IFRS Mandatory Adoption Effect on Information Asymmetry: Immediate or Delayed?

HelaTurki[1], Sonda Wali[2] and Younes Boujelbene[3]

Abstract

The purpose of this paper is to examine the relationship between the mandatory adoption of IFRS/IAS and the information content of earnings in the European Union. More accurately, this study aims to determine if the effect of IFRS adoption on the level of information asymmetry, apprehended by the cost of capital and the financial analysts' forecasts, is immediate or delayed. Based on a longitudinal study, we find evidence that for the two first years of adoption, international standards reduces significantly the cost of capital and the dispersion of the financial analysts' forecasts. Furthermore, the magnitude of this effect increases with increasing the number of years after IFRS adoption. The findings further show that the effect of IFRS adoption on financial analysts' errors is not immediate and that the errors decrease from the third year following the date of the first adoption.

Overall, the findings of this study highlight the importance of adopting IFRS in the reduction of information asymmetry.

JEL Classification: M40, G34

Keywords: IFRS; information asymmetry; cost of capital; financial analysts' forecasts; immediate or delayed effect.

---

[1]Corresponding Author, University of Sfax, Tunisia. hela.turkii@yahoo.fr
[2]University of Sfax, Tunisia.
[3]University of Sfax, Tunisia.

Introduction

The large number of relationships between stakeholders, caused by outside openness of firms, creates information asymmetry. To solve this problem, it is necessary to establish means of control. One of these means is to improve information disclosure system, formulate the rules of disclosure of information systems. Listed companies must be in accordance with the relevant regulations, true, complete, accurate and timely disclosure of information, and consciously accept the broad masse of investors and the general public oversight. In this case, financial reporting can represent a source of reducing information asymmetry. Financial information reliability and relevance depend on accounting principles used. Furthermore, for a better comparability of results, it is necessary to provide a regulatory framework at the international level for the publication of financial information in order to make the properly decision. This framework generates a reduction of information asymmetry.

IFRS mandatory adoption is of great interest to managers and investors and its effect on the informational content of accounting earnings is been much debated by academics in recent years. The primary question discussed is whether information asymmetry was affected by the application of international standards. Even if more and more countries adopt the International Financial Reporting Standards, there is a continuing debate around the benefits of their application on the information content of earnings taking into account the learning effect.

According to Philippe Danjou, Chief of Accountant business in the AMF (Financial Markets Authority), the adoption of IFRS introduced a new estimation philosophy and upgrading business performance. They have a considerable impact, in terms of quality and quantity of information disclosed, on the financial reporting of companies and they change the meaning and the significance of several indicators used by investors. In the same vein, Dicko and Khemakhem (2010) stipulate that the IFRS adoption has certainly been a source of increasing of frequency and number of published financial statements. But even if the superiority of IFRS relating to the amount of information disclosed was undeniable, previous work has shown two divergent reflections concerning the information disclosed quality. Some researchers have therefore considered that IFRS improves the information content of accounting numbers because they lead companies to disclose more and better information and limit discretionary accounting choices. However, others consider that IFRS adoption is likely to reduce the information content of accounting numbers because it limits the number of authorized accounting policies.

Indeed, the IFRS standards provide require high quality, transparent and comparable information in financial statements and other reports to help investors in all global markets and other users to make economic decisions (Epstein & Mirza, 1999). This postulate is in line with the main objective of these new standards. To do this, IFRS are based on a new and important principle; fair value instead of historical cost.

Fair value facilitates decision making of investors who are always in search of latest information (Ball, 2006). According to this author, the market value because it synthesizes the latest expectations of various economic agents, is incomparably more informative than historical cost. This view is widely defended by Mistral, (2003) which states that the principle of fair value is certainly more useful and appropriate to measure assets and liabilities as historical cost.

This principle permits the provision of relevant information about financial instruments because it allows the better reflection of company events and economic conditions in a timely way and provides a good basis for the analysis and forecasting of future cash flows. According to the IASB, it offers to users of the financial statements the ability to appreciate the consequences of investment and funding strategies undertaken by a firm. Therefore, the principle of fair value used in the preparation of financial statements is expected to increase the quality and the relevance of the accounting numbers produced.

This study aims to analyze, for the first time, the global impact of IFRS on the information content of earnings after its mandatory adoption in 2005 in the French context. Specifically, it examines the impact of the international standards on the information asymmetry apprehended by the cost of capital and the financial analyst' forecasts proprieties (error and dispersion). Secondly, this study examines whether the effect of IFRS adoption on information asymmetry is immediate or delayed.

This research is one of the few empirical studies that analyze the impact of mandatory IFRS on the information content of earnings through their impact on cost of capital and analysts' forecast properties. The majority previous studies have researched the effect of IFRS on the quality of the earnings by interesting on earnings management or on investor responsiveness to earnings announcement.

The choice of French context can be explained by the various criticisms addressed to IFRS in the French environment. The French General Accounting Plan constitutes a reference document that shows the differences between IFRS and continental accounting systems. Ding *et al*. (2007) show that France is one of the European countries where the accounting standards are most different from IFRS and subsequently the mandatory adoption of IFRS in 2005 has led to a profound change in the Financial reporting. Furthermore, the study of French context enables us to determine the effect of the adoption of IFRS and generalize the results to all companies of Europe because the adoption of IFRS is mandatory for all companies listed in Europe from January 2005.

This paper is organized as follow. The first part discusses the link between IFRS adoption and the information content. The second part is a summary of previous literature and develops hypotheses. The third part describes the research methodology adopted and the last part is devoted to the presentation and analysis of results obtained.

Literature review and hypotheses development

IFRS and Earning information quality

European Union imposed the application of IFRS in all listed companies from January 2005 as a result of unsuccessful attempts of harmonization. This decision is argued by the improvement of the financial information quality for better decision making.

The results found by researchers studying the impact of IFRS on the financial information quality are not similar. Several authors have confirmed the improvement of the explanatory power of the accounting numbers following the IFRS adoption (Bartov *et al*., 2005; Jermakowicz

et al., 2007; Barth *et al.*, 2008; Iatridis, 2010; Landsman *et al.*, 2012; and Salemah, 2013). This result was attributed to the existence of additional information under IFRS. Escaffre and Sefsaf, (2010) study the impact of additional informational relevance due to the adoption of IFRS in 2005 in several contexts. They test the relationship between stock returns and accounting numbers (earnings and equity). The results indicate that the impact of adopting IFRS on the informational relevance of accounting numbers is different from one country to another. These authors concluded that the effect of adopting IFRS on the quality of accounting numbers depends on institutional factors in each country, which is confirmed by Zogning, (2013).

Ahmed *et al.*, (2013) conducted a meta-analysis of studies that verify the impact of adopting IFRS on informational relevance and reported revenues transparency. Their result shows that the informational relevance of equity did not increase after the adoption, while the informational relevance of earnings generally increased when they valued using pricing models. The authors controlled for factors such as legal origin, accounting system and auditing and the difference between domestic GAAP and IFRS on the impact of IFRS and have not found any significant effect.

In addition, many studies have shown a similarity in the informational relevance of accounting data under IFRS and U.S. GAAP, (Meulen *et al.*, 2007; Leuz, 2003; and Ahmed *et al.*, 2010). This result can be explained by the fact that IFRS are inspired mainly from American accounting standard. Eccher and Healy, (2000) discuss the usefulness of the application of IFRS in the People's Republic of China. They concluded that the information produced under IFRS is not more useful than information prepared using Chinese standards. They attributed the IFRS failure to the lack of effective control system in China, to monitor additional information produced under international standards.

This study contributes to this literature with a different approach that attempts to verify the impact of IFRS on the informational content of earnings through their impact on the information asymmetry.

IFRS and cost of capital

According to the defendants of IFRS adoption, these standards constitute a source of information asymmetry reduction. This reduction mitigates the risk perceived by investors, and consequently the cost of capital. (Tweedie, 2006) stipulates that the elimination of a major investment risk, that of the fear that the different national accounting systems are not fully understood, is expected to reduce the cost of capital and open new opportunities for improvement of investment returns.

Cuijpers and Buijink, (2005) and Daske, (2006) find an insignificant relationship between the voluntary adoption of IFRS and the cost of equity. This result is contrary to expectations of the standards bodies, which stipulate that IFRS reduce the cost of equity. To explain this non-significant impact of the voluntary adoption of IFRS on the cost of equity, Daske *et al.*, (2012) examine the impact of voluntary and mandatory IFRS adoption on the liquidity and the cost of capital. They make a comparison between companies applying full IFRS and those that apply a few standards only. They show no change after the voluntary adoption of IFRS. However, the mandatory adoption of full IFRS is followed by an increase in liquidity and a decrease in the cost of capital which is not the case for partial adoption. They explained the insignificant effect of the

voluntary IFRS adoption and partially adoption by the non-serious application of these standards. The firms have not considered the IFRS adoption as a commitment to provide investors a higher quality of financial information.

These results have been criticized by Kim *et al*., (2013) for two reasons. First, the differentiation between companies adopting IFRS in full of partial adopters is not easy. Second, there is a general tendency to improve the quality of reports which makes impossible to exclude the possibility that companies applying local standards, improve the quality of their reports. These authors examined the impact of the voluntary adoption of IFRS on the cost of capital and they showed a significant effect independently of the country institutional factors.

Barth *et al*., (2008) find that the better quality of financial statements is associated with a lower cost of capital. According to these authors, reducing the cost of equity is related to the voluntary adoption of IFRS and not related to the mandatory adoption. Li, (2010), shows that the adoption of the international standard reduces the cost of equity in companies that have a strong legal enforcement. This adoption improves the comparability of information and increases the disclosure level.To our knowledge, this is the only study that analyzed the impact of the mandatory adoption of IFRS on the cost of capital in the European Union. However, the study period ranging from 1995 to 2006, excluding the years 2004 and 2005 considered as a transition period, is insufficient to give a clear and general idea of the IFRS impact. In other words, the study period is limited to one year after the mandatory application of IFRS which may not be sufficient to properly identify the effect of the IFRS mandatory adoption.

IFRS and analysts' forecast properties

IFRS, the accounting language adopted by listed companies since 2005, gives more transparent, more rigorous and more detailed information. Therefore, it certainly had an impact on the companies' financial analysis.

Marchal *et al*., (2007) seek to determine the effect of adopting IFRS on financial analysis and predict that these standards have made several methodological changes in the financial analysts work. They find that the adoption of IFRS weakens comparability and makes the financial analyst work more difficult.

Ashbaugh and Pincus, (2001) study the impact of differences between local standards and international standards in terms of disclosure requirements and evaluation effects on the accuracy of analysts' forecasts. The result show that more the local standards are converged with IFRS, more the analysts' forecasts are accurate. So, they stipulate that the use of international standards informs analysts about the company economic and financial situation better than the local standards. This study is based on a sample of firms that have adopted the international standards between 1990 and 1993 and during this period, firms could state that they adopt IFRS without applying them entirety, which may affect the relevance of the results found. To resolve this problem, Cuijpers and Buijink, (2005) focus only on the year 1999, from which firms are obliged under IAS 1, to comply with all IFRS, to declare that they use these standards. They find that the voluntary adoption of these standards leads to higher level of dispersion of financial analysts' forecasts. On the contrary, Hodgdon *et al*., (2008) suggest that compliance with the disclosure

requirements of IFRS reduces information asymmetry and strengthens the ability of analysts to provide more accurate forecasts.

The impact of the IFRS mandatory adoption on analysts' forecasts has been also studied by (Jiao *et al*., 2012) in the European context. The results show that the forecasts become more accurate and less dispersed after the adoption of the new accounting standards. Jönsson *et al*., (2012), with a sample of five countries (Sweden, Netherlands, France, Germany and the UK) show that the mandatory adoption of IFRS has no significant effect on the accuracy of global forecasts of financial analysts. However, by comparing the IFRS impact between countries, they show an improvement in forecast accuracy in the UK, a country with local accounting standards more similar to IFRS, and no decrease in error forecasting in countries with previous accounting standards that differ from IFRS. They also show that, after adopting IFRS, the forecasts' dispersion seems to decrease in most countries. Tan *et al*., (2011), by studying the impact of IFRS in 25 countries, show that the quality of the financial analysts' forecasts is improved only for foreign analysts attracted by the adoption of these standards.

The heterogeneity of the results found by previous research shows that the question of the impact of IFRS on cost of capital and financial analysts' forecasts requires more exploration. That is why, this study examines the impact of the mandatory adoption of IFRS on these two measurement of information asymmetry over a period of 11 years from 2002 to 2012 in the French context.

Hypotheses development

The main objective of accounting harmonization is to improve the relevance and the comparability of information published. This improvement generates a reduction of information asymmetry which results in a reduction of the risk perceived by investors. So, the first hypothesis states that the IFRS adoption decreases the cost of capital.

> H_1: *The cost of capital will decrease after the mandatory adoption of IFRS*

Furthermore, financial analysts collect and analyze companies' financial information to form their opinions. So, the important source of information for them is the data from the financial statements (Barker & Imam, 2008). The analyst's outputs are informative to investors because their publication leads to a market reaction that result in the observation of abnormal returns on the publication day or on the following day (Frankel *et al*., 2006). Moreover, the financial analyst is considered as a responsible of partial reduction of the asymmetry through his publication. Furthermore and given the important role of financial analysts' forecasts in decision-making, these new standards are expected to improve forecasts of financial analysts. It is predicted that the mandatory adoption of IFRS in Europe is positively associated with analysts' earnings forecast accuracy. Therefore the second hypothesis is:

> H_2: *The forecasts analysts' accuracy will increase after the mandatory adoption of IFRS.*

Through earnings published after IFRS adoption, companies should provide to different users of financial statements; especially the participants in the financial markets, the necessary information that enable them to assess the value of the firm. According to (Lang & Lundholm, 1996), the adoption of IFRS will reduce the weight of private information as the result of the improvement of the quality and quantity of public information which increased the consensus among analysts. Therefore, it is supposed that the IFRS mandatory adoption in Europe is negatively associated with the degree of disagreement among analysts. So, the third hypothesis is:

> **H₃**: *The dispersion of the analysts' forecasts will decrease after the mandatory adoption of IFRS.*

The application of IFRS, of Anglo-Saxon origin and that diverge widely from French standards (continental system), normally requires a period of learning and understanding. This period may differ from one company to another. It is related to the familiarity degree of the leaders and the financial analysts to IFRS. Hence, the fourth hypothesis formulated is as follows:

> **H₄**: *The effect of applying IFRS on information asymmetry will not be immediate.*

Methodological Options Research

Model and variables of Research

To check the global impact of IFRS adoption on information asymmetry reduction, three models are proposed. In the first model, the information asymmetry is apprehended by the cost of capital. Then the model is the following:

$$COC_{t,i} = \beta_0 + \beta_1\, IFRS + \beta_2\, Size_{t-1,i} + \beta_3\, LEV_{t-1,i} + \beta_4\, Loss_{t-1,i} + \beta_5\, CS_{t,i} + \varepsilon \qquad (1\text{-}1)$$

The properties of analysts' forecasts (error and dispersion) are used as a measure of information asymmetry in the second and third models:

$$Error_{t,i}(EPS) = \beta_0 + \beta_1 IFRS_t + \beta_2\, Size_{t-1,i} + \beta_3\, LnN_{t-1,i} + \beta_4\, Loss_{t-1,i} + \beta_5 SDeps_{t-1,i} + \beta_6 CS_{t,i} + \varepsilon \qquad (2\text{-}1)$$

$$Dispersion_{t,i}(EPS) = \beta_0 + \beta_1 IFRS_t + \beta_2\, Size_{t-1,i} + \beta_3\, LnN_{t-1,i} + \beta_4\, Loss_{t-1,i} + \beta_5 SDeps_{t-1,i} + \beta_6 CS_{t,i} + \varepsilon \qquad (3\text{-}1)$$

Three others models are estimated to test if the effect of IFRS adoption on the cost of capital, error and dispersion of financial analysts' forecasts requires some time or it is immediate. The variable IFRS was replaced by two variables ($IFRS_1$ and $IFRS_2$) where the first one represents the first two years that following the mandatory application, 2005 and 2006 and the second one is related to the period beginning from the third year after the mandatory adoption.

$$\text{COC}_{t,i} = \beta_0 + \beta_1 \, \text{IFRS}_{1t} + \beta_2 \, \text{IFRS}_{2t} + \beta_3 \, \text{Size}_{t-1,i} + \beta_4 \, \text{LEV}_{t-1,i} + \beta_5 \, \text{Loss}_{t-1,i} + \beta_6 \, \text{CS}_{t,i} + \varepsilon \quad (1\text{-}2)$$

$$\text{Error}_{t,i}(\text{EPS}) = \beta_0 + \beta_1 \, \text{IFRS}_{1t} + \beta_2 \, \text{IFRS}_{2t} + \beta_3 \, \text{Size}_{t-1,i} + \beta_4 \, \text{LnN}_{t-1,i} + \beta_5 \, \text{Loss}_{t-1,i} + \beta_6 \text{SDeps}_{t-1,i} + \beta_7 \text{CS}_{t,i} + \varepsilon \quad (2\text{-}2)$$

$$\text{Dispersion}_{t,i}(\text{EPS}) = \beta_0 + \beta_1 \, \text{IFRS}_{1t} + \beta_2 \, \text{IFRS}_{2t} + \beta_3 \, \text{Size}_{t-1,i} + \beta_4 \, \text{LnN}_{t-1,i} + \beta_5 \, \text{Loss}_{t-1,i} + \beta_6 \text{SDeps}_{t-1,i} + \beta_7 \text{CS}_{t,i} + \varepsilon \quad (3\text{-}2)$$

Table 1 summarizes the variables of the models.

Table 1
Definitions and measures of variables

Variables	Definitions and measures
COC	Capital cost of the company in year t
Error	Analyst forecasts' error for year t.
Dispersion	Analyst forecasts' dispersion for year t.
IFRS	IFRS is a dummy variable, which equals to 1 for years after 2005 and 0 otherwise.
IFRS_1	IFRS_1 is a dummy variable, which equals to 1 for years 2005 and 2006 and 0 otherwise.
IFRS_2	IFRS_2 is a dummy variable, which takes the value 1 for years after 2006 and 0 otherwise.
Size	Firm size is measured by the natural logarithm of the total market capitalization at the end of t-1.
LEV	Firm leverage measured by the ratio (net debt / EBITDA) to t-1
LnN	Natural logarithm of the number of estimates in the final consensus forecast for year t.
Loss	Loss takes the value 1 if the result for the year t is negative, 0 otherwise.
SDeps	Standard deviation of the actual EPS of firm i over the four years preceding the year t standardized to the stock price of the same firm in the same year.
CS	CS is a dummy variable, which takes 1 for the years 2008, 2009 and 2010 and 0 otherwise.

According to Urquiza *et al*., (2012), the measure of the capital cost is problematic in this current literature. Thus, to calculate this cost, the formula of Easton, (2004), which is widely adopted by previous studies (Li, 2010; Urquiza *et al*., 2012; Kim *et al*., 2013; and Nahar *et al.,* 2016), was used. These authors state that the measure proposed by (Easton, 2004) is a robust assessment of specific cost of capital. This measure is based on the assumption of zero growth of abnormal profits. It is based on earnings per share forecasts for two years in advance and the current price combined as follows:

$$\text{COC} = \sqrt{\frac{(eps2 - eps1)}{P0}}$$

Where eps 2 and eps 1 refer to earnings per share forecast of 2 and 1 year in advance, P_0 is the current price and the COC is used to proxy the cost of capital.

To apply this formula, it is compulsory that the earnings forecast of the second year of a given firm are higher than earnings forecast of this company in the first year later.

The forecasting error is the difference between the expected profit and profit released. So it is expressed as following:

$$E(EPS)_t = EPS_{it} - \pi (EPS_{it})$$

With EPS_{it}= The earnings per share of firm i on year t and $\pi (EPS_{it})$ is the average forecast of EPS for firm i in year t

The dispersion is calculated by the absolute value of the difference between the highest and the lowest forecastings.

$$D (EPS)_t = | \text{forecast}_{h, i, t} - \text{forecast}_{l, i, t} |$$

To allow comparability across firms, dispersion and error are normalized by the stock price of the company at t-1.

To calculate these variables, earnings forecasts submitted in 180 days starting 15 days after the beginning of the year is used. The choice of this period derives from the study's aim which is assessment of the informational content of earnings published by forecast EPS of year t. This procedure ensures that when the analyst makes his prediction, he takes into account the accounting information published.

The effect of IFRS adoption on information asymmetry may be affected by several control variables. The size of the company for example has been introduced by several researchers to explain the cost of capital (Botosan, 1997; Gebhardt *et al*., 2001; Easton, 2004; Francis *et al*., 2008; and Khotari *et al*., 2009). This variable is negatively related to the cost of capital and to the error and dispersion of financial analysts' forecasts (Lang & Lundholm, 1993; Jiao *et al*., 2012). However, large firms are considered more transparent. They disclose more information about their financial situations than small firms because disclosure policy gives them many benefits in net terms (Welker, 1995; Lang & Lundholm, 1993) and because they may have access to more information more easily than small firms (Barron *et al*., 1998). Therefore, the level of information asymmetry will decrease for large companies. The negative relationship between firm size and cost of capital is explained also by the fact that the risk of insolvency of large companies is less than the smaller companies which confirms the reduction in the cost of capital for large companies (Urquiza *et al*., 2012). Consequently, large companies are expected to have a high level of disclosure which leads to less cost of capital, greater precision and less dispersion in financial analysts' forecasts. Similarly to prior studies (Ashbaugh & Pincus 2001; Jiao *et al*., 2012), the firm size is defined as the natural log of a firm's market capitalization at the end of year t-1.

According to Hail and Leuz, (2006), it is commonly accepted that leverage has an effect on the cost of capital. Moreover, many researchers find that this leverage measured by the ability of the company to repay its debts, affects positively the cost of capital (Gebhardt *et al.*, 2001; Easton, 2004; Francis *et al.*, 2008; and Li, 2010). Indeed, firms with high leverage have more risk of insolvency which increases their cost of capital.

The number of analysts is another variable that may have an impact on the forecasts quality (Lang & Lundholm, 1996; Lys & Soo, 1995; Byard *et al.*, 2011; and Jiao *et al.*, 2012). It is determined by the number of analysts following the company and providing earnings forecast (Lang & Lundholm, 1996). This variable is positively associated with forecast accuracy and negatively associated with the dispersion of financial analysts' forecasts. (Lys & Soo, 1995) argue that there is more competition among analysts when the number of analysts increases. These will be more incentive to forecast accurately. So, the firms followed by a high number of financial analysts will have more accurate forecasts and a higher level of forecasts' dispersion.

Because financial analysts are subject to conflicting interests and firms in difficulty tend to disclose little information to conceal its difficulties, analysts anticipate imperfectly losses (Maghraoui & Dumontier, 2008). Forecast error and dispersion tend to be higher when the announced EPS is negative or significantly decrease. Financial distress is approached through the variable Loss. It is a binary variable which designed whether the result of the year t is negative. This variable is expected to be positively associated with the error, dispersion and cost of capital. In fact, financial analysts are optimistic agents that tend to underestimate profit falls and losses. Indeed, Coën and Desfleurs, (2010) confirm that it is easier for analysts to forecast profits as losses and increases profits rather than decreases. The results of these authors suggest that the "type and variation of profit expected" is by far the effect that best explains the accuracy and dispersion of forecasts.

SDeps represents the standard deviation of EPS for firm i calculated over the four years preceding the year relative to estimated EPS (Maghraoui & Dumontier, 2008). It is standardized by the stock price of the company concerned in t and it aims to assess the difficulty of forecasting. The dispersion and the error increase with the increasing of this value (Lang & Landholm, 1996). In fact the more that the benefits of the firm are fluctuating, the less forecasting profits is easy.

The last control variable is the financial crisis which has begun in 2007. This crisis, in the beginning banking and located in the American mortgage market, quickly became global and financial. It has led to difficulties in investment and to a heightened uncertainty in financial markets because investors are more risk averse when selecting projects and markets. So, it creates severe problems of asymmetric information, makes the collect of the necessary information more difficult which increases the difficulty of the work of the financial analysts. That is why, it is expected that crisis is positively associated with the cost of capital, the error and the dispersion of analysts' forecasts. The effects of this crisis persist until now but the main effects can be limited to the three years 2008, 2009 and 2010.

The impact of IFRS on cost of capital and financial analysts' forecasts is tested using a panel data model and the regression is performed using STATA.

Sample and Data

To conduct this empirical study, the sample consists of all listed French companies in the CAC All Tradable Index. This index has replaced SBF 250 since 21 March 2011 and is the largest of the Paris Bourse. It represents the entire French economy and can indicate the overall evolution of the French equity market. According to Cormier *et al*., (2010), this index reflects the diversity of the implementation of IFRS and it is the best type of sample that can draw conclusions on the application of international standards.

The examination of the impact of IFRS, taking as sample one country, aims to eliminate any biases associated with the use of international samples and to avoid the effect of differences in institutional environments before adopting IFRS.

Firms in financial sectors identified by Global Industry Classification Standard, such as insurance companies, credit agencies and banks are excluded. This treatment is justified by the specific accounting and financial characteristics of these organisms that might bias the results (Urquiza *et al*., 2012).

This study spreads over 11 years from 2002 to 2012, while eliminating the transition year. Several researchers consider the transition year, the first year of mandatory adoption of IFRS 2005 (Jones & Finley, 2010; Jiao *et al*., 2012). Others consider the year of transition the year prior to the year of the mandatory adoption of IFRS 2004 (Saadi, 2010). The third line of research has considered the two years 2004 and 2005 as transition years (Li, 2010). According to Saadi, (2010), managers are more likely to manage their results during the year preceding the year of the mandatory adoption of IFRS to avoid large fluctuations in results and to keep them within a certain range at the time of mandatory adoption. The year 2004 was a year of comparative financial statements where many companies had practiced a double set of books. Indeed, the presence of two repositories on the same financial markets during the same period may bias the results. Based on this postulate, the year 2004 considered as a transition year is excluded.

The choice of long term study involves several interests. On one hand, the analysis of 10 years allows us to take into account changes in standards (from PCG to IFRS) and to stand back from each accounting standards (two PCG-year and eight-year IFRS). On the other hand, this choice allows us to limit the change period of Standards bias (2004).

The observations for which data are missing or which are extreme are eliminated. Subsequently, our final sample for the first model consists of 355 observations, for the second model consists of 620 observations and for the third model consists of 470 observations.

To collect data, the market data has been taken from the database Datastream, data from financial analysts' forecasts from I / B / E / S data and annual reports from Worldscope data.

Empirical Tests and results

Descriptive statistics

Descriptive Statistics of numeric variables are presented in table 2, 3 and 4.

For dispersion, the observation characterized by a single financial analyst is eliminated. To test the dispersion of financial analysts' forecasts, the firm must be necessarily followed by at least two analysts. In both sample (forecast error and dispersion) analyst coverage ranges from 1 (2 for dispersion) to 16.

Table 2
Descriptive statistics of the cost of capital

Variable	Mean	Std Dev	Min	Max
COC	0.439	0.519	0	3.640
Log MC	8565.873	17678.8	35.91	135980.6
LEV	3.037	14.534	0	390

Table 3
Descriptive statistics of the forecast error and dispersion

Variable	Mean	Std Dev	Min	Max
Error	-0.436	1.312	-19.881	3.587
Dispersion	0.514	0.800	0	8.396
MktCap	8565.873	17678.8	35.91	135980.6
N	3.197	2.334	1	16
N*	4.050	2.227	2	16
SDeps	0.060	0.089	0	1.019

N*: The number of analyst forecast for the dispersion model

Table 4 shows clearly the change of the cost of capital. The average of this variable is 0.423 in the post-adoption period, which is lower than the average value in the pre adoption period (0.511), so a decrease of 0.088. The absolute average value of forecast errors after the adoption of IFRS (0.412) is lower than the absolute average value of forecast errors before IRFS adoption (0.520), a drop of (0.108) and this trend is also confirmed with the dispersion of the financial analysts forecasts (drop is 0.5). These results are similar to those of Jiao *et al.,* (2012).

Table 4
Descriptive statistics pre and post IFRS adoption

Variable	Mean	Std Dev	Min	Max
Cost of capital				
Cost of capital pre IFRS adoption	0.511	0.517	0	2.102
Cost of capital post IFRS adoption	0.423	0.519	0	3.640
ForecastError				
Forecast Error pre IFRS adoption	-0.520	0.593	-3.918	0.394
Forecast Error post IFRS adoption	-0.412	1.473	-19.881	3.587
Dispersion				
Dispersion pre IFRS adoption	0.874	1.047	0	8.396
Dispersion post IFRS adoption	0.387	0.647	0	4.955

Table 5 presents simple correlations between the different variables of the first model. The dependent variable COC is positively and significantly correlated with variables loss and financial crisis at the 1%. This can be explained by the uncertainty resulting from the financial crisis and the high level of risk that generates.

Table 5
Correlation matrix

	COC	IFRS	Log MC	LEV	Loss	CS
COC	1.0000					
IFRS	-0.0465	1.0000				
Size	-0.0729	0.0486	1.0000			
LEV	0.0591	0.0765	-0.0054	1.0000		
Loss	0.1802***	-0.2113***	0.0185	0.1535**	1.0000	
CS	0.2306***	0.3226***	0.0686	-0.0402	-0.0318	1.0000

***Significant at the 1%, ** significant at the 15%, *significant at the 10%

Table 6 and 7 present the simple correlation between variables of the second and the third models. Error is negatively associated with IFRS, positively associated with size, negatively associated with analyst coverage in accordance with the results of (Jiao *et al.*, 2012) and positively associated with crisis. Furthermore, dispersion is negatively associated with IFRS, size and crisis and positively associated with analyst coverage, loss and standard deviation of EPS.

Table 6
Correlation matrix of the forecast error

	Error	IFRS	LnMktCap	LnN	Loss	SDeps	CS
Error	1.0000						
IFRS	-0.0275***	1.0000					
Size	0.1967***	0.1036**	1.0000				
LnN	-0.00889***	-0.3014***	0.4848***	1.0000			
Loss	-0.0080	-0.1730***	-0.0294	-0.0917**	1.0000		
SDeps	0.0332	0.0001	0.0027	-0.0433	0.2540***	1.0000	
CS	0.1038***	0.3402***	0.0854**	-0.1481***	-0.0088	-0.0227*	1.0000

*Significant at 10%; **significant at 5%; ***significant at 1%.

Table 7
Correlation matrix of the forecast dispersion

	Dispersion	IFRS	LnMktCap	LnN	Loss	SDeps	CS
Dispersion	1.0000						
IFRS	-0.2267***	1.0000					
Size	-0.2971***	0.190***	1.0000				
LnN	0.0847***	-0.346***	0.343***	1.0000			
Loss	0.0958***	-0.154***	-0.007	-0.085*	1.0000		
SDeps	0.1145***	0.042	-0.019	-0.050	0.201***	1.0000	
CS	-0.0944*	0.353***	0.154***	-0.165***	-0.065	0.088*	1.0000

*Significant at 10%; **significant at 5%; ***significant at 1%.

Empirical Results

Given that his study is based on a sample of panel data, it is necessary to verify the specification of a homogeneous or heterogeneous of data. The Hausman specification test is used to discriminate between fixed and random effects.

Table 8
Hausman test results and the explanatory power of the models

Models	Chi 2	Prob> Chi 2	F	Prob>F	R^2
1-1	12.01	0.0346	9.87	0.0000	15.60%
2-1	62.15	0.0000	14.17	0.0000	13.87%
3-1	34.80	0.0000	24.95	0.0000	28%
1-2	8.24	0.1436	56.56	0.0000	14.95%
2-2	59.94	0.0000	11.83	0.0000	13.58%
3-2	36.96	0.0000	27.87	0.0000	33.69%

The results found from the Hausman test lead us to retain the fixed-effect model to the models 1-1, 2-1, 3-1, 2-2 and 3-2 and the random effect model to the model 1-2. The results confirm the good quality of models at a significance level of less than 1%. So, all the models used are statistically significant and explain the phenomenon.

Table 9, 10 and 11 present the regressions results.

IFRS and cost of capital

Statistical tests highlight the negative impact of adopting IFRS on the cost of capital. Indeed, the examination of causal relationships shows that the coefficient associated with the link between the adoption of IFRS and the capital cost is negative (-0.142) and statistically significant (P value> is 0.030). These results show that the mandatory adoption of IFRS in 2005 leads to a significant reduction in the cost of capital.

The capital cost was used in this study as a measure of the level of information asymmetry of a given company. However, the reduction of this cost reflects a reduction in information asymmetry. This result highlights the informational contribution of the adoption of this new international standard which permits to conclude that the IFRS mandatory adoption improves the information content of accounting earnings.

The results of model 1-2 as shown in table 9, point that the effect of the IFRS mandatory adoption on the company's capital cost is immediate. The association between IFRS and cost of capital is significant from the two first years of application. These results supply some evidence that for the two first years of adoption, international standards reduce significantly the cost of capital but the magnitude of this reduction increases with increasing the number of years after IFRS adoption. The significance of these results may be explained by the fact that French listed companies begin to apply international standards before 2005, date of the mandatory adoption.

In addition, and in line with our expectations and previous results (Li, 2010; Paugam *et al.*, 2013), there is a negative association between firm size and the capital cost. This association can be explained by the fact that large companies are encouraged to disclose more information to the public than the smaller. Moreover, large companies are considered more transparent and this transparency represents a source of information asymmetry reduction and therefore of cost of capital reduction.

Loss and financial crisis are control variables that also have a significant effect on the cost of capital.The positive association between these two explanatory variables and the cost of capital is related to their effects on the level of investor confidence to the company. In other words, the investor has less confidence in loss making company and more uncertainty to any investment in times of crisis.Several authors state that the significant impact of the crisis on the financial situation of listed companies is largely related to the adoption of international standards and particularly the fair value principle applied within these standards. Obert, (2008) provides that IFRS are not responsible for the financial crisis, but they have undoubtedly exacerbated it following the use of fair value as the measurement basis. This was invalidated by the IFRS defendants as Danjou and Gelard, (2008), who stipulate that these standards have helped to

anticipate the behavior investors and eliminate sudden volatilities in crisis. In fact, the application of IFRS considered as a factor accentuating the financial crisis remains a subject of ongoing debate between the defendants and the opponents of IFRS.

Table 9
Regression results of the cost of capital

Variables	Model 1-1			Model 1-2		
	Coef	Z	P>$|Z|$	Coef	Z	P>$|Z|$
IFRS	-0.142	-2.19	0.030**			
IFRS$_1$				-0.322	-2.83	0.005***
IFRS$_2$				-0.363	-3.74	0.000***
Size	-0.303	-2.66	0.008***	-0.092	-2.18	0.029**
LEV	-0.004	-1.42	0.157	-0.001	-0.02	0.984
Loss	0.161	1.86	0.064*	0.182	2.30	0.021**
Crisis	0.330	6.02	0.000***	0.321	5.90	0.000***
Constant	1.460	3.81	0.000***	0.971	5.69	0.000***
R-sq = 15.60%				R-sq = 14.95%		
F=9.87, Prob>F=0.0000				Wald Chi2 = 56.56, Prob>Chi2 =0.0000		

***Significant at the 1%, ** significant at the 15%, *significant at the 10%

IFRS and analyst proprieties

The analysis of the IFRS mandatory adoption on the financial analysts' forecasts shows that IFRS adoption is negatively associated with the properties of analysts' forecasts namely error and dispersion. For the overall effect of the IFRS adoption, the examination of causal relations shows that the coefficient associated with the link between the adoption of IFRS and the error of analysts' forecasts is negative (-0.347) and statistically significant (P value> is 0.009). In addition, the results show that the coefficient associated with the link between the adoption of IFRS and the dispersion of analysts' forecasts is negative (-1.268) and statistically significant (0.017). These results show that the IFRS mandatory adoption produces an improvement in the quality of financial analysts' forecasts. Indeed, the forecasts are more accurate and less dispersed after the adoption of IFRS.

Financial analysts' forecasts were used in this study as a measure of information asymmetry level of a given company. However, the reduction in error and forecast dispersion reflects a reduction in information asymmetry. This result confirms the previous findings at cost capital level and highlights the informational contribution of the adoption of this new international standard which allows concluding that the mandatory adoption of IFRS represents a source of improving the information content of accounting earnings.

To examine whether the effect of IFRS mandatory adoption on the forecast's properties is deferred or immediate, we test models 2.2 and 2.3. Table 10 shows that the reduction of the error

is significant from the third year of adoption, (ie from 2007). However, the reduction of the dispersion is immediate and significant from the first year of application.

These results illustrate that the reduction of forecasting error following the application of IFRS is delayed. This reduction, resulting from the IFRS adoption, cannot be imputed only to the period of learning and comprehension required under these standards. In fact, the decrease of error is linked to the publication of the accounting numbers produced under the international standards. Yet, the first publication of the results in accordance to IFRS is in the end of 2005. Consequently, the error decrease can take place only from the year 2006.

The forecast error is significantly and positively associated with firm size, the standard deviation of EPS and negatively associated with the number of financial analysts. In addition, the forecast dispersion is significantly and positively associated with the number of financial analysts who follow the company and the loss and negatively associated with the size of the company.

The positive association found between the error and the size of the company is opposite to result found by (Jiao *et al*., 2012)and to our expectations and similar to the results of Maghraoui and Dumontier, (2008). According to these latter authors, this result can be explained by the complex assets and activities of large companies. On the contrary, the size is negatively associated to the forecast dispersion which can be explained by the higher possibility of large companies to access to further information.

The standard deviation of EPS is a measure of the results instability which represents a source of forecast difficulties. So, the increase of instability generates a higher level of error.

In accordance with previous findings (Lys & Soo, 1995; Jiao *et al*., 2012), forecast error is negatively correlated with analyst coverage which is explained by the competition among the analysts. When the number of analysts following the company is higher, each analyst aims to forecast more accurately than the others and consequently the forecast error decreases and the forecast dispersion increases. It is confirmed also, by the results obtained that the losses increase the forecast dispersion.

The non-significant effect of the crisis on error and dispersion of financial analysts' forecasts can be explained by the analyst's reaction to this critical period. Faced with the risk of committing significant forecast errors, the analysts are forced to intensify their research. According to Levasseur and Romon, (2011), financial analysts, in times of crisis, mostly follow market movements to eliminate any estimates errors.

Table 10
Regression results of the forecast error

Variables	Model 2-1			Model 2-2		
	Coef	Z	P>|z|	Coef	Z	P>|z|
IFRS	-0.347	-2.61	0.009***			
IFRS$_1$				-0.076	-0.40	0.687
IFRS$_2$				-0.343	-2.03	0.043**
Size	2.092	8.15	0.000***	2.038	7.99	0.000***
LnN	-0.526	-2.42	0.016**	-0.532	-2.35	0.019**
Loss	0.145	0.82	0.415	0.162	0.91	0.361
SDeps	3.129	3.84	0.000***	3.127	3.81	0.000***
CS	0.158	1.42	0.157	0.141	1.27	0.205
Cons	-7.426	-8.39	0.000***	-7.322	-8.13	0.000***
	R-sq = 13.87%			R-sq = 13.58%		
	F=14.17, Prob>F=0.0000			F=11.83, Prob>F=0.0000		

*Significant at 10%; **significant at 5%; ***significant at 1%.

Table 11
Regression results of the forecast dispersion

Variables	Model 3-1			Model 3-2		
	Coef	Z	P>|z|	Coef	Z	P>|z|
IFRS	-1.268	-2.39	0.017**			
IFRS$_1$				-0.485	-5.29	0.000***
IFRS$_2$				-0.449	-5.11	0.000***
Size	-1.464	-9.97	0.000***	-1.390	-9.93	0.000***
LnN	7.604	4.76	0.000***	0.541	3.41	0.001***
Loss	0.225	2.00	0.046**	0.195	1.82	0.070*
SDeps	-0.083	-1.14	0.253	-1.316	-1.56	0.111
CS	0.0531	0.80	0.423	0.057	0.91	0.362
Cons	5.605	10.34	0.000***	5.794	11.13	0.000***
	R-sq = 28%			R-sq = 33.69%		
	F=24.95, Prob>F=0.0000			F=27.87, Prob>F=0.0000		

*Significant at 10%; **significant at 5%; ***significant at 1%.

Conclusion

This study focuses on a major objective of the mandatory adoption of IFRS in Europe since 2005, which is the improving of the relevance of accounting earnings. To answer the research question, this study tried to determine the impact of these standards on the information content reflected by their impact on information asymmetry. For this purpose, the cost of capital and the financial analysts' forecasts were used as proxies of information asymmetry. The sample is comprised of all of the CAC all tradable for the period 2002-2012.

The results highlight the improvement of the information content of earnings after the IFRS mandatory adoption, reflected by a reduction of cost of capital and error and dispersion of financial analysts' forecasts. Furthermore, this impact is immediate for the reduction of the cost of capital and the dispersion of financial analysts' forecasts. However, it is delayed for the reduction of error of financial analysts' forecasts. The latter result is mainly attributed to the publication date of results under IFRS. The financial statements prepared under these standards are produced after one year of adoption (2006) and not from the date of adoption.

The originality of this study consists, first, in analyzing the impact of mandatory IFRS adoption on the information content of earnings by using the two measures of information asymmetry, cost of capital and analysts' forecast properties and second, in taking a long analysis period from 2002 to 2012 as a period of study. This eliminates all bias related to the learning of these standards and to crisis.

The results provide evidence relevant to the continue debate about the benefits of international accounting harmonization. So, even if the adoption of IFRS is mandatory diced 2005 for all listed European companies, the impact of these standards may be dependent on the specific institutional factors in each country. This study can be enriched by the inclusion of several European countries to clearly identify the impact of institutional environments.

References

Ahmed, A., Neel, M. & Wang, D. 2010, 'Does Mandatory Adoption of IFRS Improve Accounting Quality? Preliminary Evidence', *Contemporary Accounting Research*, Vol. 30, No. 4, pp. 1344-1372. https://doi.org/10.1111/j.1911-3846.2012.01193.x

Ahmed, K., Chalmers, K. & Khlif, H. 2013, 'A Meta-analysis of IFRS Adoption Effects', *The International Journal of Accounting*, Vol. 48, No. 2, pp. 173-217. https://doi.org/10.1016/j.intacc.2013.04.002

Ashbaugh, H. & Pincus, M. 2001, **'**Domestic accounting standards, international accounting standards, and the predictability of earnings**'**, *Journal of Accounting Research*, Vol. 39, No. 3, pp. 417-434. https://doi.org/10.1111/1475-679X.00020

Barker, R. & Imam, S. 2008, 'Analysts' perception of earnings quality**'**, *Accounting and Business Research*, Vol. 38, No. 4, pp. 313-329. https://doi.org/10.1080/00014788.2008.9663344

Barron, O E., Byard, D. & Kim, O. 2002, 'Changes in analysts' information around earnings announcements', *The Accounting Review*, Vol. 77, No. 4, pp. 821-846. https://doi.org/10.2308/accr.2002.77.4.821

Barth, M., Landsman, W. & Lang M. 2008, 'International Accounting Standards and accounting quality', *Journal of Accounting Research*, Vol. 46, No. 3, pp. 467-498. https://doi.org/10.1111/j.1475-679X.2008.00287.x

Bartov, E., Goldberg, S. & Kim, M. 2005, 'Comparative value relevance among German, U.S., and international accounting standards: A German stock market perspective', *Journal of Accounting, Auditing and Finance*, Vol. 20, No. 2, pp. 95-119. https://doi.org/10.1177/0148558X0502000201

Botosan, C. 1997, 'Disclosure level and the cost of equity capital', *The Accounting Review*, Vol. 72, No. 3, pp. 323-349.

Byard, D., Li, Y. & Yu, Y. 2011, 'The effect of mandatory IFRS adoption on financial analysts' information environment', *Journal of Accounting Research*, Vol. 49, No. 1, pp. 69-96. https://doi.org/10.1111/j.1475-679X.2010.00390.xCoën, A. & Desfleurs, A. 2010, 'La précision des analystes financiers en Europe: l'effet pays et l'effet secteur revisités', *L'Actualité Economique*, Vol. 86, No. 2, pp. 133-162. https://doi.org/10.7202/1001948ar

Cormier, D., Ledoux, M.J. & Magnan, M. 2010, 'Le reporting de gouvernance, les attributs du conseil et la qualité des résultats comptables : incidence sur les marchés boursiers', *Comptabilité Contrôle Audit*, Vol. 16, No. 2, pp. 69-96. https://doi.org/10.3917/cca.162.0069

Cuijpers, R. & Buijink, W. 2005, 'Voluntary Adoption of Non-local GAAP in the European Union: A Study of Determinants and Consequences', *European Accounting Review*, Vol. 14, No. 3, pp. 487-524. https://doi.org/10.1080/0963818042000337132

Danjou, P. & Gelard, G. 2008, 'Crise du subprime : la juste valeur n'est pas coupable', available at www. lesechos.fr.

Daske, H. 2006, 'Economic benefits of adopting IFRS or US-GAAP—Have the expected cost of equity capital really decreased?', *Journal of Business Finance and Accounting*, Vol. 33, No. 3, pp. 329-373. https://doi.org/10.1111/j.1468-5957.2006.00611.x

Daske, H., Hail, L., Leuz, C. & Verdi, R. 2007, 'Adopting a label: Heterogeneity in the economic consequences of IFRS adoptions', Working paper, No 5, University of Chicago.

Daske, H., Hail, L., Leuz, C. & Verdi, R. 2012, 'Adopting a label: heterogeneity in the economic consequences around IAS/IFRS adoptions', *Journal of Accounting Research*, Vol. 51, No. 3, pp. 495-547. https://doi.org/10.1111/1475-679X.12005

Ding, Y., Hope, O., Jeanjean, T. & Stolowy, H. 2007, 'Differences between domestic accounting standards and IAS: Measurement, determinants and implications',*Journal of Accounting and Public*, Vol. 26, No. 1, pp. 1-38. https://doi.org/10.1016/j.jaccpubpol.2006.11.001

Easton, P. 2004, 'PE ratios, PEG ratios, and estimating the implied expected rate of returns on equity capital', *The Accounting Review*, Vol. 79, No. 1, pp. 73-95. https://doi.org/10.2308/accr.2004.79.1.73

Eccher, E. & Healy, P. 2000, 'The Role of International Accounting Standards in Transitional Economies: A Study of the People's Republic of China', Working Paper, No. 233598, Massachusetts, Institute of Technology, United States.

Escaffre, L. & Sefsaf, R. 2010, 'The Additional value relevance of IFRS: a comparison between the major European markets', paper presented at Crises etnouvellesproblématiques de la Valeur, May, Nice, France.

Francis, J., Nanda, D. & Olsson, P. 2008, 'Voluntary disclosure, earnings quality and cost of capital'. *Journal of Accounting Research*, Vol. 46, No. 1, pp. 53-99. https://doi.org/10.1111/j.1475-679X.2008.00267.x

Frankel, R., Kothari, S. & Weber, J. 2006, 'Determinants of the informativeness of analyst research', *Journal of Accounting and Economics*, Vol. 41, No. 1, pp. 29-54. https://doi.org/10.1016/j.jacceco.2005.10.004

Gebhardt, R., Lee, C. & Swaminathan, B. 2001, 'Toward an exante cost of capital', *Journal of Accounting Research*, Vol. 39, No. 1, pp. 135-176.

https://doi.org/10.1111/1475-679X.00007

Hail, L. & Leuz, C. 2006, 'International differences in the cost of equity capital: Do legal institutions and securities regulation matter?', *Journal of Accounting Research* , Vol. 44, No. 3 , pp. 485-531. https://doi.org/10.1111/j.1475-679X.2006.00209.x

Hodgdon, C, Tondkar Rasoul, H., Harless David, W. & Adhikari, A. 2008, 'Compliance with IFRS Disclosure Requirements and Individual Analysts' Forecast Errors', *Journal of International Accounting, Auditing & Taxation*, Vol. 17, No. 1, pp. 1-13. https://doi.org/10.1016/j.intaccaudtax.2008.01.002

Iatridis, G. 2010, 'International Financial Reporting Standards and the quality of financial statement information', *International Review of Financial Analysis*, Vol. 19, No. 3, pp. 193-204. https://doi.org/10.1016/j.irfa.2010.02.004

Jermakowicz, E., Prather-Kinsey, J. & Wulf, I. 2007, **'**The Value Relevance of Accounting Income Reported By DAX-30 German Companies**'**, *Journal of International Financial Management & Accounting*, Vol. 18, No. 3, pp. 151-191.

https://doi.org/10.1111/j.1467-646X.2007.01011.x

Jiao, T., Koning, M., Mertens, G. & Roosenboom, P. 2012, **'**Mandatory IFRS adoption and its impact on analysts' forecasts**'**, *International review of financial analysis*, Vol. 21, pp. 56-63. https://doi.org/10.1016/j.irfa.2011.05.006

Jones, S. & Finley, A. 2010, **'**Have IFRS made a difference to intra-country financial reporting diversity?**',** *The British Accounting Review*, Vol. 41, No. 1, pp. 22-38.

Jönsson, M., Jansson, A. & Von Koch, C. 2012, **'**Has the introduction of IFRS improved accounting quality? A comparative study of five countries', Working paper, School of Business and Economics, Linnaeus University.

Kim J., Shi, H. & Zhou, J. 2013, 'International Financial Reporting Standards, institutional infrastructures, and implied cost of equity capital around the world', *Review of*

Quantitative Finance and Accounting, Vol. 42, No. 3, pp. 469-507. https://doi.org/10.1007/s11156-013-0350-3

Kothari, S., Li, X. & Short, J. 2009, 'The Effect of Disclosures by Management, Analysts, and Business Press on Cost of Capital, Return Volatility, and Analyst Forecasts: A Study Using Content Analysis', *The Accounting Review*, Vol. 84, No. 5, pp. 1639-1670. https://doi.org/10.2308/accr.2009.84.5.1639

Landsman, W., Maydew, E. & Thornock, J. 2012, **'**The information content of annual earnings announcements and mandatory adoption of IFRS**',** *Journal of Accounting and Economics*, Vol. 53, No. 1, pp. 34-54. https://doi.org/10.1016/j.jacceco.2011.04.002

Lang, M H. & Lundholm, R.J. 1993, **'**Cross-sectional determinants of analyst ratings of corporate disclosures**'**, *Journal of Accounting Research*, Vol. 31, No. 2, pp. 246-271. https://doi.org/10.2307/2491273

Lang, M H. & Lundholm, R.J. 1996, **'**Corporate disclosure policy and analyst behavior**',** *Accounting Review*, Vol. 71, No. 4, pp. 467-492.

Leuz, C. 2003, **'**IAS versus U.S. GAAP: Information asymmetry-based evidence from Germany's New Market**'**, *Journal of Accounting Research*, Vol. 41, No. 3, pp. 445-472. https://doi.org/10.1111/j.1475-679X.2003.00111.x

Levasseur, M. & Romon, F. 2011, 'La réactivité des analystes financiers en temps de crise au sein de la zone euro', presented at : Comptabilités, économie et société, Montpellier, France.

Li, S. 2010, 'Does Mandatory Adoption of International Financial Reporting Standards in the European Union Reduce the Cost of Equity Capital?**'**, *The Accounting Review*, Vol. 85, No. 2, pp. 607-636. https://doi.org/10.2308/accr.2010.85.2.607

Lys, T. & Soo, L. 1995, 'Analysts' forecast precision as a response to competition', *Journal of Accounting, Auditing and Finance*, Vol. 10, No. 4, pp. 751-765.

Maghraoui, R. & Dumontier, P. 2008, 'Normes Internationales, Asymétrie d'Information et Contenu Informatif des Chiffres Comptables',**Thesis, Faculté des Sciences Économiques et Sociales, Université de Genève, Suisse.

Marchal, S., Boukari, M. & Cayssials, J.L. 2007, 'L'impact des normes IFRS sur les données comptables des groupes français cotés'**,** *Bulletin de la Banque de France*, No.163, pp. 27-42.

Meulen, S., Gaeremynck, A. & Willekens, M. 2007, 'Attribute differences between U.S. GAAP and IFRS earnings: An exploratory study', *The International Journal of Accounting*, Vol. 42, No. 2, pp. 123-142. https://doi.org/10.1016/j.intacc.2007.04.001

Nahar, S., Azim, M. & Jubb, C.A. 2016, 'Risk disclosure, cost of capital and bank performance', *International Journal of Accounting and Information Management*, Vol. 24, No. 4, pp. 476-494 https://doi.org/10.1108/IJAIM-02-2016-0016

Obert, R. 2008, 'Les IFRS sont-ils la cause de la crise financière ?', *Revue Française de Comptabilité*, N° 415, pp. 43-45.

Paugam, L., Ramond, O., Husson, B., Philippe, H. & Casta, J.F. 2013, 'Risque d'estimation, coût du capital et communication des tests de dépréciation', *Finance Contrôle Stratégie*, Vol. 16, No. 2.

Saadi, T. 2010, 'Création de valeur : l'impact des normes IFRS sur le contenu informationnel du résultat net : le cas de la France', presented at : La place de la dimension européenne dans la Comptabilité Contrôle Audit, Strasbourg, France.

Salameh, E. 2013, 'L'impact des normes IFRS sur le Contenu Informationnel des Etats Financiers des PME cotées dans le Contexte Français', *European Scientific Journal*, Vol. 9, No. 22, pp. 105-121.

Tan, H., Wang, S. & Welker, M. 2011, 'Analyst Following and Forecast Accuracy After Mandated IFRS Adoptions', *Journal of Accounting Research*, Vol. 49, No. 5, pp. 1307-1357. https://doi.org/10.1111/j.1475-679X.2011.00422.x

Tweedie, D. 2006, 'Prepared statement before the Economic and Monetary Affairs Committee of the European Parliament', available at http://www.iasplus.com/resource/0601tweedieeuspeech.pdf.

Urquiza, F., Abad Navarro, M. & Trombetta, M. 2012, 'Disclosure Strategies and Cost of Capital', *Managerial and decision economics*, Vol. 33, No. 7, pp. 501-509. https://doi.org/10.1002/mde.2562

Welker, M. 2005, 'Disclosure Policy, Information Asymmetry, and Liquidity in Equity Markets', *Contemporary Accounting Research*, Vol. 11, No. 2, pp. 801-827. https://doi.org/10.1111/j.1911-3846.1995.tb00467.x

Zogning, F. 2013, 'Normalisation Comptable Internationale Et Qualité De L'information Financiere : Quel Bilan Pour Les Ifrs ?', *Journal Of Global Business Administration*, Vol. 5, No. 1, pp. 70-79.