural logarithm of assets of firm i at year t and is a proxy for firm size.

Levit: is calculated as Long-term debt over total assets of firm i at year t and is a proxy for firm financial leverage.

Growthit: is calculated as the market value of equity over the book value of equity of firm i at year t and is a proxy for firm's growth opportunities.

Lossit: is a dummy variable equal to 1 if firm's i net income is negative for year t, otherwise is equal to 0.

Cross US: is a dummy variable equal to 1 if the firm is cross listed in the US, otherwise is equal to 0.

Ind: is an indicator for firm's i industry.

Year: is an indicator of the observation's fiscal year.

Results from the third model below constitute the first contribution of the present study to the recent literature as it tests if the quality of earnings improved as a result of the adoption of IFRS in Canada. Here previous research such as Liu and Sun (2014), Okafor (2014) and Cormier (2013), show that the quality of accounting figures improves with the use of IFRS for Canadian firms. Among them, Cormier (2013) reports evidence of improved value relevance as a result of IFRS adoption for a sample of 187 Canadian companies. Although the number of companies in our sample is smaller than Cormier (2013) (135 companies), and the author uses companies from the same index as we do (TSX S&P composite index), we cover more years, using data from 2008 to 2013 (or 810 firm-year observations). In addition, many companies in the TSX S&P Composite index did not adopt IFRS until 2012, and those companies are included in our sample. Thus, some firms in our sample were not included in Cormier (2013)'s sample. Then, Okafor (2014) tests for the value relevance of earnings post IFRS adoption for a sample of 620 companies or 2480 firm-year observations up to 2012. Cormier (2013), on his side, only tests for IFRS value relevance for the first year of mandatory adoption in Canada. We test for the association between earnings and prices for a longer period of time (2008 to 2013). Indeed, the firms in our sample have all disclosed their financial information using IFRS for at least 2 years, and most of them for 3 years, and we suggest that market players are better acquainted with IFRS reporting figures in 2013. The purpose of the following regression is to assess if our sample results corroborate

with previous studies and if the improved quality of earnings post IFRS adoption is valid for a longer period of time.

(3) $P_{it} = \alpha + \beta_1 EPS_{it} + \beta_2 BVS_{sit} + \beta_3 BVS_{it}*IFRS_{it} + \gamma_1 Size_{it} + \gamma_2 Lev_{it} + \gamma_3 Growth_{it} + \gamma_4 Loss_{it} + \gamma_5 Cross\ US + \gamma_6 Ind + \gamma_7 Year + \varepsilon_t$

$BVS_{it}*IFRS$: is an interaction term where IFRS is a dummy variable equal to 1 if the firm i discloses its financial information using IFRS for year t. Otherwise IFRS equals to 0.

In the previous model, the interpretation of the coefficient β_3 of the interaction term $BVS_{it}*IFRS_{it}$ enable us to draw conclusions on the effect of IFRS adoption on value relevance. Here, if IFRS adoption improves the value relevance of accounting figures as reported by the studies cited above, then we expect β_3 to be positive and significant.

To test our research hypothesis, we next introduce a series of regressions tests for the relationship between earnings and prices for CMS firms. Indeed, the interaction variable in the model enable us to assess if earnings are less relevant, more relevant (which would contradict the literature) for CMS firms, or if there is no statistical difference in value relevance between CMS firms and other types of firms. This regression is important as we defend, based on the literature, that earnings disclosed by CMS firms are less relevant as compared to other type of ownership structures (Francis et al., 2005; Ali, Chen, & Radhakrishnan, 2007; Liu & Lu, 2007; Sabri & Hind, 2011). In Canada, Attig, Fong, Gadhoum and Lang (2006) and Bozec (2008) report everything else held equal, CMS firms have lower quality earnings. We expect our results to be in line with previous studies.

(4) $P_{it} = \alpha + \beta_1 EPS_{it} + \beta_2 BVS_{it} + \beta_3 BVS_{it}*CMS_{it} + \beta_4 BVS_{it}*IFRS_{it} + \gamma_1 Size_{it} + \gamma_2 Lev_{it} + \gamma_3 Growth_{it} + \gamma_4 Loss_{it} + \gamma_5 Cross\ US + \gamma_6 Ind + \gamma_7 Year + \varepsilon_t$

(5) $P_{it} = \alpha + \beta_1 EPS_{it} + \beta_2 BVS_{it} + \beta_3 BVS_{it}*CMS_{it} + \beta_4 BVS_{it}*IFRS_{it} + \beta_5 BVS_{it}*CMSH_{it} + \gamma_1 Size_{it} + \gamma_2 Lev_{it} + \gamma_3 Growth_{it} + \gamma_4 Loss_{it} + \gamma_5 Cross\ US + \gamma_6 Ind + \gamma_7 Year + \varepsilon_t$

$BVS_{it}*CMS_{it}$ is an interaction term where CMS is a dummy variable equal to 1 if firm i is a CMS in year t. We consider a firm to be a CMS when the proportion of votes held by a controlling shareholder exceeds the proportion of cash flow rights he/she possesses.

In model (4) above, we are interested in the significance of the whole model but more specifically in the significance and sign of the coefficient β_3. In fact, we expect β_3 to be negative and significant, which would support Attig, Fong, Gadhoum and Lang (2006) and Bozec (2008) conclusions that earnings quality is lower for CMS firms in Canada.

$BVS_{it}*CMSH_{it}$ is an interaction term where CMSH is equal to 1 if the difference between voting and cash flow rights proportions held by a controlling shareholder is greater than the median of the wedge in our sample. We include this variable in order to grasp the effect of a larger wedge on earnings quality. Here CMSH means that the wedge between voting and cash flow rights of firm i is larger than the median wedge for the CMS firms in our sample. In fact, Bozec (2008) reports that earnings quality decreases as the wedge between voting and cash rights widens. Here the purpose of this additional interaction term is to uncover if the effect of CMS firms on accounting quality is increasing as the gap between voting and cash flow rights increases. We expect β_3 and β_5 to be significant and negative. Further explanation on the procedure followed to distinguish CMS firms from other types of firms is detailed in the next section.

The last series of regressions provide evidence supporting or rejecting our hypothesis. Indeed, the present study tries to assess if the adoption of IFRS in Canada has an effect on the quality of accounting figures for CMS firms. Here we posit that IFRS adoption in Canada may not improve the quality of financial reporting for CMS firms, as incentives to report low quality earnings may prevail over better quality accounting standards (Ball,

Robin, & Wu, 2003). The reasoning behind this assumption is that IFRS improves the quality of accounting number only when statements preparers have the incentive to apply these standards with the sole purpose of representing the true economic reality of the firm. In addition, when compared to Canadian GAAP, IFRS seem to give more latitude and discretion to statement preparers (Blanchette et al., 2011). This increased discretion, if used in an opportunistic fashion may lead to less value relevant earnings for CMS firms. As a result we expect our results to show no improvement or even a decrease in the value relevance of earnings post IFRS adoption for CMS firms.

(6) $Pit = \alpha + \beta1\ EPSit + \beta2\ BVSsit + \beta3\ BVSit*CMSit + \beta4\ BVSit*IFRSit + \beta5\ BVSit*CMSit*IFRSit + \gamma1\ Sizeit + \gamma2\ Levit + \gamma3\ Growthit + \gamma4\ Lossit + \gamma5\ Cross\ US + \gamma6\ Ind + \gamma7\ Year + \varepsilon t$

(7) $Pit = \alpha + \beta1\ EPSit + \beta2\ BVSit + \beta3\ BVSit*CMSit + \beta4\ BVSit*IFRSit + \beta5\ BVSit*CMSit*IFRSit + \beta6\ BVSit*CMSHit*IFRSit + \gamma1\ Sizeit + \gamma2\ Levit + \gamma3\ Growthit + \gamma4\ Lossit + \gamma5\ Cross\ US + \gamma6\ Ind + \gamma7\ Year + \varepsilon t$

Here we are interested in the significance of the whole models through R2, but more specifically in the significance and sign of β5 in model (6) and β5 and β6 in model (7). We expect the coefficients to be significant and negative.

As explained earlier for model (5), model (7), through the interpretation of β6, aim to see if the effect of CMS firms on earnings quality is exacerbated as the gap between voting and cash flow rights widens.

5.3.1.3 The return model

The return model regresses firm annual returns on firms' earnings. Our returns regressions follow the same reasoning as our price regressions as it measures the association between accounting and market figures. As explained earlier, the return model enables us to corroborate the results of the price model and to reduce the

likeliness of misspecification du to biases in the price model. All the independent variables are almost identical to the ones used in the price models. In the return model we lag earnings per share by stock prices at the beginning of the period as Warfield et al. (1995). We use yearly returns as our dependent variable. The return model is used by many scholars to test the relationship between earnings value relevance and ownership structures (Warfield et al., 1995; Fan & Wong, 2002; Francis et al., 2005), and earnings value relevance and IFRS adoption (Van der Meulen, Gaeremynck, & Willekens, 2007; Gordon, Jorgensen, & Linthicum, 2008) . We use a very similar regression model as Francis et al. (2005) who study the relationship between CMS firms and value relevance. However, while Francis et al. (2005) deflate earnings by market value of equity, we use earnings per share that we deflate by stock price at t-1 as used by Warfield et al. (1995) and Van der Meulen, Gaeremynck, & Willikens, (2007).

5.3.1.4 Regressions for the returns model

We expect the same results and will interpret the same coefficients as for the price model from the 11 following pooled cross-sectional regressions, where Rit represents firm's i annual return and EPS'it represents earnings per share deflated by firm's stock price at t-1. The description of the dependent and independent variables used across the 7 models is detailed in section 5.3.2.

Returns model

(1)' $Rit = \alpha + \beta 1\ EPS'it + \varepsilon t$

EPS' is deflated by firm's I stock price at t-1.

Returns, variation of earnings and control variables

(2)' $Rit = \alpha + \beta 2\ EPS'it + \gamma 1\ Sizeit + \gamma 2\ Levit + \gamma 3\ Growthit + \gamma 4\ Lossit + \gamma 5\ Cross\ US + \gamma 6\ Ind + \gamma 7\ Year + \varepsilon t$

Returns and IFRS

(3)' Rit = α + β2 EPS'it + β3 EPS'it*IFRSit+ γ1 Sizeit +γ2 Levit + γ3 Growthit + γ4 Lossit + γ5 Cross US+ γ6 Ind + γ7 Year + εt

Returns and CMS: Hypothesis testing

(4)' Rit = α + β2 EPS'it + β3 EPS'it*CMSit+ β4 EPS'it*IFRSit + γ1 Sizeit +γ2 Levit + γ3 Growthit + γ4 Lossit + γ5 Cross US+ γ6 Ind + γ7 Year + εt

(5)' Rit = α + β2 EPS'it + β3 EPS'it*CMSit + β4 EPS'it*IFRSit + β5 EPS'it*CMSHit+ γ1 Sizeit +γ2 Levit + γ3 Growthit + γ4 Lossit + γ5 Cross US+ γ6 Ind + γ7 Year + εt

Returns, CMS, and IFRS: Hypothesis testing

(6)' Rit = α + β2 EPS'it + β3 EPS'it*CMSit+ β4 EPS'it*IFRSit+ β5 EPS'it*CMSit*IFRSit + γ1 Sizeit +γ2 Levit + γ3 Growthit + γ4 Lossit + γ5 Cross US+ γ6 Ind + γ7 Year + εt

(7)' Rit = α + β2 EPS'it + β3 EPS'it*CMSit+ β4 EPS'it*IFRSit+ β5 EPS'it*CMSit*IFRSit + β6 EPS'it*CMSHit*IFRSit + γ1 Sizeit +γ2 Levit + γ3 Growthit + γ4 Lossit + γ5 Cross US+ γ6 Ind + γ7 Year + εt

5.3.2 Variables definition

The following section defines the variables used in our regression models. Dependent, Independent and control variables are presented and explained.

5.3.2.1 Dependent variables

Price (Pit): Stock prices are extracted from Stock Guide and reflect closing prices for firm i at the end of the first quarter following the end of the fiscal year t. Indeed, as audited financial statement are usually released three months following the end of the fiscal year, we assume that stock prices at the time of the release of financial statements will better grasp the value relevance of earnings. We follow a similar procedure as

Francis et al. (2005) who use stock prices three months after the end of firm's fiscal year to calculate returns. Missing stock prices where taken from the Toronto Stock Exchange website (Tsx.com) for the day of the official release of firm's audited financial statements (dates are taken from SEDAR).

Returns (Rit): Returns are calculated as (Pit-Pit-1+Dit)/Pit-1, where Pit is firm i's closing price at the end of the first quarter following the end of the fiscal year t, Pit-1 is firm's closing price nine months before the end of fiscal year t, and Dit is dividends per share for firm i at t. We calculate stock returns following Van Der Meulen et al. (2007), Francis et al. (2005) and Warfield et al. (1995).

5.3.2.2 Independent Variables

In order to limit the effect of extreme values on our results, all the independent continuous variables were winsorized at the 5% and 95% percentiles.

Book value per share (BVSit): We use book value per share of company i at time t to capture the value relevance of accounting figures to stock prices as describes by Ohlson (1995). We use per share values and we measure the value relevance of accounting numbers before and after the adoption of IFRS using BVS, as did Barth et al. (2008).

Earning per share (EPSit): We use earnings per share for company i at time t to capture the informativeness of earnings to stock prices as applied by Warfield et al. (1995) and Van Der Meulen et al. (2007). We use per share data following Van Der Meulen et al. (2007) and Kothari and Zimmerman (1995) in order to reduce the risk of heteroscedasticity. For the return model, earnings per share are deflated by firm's i stock price at the beginning of the period as did Warfield et al. (1995) and Van der Meulen, Gaeremynck, & Willikens, (2007).

CMS dummy variables (CMS, CMSHigh): We chose to use two distinct variables to distinguish CMS firms from other types of structures. The dummy variable CMS is equal to 1 when there is a positive non-zero difference between the proportion of voting and cash flow rights held by an identified ultimate owner, otherwise it equals to 0. We consider that the company has a controlling shareholder when an owner possess more than 10% of a firm's voting rights. Here, the Canadian legislation forces pubic companies to disclose the ownership and identity of any shareholder that controls more than 10% of any class of shares the company has. Then, the dummy variable CMShigh isolates firms where the gap between voting and cash flow rights is higher than the median wedge in our sample. CMShigh is equal to 1 if the difference between the proportion of voting and cash flow rights held by the ultimate owner is greater than 0.38, otherwise it equals to 0. In order to select the median in our sample, we isolate all the CMS firms and compute the median wedge of the resulting sample, which is equal to 0.38. Thus any observation where CMSHigh is equal to 1 corresponds to a situation where the gap between voting and cash flow rights is greater than 1. The introduction of the variable CMShigh enables us to assess if the relationship between value relevance and CMS firms decreases as the wedge between voting and cash flow rights increases. Indeed, many scholars report that the quality of accounting earnings decreases as the wedge between voting and cash flow rights widens (Bozec, 2008; Fan & Wong, 2002; Francis, Schipper & Vincent, 2005). However, contrary to Francis, Schipper &Vincent (2005) we do not capture the gap between voting and cash flow rights using a continuous variable. Indeed, we decide to use dummy variables with different levels in order to limit the risk of misinterpreting the results. Indeed, having two continuous variables interact in our case could lead to misinterpreting the slope of the regressions terms. The variables CMS and CMSHigh, when interacting with EPS, enable us to see if earnings are less relevant for CMS in general, and at different levels of control. The variables CMS and CMSHigh when interacting with EPS and IFRS enable us to see if the adoption of IFRS affects the relationship between earnings and CMS in general, and at a different level of control. In other words, the CMS dummy variables when interacting with EPS and IFRS enable us to see if the adoption of IFRS improves, lessens or does not affect the relevance of earnings for CMS firms.

IFRS adoption (IFRSit): IFRSit is a dummy variable that takes the value of 1 if firm i uses IFRS to disclose its financial statement at year t. The dummy variable IFRS, when interacting with the independent variable EPSit, or EPSit and CMS enables us to see if earnings are more relevant after IFRS adoption in general, and for CMS firms.

5.3.2.3 Control variables

The choice of our control variables is guided by the literature on CMS firms and value relevance, on recent studies on IFRS and value relevance, and takes into account the specificities of the Canadian economic environment.

Size: Firm i's size is calculated as the natural logarithm of assets at year t (Bozec, 2006; Francis et al., 2005). We do not have a definite position on the predicted sign of Size. Indeed, Francis et all (2005) explain that although firm's size affect returns (and prices) the sign of the association tend to vary across studies.

Leverage: Firm i's leverage (LEV) is calculated as the ratio of long-term debt to total assets at year t (Bozec, 2006; Francis et al., 2005). We do not have a definite position on the predicted sign of Leverage. Indeed, Niu (2006) predicts that Leverage negatively returns (and thus prices) as high leverage means high risk. However, Leverage can also improve prices and returns when perceived as a governance mechanism. Indeed, Bebchuck et al. (2000) explain that the monitoring exercised by banks help reduce agency costs and thus discipline managers' behavior.

Growth: Firm i's growth is calculated as the ratio of the market value to the book value of equity at year t (J. R. Francis, Khurana, & Pereira, 2005; Warfield et al., 1995). We expect the coefficient of Growth to be positively associated with returns and prices as dis Niu (2006) since a firm with high growth opportunities is expected to have increasing earnings in the future.

Loss: This variable is included in the regression models to account for negative net incomes. Here Loss is a dummy variable equal to 1 if firm i's net income is negative at year t, otherwise it equals to zero. Francis et al. (2005) also control for losses and explain that coefficients take lower values in case of losses.

Cross US We control for firms that are cross-listed in the United States as other research that study the association between the adoption of IFRS and the value relevance of earnings (Daske et al., 2008). Here, Cormier (2013) finds that, everything else held equal, accounting figures are more relevant when firms are cross-listed in the United States. In fact, the Security Exchange Commission has a reputation to better enforce regulations with regards to disclosure and governance. As a result we expect firms cross-listed in the US to be more disciplined than other firms. We assume that firms that were cross-listed in the United-States in 2013 were also cross-listed in the United States from 2008 and 2012. Indeed, companies in our sample have generally been listed in both the United States and Canada for more than 6 years. For example, Advantage Oil & Gas, Barrick Gold Corporation, Baytex Energy, CAE Inc, or Enbridge Inc. are all companies from our sample that were cross-listed between 2008 and 2013.

Industry: We include dummy variables to account for industry effects, especially that the materials and energy sectors account for 480 out 810 observations in our sample. Among others, Fan & Wong (2002) and Bozec (2006) control for industry effects.

Year: As Fan & Wong (2002) we also control for years fixed effects using dummy variables.

CHAPTER 6 RESULTS

6.1 Descriptive statistics

6.1.1 Continuous variables

The following section describes the final sample, composed of 810 firm-year observations pertaining to 135 Canadian companies and covering the period 2008 to 2013. Table 4 shows that the mean return for the observations in our sample is 17%. This suggests that in general, despite the negative market trends of 2008 (financial crisis), the companies in our sample had positive market performances during the period under study and were able to recover from 2008 negative returns. The mean size is 21.602 (size in the natural log of total assets) with a standard deviation of 1.211 that suggests that firms in our sample do not depict highly different patterns in terms of size. In Table 4, we can also notice that the mean debt to total assets ratio is 17.4%. This suggests that firms in our sample are not highly leveraged. In general, the literature on value relevance reports that earnings of highly leveraged firms tend to be of lower quality (Watts & Zimmerman, 1986). The mean growth ratio is 2.177, which could suggest that in general firms in our sample have relatively high growth opportunities. Finally, the mean earnings per share is 0.974 and the mean book value of equity per share is 21.739.

Table 4: Descriptive Statistics (continuous variables)

	N	Min	Max	Mean	Std. Dev
Price	810	.610	107.730	21.739	17.572
Return	810	-.906	2.355	.170	.516
Size	810	19.557	23.859	21.602	1.211
Leverage	810	.000	.414	.174	.130
Growth	810	.597	5.366	2.177	1.277
EPS	810	-1.533	3.771	.974	1.320
BVS	810	.371	134.221	10.738	10.390
Valid N (listwise)	810				

6.1.2 Dummy Variables

Table 5 gives frequency and percentage information on the dummy variables in our models. These variables also help us describe some characteristics in our sample. Indeed, we can first notice that out of 810 firm-years observations, 300 are "cross listed in the US". We gathered information on US cross-listed firms in 2013 and assumed that the information was constant for the whole period. Thus, based on our assumption, we can say that 50 firms in our sample out of 135 are cross-listed in the US. This represents 37% of the total observations in our sample. After that, we can see that 174 observations are CMS firms. This represents 20.4% of our sample. When we look at CMSH we notice that the number of observations decreases to 81 (10.0%). Finally, we observe that during the sample period, 157 (19.4%) observations reported negative earnings. We can see that this ratio is relatively high which support our choice to control for negative earnings.

Table 5: Statistics (dummy variables)

	Frequency	Percentage
Cross US	300	37%
CMS	165	20.4%
CMSH	81	10.0%
Loss	157	19.4%

6.1.3 Industries

Table 6 below shows the distribution of our observations per sector. From the sample we can see that two sectors are dominant in our sample: the energy sector with 246 observations (41 firms), and the materials sector with 234 observations (39 firms). Some industries are dominant in our sample while others only cover few companies, i.e. health care (1 firm) and information technologies (3 firms). We thus control for industries fixed effect in our models.

Table 6: Statistics (industries)

	Frequency
Energy	246
Materials	234
Industrial	114
Consumer discretionary	72
Consumer staple	54
Utilities	36
Telecommunication services	30
Information technologies	18
Healthcare	6

6.2 Mean differences

As explained earlier, the literature on CMS firms affirms that they differ with regard to their financial and accounting characteristics when compared to other types of structures. In order to assess if CMS firms and non-CMS firms differ in our sample, we compare the means of some variables. Using an independent sample T-test we are able to assess which differences are significant at $\alpha=0.01$ and $\alpha=0.05$ and draw inferences with regard to the sample differences.

Table 8 presents Levene's test for equality of variances and T-test for equality of means. We can see from Table 5 that the means of the variables Cross US, Size, Leverage, BVS, and EPS are all statistically different across samples at $\alpha=0.01$. The mean of the Growth variable is statiscally different between the two groups at $\alpha=0.05$. However, there is no statistical difference between mean returns for CMS firms and non-CMS firms. This finding is not in line with previous studies that report that returns of CMS firms tend to be lower than for any other type of structures (Cheung, Rau & Stouraitis, 2002). Here the results of the univariate analysis on firms' returns can be affected by several factors that are not directly linked to the ownership structure itself. Thus the result of this analysis have to be interpreted with caution as they do not mean that ownership structure does not affect firm's returns in absolute terms. In order to test for such assumption, we should conduct multivariate analysis that control at the same time for firm specific factors that may alter the relationship between returns and ownership structure (i.e. industry and growth opportunities). However, such test is not in the scope of the present research.

From Table 7, we can first see that less CMS firms are cross-listed in the United States. This can be explained by the fact that US listed companies are limited in their ability to issue multiple classes of shares, with different voting rights, which tends to limit the emergence of CMS firms. Here cross-listed firms have to comply with the SEC regulations, which implies that Canadian firms with multiple share classes may not cross-list in the United States. Then, Table 7 reports that mean sizes are statistically

different between CMS firms and non-CMS firms, suggesting that CMS firms hold larger assets than non-CMS firms. This result has to be interpreted with precaution as firm size can be influenced by many factors such as firm's age and industry. Results from Table 7 display a statistically significant difference between mean debt to assets ratios of CMS firms and non-CMS firms. Indeed, CMS firms mean leverage is equal to 25.1% while non-CMS firms mean leverage is equal to 15.5%, suggesting that CMS firms are more highly leveraged than non-CMS firms. Table 8 suggests that this difference is of 9.6%. Then, mean growth ratios are statistically different between CMS firms and non-CMS firms. The mean growth ratio is larger for non-CMS firms (equal to 2.26) than for CMS firms (equal to 1.99). This suggests that non-CMS firms have larger growth opportunities than CMS firms, as their market values are relatively greater than their book values. Here, we can also infer that non-CMS firms' stock prices are more highly valued than CMS firms' stock prices. Finally mean EPS and BVS are statistically larger for CMS firms than for non-CMS firms in our sample.

To sum, the results from the independent samples T-test suggest that CMS firms and non-CMS firms in our sample differ with regard to some market and accounting figures. Indeed, CMS firms and non-CMS firms in our sample differ in terms of their US cross listing, to their size, financial leverage, growth opportunities, book values of equity and earnings per share. CMS firms seem to be more leveraged, to be less cross-listed in the United States, and to have lower growth opportunities. This being said, it seems that CMS firms in our sample are of greater size than non-CMS firms.

Table 7: Group Statistics (mean differences)

	CMS	N	Mean	Std. Deviation	Std. Error Mean
Cross US	1	165	**.200*** **	.401	.031
	0	645	**.414*** **	.493	.019
Return	1	165	.164	.447	.035
	0	645	.171	.533	.021
Size	1	165	**22.033*** **	1.080	.084
	0	645	**21.491*** **	1.219	.048
Leverage	1	165	**.251*** **	.129	.010
	0	645	**.155*** **	.122	.005
Growth	1	165	**1.991** **	1.225	.095
	0	645	**2.225** **	1.286	.051
BVS	1	165	**14.206*** **	12.664	.986
	0	645	**9.850*** **	9.533	.375
EPS	1	165	**1.262*** **	1.474	.115
	0	645	**.901*** **	1.268	.050

*** α=0.01 **α=0.05

Table 8: Levene's test for the equality of variances

		F	Sig.[b]	t	df	Sig. (2-tailed)[c]	Mean Difference	Std. Error Diff	95% Confidence Interval of the Difference	
									Lower	Upper
Cross US	Equal variances not assumed	204.906	.000	-5.818	303.572	**.000**	**-.214*** **	.037	-.286	-.142
Return	Equal variances not assumed	6.210	.013	-.180	295.181	.857	-.007	.041	-.087	.073
Size	Equal variances assumed	1.194	.275	5.213	808.000	**.000**	**.542*** **	.104	.338	.746
Leverage	Equal variances assumed	.884	.347	8.928	808.000	**.000**	**.096*** **	.011	.075	.117
Growth	Equal variances assumed	1.888	.170	-2.100	808.000	**.036**	**-.233** **	.111	-.452	-.015
BVS	Equal variances not assumed	36.954	.000	4.129	213.850	**.000**	**4.356*** **	1.055	2.277	6.436
EPS	Equal variances not assumed	11.406	.001	2.882	229.887	**.004**	**.361*** **	.125	.114	.607

b. Significant at 0.01 c. significant at 0.01 and 0.05 ***significant at 0.01 **significant at 0.05 *significant at 0.1

6.3 Pearson Correlations

6.3.1 The Price Model

Table 9 presents the Pearson correlation matrix for the variables included in the price model. The matrix shows a strong correlation (higher than 0.5) between stock prices and earnings per share, stock prices and book values per share, stock prices and the interaction of BVS*IFRS. The associations are in line with Ohlson (1995) who predicts a strong positive association between stock prices and earnings, and stock prices and book values. The other interaction terms also shows significant but weaker correlations with stock prices at 0.01 level of significance. However, while we expect the interaction terms BVS*CMS, BVS*CMSHigh, BVS*CMS*IFRS, and BVS*CMSHigh*IFRS to be negatively correlated with stock prices, the Pearson correlation table reports positive associations between these variables and stock prices. Among the control variables, Size (positive), Growth (positive), and Loss (negative) are significantly correlated with stock prices at 0.01 level of significance. However, the control variables Leverage and Cross US are not correlated with stock prices according to the Pearson correlation matrix. The rest of the table shows many positive and negative associations between control variables, independents variables, and control and independents variables. This suggests that some variables may suffer from colinearity issues, which could bias our regression results. Thus we conduct multicolinearity checks for every regression

6.3.2 The return model

Table 10 presents the Pearson correlation matrix for the variables included in the return model. The matrix shows no significant correlation between earnings per share and stock returns. Here, Kothari and Zimmerman (1995) explain that the week association of returns and earnings can sometimes mislead results interpretations. In addition, the matrix reports no significant correlation (at the 0.01 level) between the iteration variables EPS'*IFRS, EPS'*CMS, EPS'*CMSH, EPS'*CMS*IFRS, and EPS'*CMSH*IFRS and stock returns. However, there are significant associations between stock returns and some control variables. As for the price model, returns are

significantly associated with firms' Size and Growth, while not correlated with Leverage. However, while the association between Size and Prices is positive, returns are negatively correlated with firms' sizes. Also, while for the price model, the dummy variable Cross US is not correlated with prices, here Cross US is significantly (at the 0.01 level) and negatively associated with returns. This suggests, that firms that were cross-listed in the United States during our period of study has more negative returns that other firms in our sample. In addition, while Loss is significantly and negatively correlated with stock prices, it is not correlated with returns. The rest of the table shows many positive and negative associations between control variables, independents variables, and control and independents variables. This suggests that some variables may suffer from colinearity, which could bias our regression results. Thus we proceed to multicolinearity checks for every regression.

Table 9: Correlations for the Price model

	Price	Size	Leverage	Growth	Loss	Cross US	EPS	BVS	BVS *IFRS	BVS *CMS	BVS *CMSH	BVS* CMS* IFRS	BVS* CMSH *IFRS
Price	1												
Size	364**	1											
Leverage	.058	.320**	1										
Growth	.335**	-.167**	-.011	1									
Loss	-.293**	-.160**	.013	-.206**	1								
Cross US	.010	.233**	-.164**	-.010	.025	1							
EPS	.640**	.287**	.095**	.196**	-.649**	-.065	1						
BVS	.551**	.285**	.021	-.228**	-.064	-.007	.357**	1					
BVS* IFRS	.526**	.296**	.016	-.063	-.099**	-.016	.296**	.461**	1				
BVS* CMS	.310**	.199**	.183**	-.164**	-.068	-.196**	.301**	.507**	.361**	1			
BVS* CMSH	.339**	.185**	.145**	-.109**	-.079*	-.149**	.304**	.458**	.302**	.836**	1		
BVS*CMS*IFRS	.292**	.163**	.122**	-.083*	-.053	-.139**	.212**	.384**	.633**	.716**	.569**	1	
BVS*CMSH*IFRS	.310**	.144**	.089*	-.055	-.059	-.091**	.224**	.343**	.535**	.595**	.708**	.823**	1

**. Correlation is significant at the 0.01 level (2-tailed). *. Correlation is significant at the 0.05 level (2-tailed).

Table 10: Correlations for the return model

	Return	Size	Leverage	Growth	Loss	Cross US	EPS'	EPS' *IFRS	EPS' *CMS	EPS' *CMSH	EPS' *CMS *IFRS	EPS'* CMSH* IFRS
Return	1											
Size	-.153**	1										
Leverage	-.014	.320**	1									
Growth	.176**	-.167**	-.011	1								
Loss	-.023	-.160**	.013	-.206**	1							
Cross US	-.101**	.233**	-.164**	-.010	.025	1						
EPS'	.066	.102**	.059	.164**	-.827**	-.096**	1					
EPS'* IFRS	.021	.048	.010	.163**	-.533**	-.098**	.584**	1				
EPS'*CMS	.019	.179**	.084*	.033	-.341**	-.074*	.447**	.187**	1			
EPS'*CMSH	-.003	.223**	.182**	-.002	-.203**	-.087*	.272**	.135**	.672**	1		
EPS'*CMS* IFRS	.034	.125**	.112**	.061	-.184**	-.085*	.212**	.397**	.544**	.428**	1	
EPS'* CMSH* IFRS	.005	.175**	.140**	.025	-.123**	-.031	.154**	.292**	.400**	.599**	.737**	1

**. Correlation is significant at the 0.01 level (2-tailed). *. Correlation is significant at the 0.05 level (2-tailed).

6.4 Multivariate Analysis

The following section presents the results from the application of the metrics described in the methodology section. As discussed, we will run 7 regressions for the price model and 7 regressions for the return model. The purpose of using two models in order to grasp the same effect, value relevance, is guided by Kothari & Zimmerman (1995) who recommend combining both models in order to reduce the chance of misinterpretation that may be caused by models' biases.

6.4.1 The price model

6.4.1.1 Model (1) Ohlson (1995) price model

The first regression tests the association of prices with book values per share and earnings per share. Column Eq (1) in Table 11 reports a high R2 equal to 0.528, very close to Kothari & Zimmerman (1995) who report an R2 of 0.531 when applying the same model. The slope of the EPS term is significant (α=0.01) and positive as expected, equal to 6.759, which is relatively high. Kothari and Zimmerman (1995) report a slope for the EPS term equal to 7.9. Thus our model reports a strong positive association between EPS and stock prices. The slope of the book value per share is positive and significant as expected. However, the slope is smaller and equal to 0.626. The multicolinearity check shows no evidence of a strong multicolinearity problem with our variables, as the variance inflation factors (not reported here) are all small enough and with tolerances greater than 87%. In addition, following White (1980), the OLS regression with adjusted standards errors reports no differences in the coefficients and slopes of the regression, which implies that our model do not suffer from heteroscedasticity. We follow the procedure of Hayes & Cai (2007) in order to run the regressions using adjusted standards errors on SPSS statistics software.

Table 11: Summary statistics for the price model

	Predicted value	Eq (1)	Eq (2)	Eq (3)	Eq (4)	Eq (5)	Eq (6)	Eq (7)
Intercept		**8.434*** **	**-66.324*** **	**-56.305*** **	**-55.733*** **	**-54.503*** **	**-53.021*** **	**-58.988*** **
		(13.324)	(-9.091)	(-8.195)	(-8.137)	(-8.030)	(-7.870)	(-8.955)
BVS	+	**.626*** **	**.737*** **	**.557*** **	**.585*** **	**.574*** **	**.541*** **	**.541*** **
		(14.307)	(19.521)	(14.301)	(14.530)	(14.374)	(13.457)	(13.523)
EPS	+	**6.759*** **	**6.012*** **	**5.348*** **	**5.474*** **	**5.347*** **	**5.187*** **	**5.099*** **
		(19.627)	(15.740)	(14.790)	(15.058)	(14.802)	(14.395)	(14.185)
BVS*IFRS	+			**.642*** **	**.669*** **	**.683*** **	**.909*** **	**.901*** **
				(10.860)	(11.185)	(11.511)	(12.525)	(12.471)
BVS*CMS	-				**-.133*** **	**-.363*** **	**.110***	**.110***
					(-2.604)	(-4.814)	(1.670)	(1.677)
BVS*CMSH	-					**.324*** **		
						(4.109)		
BVS*CMS* IFRS	-						**-.510*** **	**-.724*** **
							(-5.621)	(-6.377)
BVS*CMSH*IFRS	-							**.318*** **
								(3.108)
Size	+/-		**2.982*** **	**2.617*** **	**2.586*** **	**2.547*** **	**2.453*** **	**2.455*** **
			(8.677)	(8.117)	(8.042)	(7.999)	(7.756)	(7.804)
Leverage	+/-		**-4.764**	**-4.289**	**-3.449**	**-3.249**	**-3.333**	**-3.347**
			(-1.519)	(-1.465)	(-1.175)	(-1.118)	(-1.157)	(-1.169)
Growth	+		**5.311*** **	**5.382*** **	**5.309*** **	**5.248*** **	**5.417*** **	**5.400*** **
			(18.102)	(19.651)	(19.354)	(19.296)	(20.076)	(20.121)
Loss	-		**6.751*** **	**6.085*** **	**6.204*** **	**6.062*** **	**5.868*** **	**5.745*** **
			(5.950)	(5.738)	(5.866)	(5.786)	(5.645)	(5.554)
Cross US	+		**-.586**	**-.270**	**-.575**	**-.552**	**-.591**	**-.631**
			(-.738)	(-.365)	(-.769)	(-.745)	(-.805)	(-.864)
R^2		.529	.731	.766	.768	.773	.777	.780
P Value		<.01	<.01	<.01	<.01	<.01	<.01	<.01
n		810	810	810	810	810	810	810

*** α=0.01 **α=0.05 * α=0.1

6.4.1.2 Model (2) Control variables

In the second pooled and cross sectional regression in column Eq (2) in Table 11, we add all the control variables to the price model to assess if their inclusion improves the explanatory power of the model. The R2 of the model shows that including control variables is relevant as the explanatory power of the initial model increases from .529 to .731. The positive and significant associations between price and EPS and BVS hold. The slopes of EPS slightly decreases but is still relatively high, equal to 6.012. For clarity purpose we do not report the coefficients for the year and industry variables. However, their inclusion is relevant as the variables that control for years fixed effects have significant coefficients for 3 out of 5 years (α=0.01 and α=0.05). The slope is negative, significant, and smaller for 2008, which may be explained by the negative market trends of 2008. Then, the industries coefficients report significant associations for 4 out of 8 slopes (α=0.01 and α=0.1). Out of the 5 additional control variables we selected, three report significant associations with prices (α=0.01). Indeed, Size and Growth are significantly and positively associated with prices. The control variable Loss is also significantly and positively associated with prices, which goes against our predictions. The variables Leverage and Cross US are not associated with stock prices while we expected a positive association between prices and Cross US and a negative association between prices and Leverage. The multicolinearity check shows no evidence of a strong multicolinearity problem with our variables, as the variance inflation factors (not reported here) are all small enough and with tolerances greater than 41%. In addition, following White (1980), the Heteroscedasticity-Consistent Regression results with adjusted standards errors report no differences in the coefficients and slopes of the regression.

6.4.1.3 Model (3) IFRS and value relevance

We report the results from the pooled cross-sectional regression for the difference in book value relevance from one set of standards to the other in column Eq (3) in Table 11. The inclusion of the interaction terms BVS*IFRS enable us to see if reporting under IFRS increases the value relevance of accounting numbers. The R2 from the regression

shows an increase in the explanatory power of the model. Indeed, the R2 increases from 73.1% to 76.6%. The coefficients of EPS and BVS are both significant and positive (α=0.01). However, we notice a slight decrease in the coefficients of their slopes as compared to model 2 (5.348 for β1 and 0.642 for β2) which is explained by the inclusion of the interaction term BVS*IFRS. Here, the association between BVS*IFRS is highly significant and positive (α=0.01) with β3 equal to .642. This suggests that the value relevance of accounting figures increases with IFRS adoption. Here, we can conclude, that in general, the value relevance of earnings improves with the adoption of IFRS for our sample. However, further test are conducted in the next sections in order to test for the validity of this conclusion. We conducted the same regression substituting BVS*IFRS with EPS*IFRS. The results, not reported here, show an increase in earnings value relevance. In fact, the coefficient of EPS*IFRS is positive (equal to 2.613) and significant (α=0.01).

As for model (2), we do not report the coefficients of the year and industry effects. The coefficients' signs and significance on the year fixed effects variables somewhat vary for 2013 and 2012 while they are similar to model (2) for the other periods, with year 2008 still displayed a strong negative and significant association with prices. The signs and significance of the industries fixed effects coefficients are very similar to model (2) except for the consumer discretionary industry. Here, the slope becomes significant (α=0.05) while its sign remains negative. The slope of the Growth control variable increases slightly from 5.31 to 5.38, while the slopes of the Size and Loss variables decrease slightly from 2.98 to 2.62 and from 6.75 to 6.01 respectively, but remain all significant (α=0.01). The Loss control variable slope is positive as in model (2), which again contradicts our predictions. The effect of the variable Cross US does not vary and is still insignificant. Thus it seems that being cross-listed in the United States does not affect prices for our sample while we expected the opposite. The Leverage variable remains also insignificant. We notice that the inclusion of the interaction variable BVS*IFRS has an effect on the relationship between prices and the other variables in our model as their slopes and even significance somewhat vary. The multicolinearity check shows no strong evidence of a multicolinearity problem, as the variance inflation

factors (not reported here) are all small enough and with tolerances greater than 38.3%. In addition, following White (1980), the Heteroscedasticity-Consistent regression results with adjusted standards errors report no differences in the coefficients and slopes of the regression.

In order to validate our results and to decrease the chances of model misspecification because model (3) includes observations that uses two different accounting systems, we proceed to an additional regression test. Here we divide our sample into two sub-samples with regard to the variable IFRS. The resulting sub-samples distinguish observations with accounting figures reported under IFRS from observations with accounting figures reported under Canadian GAAP. The OLS regressions results in column Eq (3) in Table 12 corroborate the results in Table 11, as the R2 under IFRS is higher than the R2 under Canadian GAAP, with values equal to 83.8% and 68.2% respectively. As the explanatory power of the model under IFRS is higher than the explanatory power under Canadian GAAP, we conclude that accounting numbers reported using IFRS are more value relevant than accounting numbers reported under Canadian GAAP. These results are in line with previous Canadian studies which conclude that the quality of accounting numbers improves with the adoption of IFRS (Cormier, 2013; Liu & Sun, 2014). The regressions' slopes β2 and β3 of both regressions are positive and significant (α=0,01) meaning that both book values and earnings explain prices. However, the interesting finding is that the coefficient of EPS is slightly lower under IFRS, decreasing from 4.95 to 4.89. At the opposite, the coefficient of BVS is considerably higher under IFRS, increasing from .47 to 1.39. Thus, it seems that the increased value relevance is more driven by the increase in the value relevance of book values than by the value relevance of earnings.

The slopes of the control variables Size, Growth, and Loss are positive and significant (α=0.01) both under IFRS and Canadian GAAP. However, while the slope of the Leverage variable is very low (equal to -8.29) and significant (α=0.05) under Canadian GAAP, it remains insignificant under IFRS. As in previous models, cross listing in the

United States is not significant. We notice that the industry effects significance changes from one model to the other for 5 out of 8 industries.

The multicolinearity check shows no strong evidence of a multicolinearity problem, as the variance inflation factors (not reported here) are all small enough and with tolerances greater than 34.1%. We even notice an increase in the tolerances factors, especially for the variable EPS which tolerance increases from 29.4% to 34.1%.

Table 12: Split sample tests for the price models (3), (4), and (5)

	Predicted value	Eq (3)		Eq (4)		Eq (5)	
		Canadian GAAP	IFRS	Canadian GAAP	IFRS	Canadian GAAP	IFRS
Intercept		**-69.250*** **	**-47.349*** **	**-69.936*** **	**-42.760*** **	**-69.576*** **	**-43.393*** **
		(-7.715)	(-4.805)	(-7.768)	(-4.567)	(-8.053)	(-4.638)
BVS	+	**.470*** **	**1.390*** **	**.460*** **	**.1.656*** **	**.447*** **	**1.621*** **
		(11.470)	(20.967)	(10.847)	(22.322)	(10.966)	(20.900)
EPS	+	**4.950*** **	**4.886*** **	**4.793*** **	**4.761*** **	**5.574*** **	**4.991*** **
		(10.239)	(9.207)	(9.579)	(9.471)	(11.190)	(9.527)
BVS*CMS	-			0.075	**-.462*** **	**.468*** **	**-.343***
				(1.062)	(-6.696)	(4.921)	(-3.297)
EPS*CMS	-					**-4.924*** **	-1.389
						(-5.894)	(-1.528)
Size	+/-	**3.359*** **	**1.769*** **	**3.432*** **	**1.327*** **	**3.418*** **	**1.351*** **
		(7.863)	(3.808)	(8.023)	(2.983)	(8.325)	(3.041)
Leverage	+/-	**-8.288** *	-1.083	**-8.638** *	2.936	**-10.073*** **	3.615
		(-2.106)	(-.295)	(-2.181)	(.749)	(-2.645)	(.918)
Growth	+	**4.049*** **	**7.025*** **	**4.202*** **	**6.866*** **	**4.233*** **	**6.888*** **
		(10.788)	(17.802)	(11.254)	(18.377)	(11.811)	(18.454)
Loss	-	**5.447*** **	**6.688*** **	**4.995*** **	**6.368*** **	**4.219*** **	**6.333*** **
		(3.778)	(4.503)	(3.434)	(4.551)	(3.009)	(5.533)
Cross US	+	-.688	1.128	-.757	.072	-.583	.200
		(-.668)	(1.116)	(-.728)	(.074)	(-.584)	(.205)
R^2		.682	.838	.678	.853	.705	.854
P Value		<.01	<.01	<.01	<.01	<.01	<.01
n		411	399	411	399	411	399

*** α=0.01 **α=0.05 * α=0.1

6.4.1.4 Model (4) CMS and value relevance

The results from the pooled cross sectional regression in column Eq (4) in Table 11 inform about the relationship between CMS firms and value relevance for the firms in our sample. Here the coefficient of the interaction variable BVS*CMS tell us if CMS firms have any incremental effect on book value's relevance. The inclusion of the interaction term BVS*IFRS controls for the presence of two different set of standards in our data. The R2 is equal to 76.8%, a slightly higher than in model (3) (equal to 76.6%). The coefficients of EPS and BVS are positive and significant (α=0.01). We notice that their coefficients slightly increase as compared to model (3) (from 5.35 to 5.47 for β1 and from .56 to.59 for β2). The association between BVS*IFRS is positive and highly significant as in model (3) with β3 equal to .69, a little higher than in model (3). Here it seems that the inclusion of the interaction term BVS*CMS affects the association between prices and EPS, BVS and BVS*IFRS. This being said, the coefficient of β3 supports our conclusion from model (3) that the value relevance of accounting figures improves with the adoption of IFRS in Canada. The coefficient of the interaction term BVS*CMS is negative and significant (α=0.01). This implies that CMS firms negatively affect the relation between BVS and prices. This finding is in line with previous research such as Attig, Fong, Gadhoum and Lang (2006) and Bozec (2006) who argue that CMS firms report lower quality accounting numbers. This result is valid for the observations in our sample but do not tell us if IFRS reporting and/or Canadian GAAP reporting drive the coefficient. We answer to this point through the regression results in column Eq (4) in Table 10.

As for model (3), we do not report the coefficients of the year and industry effects. The coefficients of the year control variables are similar to the coefficients in model (3), as all slopes are negative and significant except for 2009 where the slope is not significant. The slopes and significance of the industry variables are similar to the slopes in model (3) except for consumer discretionary, which looses its significance. The coefficients of Growth, Size and Loss remain significant and positives as in model (3) (α=0.01), and their slopes do not vary significantly. Indeed, the coefficient of Growth decreases from

5.38 to 5.30, the coefficient of Size decreases from 2.6 to 2.59 and the coefficient of Loss increases from 6.01 to 6.2. The coefficients of Leverage and Cross US remain insignificant.

The multicolinearity check shows no strong evidence of a multicolinearity problem, as the variance inflation factors (not reported here) are all small enough and with tolerances greater than 37.1%. In addition, following White (1980) we report heteroscedasticity-consistent regressions results with adjusted standards errors. The results show that our variable BVS*CMS is not robust. We decide to run the same regressions replacing the variables BVS*IFRS and BVS*CMS with EPS*IFRS and EPS*CMS. Indeed, EPS also informs on the value relevance of accounting numbers as it measures the association between earnings and prices. Kothari and Zimmerman (1995) use this specification in order to test the association between accounting values and prices. The regressions results are not reported here. We notice that the interaction terms EPS*CMS and EPS*IFRS are both robust to the adjusted standard errors specification. Indeed, their coefficients are both highly significant (α=0.01). In addition the slope of the coefficient of EPS*IFRS is positive while the slope of the coefficient EPS*CMS is negative. These findings validate our previous conclusion that the value relevance of CMS firms in our sample is lower.

In order to see if the effect of CMS firms varies from one accounting system to the other, we divide our sample based on the variable IFRS as in model (3). The R2 from the regressions in column Eq (4) in Table 12 shows, as in model (3), that the value relevance of accounting numbers improves with the adoption of IFRS. Indeed, R2 under IFRS increases to 85.3% (while equal to 67.8% under Canadian GAAP). The coefficients of BVS and EPS are significant and positive under Canadian GAAP and under IFRS. The coefficient of BVS is significantly greater under IFRS as it increases from .460 to 1.656, indicating the book values are better associated with prices after the adoption of IFRS. However, the coefficient of EPS does not increase under IFRS. The coefficient of BVS*CMS is not significant under Canadian GAAP. From this coefficient

we can infer that for the firms in our sample, the association between book values and prices for CMS firms is not statistically different than the association between non-CMS firms and prices. Indeed, the inclusion of the interaction term BVS*CMS does not add any explanatory power to the model. However, we notice that the coefficient of BVS*CMS is negative and highly significant (α=0.01) under IFRS. We conclude that book values are less relevant for CMS firms than for non-CMS firms under IFRS. Indeed, the inclusion of the interaction BVS*CMS shows that CMS firms decrease the value relevance of book values to prices. Here if we compare the coefficients of BVS*CMS between the two sets of standards, we can conclude that the value relevance of book values decreases with IFRS adoption while at the same time the explanatory power of book values to prices improves from Canadian GAAP to IFRS. In other words, the value relevance of book values improves under IFRS only for non-CMS firms. This conclusion supports our hypothesis that accounting quality decreases for CMS firms with the adoption of IFRS in Canada.

We notice that all control variables display similar slope signs and significance as in the pooled regressions beside Leverage. Indeed, while the slope on Leverage is insignificant under IFRS it becomes negative and significant (α=0.05) under Canadian GAAP with a coefficient equal to -8.64. The multicolinearity check shows no strong evidence of a multicolinearity problem, as the variance inflation factors (not reported here) are all small enough and with tolerances greater than 34.2%.

We go further in the analysis and see if the effect of CMS firms on EPS is similar to what we observe for BVS. We run the same OLS regressions but we add the interaction variable EPS*CMS to the model. The results are depicted in column Eq (5) in Table 12. We observe that the coefficient of EPS and BVS are similar to the previous regression and under both accounting systems. However, the coefficient BVS*CMS becomes positive and significant (α=0.01 and coefficient equal to .47) under Canadian GAAP, implying that book values are even more relevant for CMS firms in our sample than for non-CMS firms. However, the coefficient of EPS*CMS is highly significant (α=0.01)

and negative (equal to -4.9). This finding tells us that under Canadian GAAP, earnings are less relevant for CMS firms. Under IFRS, the coefficient of BVS*CMS is negative and significant (α=0.01), in line with the previous regression result, while the coefficient of EPS*CMS becomes insignificant (α=0.1). As a consequence, it seems that while CMS firms' earnings are less relevant under Canadian GAAP, the adoption of IFRS standards improves their relevance, as there is no statistical difference between CMS firms and non-CMS firms' earnings relevance. At the opposite, while under IFRS, markets rely more on book values for CMS firms, their relevance becomes lower under IFRS. The multicolinearity check shows no strong evidence of a multicolinearity problem, as the variance inflation factors (not reported here) are all small enough and with tolerances greater than 31.4%.

6.4.1.5 Model (5) Wedge and Value relevance.

The results of the pooled cross-sectional regression presented in column Eq (5) in Table 11 tell us about the value relevance of CMS firms' accounting numbers when the wedge between voting and cash flow rights is high. Indeed, the interaction variable BVS*CMSH grasps the additional effect of high gaps (greater or equal to 0.38) on value relevance. The interaction variable BVS*IFRS controls for the fact that our data are reported using two set of standards. Here we are mainly interested in comparing the coefficients β4 and β5 on BVS*CMS and BVS*CMSH.

The R2 from the model is equal to 77.3%, a slightly higher than in model (4) (equal to 76.8%), which implies that the inclusion of the variable BVS*CMSH adds explanatory power to the model. The coefficients of EPS, BVS and BVS*IFRS are positive and highly significant (α=0.01) as in model (4). The coefficient of BVS*CMS is also significant (α=0.01) and negative as in model (4), indicating that CMS firms have less relevant book values than other types of firms. The coefficient of BVS*CMSH is surprisingly significant and positive (α=0.01). This implies that CMS firms in our sample with high concentration of voting power have more relevant book values than those with lower concentration of voting power. This finding contradicts what previous scholars reported on Canadian CMS firms and accounting quality (Bozec, 2008).

The coefficients of the year and industry effects are not reported for clarity purposes. The coefficients of the year variables are all negative and significant (α=0.01), except for 2009 (insignificant) as for model (4). The coefficients of the industry variables are all similar to model (4) with same significances and slopes. The coefficients of Size, Growth and Loss are all positive and significant (α=0.01) as for model (4). The coefficients of Leverage and Cross US are negative but not significant as for model (4).

The multicolinearity check shows no major evidence of a multicolinearity problem, as the variance inflation factors (not reported here) are all small enough and with tolerances greater than 24%. However, the tolerance on the variable BVS*CMS (equal to 24%) is relatively small. Thus our results have to be interpreted guardedly. Following White (1980), we report heteroscedasticity-consistent regression results with adjusted standards errors. We observe no significant differences in the coefficients and slopes of the regression.

6.4.1.6 Model (6) CMS firms, IFRS adoption and value relevance

The results from the pooled and cross sectional regression in column Eq (6) in Table 11 test for the relationship between CMS firms and value relevance under IFRS reporting. This results ultimately tests for our hypothesis. Indeed, the coefficient of the interaction variable BVS*CMS*IFRS tell us if there is a difference in book values' relevance for CMS firms when their financial statements follow IFRS. Here, we are interested in the incremental effect of the interaction term BVS*CMS*IFRS when compared to BVS*CMS and BVS*IFRS. The coefficient of determination of the regression is equal to 77.1%, a slightly higher than for model (4) (equal to 76.8%). This implies that the inclusion of the interaction term is relevant to the model. The coefficients of EPS and BVS are positive and significant (α=0.01), and very similar in values to the coefficients from model (4) (equal to 5.19 and .54). The association between BVS*IFRS and prices is significant (α=0.01) and positive as for model (4). The coefficient of BVS*IFRS increases from .69 to .91 when compared to model (4). Here again, we notice that the adoption of IFRS significantly improves the value relevance of book values for the firms in our sample. This relationship holds for all the specification we have tested so far. The

coefficient of BVS*CMS is positive and significant (α=0.1) which implies that book values are more relevant to stock prices for CMS firms in our sample than for other firms when we do not distinguish between accounting systems in this specification. This finding contradicts model (4)'s results where the coefficient of BVS*CMS is negative and highly significant (α=0.01). However, this coefficient has to be interpreted cautiously for two reasons. First, its association with prices is affected by the inclusion of the interaction term BVS*IFRS*CMS, and thus it has to be interpreted compared to this term. Then, the multicolinearity check, although it does not show a major evidence of multicolinearity, returns a tolerance equal to 24.3% for the term BVS*CMS. The coefficient of BVS*IFRS*CMS is negative and highly significant (α=0.01), indicating that book values of CMS firms are less relevant under IFRS. This finding supports our conclusion from model (4) that the value relevance of book values for CMS firms decreases under IFRS. Based on this result we support that the quality of book values decreases for CMS firms with the adoption of IFRS in Canada.

As for previous models, we do not report the coefficients of the year and industry effects. The coefficients of the year control variables are very similar to model (4), as the slopes are all negative and significant, except for 2009 where the slope is insignificant (α=0.1). The significances and signs of the coefficients of the industry variables are similar to model (4). The slopes on Growth, Size, and Loss remain positive and highly significant as in model (4) (α=0.01). The coefficient of Growth increases slightly from 5.3 to 5.42, the coefficients of Size and Loss decrease slightly from 2.59 to 2.45, and from 6.2 to 5.87 respectively. The coefficients of Leverage and Cross US remain insignificant as for model (4). The multicolinearity check shows no major evidence of a multicolinearity problem for most variables. However, the tolerances on BVS*CMS and BVS*IFRS*CMS are equal to 24.3% and 28.4% which, although not critical, is low. Thus the coefficients of these variables have to be interpreted guardedly. In order to reduce the risk of misinterpretation, we run an additional series of regressions in Table 11 where we split our sample into 4 different groups. In addition, following White (1980) we report heteroscedasticity-consistent regressions results with adjusted standards errors. The results show that the coefficient of the variable BVS*CMS is not

robust.

In the next series of regressions (see Table 11), we first split the entire sample with regard to the variable IFRS. We then test for value relevance of book values and earnings only for non-CMS firms in column (1) and only for CMS firms in column (2) in Table 11.

Column (1) in Table 13 reports the regression results with split samples for non-CMS firms. We first notice that the R2 is higher under IFRS (70.2% under Canadian GAAP and 89.4% under IFRS), suggesting that the value relevance of accounting figures increases with the adoption of IFRS for non-CMS firms. The coefficients β1 and β2 on EPS and BVS are highly significant (α=0.01) and positive. The coefficient of β1 decreases from 4.83 under Canadian GAAP to 3.73 under IFRS, suggesting that earnings are less relevant under this model specification. The coefficient of BVS increases highly from Canadian GAAP to IFRS (from .28 to 1.59), suggesting that the value relevance of book values improves with the adoption of IFRS for non-CMS firms. This finding is in line with model (4) results. We notice that all control variables display similar slope signs and significance as in the pooled regressions except Leverage. Indeed, while the slope on Leverage is insignificant under IFRS it becomes negative and significant (α=0.05) under Canadian GAAP with a coefficient equal to -9.16. The multicolinearity check shows no evidence of a major multicolinearity problem, as the variance inflation factors (not reported here) are all small enough and with tolerances greater than 35%.

Column (2) in Table 13 reports the regression results with split samples for CMS firms. The R2 tell us that the value relevance of accounting figures decreases for CMS firms with the adoption of IFRS. In fact the coefficient of determination decreases from 93.1% under Canadian GAAP to 88.8% under IFRS. This finding supports our hypothesis that the quality of accounting figures decreases for CMS firms with the adoption of IFRS. We look more closely at the coefficients from the regression and notice EPS is not significant under Canadian GAAP. This suggests that earnings are not value relevant for

CMS firms in our sample under Canadian GAAP. However, the coefficient of EPS becomes positive (equal to 4.98) and highly significant (α=0.01) under IFRS, which suggests that earnings are more relevant under IFRS for CMS firms, relative to book values. The coefficient BVS is positive and highly significant (α=0.01) under Canadian GAAP and IFRS, suggesting that book values are relevant to prices for CMS firms. However, we notice a slight decrease in the coefficient of BVS (from 1.34 to 1.33) from Canadian GAAP to IFRS and a t value that is marginally lower under IFRS when compared to Canadian GAAP. We conclude that the relevance of book values decreases slightly for CMS firms with the adoption of IFRS.

The signs and significance of the control variables slopes in these specifications somewhat vary from previous regression results. First, while the slope on Size is highly significant (α=0.01) and positive under all previous model specifications, it is positive and significant (α=0.05) under Canadian GAAP, while it becomes insignificant under IFRS. Then, while the slope on Leverage is insignificant in all previous results and is significant and negative in column (1) in Table 11, it becomes significant (α=0.01) and positive (with values equal to 16.2 and 36.7) in this model specification. The coefficient of Growth is positive and significant (α=0.01) as in other model specifications, with values close to other models (equal to 4.67 and 4.91). While the coefficient of Loss is significant and positive in all other model specifications with value between 4 and 6.5, it is insignificant under Canadian GAAP and significant (α=0.01) and positive (equal to 13.6) under IFRS. Finally, the coefficient of Cross US is positive and significant under Canadian GAAP while it is insignificant under IFRS. This coefficient is insignificant under all previous model specifications. Here it seems that under Canadian GAAP, cross listing in the United States positively affects prices of CMS firms. The multicolinearity check (not reported here) shows that the tolerances on EPS under Canadian GAAP and IFRS (equal to 15.7% and 19.8% respectively) as well as on Cross US under IFRS are relatively small. Thus the previous results have to be interpreted guardedly.

Table 13: Split sample tests for the price model (6)

	Predicted value	(1) non-CMS firms		(2) CMS firms	
		Canadian GAAP	IFRS	Canadian GAAP	IFRS
Intercept		**-84.334*** **	**-59.118*** **	**-29.741** **	-8.176
		(-8.704)	(-6.561)	(-2.240)	(-.289)
BVS	+	**.381*** **	**1.585*** **	**1.339*** **	**.1.328*** **
		(8.839)	(22.531)	(18.012)	(9.347)
EPS	+	**4.834*** **	**3.731*** **	-.840	**4.980*** **
		(8.666)	(7.867)	(-1.156)	(3.381)
Size	+/-	**4.167*** **	**2.116*** **	**1.500** **	-.522
		(9.099)	(4.963)	(2.318)	(-.371)
Leverage	+/-	**-9.159** **	.635	**16.162*** **	**36.696*** **
		(-2.117)	(.170)	(2.933)	(3.129)
Growth	+	**3.883*** **	**7.339*** **	**4.665*** **	**4.914*** **
		(9.416)	(20.245)	(7.230)	(4.501)
Loss	-	**4.142*** **	**4.025*** **	.676	**11.687** **
		(2.690)	(3.129)	(.323)	(2.531)
Cross US	+	-.173	1.167	**3.821** **	6.603
		(-.157)	(1.357)	(2.383)	(1.002)
R^2		.702	.894	.931	.888
P Value		<.01	<.01	<.01	<.01
n		327	318	84	81

*** α=0.01 **α=0.05

6.4.1.7 Model (7) Wedge, IFRS and value relevance

The pooled and cross sectional regression results in column Eq (7) in Table 11 tell us about the relationship between value relevance and CMS firms with a high gap between voting and cash flow rights, under IFRS. Indeed, the interaction variable BVS*CMSH*IFRS tell us about the relevance of book values under IFRS for CMS firms for which the gap between voting and cash flow rights is greater than 38%. The R2 is equal to 78%, a slightly higher than in model (6) with an R2 equal to 77.7%. This implies that the inclusion of the interaction variable BVS*IFRS*CMSH adds explanatory power to the model. The coefficients of EPS, BVS, and BVS*IFRS are all significant (α=0.01) and positives, with coefficients equal to 5.1, .54, and .90 respectively. This indicates that BVS and EPS are relevant to prices in this specification

and that the adoption of IFRS improves the quality of book values. Indeed, the interaction term BVS*IFRS informs on the incremental relevance of book values when reported under IFRS. The coefficient of BVS*CMS is positive and significant (α=0.1) as in model (6), which implies that book values are more relevant to stock prices for CMS firms in our sample when we do not distinguish between accounting systems in the specification. This finding contradicts model (4) results where the coefficient of BVS*CMS is negative and highly significant (α=0.01). However, this coefficient has to be interpreted cautiously. Its association with prices is affected by the inclusion of the interaction term BVS*CMS*IFRS and BVS*CMSH*IFRS, and thus it has to be interpreted compared to these terms. The coefficient of BVS*CMS*IFRS is negative and significant (α=0.01), indicating that book values are less relevant for CMS firms in our sample than for non-CMS firms under IFRS. This results support the findings in model (4) and (6) that the value relevance of book values decreases for CMS firms under IFRS. The slope on BVS*CMSH*IFRS is surprisingly positive and significant (α=0.01) as BVS*CMSH in model (5), with a coefficient equal to .32. This implies that CMS firms with high concentration of voting rights in our sample have more relevant book values under IFRS than firms with lower concentration of voting rights. This finding contradicts what previous scholars reported on the relationship between Canadian CMS firms and accounting quality (Bozec, 2008).

We do not report the coefficients of the year and industry variables. The coefficients of the year variables are similar to model (6), as the slopes are all negative and significant except for 2009 where the slope is insignificant (α=0.1). The slopes' signs and significances of the industry control variables are similar to model (6). The coefficients of Size, Growth and Loss are positive and significant (α=0.01) and their values are close to the values in model (6). The coefficients of Cross US and Leverage are insignificant as for model (6). The multicolinearity check (not reported here) shows no major evidence of a multicolinearity problem for most variables. However, the tolerances on BVS*IFRS and BVS*CMS*IFRS are equal to 24.2% 17.9% respectively, which is low. Thus the coefficients of these variables have to be interpreted guardedly. Following White (1980) we report heteroscedasticity-consistent regressions results with adjusted

standards errors. The results show that the coefficient of the variable BVS*CMS is not robust.

6.4.2 The return model

6.4.2.1 Model (1)' the return model

Column Eq (1) in Table 14 reports the results of the application of the return model. The coefficient of determination is very low, equal to 0.4%, but the model is still significant at (α=0.1). Here return models are known to have lower explanatory power than price models (Kothari & Zimmerman, 1995). The slope of the EPS term is positive and significant (equal to .47) which implies that EPS explains returns in the specification below. Also, the model does not control for many effects that could affect the relationship between returns and earnings per share. Following White (1980), the heteroscedasticity-consistent regression results with adjusted standards errors report no differences in the coefficients and slopes of the regression.

Table 14: Summary statistics for the return model

	Predicted value	Eq (1)'	Eq (2)'	Eq (3)'	Eq (4)'	Eq (5)'	Eq (6)'	Eq (7)'
Intercept		**.153*** **	**1.314*** **	**1.281*** **	**1.272*** **	**1.290*** **	**1.281*** **	**1.260*** **
		(7.581)	(4.323)	(4.224)	(4.179)	(4.204)	(4.221)	(4.127)
EPS'	+	**.469***	**.828** **	**.531**	**.573**	**.582**	**.791** **	**.799** **
		(1.883)	(2.419)	(1.467)	(1.491)	(1.512)	(2.015)	(2.034)
EPS'*IFRS	+			**.935** **	**.919** **	**.906** **	**.483**	**.485**
				(2.451)	(2.390)	(2.346)	(1.149)	(1.152)
EPS'*CMS	-				**-.137**	**-.295**	**-.843***	**-.851***
					(-.327)	(-.552)	(-1.679)	(-1.693)
EPS'*CMSH	-					**.345**		
						(.477)		
EPS'*CMS* IFRS	-						**2.116** **	**2.563** **
							(2.529)	(2.364)
EPS'*CMSH*IFRS	-							**-.807**
								(-.649)
Size	+/-		**-.048*** **	**-.046*** **	**-.046*** **	**-.047*** **	**-.046*** **	**-.045*** **
			(-3.455)	(-3.299)	(-3.263)	(-3.295)	(-3.274)	(-3.191)
Leverage	+/-		**.115**	**.105**	**.105**	**.102**	**.074**	**.076**
			(.876)	(.802)	(.800)	(.774)	(.564)	(.575)
Growth	+		**.044*** **	**.043*** **	**.043*** **	**.043*** **	**.042*** **	**.042*** **
			(3.775)	(3.683)	(3.678)	(3.662)	(3.618)	(3.620)
Loss	-		**.100**	**.115***	**.117***	**.116***	**.118***	**.120***
			(1.565)	(1.798)	(1.811)	(1.808)	(1.845)	(1.867)
Cross US	+		**-.078** **	**-.074** **	**-.074** **	**-.073** **	**-.073** **	**-.073**
			(-2.347)	(-2.229)	(-2.238)	(-2.192)	(-2.210)	(-2.215)
R^2		.004	.453	.457	.457	.457	.462	.462
P Value		<.01	<.01	<.01	<.01	<.01	<.01	<.01
n		810	810	810	810	810	810	810

***α=0.01 ** α=0.05 * α=0.1

6.4.2.2 Model (2)' Control variables

In the second pooled and cross sectional regression in column Eq (2)' in Table 14, we add all the control variables to the return model in order to see if their inclusion improves the explanatory power of the model. We notice that the R2 from the regression increases significantly to 45.3% as compared to 0.4% in model (1)'. Thus, the control variables highly affect the overall explanatory power of the model and strongly influence returns. The association between returns and EPS' reported in model (1)' holds. The slope of EPS is positive and significant. We even notice that the significance of the coefficient of EPS' improves (α=0.05), and its value increases to .83 (equal to .47 in model (1)').

For clarity purposes we do not report the coefficients for the years and industries variables. The year fixed effects variables are all significant (α=0.01) with negative slopes for every year but 2009, while no industry control variable has a significant slope (α=0.1). Out of the 5 other control variables, 3 report significant associations with returns. Indeed, as for the price model, the slopes of Size and Growth are significant (α=0.01). However, while the slope of Growth is positive, the slope of Size is negative. Thus it seems that growth opportunities have a positive effect on returns, while firm's size negatively affects returns. The slope of Cross US is negative and significant (α=0.05), while it did not display a significant association with prices. Here, it seems that US cross listing negatively affects returns between 2008 and 2013 for the firms in our sample. Finally, neither Leverage nor Loss coefficient has a significant slope. Leverage's coefficient was neither significant in the price model specification. However, while Loss has a positive and significant slope in the price model, it shows no association with returns in this model. The multicolinearity check shows no evidence of a major multicolinearity problem with our variables as the variance inflation factors (not reported here) are small enough and with tolerances greater than 28.7%. Still we notice that the tolerance of the variable EPS' is somewhat low. Then, following White (1980), we report heteroscedasticity-consistent regression results with adjusted standards errors. The test shows no differences in the coefficients and slopes significance and signs.

6.4.2.3 Model (3)' IFRS and value relevance

The pooled and cross-sectional regression results in column Eq (3)' in Table 14 inform on the effect of the adoption of IFRS on earnings value relevance. Here, the model assesses if reporting under IFRS has an effect on the relationship between earnings and returns for the firms in our sample. Indeed, the variable EPS'*IFRS informs on the incremental effect of IFRS reporting on earnings per share. The R2 from the model has to be interpreted cautiously, as we have seen from the results in model (2)' that it is highly driven by the inclusion of the control variables (the R2 increases from 0.4% to 48.2% from model (1)' to model (2)'). The R2 is equal to 45.7%, which indicates a relatively strong association between our independent variables and returns. The increase in R2 suggests that the addition of the interaction term EPS'*IFRS adds explanatory power to model (3)'. The variable EPS' is positive but not significant (α=0.1). However, the interaction term EPS'*IFRS is positive (equal to .94) and significant (α=0.05). This finding is interesting as it shows that while earnings are not value relevant when no distinction is done between IFRS and Canadian GAAP reporting, they become useful when reported under IFRS. Thus the adoption of IFRS affects earnings value relevance positively. This result is in line with the conclusions drawn with the price model (model (3)). This conclusion holds when no distinction is done between CMS and non-CMS firms.

The coefficients of the industry and year fixed effects are not reported. All the coefficients of the year control variables are significant and negative except for 2009 where the coefficient is positive and significant (α=0.01). No coefficient of the industry variables has a significant slope as in model (2)'. The coefficient of Size is significant and negative similar to Niu (2006). The coefficient of Growth is positive and significant as for model (2)' (α=0.01). The coefficient of Leverage is not significant as in model (2)'. However, the coefficient of Loss becomes significant (α=0.1) and is positive. The coefficient of Cross US is significant and negative as for model (2)' which suggests that for our sample and period, cross listing in the United States was negatively linked to returns. The multicolinearity check shows no evidence of a major multicolinearity

problem, as the variance inflation factors (not reported here) are all small enough and with tolerances greater than 26.5%. However, the tolerance factor of EPS' of 26.5% could indicate a slight multicolearity issue. We control for any interpretation bias with the split sample tests below. In addition, following White (1980), the heteroscedasticity-consistent regression results with adjusted standards errors show that our model is robust as R2 is constant and all the slopes have very close values.

Column (1)' in Table 15 reports the results of the split sample tests for the value relevance of earnings under Canadian GAAP and IFRS. As shown in column Eq (3)' in Table 14, EPS' is not significantly associated with returns while EPS'*IFRS shows a significant association. As a result, we infer that earnings reported under Canadian GAAP drive the coefficient of EPS'. In order to verify our assumptions and to correct for any misinterpretation bias, we run additional regressions where we split our sample according to the variable IFRS. Here we obtain two sub-samples, one where earnings are reported using IFRS and the other where earnings are reported using Canadian GAAP. The R2 is higher from the specification before IFRS adoption (equal to 52.8%) than after IFRS adoption (equal to 28.5%). These results indicate that the explanatory power from the regression pre IFRS adoption is higher than after IFRS adoption. However, the R2s do not indicate that value relevance decreased with the adoption of IFRS as the coefficients are driven by the control variables. We run the same split sample regression with no control variable (not reported here). The R2 from the resulting regressions is higher post IFRS adoption than pre IFRS adoption, which corroborates our conclusion that the value relevance of earnings improves with the adoption of IFRS. When we look at the slopes coefficients in column (1)' in Table 13, we notice that the slope on EPS' in the specification pre IFRS adoption is not significant (α=0.1), while it becomes highly significant (α=0.01) and is positive under IFRS. This result supports the conclusion we drew in model (3)'.

The coefficient of Size is negative and significant (α=0.01) under Canadian GAAP while it becomes insignificant under IFRS (α=0.1). The coefficients of Leverage and Growth

are insignificant under Canadian GAAP (α= 0.1) while they become significant and positive under IFRS (α=0.05 and α=0.01 respectively). The coefficients of Loss are not significant under both specifications. The coefficients of the year and industry effects somewhat vary from one specification to the other.

The multicolinearity check shows no evidence of a major multicolinearity problem, as the variance inflation factors (not reported here) are all small enough and with tolerances greater than 24.6%. However, the tolerance on Loss equal to 24.6% is low and thus the results have to be interpreted with caution.

Table 15: Split sample tests for the return models (3)', (4)'

	Predicted value	Eq (3)'		Eq (4)'	
		Canadian GAAP	IFRS	Canadian GAAP	IFRS
Intercept		**1.811*** **	**.681***	**1.747*** **	**.708***
		(3.8010)	(1.758)	(3.656)	(1.824)
EPS'	+	.708	**1.129*** **	**.959***	**1.045** **
		(1.323)	(2.668)	(1.672)	(2.421)
EPS'*CMS	-			-.716	.576
				(-1.207)	(.981)
Size	+/-	**-.067*** **	-.025	**-.064*** **	-.025
		(-3.055)	(-1.478)	(-2.905)	(-1.519)
Leverage	+/-	-.106	**.360** **	-.133	**.339** **
		(-.511)	(2.347)	(-.636)	(2.194)
Growth	+	.030	**.052*** **	.029	**.052*** **
		(1.564)	(3.776)	(1.513)	(3.749)
Loss	-	.110	.097	.124	.096
		(1.017)	(1.348)	(1.136)	(1.342)
Cross US	+	-.080	-.084	-.082	-.082
		(-1.477)	(-2.226)	(-1.505)	(-2.164)
R^2		.528	.285	.530	.287
P Value		<.01	<.01	<.01	<.01
n		411	399	411	399

***α=0.01 **α=0.05 *α=0.1

6.4.2.4 Model (4)', CMS firms and value relevance

The pooled and cross sectional regression results in column Eq (4)' in Table 14 tell us about the relationship between earnings per share and returns for the CMS firms in our sample. Indeed, the interpretation of the interaction term EPS'*CMS tell us about the value relevance of earnings for the CMS firms in our sample. The interaction term EPS'*IFRS controls for the fact that the observations in this regression are reported using Canadian GAAP and IFRS. The coefficient of determination is equal to 45.7% and does not vary as compared to the R2 in model (3)'. Thus, it seems that the inclusion of the interaction variable EPS'*CMS does not add any explanatory power to the model. The coefficients of EPS' is insignificant and the coefficient of EPS'*IFRS is positive and significant (α=0.01) as in model (3)'. The coefficient of EPS'*IFRS is equal to .92, a little lower than in model (3)' (equal to .94). Here again, we see that the value relevance of earnings improves with the adoption of IFRS. The coefficient of EPS'*CMS, although negative, is insignificant while it is negative and significant in the price model specifications (model (4)). It seems that there is no difference in the value relevance of earnings between CMS firms and non-CMS firms in our sample. However, this result holds while we combine the data of both accounting systems. In the next series of regressions, we split the sample by accounting system in order to assess if this result holds for both subsamples in the next section. In addition, slopes from the return model tend to underestimate the true slopes, which can mislead conclusions (Kothari and Zimmerman, 1995).

As in previous models, we do not report the coefficients of the industry and year effects. All the coefficients of the year control variables are significant and negative except for 2009 where the coefficient is positive and significant (α=0.01). No coefficient of the industry variables has a significant slope as in model (3)'. The coefficients of Size is negative and significant (α=0.01) while the coefficients of Growth and Loss are positives and significant (α=0.01 and α=0.1 respectively). Their values are very close to model (3)' and equal to -.05, .04 and .16 respectively. The coefficient of Leverage is insignificant as in model (3)'. The coefficient of Cross US is negative and significant

(α=0.05 and γ5= -.07) as in model (3)' implying again that US cross-listed firms in our sample have lower returns.

The multicolinearity check shows no evidence of a major multicolinearity problem for most variables, as the variance inflation factors (not reported here) are all small enough and with tolerances greater than 51.7% for all variables but two. Indeed, the tolerance factor of EPS' of 23.5% and on Loss of 28.3% could indicate a slight multicolearity issue. We control for any interpretation bias through the split sample tests below. In addition, following White (1980), the heteroscedasticity-consistent regression results with adjusted standards errors show that our model is robust as R2 is constant and all the slopes are robust.

Column (2)' in Table 15 reports the results for the regressions with split samples. The samples are divided according to the variable IFRS, and thus distinguish the observations under IFRS from those under Canadian GAAP. The R2 is decreasing from 53% under Canadian GAAP to 28.7% under IFRS. Here again, the coefficients of determination are highly driven by the control variables, and not by the relevance of earnings in our model. The coefficient of EPS' is positive and significant (α=0.1) and equal to .96 under Canadian GAAP. It is also positive and significant (α=0.05) under IFRS. We notice that the coefficient of EPS' increases to 1.05 under IFRS and that its significance is higher. Here we have modest evidence that the value relevance of earnings increases with the adoption of IFRS. This finding corroborates previous conclusions. While the coefficient of EPS'*CMS is negative under Canadian GAAP and positive under IFRS, it remains insignificant in both subsamples. It seems that earnings reported by CMS firms do not differ from earnings reported non-CMS firms, even when we split our sample. The coefficients of EPS'*CMS have to be interpreted cautiously as the association between earnings and returns is already weak for the observations in our sample. This finding does not corroborate the conclusions from the price model where we report an increase in the value relevance of earnings for CMS firms with the adoption of IFRS.

The coefficient of Size is negative and significant (α=0.01) under Canadian GAAP and equal to -.06, while it becomes insignificant under IFRS (α=0.1) as for model (3)'. The coefficients of Leverage and Growth are insignificant under Canadian GAAP (α= 0.1) while they become significant and positive (equal to .34 and .05 and α=0.05 and α=0.01 respectively) under IFRS, as for model (3)'. The coefficients of Loss are not significant under both specifications. The coefficients of the year and industry effects somewhat vary from one specification to the other. The multicolinearity check shows no major evidence of a multicolinearity problem for most variables. However, the tolerances on EPS' and Loss, equal 22.7% and 24.3% under Canadian GAAP, are low. Thus, their slopes have to be interpreted cautiously.

6.4.2.5 Model (5)'Wedge and value relevance

The pooled and cross-sectional regression results reported in column Eq (5)' in Table 14 inform about the relationship between earnings and returns for CMS firms with a high wedge between voting and cash flow rights. Indeed, the inclusion of the interaction term EPS'*CMSH informs on the relationship between earnings and returns when the wedge is greater that 38%. The comparison of the coefficients of EPS'*CMS and EPS'*CMSH, tell us if the value relevance of earnings varies for CMS firms with large wedges.

The R2 from the regression is equal to 45.7% as for model (4)'. Thus the inclusion of the interaction term ESP'*CMSH does not add any explanatory power to the model. The coefficient of EPS' is insignificant while the coefficient of EPS'*IFRS is positive (equal to .91) and significant (α=0.05) as for model (4)'. Again, earnings reported under IFRS are more value relevant. As for model (4)' the coefficient of EPS'*CMS is not significant (α=0.1). The coefficient of EPS'*CMSH is neither significant (α=0.1). Thus we cannot assert that a linear relationship exists between the magnitude of the wedge and earnings value relevance. We can only say that there is no difference in value relevance between CMS firms and other firms in our sample using this model specification. However, as the relationship between EPS' and returns is weak in our

model, these coefficients have to be interpreted cautiously.

As for previous results, we do not report the coefficients of the year and industry variables. The coefficients of the year variables are all negative and significant (α=0.01) except for 2009 where the coefficient is positive and significant (α=0.01) as for model (4)'. The coefficients of the industry variables are all insignificant as for model (4)'. The coefficients of Size is negative (equal to -.05) and significant (α=0.0) while the coefficient of Growth is positive (equal to .04) and significant (α=0.01) as for model (4)'. The coefficient of Loss is also positive and significant (α=0.1). The coefficient of Leverage is insignificant as for model (4)'. Finally, the coefficient of Cross US is again negative and significant (α=0.05) as for model (4)'.

The multicolinearity check shows no major evidence of a multicolinearity problem for most variables, as all tolerances are higher than 42.8% except for two variables. Indeed, as in model (4)' the tolerances on EPS' and Loss are low (equal to 23.5% and 28.3% respectively). Thus, their coefficients have to be interpreted guardedly. Following White (1980), we report heteroscedasticity-consistent regression results with adjusted standards errors. We observe no significant differences in the coefficients of most slopes. The coefficient of IFRS is robust. However, the coefficient of Loss becomes insignificant (α=0.1).

6.4.2.6 Model (6)' CMS firms, IFRS and value relevance

The results from the pooled and cross-sectional regression in column Eq (6)' in Table 14 tell us about the relationship between CMS firms and value relevance under IFRS. Indeed, the interaction variable EPS'*CMS*IFRS tell us if earnings of CMS firms are more or less value relevant when reported using IFRS as compared to non-CMS firms. Here we are interested in the incremental effect of EPS'*CMS*IFRS when compared to EPS'*IFRS and EPS'*CMS. The R2 is equal to 46.2%, a little higher than in model (4)' (equal to 45.7%) which means that the inclusion of the interaction term EPS'*CMS*IFRS adds some explanatory power to the model. The coefficient of EPS' is

positive (equal to .79) and significant (α=0.05) while it is not significant in model (4)'. This result has to be interpreted guardedly as the multicolinearity test reports a tolerance of 22.4% for EPS', which is pretty low. Surprisingly, the coefficient of EPS'*IFRS is not significant, while it has significant slopes in all previous model specifications. The slope on EPS*CMS is negative (equal to -.84) and significant (α=0.1). This implies that CMS firms in our sample report less relevant earnings than other firms when we do not distinguish between accounting systems in this specification. This finding supports the conclusions from the price model (model (4)) and from previous studies on the association between CMS firms and value relevance (Attig, Fong, Gadhoum and Lang, 2006). The coefficient of EPS'*CMS*IFRS is positive (equal to 2.12) and significant (α=0.05). This means that CMS firms that adopted IFRS report more relevant earnings. Indeed, the coefficient is negative and significant on EPS'*CMS and positive and significant on ESP'*CMS*IFRS. Thus, we can conclude from the coefficient of EPS'*CMS*IFRS that the value relevance of earnings improves with the adoption of IFRS in Canada. This result is in line with the conclusions drawn in model (4), that earnings become more value relevant for CMS firms under IFRS than for non-CMS firms. However, book values on their side become less relevant according to the price model specification results.

As for previous models, we do not report the coefficients of the year and industry variables. All the coefficients of the year control variables are significant and negative except for 2009 where the coefficient is positive and significant (α=0.01) as for model (4)'. All the coefficients of the industry variables are insignificant as for model (4)'. The coefficients of Size is negative and significant (α=0.01) while the coefficients of Growth and Loss are positives and significant (α=0.01 and α=0.1 respectively). Their values are very close to model (4)' and equal to -.05, .04 and .12 respectively. The coefficient of Leverage is insignificant as in model (4)'. The coefficient of Cross US is negative and significant (α=0.05 and γ5= -.07) implying again that US cross-listed firms in our sample have lower returns.

The multicolinearity check shows no evidence of a major multicolinearity problem for most variables. Indeed, the variance inflation factors (not reported here) are all small enough and with tolerances greater than 43% for all variables but two. Here the tolerance factors on EPS' of 22.4% and on Loss of 28.3%, even though acceptable, are low. Following White (1980), we report heteroscedasticity-consistent regression results with adjusted standards errors. The coefficients of EPS' and EPS'*CMS are not robust as they lose their relevance while the coefficient of ESP'*CMS*IFRS stays significant. The coefficient of Loss becomes also insignificant.

In the next series of regressions, in table 16, we first split the entire sample with regard to the variable IFRS. We then test for value relevance of earnings only for non-CMS firms column (1)' in Table 16 and only for CMS firms in column (2)' in Table 16. The split sample results suffer from multicolinearity on the year variables under IFRS (with tolerances lower than 6%). We thus decide to run the regression controlling only for 2013 and 2008. Column (1)' in Table 16 reports the regression results with split samples for non-CMS firms. The coefficient of determination decreases from 45.2% under Canadian GAAP to 24.2% under IFRS. Once again, we attribute the decreasing R2 to the control variables that lead the R2s. The coefficient of EPS' is insignificant for both subsamples. The coefficient of Size is negative and significant while the coefficients of all other control variables (Growth, Leverage, Loss, and Cross US) are insignificant under Canadian GAAP. The coefficients of Growth and Leverage are positive and significant (α=0.01 and α=0.05 respectively) under IFRS, while the coefficients of Size, Loss and Cross US are insignificant.

Column (2)' in Table 16 reports the regression results with split samples for CMS firms. The R2 is equal to 48.4% under Canadian GAAP and to 21.8% under IFRS. However, the IFRS specification model is not significant (α=0.1). Thus we cannot say that the variables included in the regression explain returns, although the coefficient of EPS' is positive and significant. We stop here, as the specification column (2) in Table 16 does

not enable us to draw conclusions on the relationship between earnings and returns post IFRS.

Table 16: Split sample tests for the return model (6)'

	Predicted value	(1)' non-CMS firms		(2)' CMS firms	
		Canadian GAAP	IFRS	Canadian GAAP	IFRS
Intercept		**2.245*****	.326	.532	.820
		(3.791)	(.794)	(.425)	(.721)
EPS'	+	1.077	.673	.721	**4.398*****
		(1.553)	(1.422)	(.597)	(3.032)
Size	+/-	**-.077*****	-.023	-.010	-.056
		(-2.814)	(-1.236)	(-.162)	(-1.053)
Leverage	+/-	-.120	**.409****	-.036	.640
		(-.450)	(2.266)	(-.072)	(1.387)
Growth	+	-.003	**.064*****	.019	.028
		(-.110)	(3.926)	(.330)	(.661)
Loss	-	.123	.040	.303	**.566****
		(.918)	(.489)	(1.115)	(2.418)
Cross US	+	-.083	-.061	-.051	-.040
		(-1.229)	(-1.461)	(-.348)	(-.148)
R^2		.452	.242	.484	.218 [a]
P Value		<.01	<.01	<.01	<.1
n		327	318	81	84

***α=0.01 **α=0.05 *α=0.1

We estimate that the results in Table 16 have to be interpreted with caution, as there are many statistic issues associated with the results: multicolinerarity, inconsistence on the control variables coefficients, and weak robustness of the coefficients in the pooled regression specification.

6.4.2.7 Model (7)', Wedge, IFRS and value relevance

The pooled and cross sectional regression results in Eq (7)' in Table 14 test if the relationship between value relevance and CMS firms with a high wedge in model (5)' holds under IFRS. In other words, the table below tells us about the relationship between CMS firms and value relevance under IFRS when the wedge between voting and cash flow rights is greater than 38%. Indeed, the inclusion of the interaction term

EPS'*CMSH*IFRS enable us to assess the relationship between earnings and returns for CMS firms with relatively high wedges.

First, the R2 is equal to 46.2%, similar to the R2 from model (6)' which implies that the inclusion of the term EPS'*CMSH*IFRS does not add explanatory power to the model. The coefficient of EPS' is positive (equal to .80) and significant (α=0.05) as for model (6)'. However, as for model (6)' the coefficient has to be interpreted with caution as the multicolinearity test reports a tolerance equal to 22.4% on EPS'. The coefficient of ESP'*IFRS is not significant as for model (6)'. The coefficient of EPS'*CMS is negative (equal to -.85) and significant (α=0.1) as for model (6)'. Again, the coefficient of EPS'*CMS*IFRS is positive (equal to 2.56) and significant (α=0.05) as for model (6)', implying that earnings of CMS firms are of better quality when reported under IFRS than when reported under Canadian GAAP. The coefficient of EPS'*CMSH*IFRS is not significant, which imply, when compared to the coefficient of EPS'*CMS*IFRS, that there is no evidence of a change in the relationship between value relevance and returns when the wedge is high.

As for previous models, we do not report the coefficients of the year and industry variables. All the coefficients of the year control variables are significant and negative except for 2009 where the coefficient is positive and significant (α=0.01) as for model (6)'. All the coefficients of the industry variables are insignificant as for model (6)'. The coefficients of Size is negative and significant (α=0.01) while the coefficients of Growth and Loss are positives and significant (α=0.01 and α=0.1 respectively). The coefficient of Leverage is insignificant as for model (6)'. The coefficient of Cross US is negative and significant as for model (6)'.

The multicolinearity check shows no evidence of a major multicolinearity problem for most variables, as the variance inflation factors (not reported here) are all small enough and with tolerances greater than 42.7% for all variables but two. Indeed, the tolerance factors on EPS' of 22.4% and on Loss of 28.3% are relatively low. Following White

(1980), we report heteroscedasticity-consistent regression results with adjusted standards errors. The coefficients of EPS' and EPS'*CMS and EPS'*CMS*IFRS are not robust to this specification as they lose their significance (α=0.1).

6.4.3 Discussion

In this paper, we hypothesize that the quality of accounting figures decreases for CMS firms with the adoption of IFRS in Canada. We also hypothesize that the quality of accounting figures decreases as the gap between the voting and cash flow rights of the controlling shareholder increases. Using the price and return models to test for the value relevance of accounting figures, we assess if the adoption of IFRS improves the quality of accounting figures for CMS firms.

In general, the regression results of the price model are more robust than the results from of the return model. On one hand, book values and earnings are highly associated with prices, and lead the explanatory powers of the regressions. On the other hand, returns and earnings have very weak associations, and the slopes of the interaction terms involving earnings are often not robust to multicolinearity and heteroscedasticity tests. As for our regressions and testing for the effect of IFRS adoption on accounting quality in Canada, Liu and Sun (2014) do not find significant and robust associations with the return model, while they report evidence of increased accounting quality using other models. Thus, we mainly base our conclusions on the results from the price model.

First, we find that the adoption of IFRS, regardless of ownership structures, improves the quality of financial reporting. Indeed, the explanatory powers of the applications of the price model increase with the adoption of IFRS. We also find supporting evidence with the return model. These results are in line with conclusions of recent studies on the adoption of IFRS in Canada. Indeed, Cormier (2013), Okafor (2014) and Liu and Sun (2014) all report evidence of accounting quality improvement with the adoption of IFRS in Canada.

Our findings also show that the relevance of CMS firms' book values decreases with the adoption of IFRS while the relevance their earnings improves marginally with the adoption of IFRS. Thus, our findings only partially support our hypothesis. Indeed, we do not find consistent results across accounting figures. Thus, we cannot conclude that the value relevance of accounting figures decreases for CMS firms with the adoption of IFRS. On one hand, the explanatory power of our regressions suggest that the overall quality of accounting data decreases with the adoption of IFRS due to a decrease in the value relevance of book values. On the other hand, the coefficients of earnings are significantly positive for CMS firms under IFRS. Our tests results even suggest that the incremental improvement on earnings is higher for CMS firms, as the relevance of earnings reported by CMS firms under IFRS is not statistically different from non-CMS firms. We compare our finding with Li (2010). Indeed, the author finds that firms' cost of equity under IFRS decreases only for mandatory adopters. He suggests that markets give more value to accounting data disclosed using IFRS for firms that have lower incentives to disclose better quality information. Thus, it seems that IFRS in this situation can also have a disciplining function.

Finally, we do not find evidence supporting that a potential linear relationship between the wedge between voting and control rights and the value relevance of accounting figures. In fact, our results tend to contradict this assumption, suggesting that ownership concentration has a positive effect on the value relevance of accounting information.

CHAPTER 7 CONCLUSION

7.1 Conclusion

The present study tests the impact of the mandatory adoption of IFRS in Canada on the quality of accounting figures for CMS firms. We make the assumption that the quality of accounting information may not improve with the adoption of IFRS due to the high agency costs association with CMS firms. Indeed, in the agency theory presented by Bebchuck (1999), the control of a company is obtained through the use of control enhancing mechanisms rather than through the ownership of cash flow rights. Here a controlling minority shareholder (CMS) owns a larger portion of voting rights than cash flow rights, and exercises control over a firm's assets. In this situation, agency costs tend to be higher than in conventional structures because the controlling shareholder is entrenched. In addition when the proportion of cash flow rights held by this controlling shareholder is low, his/her incentives to maximize firm's profits are low while his/her incentives and abilities to expropriate other shareholders are high. As a consequence, a non-alignment of interests often exists between controlling shareholders and minority shareholders in CMS firms.

In Canada, CMS structures emerge mainly through the issuance of multiple classes of shares and/or through pyramids (Attig, 2007). Here, most scholars agree that the high agency costs existing in CMS firms have a negative impact on accounting quality, firm's performance, and investment choices (Attig, 2007; Bozec, 2008; Divito, Laurin & Bozec, 2010). Among them, Attig, Fong, Gadhoum and Lang (2006) and Bozec (2008) report that the quality of accounting information is lower for CMS firms when financial reports were disclosed under Canadian GAAP.

In 2011, Canada adopted IFRS along with many other countries worldwide (Deloitte Global Services Limited, 2014). The choice of a new set of standards was motivated by the willingness of the regulating bodies to adopt higher quality financial reporting standards (Pfeffer, Jacobs, DeLong & Tang, 2012). Here, quality accounting standards

and regulations can help lower agency costs (Baber et al., 1991; Dyck & Zingales, 2004). Indeed, accounting standards act as an important governance mechanism since the quality of financial reporting is expected to decrease the asymmetry of information between controlling and minority shareholders in the case of CMS firms.

However, the adoption of a better set of standards alone may not discipline controlling shareholders. Indeed, many scholars explain that expected positive effects of better quality standards can only occur if the firms have the incentives to apply the set of standards effectively (Ball, Robin & Wu, 2003; Renders & Gaeremynck, 2007; Aksu, Muradoglu & Tansel Celtin, 2013). In addition, while the application of IFRS may improve the quality of accounting numbers (Ball, 2006), in practice IFRS offer more discretion with regard to their application as compared to Canadian GAAP (Blanchette et al., 2011). Thus, the impact of IFRS on accounting quality may depend on the incentives of statements preparers to apply them correctly. As CMS firms have low incentives to disclose quality accounting figures, we hypothesize that the quality of accounting information under IFRS is lower for CMS firms in Canada. We also postulate that the higher the magnitude of the gap between voting and cash flow rights, the higher the quality information decrease.

We test our hypotheses using a sample of 135 Canadians companies from the S&P TSX Composite Index, for the period 2008-2013. Our final sample is composed of 810 firm-year observations. We chose to use accounting value relevance as a proxy for accounting quality. Indeed, relevance is described by the IASB (2013a) as being a primary characteristic of accounting quality. We use the price model of Ohlson (1995) and the return model described by Kothari & Zimmerman (1995) to test for the value relevance of accounting numbers post IFRS adoption. These models have been widely used in the literature to assess the value relevance of accounting information post IFRS (Barth et al., 2008; Van der Meulen, Gaeremunck & Willekens, 2007) and for CMS firms (Francis et al., 2005).

Firstly, we find that the adoption of IFRS in Canada improves the quality of accounting information in general. Indeed, when we do not distinguish between ownership structures, we find robust evidence that the quality of accounting information improves with the adoption of IFRS. Then, we report evidence that the quality of financial reporting for CMS firms changes with the adoption of IFRS. However, our findings do not support that the overall quality of accounting numbers decreases with the adoption of IFRS for CMS firms. Indeed, we find that while the value relevance of book values decreases for CMS firms with the adoption of IFRS, the value relevance of earnings improves. Finally, and as opposed to Francis, Schipper & Vincent, (2005), we do not report evidence of a linear and negative relationship between value relevance and the gap between cash flow and control rights for CMS firms. Our results suggest that the value relevance of book values improved for CMS firms having larger wedges between voting and cash flow rights.

7.2 Contributions

Our study contributes to the recent literature on IFRS and value relevance around the world. Indeed, our conclusion that the adoption of IFRS in Canada improves the value relevance of accounting information supports the findings of other studies in other countries (Barth et al, 2008; Daske & Gebhart, 2006; Horton et al., 2013), and in Canada (Cormier, 2013; Liu and Sun; 2014; Okafor, 2014). Indeed, Cormier (2013) and Okafor (2014) find that value relevance improves with the adoption of IFRS. Our study reinforces the findings of Okafor (2014) and Cormier (2013) with a sample that includes data up to 2013. However, the findings of Cormier (2013) and Okafor (2014) have yet to be published. Liu and Sun (2014) on their side, find that the adoption of IFRS in Canada decreases earnings management but do not find evidence of increased value relevance. Indeed, their test on value relevance is not significant. We report significant and positive associations between value relevance of accounting information and the adoption of IFRS in Canada.

We contribute to the recent literature on IFRS adoption, CMS firms and the incentives linked to financial disclosure, as we report evidence that the value relevance of

accounting information for CMS firms varies with the adoption of IFRS. Indeed, we find that the relevance of book values decreases for CMS firms with the adoption of IFRS while it increases for other types of structures. However, we also report that the value relevance of earnings improves for CMS firms with the adoption of IFRS. We even find evidence that the quality improvement of earnings is higher for CMS firms than for non-CMS firms. Indeed, after the adoption of IFRS, do not find any difference in the value relevance of earnings between CMS firms and non-CMS firms. The decrease in book values relevance supports the assertion of Ball, Robin & Wu (2003) that the quality of financial reporting highly depends on the incentives of those disclosing the information. It also supports the findings of Kao & Wei (2014) and Aksu, Mine & Muradoglu (2013) who suggest that the adoption of IFRS did not improve the quality of earnings for firms characterized by concentrated ownership. This being said, the finding that earnings relevance improves for CMS firms with the adoption of IFRS follows the reasoning of Liu (2010) who suggests that the improvement in value relevance is greater for firms with previous reputation of weak disclosure quality. Here, Pae, Thorton & Welker, (2008) support that as IFRS disciplines those with incentives to disclose low financial reporting, then the magnitude of the quality improvement is higher for such firms than for those who previously disclosed quality information. Our finding that the value relevance of earnings improves more for CMS firms with the adoption of IFRS the conclusions of Pae, Thorton & Welker (2008).

Finally, Aksu, Mine & Muradoglu (2013) and Kao & Wei (2014) suggest that accounting quality may not improve for firms characterized with concentrated ownership. Their studies are conducted in civil law countries while our study is conducted in a common law country, and Jeanjean & Stolowy, (2008) suggest that the institutional and regulatory framework of a country may influence the effect of IFRS adoption. This study is among the first to test the relationship between IFRS adoption and accounting quality for CMS firms in a highly regulated and market-oriented environment.

7.3 Limitations

The first limitation of our study is linked to the weakness of the results from the return model. Indeed, earnings are weakly associated with returns, and many regression coefficients are not robust to multicolinearity and heteroscedasticity tests. Some coefficients in the price model are not robust to heteroscedasticity tests as well. However, the non-robustness of the coefficients of the price model does not affect the conclusions we draw.

Then, while many proxies and models can measure accounting quality, we only test for the value relevance of earnings. Other studies test the effects of the adoption of IFRS using different proxies of earnings quality. For example, Horton, Serafeim & Serafeim (2013) test for accounting quality following IFRS adoption using forecast accuracy, comparability, earning informativeness, conservatism and earnings management. The use of multiple proxies enables them to support, strengthens and compare their findings, while it also enables them to have conclusions that better reflect the effect of IFRS adoption on accounting quality.

After that, although the size of our sample is large to draw valid conclusions, the proportion of CMS firms we test is pretty low. Indeed, we have 165 firm year observations for CMS firms. More importantly, this ratio drops firmly when we select CMS firms with high wedges. Here, the number of observations is equal to 81.

In addition, the sample period includes the year 2008, a year of unusual and poor financial performance. Thus there might be noise in our data due to the effect of the financial crisis. For example, during the period we study, 19.4% of our observations report income losses. Here Francis, Schipper & Vincent (2005) explain that coefficients may take lower values on losses.

Finally, we are not able to rule in favor or against our main hypothesis which states that the quality of accounting numbers decreases for CMS firms with the adoption of IFRS.

7.3.1 Future research

As stated above, we use value relevance as a proxy for the quality of accounting figures for CMS firms post IFRS. Using the price and return models, we are able to draw some conclusions but our results are still mitigated. Thus, other research could use other proxies for accounting quality, such as earnings management, and test if the adoption of IFRS in Canada reduces earnings management for CMS firms. The results from such studies could then be compared with what previous scholars such as Bozec (2008) and Liu & Sun (2014) reported.

We support that CMS firms and non-CMS firms are affected differently with the adoption of IFRS. Thus we suggest that future research in other countries control or test for the effect of the adoption of IFRS on the quality of accounting information for CMS firms.

Finally, we report that CMS firms with high wedges between voting and cash flow rights have better quality reporting than other CMS firms. Other studies could investigate what drives this result by testing how the quality of accounting information varies at different levels of cash flow and voting rights. This study could follow similar procedures as Sabri & Hind (2011) who see how accounting quality changes for increasing levels of voting rights and different levels of cash flow rights. Other studies may look at the relationship between value relevance and ownership concentration, after the adoption of IFRS in Canada.

CHAPTER 8 REFERENCES

Agrawal, Anup, & Mandelker, Gershon N. (1990). Large shareholders and the monitoring of managers: The case of antitakeover charter amendments. *Journal of Financial and Quantitative Analysis, 25*(02), 143-161.

Ahmed, Anwer S, Neel, Michael, & Wang, Dechun. (2013). Does mandatory adoption of IFRS improve accounting quality? Preliminary evidence. *Contemporary Accounting Research*.

Akerlof, George A. (1970). The market for" lemons": Quality uncertainty and the market mechanism. *The quarterly journal of economics*, 488-500.

Aksu, Mine H, Muradoglu, Yaz Gulnur, & Tansel Cetin, Ayse. (2013). Ownership Concentration, IFRS Adoption and Earnings Quality: Evidence from an Emerging Market. *IFRS Adoption and Earnings Quality: Evidence from an Emerging Market (August 30, 2013)*.

Ali, Ashiq, Chen, Tai-Yuan, & Radhakrishnan, Suresh. (2007). Corporate disclosures by family firms. *Journal of accounting and economics, 44*(1), 238-286.

Amoako-Adu, Ben, & Smith, Brian F. (2001). Dual class firms: Capitalization, ownership structure and recapitalization back into single class. *Journal of Banking & Finance, 25*(6), 1083-1111.

Attig, Najah. (2007). Excess Control and the Risk of Corporate Expropriation: Canadian Evidence. *Canadian Journal of Administrative Sciences, 24*(2), 94-106.

Attig, Najah, Fischer, Klaus, & Gadhoum, Yoser. (2004). *On the determinants of pyramidal ownership: Evidence on dilution of minority interests.* Paper presented at the EFA 2004 Maastricht Meetings Paper.

Baber, William R, Fairfield, Patricia M, & Haggard, James A. (1991). The effect of concern about reported income on discretionary spending decisions: The case of research and development. *Accounting Review*, 818-829.

Ball, Ray. (2006). International Financial Reporting Standards (IFRS): pros and cons for investors. *Accounting and business research, 36*(sup1), 5-27.

Ball, Ray, Robin, Ashok, & Wu, Joanna Shuang. (2003). Incentives versus standards: properties of accounting income in four East Asian countries. *Journal of accounting and economics, 36*(1), 235-270.

Barth, Mary E, Landsman, Wayne R, & Lang, Mark H. (2008). International accounting standards and accounting quality. *Journal of accounting research, 46*(3), 467-498.

Bebchuk, Lucian A, Kraakman, Reinier, & Triantis, George. (2000). Stock pyramids, cross-ownership, and dual class equity: the mechanisms and agency costs of separating control from cash-flow rights *Concentrated corporate ownership* (pp. 295-318): University of Chicago Press.

Bebchuk, Lucian Arye. (1999). A rent-protection theory of corporate ownership and control: National Bureau of Economic Research.

Ben-Amar, Walid, & André, Paul. (2006). Separation of ownership from control and acquiring firm performance: The case of family ownership in Canada. *Journal of Business Finance & Accounting, 33*(3□4), 517-543.

Berle, Adolf A, & Means, Gardiner Gardiner Coit. (1932). *The modern corporation and private property*: Transaction Publishers.

Bhaumik, Sumon Kumar, & Gregoriou, Andros. (2010). 'FAMILY' OWNERSHIP, TUNNELLING AND EARNINGS MANAGEMENT: A REVIEW OF THE LITERATURE. *Journal of Economic Surveys, 24*(4), 705-730. doi: 10.1111/j.1467-6419.2009.00608.x

Blanchette, Michel, Racicot, François-Éric, & Girard, Jean-Yves. (2011). The Effects of IFRS on Financial Ratios: Early Evidence in Canada.

Blanchette, Michel, Racicot, François-Éric, Sedzro, Komlan, & Simonova, Elena. (2013). IFRS Adoption in Canada: An Empirical Analysis of the Impact on Financial Statements.

Botosan, Christine A. (1997). Disclosure level and the cost of equity capital. *Accounting Review*, 323-349.

Bozec, Yves. 2006. «Are Canadian Closely-Held Firms Perceived to Report Low Quality Accounting Information? Empirical Evidence». Corporate Ownership and Control Journal, 4(1), 195-20

Bozec, Yves. (2008). Ownership concentration, separation of voting rights from cash flow rights, and earnings management: An empirical study in Canada. *Canadian Journal of Administrative Sciences/Revue Canadienne des Sciences de l'Administration, 25*(1), i-xv.

Bozec, Yves, & Bozec, Richard. (2007). Ownership Concentration and Corporate Governance Practices: Substitution or Expropriation Effects? *Canadian Journal of Administrative Sciences, 24*(3), 182-195.

Bozec, Yves, & Laurin, Claude. (2004). Concentration des droits de propriété, séparation entre participation au capital et contrôle des votes et performance opérationnelle des sociétés: une étude canadienne. *Finance, contrôle, stratégie, 7*(2), 123-164.

Bozec, Yves, & Laurin, Claude. (2008). Large shareholder entrenchment and performance: Empirical evidence from Canada. *Journal of Business Finance & Accounting, 35*(1□2), 25-49.

Brochet, Francois, Jagolinzer, Alan D, & Riedl, Edward J. (2013). Mandatory IFRS adoption and financial statement comparability. *Contemporary Accounting Research*.

Burnett, Brian M, & Jorgensen, Bjorn N. (2013). Early Evidence from Canadian Firms' Choice Between IFRS and US GAAP.

Byrd, John, Parrino, Robert, & Pritsch, Gunnar. (1998). Stockholder-manager conflicts and firm value. *Financial Analysts Journal*, 14-30.

Byrd, John W, & Hickman, Kent A. (1992). Do outside directors monitor managers?: Evidence from tender offer bids. *Journal of Financial Economics, 32*(2), 195-221.

Chau, Gerald K, & Gray, Sidney J. (2002). Ownership structure and corporate voluntary disclosure in Hong Kong and Singapore. *The International Journal of Accounting, 37*(2), 247-265.

Chlala N. and Lavigne A.. "Seven key differences." CAMagazine, June-July 2009. Retrieved (September 7th 2013) from http://www.camagazine.com/archives/print-edition/2009/june-july/features/camagazine19845.aspx

Chen, Huifa, Tang, Qingliang, Jiang, Yihong, & Lin, Zhijun. (2010). The role of international financial reporting standards in accounting quality: Evidence from

the European Union. *Journal of international financial management & accounting, 21*(3), 220-278.

Cheung, Yan-Leung, Rau, P. Raghavendra, & Stouraitis, Aris. (2006). Tunneling, propping, and expropriation: evidence from connected party transactions in Hong Kong. *Journal of Financial Economics, 82*(2), 343-386. doi: http://dx.doi.org/10.1016/j.jfineco.2004.08.012

Christensen, Hans, Lee, Edward, & Walker, Martin. (2008). *Incentives or standards: what determines accounting quality changes around IFRS adoption?*

Claessens, Stijn, Djankov, Simeon, Fan, Joseph PH, & Lang, Larry HP. (2002). Disentangling the incentive and entrenchment effects of large shareholdings. *The Journal of Finance, 57*(6), 2741-2771.

CICA, (2014), IFRS General Adoption – FAQs, retrieved (July, 2nd 2014) from http://www.cica.ca/applying-the-standards/financial-reporting/international-financial-reporting-standards/item73266.aspx

Cormier, Denis. (2013). Relevance of Financial Reporting and Disclosure for Financial Markets under IFRS: Some Canadian Evidence. *Cahier de recherche*, 04.

Cormier, Denis. (2014). The Incidence of Corporate Governance and IFRS on Information Asymmetry and the Value Relevance of Earnings: Some Canadian Evidence. *Cahier de recherche*, 01.

Cormier, Denis, & Magnan, Michel. (2013). The Advent of IFRS in Canada: A Harbinger of the Future for North American Financial Markets. *Cahier de recherche*, 07.

Cronqvist, Henrik, & Nilsson, Mattias. (2003). Agency costs of controlling minority shareholders. *Journal of Financial and Quantitative Analysis, 38*(4), 695-720.

Czarnitzki, Dirk, & Kraft, Kornelius. (2004). Management control and innovative activity. *Review of Industrial Organization, 24*(1), 1-24.

Daske, Holger, Hail, Luzi, Leuz, Christian, & Verdi, Rodrigo. (2008). Mandatory IFRS reporting around the world: Early evidence on the economic consequences. *Journal of accounting research, 46*(5), 1085-1142.

Dechow, Patricia, Ge, Weili, & Schrand, Catherine. (2010). Understanding earnings quality: A review of the proxies, their determinants and their consequences. *Journal of accounting and economics, 50*(2), 344-401.

Dechow, Patricia M, & Sloan, Richard G. (1991). Executive incentives and the horizon problem: An empirical investigation. *Journal of accounting and economics, 14*(1), 51-89.

Deloitte Global Services Limited, (2014), Use of IFRS by jurisdiction, retrieved (April 7th, 2014) from http://www.iasplus.com/en/resources/ifrs-topics/use-of-ifrs

Demsetz, Harold. (1983). Structure of Ownership and the Theory of the Firm, The. *JL & Econ., 26*, 375.

Demsetz, Harold, & Lehn, Kenneth. (1985). The structure of corporate ownership: Causes and consequences. *The Journal of Political Economy, 93*(6), 1155-1177.

Di Vito, Jackie. (2011). Concentration de propriété et investissements en R&D: une perspective d'agence. *Revue Finance Contrôle Stratégie, 14*(2), 67-100.

Dyck, Alexander, & Zingales, Luigi. (2004). Private benefits of control: An international comparison. *The Journal of Finance, 59*(2), 537-600.

Eisenhardt, Kathleen M. (1989). Agency theory: An assessment and review. *Academy of management review, 14*(1), 57-74.

Faccio, Mara, & Lang, Larry HP. (2002). The ultimate ownership of Western European corporations. *Journal of Financial Economics, 65*(3), 365-395.

Fama, Eugene F. (1980). Agency Problems and the Theory of the Firm. *The Journal of Political Economy*, 288-307.

Fan, Joseph PH, & Wong, Tak Jun. (2002). Corporate ownership structure and the informativeness of accounting earnings in East Asia. *Journal of accounting and economics, 33*(3), 401-425.

Francis, Jennifer, Schipper, Katherine, & Vincent, Linda. (2005). Earnings and dividend informativeness when cash flow rights are separated from voting rights. *Journal of Accounting and economics, 39*(2), 329-360.

Francis, Jere R., Khurana, Inder K., & Pereira, Raynolde. (2005). Disclosure Incentives and Effects on Cost of Capital around the World. *Accounting Review, 80*(4), 1125-1162.

Gabrielsen, Gorm, Gramlich, Jeffrey D, & Plenborg, Thomas. (2002). Managerial ownership, information content of earnings, and discretionary accruals in a non–US setting. *Journal of Business Finance & Accounting, 29*(7-8), 967-988.

Gadhoum, Yoser. (2006). Power of Ultimate Controlling Owners: A Survey of Canadian Landscape. *Journal of Management & Governance, 10*(2), 179. doi: http://dx.doi.org/10.1007/s10997-006-0004-0

Gassen, Joachim, & Sellhorn, Thorsten. (2006). Applying IFRS in Germany: determinants and consequences. *Germany: Determinants and Consequences (July 2006)*.

Gibbs, Michael J;Merchant, Kenneth A;Stede, Wim A;Vargus, Mark E. (2005). The benefits of evaluating performance subjectively. *Performance improvement, 44*(5), 26-32.

Glaum, Martin, Baetge, Jörg, Grothe, Alexander, & Oberdörster, Tatjana. (2013). Introduction of International Accounting Standards, Disclosure Quality and Accuracy of Analysts' Earnings Forecasts. *European Accounting Review, 22*(1), 79.

Gompers, Paul A, Ishii, Joy, & Metrick, Andrew. (2004). Incentives vs. control: An analysis of US dual-class companies: National Bureau of Economic Research.

Gordon, Elizabeth, Jorgensen, Bjorn, & Linthicum, Cheryl. (2008). Could IFRS replace US GAAP? A comparison of earnings attributes and informativeness in the US market: Working paper, Temple University, Columbia University, and University of Texas at San Antonio.

Gry, T. "Dual-class share structures and best practices in corporate governance". Parliament of Canada. 18 August 2005. Retrieved (September 7th 2013) from http://www.parl.gc.ca/content/lop/researchpublications/prb0526-e.htm

Hail, Luzi, Leuz, Christian, & Wysocki, Peter. (2010). Global accounting convergence and the potential adoption of IFRS by the US (Part I): Conceptual underpinnings and economic analysis. *Accounting Horizons, 24*(3), 355-394.

Hayes, Andrew F, & Cai, Li. (2007). Using heteroskedasticity-consistent standard error estimators in OLS regression: An introduction and software implementation. *Behavior Research Methods, 39*(4), 709-722.

Healy, Paul M. (1985). The effect of bonus schemes on accounting decisions. *Journal of accounting and economics, 7*(1), 85-107.

Healy, Paul M., & Palepu, Krishna G. (2001). Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature. *Journal of accounting and economics, 31*(1–3), 405-440. doi: http://dx.doi.org/10.1016/S0165-4101(01)00018-0

Hodge, Frank D. (2003). Investors' perceptions of earnings quality, auditor independence, and the usefulness of audited financial information. *Accounting Horizons, 17*, 37-48.

Horton, Joanne, Serafeim, George, & Serafeim, Ioanna. (2013). Does Mandatory IFRS Adoption Improve the Information Environment? *Contemporary Accounting Research, 30*(1), 388.

IASB, (2013a), The Conceptual Framework for Financial Reporting, retrieved (April 13th 2014) from http://www.ifrs.org/IFRSs/IFRS-technical-summaries/Documents/English%20Web%20Summaries%202013/Conceptual%20Framework.pdf

IASB. (2013b), A Review of the Conceptual Framework for Financial Reporting. retrieved (September 7th 2013) from http://www.ifrs.org/Current-Projects/IASB-Projects/Conceptual-Framework/Discussion-Paper-July-2013/Documents/Discussion-Paper-Conceptual-Framework-July-2013.pdf

Institutional Shareholder Services Inc (2014), ISS Governance QuickScore Methodology, retrieved (April 13th, 2014) from http://www.issgovernance.com/quickscore/methodology

Jeanjean, Thomas, & Stolowy, Hervé. (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. doi: http://dx.doi.org/10.1016/j.jaccpubpol.2008.09.008

Jensen, Michael C. (1986). Agency costs of free cash flow, corporate finance, and takeovers. *The American Economic Review, 76*(2), 323-329.

Jensen, Michael C. (1993). The modern industrial revolution, exit, and the failure of internal control systems. *the Journal of Finance, 48*(3), 831-880.

Jensen, Michael C, & Meckling, William H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of financial economics, 3*(4), 305-360.

Joh, Sung Wook. (2003). Corporate governance and firm profitability: evidence from Korea before the economic crisis. *Journal of Financial Economics, 68*(2), 287-322. doi: http://dx.doi.org/10.1016/S0304-405X(03)00068-0

Kao, Hui-Sung, & Wei, Tzu-Han. (2014). The Effect of IFRS, Information Asymmetry and Corporate Governance on the Quality of Accounting Information. *Asian Economic and Fnancial Review, 4*(2), 226-256.

King, Michael R, & Santor, Eric. (2007). Family values: Ownership structure, performance and capital structure of Canadian firms. *Journal of Banking & Finance, 32*(11), 2423-2432.

Klein, April. (2002). Audit committee, board of director characteristics, and earnings management. *Journal of Accounting & Economics, 33*(3), 375-4000.

Klein, Peter, Shapiro, Daniel, & Young, Jeffrey. (2005). Corporate governance, family ownership and firm value: the Canadian evidence. *Corporate Governance: An International Review, 13*(6), 769-784.

Kothari, S. P., & Zimmerman, Jerold L. (1995). Price and return models. *Journal of Accounting & Economics, 20*(2), 155.

Landry, S., Schiehll E., (2011) "Pas seulement objectives les évaluations de rendement", CMA Magazine mai-juin 2011, pages 28-29

Ledoux, Marie Josee, & Cormier, Denis. (2013). Market Assessment of Intangibles and Voluntary Disclosure about Innovation: The Incidence of IFRS. *Review of Accounting and Finance, 12*(3), 5-5.

Ledoux, Marie-Josée, & Cormier, Denis. (2013). Market assessment of intangibles and voluntary disclosure about innovation: the incidence of IFRS. *Review of Accounting & Finance, 12*(3), 286-304. doi: http://dx.doi.org/10.1108/RAF-Apr-2012-0033

Liu, Guoping, & Sun, Jerry. (2013). Did the Mandatory Adoption of IFRS Affect the Earnings Quality of Canadian Firms? *Available at SSRN 2200735*.

Liu, Guoping, & Sun, Jerry Y. (2014). Did the Mandatory Adoption of IFRS Affect the Earnings Quality of Canadian Firms? *Available at SSRN 2200735*.

Liu, Qiao, & Lu, Zhou Joe. (2007). Corporate governance and earnings management in the Chinese listed companies: A tunneling perspective. *Journal of Corporate Finance, 13*(5), 881-906.

López de Silanes, Florencio, La Porta, Rafael, Shleifer, Andrei, & Vishny, Robert. (1998). Law and finance. *Journal of political economy, 106*, 1113-1155.

Morck, Randall K, Stangeland, David A, & Yeung, Bernard. (1998). Inherited wealth, corporate control and economic growth: The Canadian disease: National Bureau of Economic Research.

Morck, Randall, Shleifer, Andrei, & Vishny, Robert W. (1988). Management ownership and market valuation: An empirical analysis. *Journal of Financial Economics, 20*, 293-315.

Morck, Randall, Wolfenzon, Daniel, & Yeung, Bernard. (2004). Corporate governance, economic entrenchment and growth: National Bureau of Economic Research.

Niu, Flora F. (2006). Corporate governance and the quality of accounting earnings: a Canadian perspective. *International Journal of Managerial Finance, 2*(4), 302-327.

Ohlson, James A. (1995). Earnings, book values, and dividends in equity valuation*. *Contemporary accounting research, 11*(2), 661-687.

Pfeffer, Kaitlyn, Jacobs, Anne, DeLong, Cari, & Tang, Roger YW. (2012). Convergence to IFRS: The Canadian experience. *Journal of Corporate Accounting & Finance, 23*(6), 29-36.

Porta, Rafael, Lopez□de□Silanes, Florencio, & Shleifer, Andrei. (1999). Corporate ownership around the world. *The Journal of Finance, 54*(2), 471-517.

Renders, Annelies, & Gaeremynck, Ann. (2007). The impact of legal and voluntary investor protection on the early adoption of International Financial Reporting Standards (IFRS). *De Economist, 155*(1), 49-72.

Sabri, Boubaker, & Hind, Sami. (2011). Multiple large shareholders and earnings informativeness. *Review of Accounting & Finance, 10*(3), 246-266. doi: http://dx.doi.org/10.1108/14757701111155789

Salancik, Gerald R., & Pfeffer, Jeffrey. (1980). Effects of ownership and performance on executive tenure in U. S. corporations. *Academy of Management Journal (pre-1986), 23*(4), 653.

Salman, S. and Shah, A. (2011). Building, Construction & Real Estate – Transition to IFRS. KPMG, retrieved (April 14th 2014) from https://www.kpmg.com/Ca/en/IssuesAndInsights/ArticlesPublications/Documents/Transition%20to%20IFRS%20Final.pdf

Sánchez-Ballesta, Juan Pedro, & García-Meca, Emma. (2007). Ownership Structure, Discretionary Accruals and the Informativeness of Earnings. *Corporate Governance: An International Review, 15*(4), 677-691. doi: 10.1111/j.1467-8683.2007.00596.x

Schiehll, Eduardo;Bellavance, François. (2009). Boards of Directors, CEO Ownership, and the Use of Non□Financial Performance Measures in the CEO Bonus Plan. *Corporate governance: An international review, 17*(1), 90-106.

TSX Inc, (2014), S&P/TSX Composite Index (^TSX), retrieved (June 2nd , 2014) from http://web.tmxmoney.com/index_profile.php?qm_symbol=^TSX

Van der Meulen, Sofie, Gaeremynck, Ann, & Willekens, Marleen. (2007). Attribute differences between US GAAP and IFRS earnings: An exploratory study. *The International Journal of Accounting, 42*(2), 123-142.

Villalonga, Belen, & Amit, Raphael. (2006). How do family ownership, control and management affect firm value? *Journal of financial economics, 80*(2), 385-417.

Warfield, Terry D, Wild, John J, & Wild, Kenneth L. (1995). Managerial ownership, accounting choices, and informativeness of earnings. *Journal of Accounting and economics, 20*(1), 61-91.

Watts, R. L., & Zimmerman, J. L. (1986). Positive accounting theory.

Yip, Rita WY, & Young, Danqing. (2012). Does mandatory IFRS adoption improve information comparability? *The Accounting Review, 87*(5), 1767-1789.