

**Stock market liquidity and information asymmetry around  
Voluntary earnings announcements: New evidence from France**

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## **Abstract:**

This paper studies market liquidity and stock prices components of information asymmetry around non-mandated earnings announcements by focusing on effective bid-ask spreads and trading volumes. Using event study methodology for 309 voluntary earnings announcements from 1998 to 2001, we found that voluntary earnings disclosures exhibit significant stock market reactions around news releases. We also noticed a significant decrease in effective spreads and an increase in trading volumes when good and bad news are released. Moreover, investors react more aggressively to bad news suggesting that bad news about firm performance are more credible. Panel-data regression analyses were also used to examine both categories of voluntary earnings announcements: earning forecasts and quarterly earning announcements separately. They show that quarterly announcements enhance market liquidity by reducing bid-ask spreads and increasing trading volumes in the announcement window. However, earnings forecasts exacerbate information asymmetry before and after the announcement date. This result suggests that earning forecasts are subject to earning manipulation and less credible, then for the market.

*Keywords: voluntary earning announcement, information asymmetry, market liquidity, and information content*

## 1. Introduction

Over the last five years, French managers have increasingly used related-earnings announcements to inform the market regularly about their firms' performances. Financial disclosures basically consist of two components: the first includes all mandatory disclosures, whereas the second includes those made voluntarily by managers. We are only interested in earnings announcements which are not mandated by the French regulation. These earnings disclosures are voluntary and include quarterly earnings announcements, earnings preannouncements, and earnings forecasts. Via these voluntary disclosures, French-listed firms promote their reputation among financial analysts and institutional investors. This paper provides evidence on whether non-mandated earnings announcements provide material information to market participants and whether they affect stock market liquidity and hence, information asymmetry in the French market as in quote-driven markets.

According to the French regulation, firms are required to release their annual reports in the *Bulletin des Annonces Légales et Officielles* (BALO) and to issue their earnings half-yearly (according to the law of 24/07/1966 and the decree of 23/03/1967). In addition, the *Autorité des Marchés Financiers* (AMF) requires the quarterly announcements to include only revenues. These requirements differ from those established by the SEC in the U.S. where companies are required to release formal annual reports and quarterly ones under a homogenizing form. Furthermore, the investigation of earnings disclosures practices on the French market reveals the existence of three types of non-mandated earnings disclosures: quarterly earnings announcements, earnings forecasts and earnings preannouncements. It is important to notice that both earnings forecasts and earnings preannouncements represent management expectations issued voluntarily about yet-to-be-released earnings as stated by Soffer et al. (2000). The former are disclosed before the fiscal year end, whereas the latter are issued after the fiscal year end and before the release of formal annual reports, they include profit warnings. Managers issue these earnings announcements to warn market participants about bad earnings news prior to the date of their formal release.

Corporate disclosures aim to reduce the expectation gap between investors, to decrease the advantage from which informed investors benefit, and consequently to reduce the effects of information asymmetry on the cost of capital. This argument is based on the intuition provided by Akerlof (1970), according to whom information asymmetry generates costs by

introducing adverse selection into transactions. This is likely to decrease liquidity and increase firm's cost of capital (Diamond and Verrecchia, 1991). The literature of economics, finance, and accounting suggests various proxies for market liquidity. In this study, we choose effective relative spreads and trading volumes in firm shares as measures of stock market liquidity. The relation between these proxies and the firm's cost of capital is predicted in theory by Stoll (1978) and Glosten and Milgrom (1985), among others.

The theoretical models of disclosure predict a favorable effect of increased corporate disclosures on stock market liquidity and on information asymmetry. Empirical studies have shown that both mandated and voluntary disclosures are likely to convey material information to the market through significant and high stock market reactions around earnings disclosures. Consequently, they reduce information asymmetries among informed and uninformed market participants. Furthermore, the literature of microstructure has shown the positive impact of firms' publicly available information around the day of news releases on stock market liquidity (Diamond and Verrecchia, 1991; Welker, 1995; Yohn and Coller, 1997; Frankel et al., 1999; Leuz and Verrecchia, 2000; Heflin et al., 2001; and Bushee et al., 2003).

As a first step, this study establishes the information content of three categories of 309 voluntary earnings disclosures included in our sample (good, bad and neutral news). This data validation step is designed to test whether voluntary earnings announcements are used by French managers to convey material information or not. Results on volumes show that informative news generate high abnormal volumes. Analyses of excess bid-ask spreads and abnormal volumes show that there is a significant decrease of bid ask spreads and a significant increase in trading volumes just after the release of good and bad news. These results suggest that information asymmetry is likely to decrease the day of news releases. However, information asymmetry is likely to increase before news releases suggesting that similar to quote-driven markets, traders on an order-driven market increase the bid-ask spread in order to reduce their losses. As a second step, we perform panel-data regressions on ten days before and ten days after the news release. The findings show that quarterly announcements enhance market liquidity by shrinking bid-ask spreads and increasing trading volumes in the announcement window. However, earnings forecasts exacerbate information asymmetry after the news release. Similar to earnings announcements, these results indicate that investors have divergent abilities to process earnings forecasts as argued by Kim and Verrecchia (1994) and Lee et al. (1993).

This paper provides new empirical evidence for the French market on the relationships between voluntary earnings disclosures, information asymmetry, and market liquidity. These results have implications for our understanding of how the influence of voluntary disclosure on stock market liquidity is important in making relevant decisions about corporate disclosures. The results also provide insights about the benefits of the voluntary disclosure policy. Complementing the literature on order-driven markets, our results suggest that voluntary earnings announcements reduce bid-ask spreads and improve stock market liquidity as in quote-driven markets.

The remainder of this paper is organized as follows. Section 2 presents a review of the literature that highlights how voluntary disclosures affect stock price return, market liquidity and hence, information asymmetry. Section 3 describes the sample, data and methodology used in the study. Empirical findings and discussions are presented in section 4. Last section concludes the paper.

## **2. Literature review and hypotheses development**

Our evidence is consistent with the notion that firms with voluntary disclosure practices acquire significant benefits. Existing theoretical and empirical work related to voluntary disclosures and microstructure is carried out mainly on quoted-driven markets and suggests that these disclosures are likely to improve market liquidity and reduce information asymmetry among market participants. In this study, we aim at examining voluntary earnings disclosures consequences on an order-driven market i.e. the French market.

We then, shed light on the Euronext Paris market, an electronic order-driven market, where traders can use two categories of orders: limit and market orders. Each order has to state the direction of the transaction (buy or sell), the quantity and the running period for which the order is active. Trading begins from 9:00 a.m. continuously to 5:25 p.m. A call auction determines the opening price and also the closing price, fixed at 5:30 p.m. There are two main market models: continuous trading for liquid stocks and double auction market for less liquid stocks. The order book contains all traders' orders, and members have access to the outstanding orders. A transaction takes place when an order is placed while a matching order

already exists on the book. The French market has no market-makers, no designated dealers and no specialists. In quote-driven markets, as is the case of the NYSE, the adverse selection cost stems from the hypothesis that the market consists of informed and uninformed market-makers (Copeland and Galai 1983). The dealer expects to gain from uninformed market-makers and to sustain losses while trading with those better informed. As a consequence, they are likely to widen the bid–ask spread in order to cover their losses resulting from dealing with informed traders (Kim and Verrecchia, 1994). In an order-driven market, traders behave in the same manner as market-makers or specialists in quote-driven markets since the existence of informed and uninformed traders exacerbates information asymmetry costs (Handa et al., 1998).

### **2.1. Information asymmetry and information content**

Corporate disclosures aim at reducing the expectation gap between investors, at decreasing the advantage from which informed investors benefit, and consequently at reducing information asymmetry in the stock market. This argument is based on the pioneering work of Akerlof (1970) applied to the “lemon market”. In economics literature, Spence (1971) was the first to develop the signaling theory by considering the case of “labor market”. In Financial markets, the signaling theory suggests that the increase of publicly available information would reduce the production of private information (adverse selection costs) and hence decrease information asymmetry between market participants. Empirical studies have found that both mandated and voluntary disclosures are likely to signal material information to the market. They consequently exhibit lower information asymmetry among informed and uninformed investors (Diamond and Verrecchia, 1991; Healy et al., 1999; and Leuz and Verrecchia, 2000).

The information content of public disclosures could be observed through stock market reactions and trading volume changes around the date of announcement. Beaver (1968), Ball and Brown (1968), Morse (1981), and Bamber and Cheon (1995) argue that earnings announcements accompanied by high trading volumes and abnormal returns around the announcement window convey more information to investors than announcements which generate low trading volumes and insignificant stock returns. Stock market reactions represent an average on investors’ belief about the firm value and trading volumes indicate investors’ behavior on firm shares. Both measures aim at estimating public announcements information

content and information asymmetry. Trading volume is also considered as a measure of stock market liquidity given that it captures the willingness of some investors who hold firm shares to sell, and the willingness of others to buy (Bamber, 1987).

Several studies have analyzed the relationship between non-mandated disclosures and information asymmetry by examining news releases information content. Dye (2001) argues that managers wishing to inform investors about future cash flows benefit from early stock market price reactions. Skinner (1994) suggests that voluntary disclosures of bad news, i.e. profit warnings, make smooth reactions of stock market returns; which would avoid deceiving shareholders at the formal earning announcement. When firms do not warn their investors about their performance they incur sceptic investors' beliefs about firm performance. Frankel et al. (2003) examine the information content of conference calls used voluntarily by managers to communicate with investors. They find that this kind of voluntary disclosure practice provides information to the market over and above the information released in the press calls. Moreover, they find that trading volumes and trade size increase at the time of announcement. Bushee et al. (2003) demonstrate that conference calls initiated by managers are associated with more transactions and increase in volatility. However, there is no significant abnormal volume before and after the announcement of the call, indicating that conference calls only attract small and individual investors. Whaley and Cheung (1982) and Kiger (1972) analyzed the information content of quarterly earnings announcements, which are mandated announcements in the US market, and found significant stock price changes and abnormal volumes occurring around the date of quarterly earnings announcements.

Morse (1981) shows that stock market reactions and trading volumes change significantly the day prior to and the day of quarterly earnings announcements in the Wall Street Journal. This is explained by the fact that some trades are initiated by informed investors who could acquire private information before the news release since the date of the announcement is predictable. Consequently, information asymmetry is likely to increase before the day of news releases. Furthermore, according to Kim and Verrecchia (1994), the adverse selection problem can still persist after the announcement date because investors could have different abilities to process corporate disclosures. These different interpretations are likely to induce a high level of information asymmetry after the announcement date. Patell and Wolfson (1981) show also that information asymmetry is likely to increase after the annual earning announcement. This argument was tested on the French market by Gajewski

(1999) who considered the case of the French market. He argues that formal earnings releases should decrease information asymmetries and finds, however, that some investors convert public information into private ones, resulting in an increase of information asymmetry at the time of formal earnings announcements.

According to the earlier arguments, we expect voluntary earnings disclosures issued by French managers to exhibit significant stock price fluctuations and abnormal trading volumes around the date the firm releases its earnings. This assumption suggests that voluntary earnings announcements convey material information content to French-market participants. We also assume that, as with formal earnings announcements, stock market reactions occur prior to the day of voluntary earnings announcements since some investors could stimulate private information acquisition. This will increase the information asymmetry before news releases.

## **2.2. Information asymmetry and stock market liquidity**

Companies might pursue a disclosure strategy in response to perceived illiquidity for their shares in the market. Consequently, corporate disclosures aim to improve stock market liquidity. It is important to signal that the measurement of market liquidity is complex and often subject to measurement problems. Disclosure literature has shown that high quality public disclosures (e.g., annual reports, press releases, and SEC filings) reduce information asymmetry and increase stock market liquidity. Bushee and Noe (2000), Leuz and Verrecchia (2000) and Welker (1995) argue that market liquidity could be measured by both trade-based and order-based measures i.e. transaction volumes and bid-ask spreads.

Heflin et al. (2001) suggest that information quality is important for market liquidity. Quality accounting disclosures are considered as means of reducing information asymmetries across traders and increasing the ability of equity traders to effectively execute stock trades when needed and at reasonable costs. The authors examine 221 American firms from 1989 to 1998 and find that high quality disclosures enhance market liquidity by increasing quoted depth and reducing effective spreads. Welker (1995) examines the relationship between stock market liquidity and corporate disclosure policy. He finds a negative relationship between disclosure policy and bid-ask spreads suggesting that the higher the information disclosures, the more the level of bid-ask spreads. This phenomenon is due to the decrease in perceived



information asymmetry between market participants. Welker uses the relative bid-ask spread as an appropriate proxy for liquidity. The same proxy was also used by Healy et al. (1999), who find that firms making sustained increases in disclosure quality experience higher stock market liquidity through narrower relative bid-ask spreads.

Leuz and Verrecchia (2000) use a sample of 102 German firms included on the DAX 100 in 1998. They analyze firms that report under the international accounting standards or US-GAAP. They show that companies benefit from reduced spreads and increased transaction volumes and hence from improvement in market liquidity. However, by using samples of Over-The-Counter (OTC) securities, Skinner (1991) finds that bid-ask spreads do not change around earnings announcements. They rather increase immediately after announcements that convey relatively large earnings surprises, since the market processes the earning release differently. Coller and Yohn (1997) used a sample of 278 quarterly earnings forecasts to confirm that managers issue their forecasts to reduce information asymmetries. They notice an increase in spreads the day of and the day after the management forecast release suggesting that, as with formal earnings announcements, specialists temporarily increase spreads as a way of protection from investors with superior processing abilities. They do not find however an increase in spreads immediately prior to the management forecast. Such a result is explained by the fact that management forecasts are unanticipated by investors.

The bid-ask spread is a measuring of the liquidity degree of firms' securities which was proposed by Demsetz (1968). The bid-ask spread addresses the adverse selection problem that arises from transacting in firm shares in the presence of asymmetrically informed investors. Less information asymmetry implies less adverse selection, which implies in turn a smaller bid-ask spread. The market microstructure literature suggests that bid-ask spread includes three components: order-processing costs, inventory-holding costs and adverse selection costs. Bid-ask spread components rely mostly on quote-driven systems. Demsetz (1968) and Tinic (1972) identify the order-processing costs incurred by the providers of market liquidity. Stoll (1978) and Amihud and Mendelson (1980) emphasize the inventory holding costs. Copeland and Galai (1983) and Glosten and Milgrom (1985) focus on the information costs faced by liquidity suppliers when trading with informed traders. All these studies were applied to the case of quote-driven markets.

Brockman and Chung (1999) extend the bid-ask spread decomposition literature into the order-driven environment by examining the bid-ask components of the Stock Exchange of Hong Kong. The results show that bid-ask spreads are decomposed mostly into order-processing costs and adverse selection costs. It is important to signal that the adverse selection component represents a significant proportion of the spread in both quote-driven and order-driven markets (Handa et al. 1998). Affleck-Graves et al. (2002) find an increase in the adverse selection component of bid-ask spreads on the day of and the day prior to formal earnings announcements, suggesting spread is used as a proxy for both information asymmetry and market liquidity. Increased spreads lower stock market liquidity and exacerbate information asymmetry among informed and uninformed market participants. According to Krinsky and Lee (1996), adverse selection costs increase because some traders have a superior capacity to estimate firm performance.

According to the above-mentioned spread components, previous theoretical and empirical studies suggest numerous determinants of the bid-ask spread other than the firm's disclosure policy. The findings of these studies show that spreads are negatively associated with trading volumes and share prices but positively associated to return volatility (Stoll, 1978; Chiang and Venkalesh, 1988; and Glosten and Harris, 1988). By modeling the trading volume, the extend literature finds that volumes are negatively related to spreads but positively related to volatility and share price (Leuz and Verrecchia, 2000; and Tkak, 1999). Moreover, Demsetz (1986), Tinic (1972) and Stoll (1978) find a negative relationship between trading activity and the bid-ask spread.

We assume that similar to quote-driven markets, in an order-driven market like the French one, voluntary earnings announcements are likely to induce narrower bid-ask spreads and higher trading volumes around the day of voluntary announcements enhancing market liquidity and decreasing information asymmetry. However, spreads are likely to increase the day prior to voluntary earnings announcements suggesting that liquidity traders widen the spread in order to cover their losses from trading with informed traders.

### **3. Sample, data collection and methodology**

Our sample encompasses all industrial and commercial listed firms included in the SBF 250's index. The 43 financial and insurance firms were excluded because they are

subject to specific disclosure requirements. This leaves us with a sample of 207 companies over the period from 1998 to 2001. Data related to voluntary earnings releases were collected for the whole sample, they have been located and hand-collected in press releases mainly from the Europress website. For each voluntary earning announcement, we recorded the date, the sign (good, bad and neutral news<sup>1</sup>), the nature (qualitative and quantitative news), and the form of the earning announcement (quarterly earning disclosures and forecast or pre-announcement). Financial data related to stock prices, trading volumes and bid and ask prices were retrieved from Datastream database. Our sample is made of 117 companies carrying out 406 voluntary earnings announcements in the sample period. We exclude 37 earnings announcements because they only include qualitative information and do not report quantitative figures about firm performance in the corresponding news release. Due to data unavailability related to bid and ask prices and volumes, we exclude 60 observations. The final sample includes 309 announcements presented as follows in table 1.

**Table 1: Frequencies of the sign and form of voluntary earnings releases**

	Sign			Nature	
	Good	Neutral	Bad	Quarterly	Forecasts
<b>Frequencies</b>	0.504	0.161	0.330	0.300	0.699
<b>Total</b>	156	50	102	93	216

We notice that half of the announcement sample reports good news about firm performance whereas 16.1% report anticipated news by the market. Bad news announcements include a large part of profit warnings. We also notice that voluntary earnings announcements enclose mostly earnings forecasts including 103 earnings preannouncements and profit warnings. Quarterly announcements represent 30% of the total sample of news releases suggesting that a large proportion of French-listed firms do not include quarterly earnings announcements in their disclosure policy.

The study conducted by Lakhali (2004) has shown that the release of these announcements is closely related to multi-quotations and US-listing. When firms are listed on the US markets they have to abide by US GAAP requirements which are tighter than the home market requirements. In our case, firms listed on the US market are compelled to

<sup>1</sup> The sign of the news is determined by comparing the news released in the press with the last news. If the news confirms previous information known to investors, it is coded as neutral news. If it reports unanticipated news relative to previous release, it is recorded as good news for favourable information on firm performance, and bad news otherwise.

release their quarterly earnings. We then expect to have different market reactions to quarterly earnings announcements made by French firms listed on the US market and French firms listed on the French market only.

In measuring stock market liquidity, we use effective relative bid–ask spreads following and trading volumes following. Effective relative bid-ask spread is used to capture the cost of transacting. According to Heflin et al. (2001), effective spread is likely to be a better spread-based measure for market liquidity than either raw or relative spreads. It is equal to twice the absolute value of the difference between a transaction price and the midpoint of the bid and ask prices scaled by the midpoint<sup>2</sup>. In an order-driven market, ask is the best price associated with a selling limit order, whereas, bid is the price associated with a buying limit order. Trading volumes data were obtained from Datastream and refer to turnover by volume, which shows the number of shares traded per day.

As a first step, we capture informative announcements by using a standard event study methodology to estimate daily abnormal returns and volumes and spreads over time (Fama, Fisher, Jensen and Roll, 1969, Ball and Brown, 1968, Beaver 1968 and Venkatesh and Chiang, 1986). The event study design allows us to observe the behavior of our proxies for information asymmetry and market liquidity around the announcement date. We examine five events related to the form and sign of voluntary earnings disclosures i.e. earning forecasts and quarterly earnings announcements, and good, neutral and bad news releases between 1998 and 2001. The estimate period is 200 days before the event period; which corresponds to 20 days before the news release and 20 days after. Normal returns (volumes) are estimated by prior forecasting models. We use the market model as the benchmark to estimate abnormal returns and volumes. Normal spreads are estimated using the mean adjusted return model. We estimate market model parameters using ordinary least squares for abnormal returns (volumes):

$$R_{it} = \alpha_t + \beta_t R_{mt} + \varepsilon_{it} \quad \forall t \in [-220, -20]$$

$R_{it}$ : return for a stock  $i$  in time  $t$ ,

$R_{mt}$ : the market return in time  $t$  measured by the SBF 250 index,

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<sup>2</sup> Effective relative bid-ask spread =  $\frac{2|price - midpoint|}{(bid + ask/2)}$ , where  $midpoint = bid + ask/2$

$\alpha_i$ : the stock return in lack of market return,

$\beta_i$ : the coefficient of volatility of stock return in relation to market return,

$\varepsilon_{it}$ : regression residuals.

We then calculate normal returns:  $E(r_{it}) = \alpha_i + \beta_i R_{mt} \quad \forall t \in [-20, +20]$

As said earlier, we run the mean adjusted return model to find out normal spreads. This model assumes that spread is constant over time (in the estimate period) but differs from stocks:

$E(\text{spread}_{it}) = K_{it} = K_i \quad \forall t \in [-20, +20]$

$K$ : constant equal to the mean of the spread for a stock  $i$  over the estimate period  $[-220, -20]$ .

Afterwards, we estimate the effects of voluntary earnings announcements i.e. the abnormal returns which are equal to the difference between observed returns and normal returns. The same equation is used to put forward abnormal volumes and excess spreads.

$$AR_{it} = R_{it} - E(r_{it}) \quad \forall t \in [-20, +20]$$

$AR_{it}$ : Abnormal stock returns in time  $t$  for stock  $i$ .

We estimate cumulative and mean abnormal return for each  $t$  over the period event and use t-student test to verify whether mean and cumulative abnormal returns are statistically significant or not:

$$AAR_t = \frac{1}{N} \sum_{i=1}^N AR_{it}$$

$$CAR_{x,y} = \sum_{t=x}^y AAR_t$$

$$T = \frac{AAR_t}{\sigma(AAR_t)} ; \text{ where } \sigma(AAR_t) = \frac{S}{\sqrt{n}}$$

$S$ : standard deviation of abnormal stock returns  $RA_{it}$

$$T = \frac{CAR_t}{S/\sqrt{n - (x + y - 1)}}$$

As a second step, we use panel data regression analyses of earnings voluntary disclosures. This step validation aims at examining spreads in the windows prior to; during and after the release of earnings voluntary announcements by separately examining quarterly announcements and earnings forecasts. Moreover, this analysis was carried out in order to

capture differences in spreads between various time periods. The ten trading days prior to a firm's announcement ( $t = -10, \dots, -1$ ) represent the first section of the event window. The actual date that a firm announces its earnings voluntarily represents the event day ( $t=0$ ) and the ten trading days post event date ( $t=+1, \dots, +10$ ) makes-up the last section of the window.

#### **4. Results analyses and discussion**

##### **4.1. Event studies results and discussion**

Table 2 shows that investors react positively to good news. Average abnormal returns are positive and significant one day prior to, and the day of the earning news release. T-statistics are significant at the 1% level. Moreover, we notice that the market reaction still persists to one day after the news release. Investors may interpret the news differently because they may have various abilities to understand the information released. Furthermore, investors react negatively to bad news on firm performance; the news is likely to be anticipated by some investors two days before the announcement date. These informed investors could react by trading on the basis of their private information before the announcement date. However neutral news on firm performance do not convey material information since the earning release does not change significantly investors' expectations. The t-student test shows that there are no significant abnormal returns surrounding the announcement of neutral news. These results suggest that it is the unexpected component of earning announcements i.e. "the surprise earning effect" that makes the market react significantly to good and bad news.

Our first hypothesis is then corroborated; voluntary earnings announcements disseminate unanticipated information to investors (good or bad news). They consequently, convey material information and exhibit significant stock market reactions on the day of news release. This is likely to decrease information asymmetry between market participants and to dissipate the advantage of informed traders to invest on the basis of their private information. These results are in accordance with the empirical study carried out by Frankel et al. (2003) on the relationship between corporate voluntary disclosures and information asymmetry. The authors suggest that conference calls provide material information and reduce information asymmetry among investors. Hutton et al. (2003) examine a different category of voluntary disclosures i.e. management forecasts and also find that the different disclosure patterns for good and bad news forecasts affect the information content of managers' earnings forecasts.

**Table 2: Abnormal stock market returns**

	Bad news		Neutral news		Good news	
	AR	t	AR	t	AR	t
-5	0.000624	0.183	-0.0037	-0.944	0.00092	0.312
-4	0.001505	0.450	-0.00112	-0.341	-0.00266	-1.071
-3	-0.00443	-1.413	-0.0028	-0.864	-0.00293	-1.236
-2	-0.00741	-1.868*	-0.00189	-0.462	-0.00138	-0.447
-1	-0.01495	-2.905***	-0.00756	-1.474	0.008095	2.439***
<b>0</b>	<b>-0.02685</b>	<b>-3.517***</b>	<b>0.009845</b>	<b>1.630</b>	<b>0.012627</b>	<b>3.326***</b>
1	-0.00341	-0.869	0.00196	0.424	0.005105	1.724*
2	-0.00035	-0.085	0.003667	0.631	0.000422	0.164
3	0.004608	1.183	0.006251	1.383	0.002867	1.072
4	0.005352	1.442	0.005228	1.269	0.000572	0.198
5	0.00758	1.995*	0.004226	1.098	0.001849	0.609
CAR [-3, -1]	-0.0268	-3.335***	-0.01224	-1.601	0.004134	0.704
CAR [0, 2]	-0.03061	-3.137***	0.015471	1.513	0.018154	2.884***

This table presents the mean abnormal returns for the three categories announcements (good, bad and neutral news) for the sample of 309 voluntary earnings announcements. These results are obtained using the market model. The results are similar when applying the mean adjusted returns model and the index model. AR is abnormal return, \*\*\*, \*\*, \* T-statistics are significant at the 1%, 5% and 10% levels respectively.

Figure 1 illustrates average abnormal returns throughout 21 days surrounding the day of announcement (10 days before and 10 day after the news release). Results show that bad news convey the most significant stock market reaction. Investors react more strongly and significantly to unexpected bad news than to good news. We notice that the price decreases of about 2.68% the day of bad news announcements and increases of about 1.26% in average the day of good news release (these abnormal returns are significant at the 1% level). This result suggests that bad news are likely to be inherently credible to investors while good news seem not to be. According to Hutton et al. (2003), investors are sceptic about the release of good voluntary announcements and react more aggressively to bad news. The authors find that forecasting firms experience large negative stock price reactions subsequently to bad news forecasts while good news are only informative when supplemented by verifiable other disclosures.

**Figure 1: Abnormal returns around the announcement date**

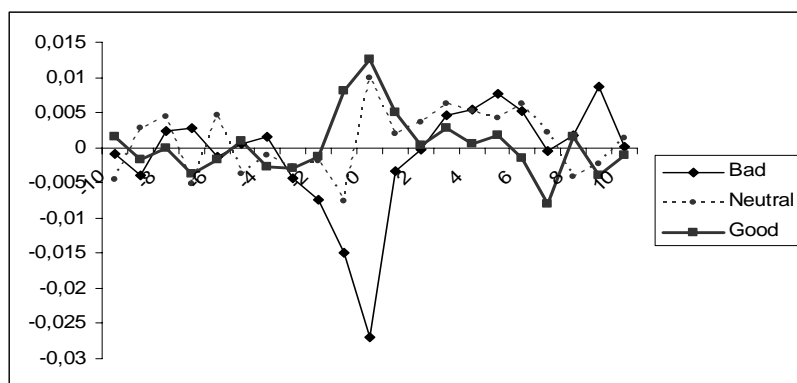


Table 3 presents average abnormal volumes around the date of voluntary earnings announcements. The results show that good and bad news related to firm performance exhibit abnormal and high trading volumes on the announcement day. The abnormal volume is equal to 3.4% for bad news and to 2.41% for good news; they are also significant at the 1% level. This finding is consistent with those of Whaley and Cheung (1982) on quarterly earnings announcements and Frankel et al. (1999) on conference calls practices. The latter find higher trading volume and larger trade size in the conference call window relatively to the time period preceding the conference call. However, Bushee et al. (2003) do not find a significant difference between trading volumes before and after the announcement of the conference call. They show that these announcements are associated with an increase in small trades suggesting that conference calls only attract individual investors. Our results suggest that French-listed firms voluntarily disclose their earnings by using quarterly earnings announcements and earnings forecasts to release value-relevant information to investors. These announcements are likely to attract larger investors' trades and not only individual ones as with conference calls. Finally, as for abnormal returns, neutral news do not induce a significant change in investors' behavior suggesting that only informative news generate abnormal trading volumes around the day of announcement (Bamber and Cheon 1995).

The results also show that trading volumes increase prior to good and bad news releases suggesting that the information is partially anticipated by some investors who look for private information and initiate trades before the announcement day. Volumes remain significantly high two days after the date the earnings are released voluntarily. This result is consistent with Kandel and Pearson (1995) arguing that different interpretations resulting in high information asymmetry could be the origin of abnormal increased trading volume



occurring after the news release. The results also indicate that, similar to studies carried out on formal earnings announcements, earnings disclosures made voluntarily by managers improve stock market liquidity and reduce information asymmetry through significant abnormal trading volumes around the day of news release. We can conclude that it is the surprising effect of the news that simulates high and significant transactions by investors.

**Table 3: Abnormal trading volumes**

	Bad news		Neutral news		Good news	
	AV	t	AV	t	AV	t
-5	0.0749	0.648	0.2681	1.802	0.1101	1.319
-4	0.3145	-0.329	0.0248	0.188	0.0812	0.896
-3	-0.0389***	3.422	0.1828	1.161	0.0999	1.069
-2	0.3397*	1.892	-0.1753	-0.899	0.0214	0.205
-1	0.2231***	2.870	0.0453	0.257	0.2107**	2.135
<b>0</b>	<b>0.3403***</b>	<b>3.956</b>	<b>0.1409</b>	<b>0.855</b>	<b>0.2411***</b>	<b>2.550</b>
1	0.5889***	4.401	0.2826	1.291	0.1435*	1.811
2	0.3808*	1.923	0.1181	0.863	0.1811***	2.325
3	0.1871	-0.141	0.0923	0.688	-0.0200	-0.225
4	-0.01681	1.517	0.0073	0.046	0.0010	0.012
5	0.1432	0.528	0.0908	0.747	0.1211	1.537
CAR [-3, -1]	0.9032***	4.670	0.0528	0.151	0.3320*	1.904
CAR [0, 2]	1.1569***	5.369	0.5418*	1.870	0.5657***	3.693

This table draws the mean abnormal trading volume for the three categories of announcements (good, bad and neutral news) for the sample of 309 voluntary earning announcements. Trading volume is measured by volume share turnover. These results are obtained using the market model. The results are similar when applying the mean adjusted returns model and the index model. AV is abnormal volume, \*\*\*, \*\*, \* T-statistics are significant at the 1%, 5% and 10% levels respectively.

The graph in figure 2 shows that cumulative abnormal volumes decrease during the period that precedes voluntary earnings announcements. We can notice that similar to stock market reactions, bad news induce the most significant trading volume, suggesting investors trade more aggressively when the company is not doing well. Bad news related to firm performance is significant to investors when taking decisions of trading on firms' shares in the future. It is important to conclude that abnormal volumes and price reactions indicate that informative voluntary earnings announcements change significantly both investors' beliefs and behavior. The current results support theoretical models of corporate disclosures that posit a favorable impact on stock prices, trading volumes and hence on information asymmetry from corporate disclosure policies (Diamond and Verrecchia, 1991, and Leuz and Verrecchia, 2000).

**Figure 2: Abnormal trading volumes**

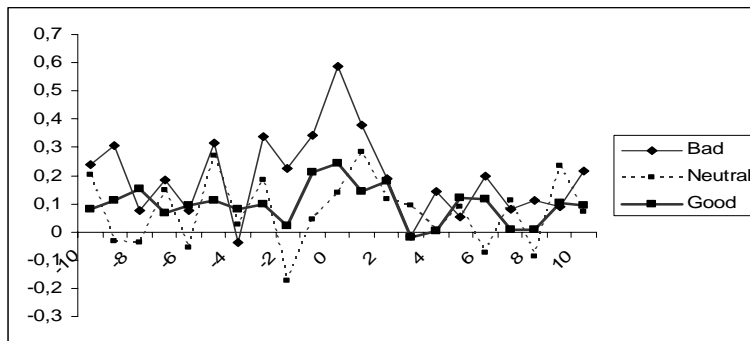


Table 4 illustrates daily effective relative spreads on 5 days prior to and 5 days after the announcement date. The use of excess bid-ask spreads is meaningful since it helps controlling for the change in spreads' determinants such as trading volume, price and stock market volatility. As we can see from the results, excess spreads decrease significantly the day of the announcement for the three categories of news (good, bad and neutral news) but remain positive for bad and neutral news. We suggest that information asymmetry decreases after the announcement of voluntary earnings announcements. The decrease in effective relative spreads shows also that market liquidity is likely to improve subsequently to voluntary earnings announcements.

However, we notice that spreads increase steadily prior to bad news announcements. It begins to increase significantly on day -3 till one day before the news release. The current result confirms the findings of significant abnormal returns and volumes prior to the date at which the earnings are released. These findings suggest that information asymmetry increases before the announcements date given that some investors could anticipate the information to be released. Traders would then try to widen spreads to recover their losses from trading with informed traders. This result is consistent with the prediction of Kim and Verrecchia (1994) arguing that prior to earnings announcements, investors seek to acquire private information. This finding is also similar to Yohn and Coller's (1997) results found on the U.S market and showing that management forecasts increase the information asymmetry observed before the release date. The adverse selection problem is exacerbated before the announcement date since some investors may be able to initiate some trades.

**Table 4: Daily excess effective relative spreads**

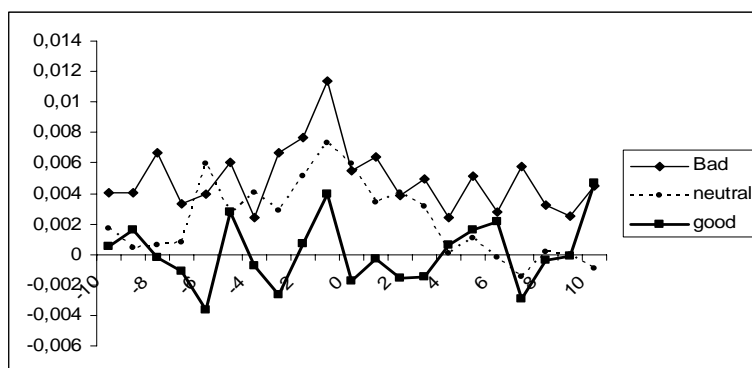
	Bad news		Neutral news		Good news	
	AS	t	AS	t	AS	t
-5	0.0060	1.118	0.002606	0.750	0.002807	0.802
-4	0.0024	1.088	0.004024	0.856	-0.00071	-0.448
-3	0.0067	1.854*	0.002894	0.569	-0.00267	-2.869***
-2	0.0076	1.688*	0.005162	1.273	0.000675	0.368
-1	0.011377	2.257**	0.007297	2.339**	0.00393	1.625*
<b>0</b>	<b>0.005481</b>	<b>2.387***</b>	<b>0.00597</b>	<b>2.2443**</b>	<b>-0.0017</b>	<b>-1.791*</b>
1	0.006398	1.750*	0.00343	1.675*	-0.00029	-0.107
2	0.003864	1.943*	0.004007	1.008	-0.00153	-0.658
3	0.004974	1.997**	0.003111	1.315	-0.00151	-1.040
4	0.002434	1.366	7.39E-05	0.056	0.000611	0.199
5	0.00516	1.619	0.001047	0.454	0.001617	0.375
CAR [-3, -1]	0.014344	1.920*	0.015354	2.049**	0.001936	0.561
CAR [0, 2]	0.027121	3.447***	0.013404	2.393***	-0.00352	-0.694

This table illustrates the mean excess effective spreads for the three categories of announcements (good, bad and neutral news) for the sample of 309 voluntary earning announcements. These results are obtained using the constant mean return model to estimate normal spreads over the estimate period. AS is abnormal spread, \*\*\*, \*\*, \* T-statistics are significant at the 1%, 5% and 10% levels respectively.

The results also show that neutral news generate significant changes in effective spreads. Even if neutral news do not convey information, stock market liquidity is likely to increase. This result confirms the benefits of increased and regular disclosures even if they are expected by the market suggesting that investors are sensitive to the firm disclosure policy. Figure 3 shows that for the three categories of news, effective spreads fall after the day of announcement and start to return to their normal level two days after the news release. The results show that the release of voluntary earnings announcements reduces information asymmetry caused by large effective bid-ask spreads in the pre-announcement window.

As a conclusion, our hypothesis is corroborated, in an order-driven market, there are significant changes in average excess bid-ask spreads leading to increased market liquidity and hence decreased information asymmetry as in quote-driven markets. However, information asymmetry is likely to raise before earnings announcements leading to increased bid-ask spreads.

**Figure 3: The excess effective spread around the announcement date**

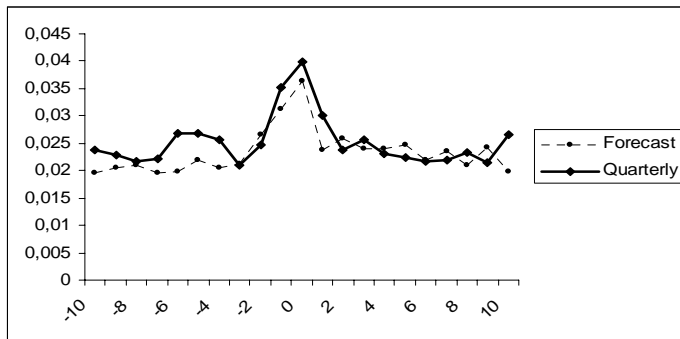


We now turn to investigate abnormal returns, volumes and spreads by examining the nature of voluntary earnings disclosures released to the market. We study both categories of earnings disclosures available to French managers wishing to voluntarily inform the market about their firm performance: quarterly earnings announcements and earnings forecasts. The latter include management forecasts, earnings preannouncements and profit warnings. Quarterly earnings announcements differ from earnings forecasts given that their agenda is known in advance to French-market participants, implying stock market anticipation of the news release, whereas, earnings forecasts are not predictable by investors. We expect then that the market reaction to quarterly earnings announcement would be different from that of earnings forecast. We convert the data used earlier and segregated on good, bad and neutral news to absolute values and separate them into quarterly and forecasts announcements. Our interpretation relies on figures 4, 5 and 6 which report stock market reactions, trading volumes and effective relative spreads around the announcement date of each category of news releases.

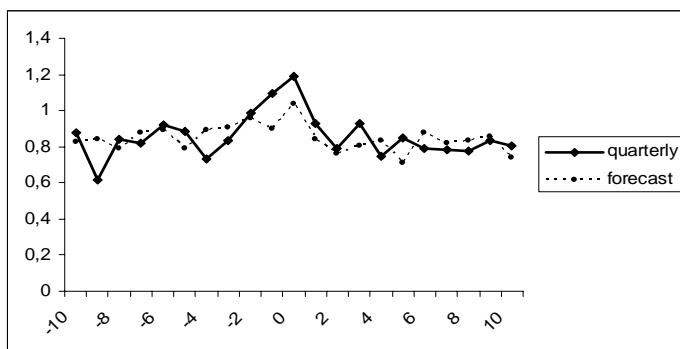
As we can see from the graphs below, quarterly earnings announcements exhibit a higher stock market reaction and higher abnormal volumes than the release of earnings forecasts announcements suggesting that interim reports are more informative than forward-looking statements. This result is not surprising since quarterly announcements are more credible to investors because they report actual news about firm performance. Earnings forecasts could however be subject to earnings manipulation by managers since they report only management expectation about yet-to-be released earnings. As a consequence, investors are more sceptic about their reliability. Excess effective spreads are also higher one day prior to quarterly earnings releases date compared with spreads related to earnings forecasts. Given

that quarterly earnings announcements agenda is known to market participants, better informed investors could benefit from trading on the basis of their acquired private information. This finding is consistent with those of Whaley and Cheung (1982), Kiger (1972) and Morse (1981) on quarterly earning announcements in the US market. However these authors have examined the impact of quarterly announcements taken as mandated earnings announcements, which is partly the case of our study. Indeed, we include quarterly announcements made by French firms listed on the US market (mandated quarterly announcements) and French firms listed on the home market only (voluntary quarterly announcements). These observations will be tested with panel data multiple-regressions analyses.

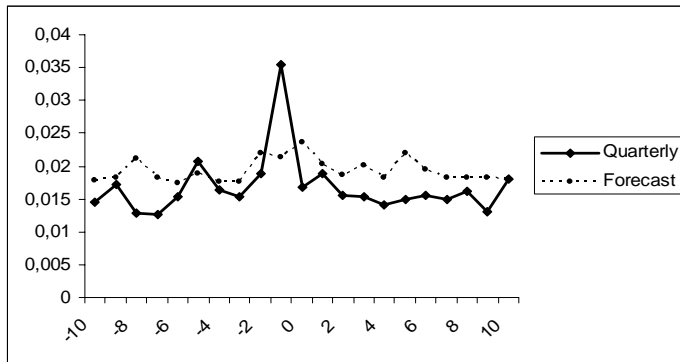
**Figure 4: Abnormal returns of quarterly announcements and forecasts**



**Figure 5: Abnormal volumes of quarterly announcements and forecasts**



**Figure 6: Excess spreads of quarterly announcements and forecasts**



#### **4.2. Panel data regressions results**

We test the change in market liquidity and information asymmetry using panel data regression analyses. Then, we examine stock market liquidity and information asymmetry proxies around quarterly earnings announcements and earning forecasts by focusing on effective bid-ask spreads and trading volumes. With panel data, it is possible to control for some types of omitted variables by observing changes in the dependent variable over time (in our case, we choose 21 days around the date of announcement). We run the Hausman test to choose between fixed-effects and random-effects models. This test checks a more efficient model (random effects) against a less efficient but consistent model (fixed effects). The result of the test, not reported here, shows that the random-effects model offers more consistent results.

We estimate multiple-regressions for market liquidity proxies on various determinants other than corporate disclosures. First, some justification is provided for the explanatory variables used in the models. We rely on previous theoretical and empirical studies which suggest numerous determinants of bid-ask spreads and trading volumes other than the firm's disclosure decision. As said earlier, spreads are affected by order processing costs (proxied by trading volumes), inventory control costs (trading volumes and volatility) and asymmetric information (price and trading volumes). Literature has shown that spreads are negatively associated with trading volume. They are however, positively associated to price and return volatility (Stoll, 1978, Chordia et al., 2001). Trading volumes are negatively related to spreads and positively associated to volatility and share price (Leuz and Verrecchia, 2000, Tinic, 1972 and Stoll, 1978). ). Following Frankel et al. (1999) and Bushee et al. (2003), we measure price

volatility by the difference between the highest and lowest prices on the event window period, scaled by the low price. Finally, the price is measured by the closing price of a stock.

The models examined here check whether there are any changes in spreads and volumes in the event window, which are not caused by spread and trading volume determinants. Significant coefficients on the dummies would suggest that the spread during the event period (21 days) reflects changes in market liquidity, information asymmetry and costs, which are not entirely captured by the explanatory variables mentioned above.

We first estimate the following equations following Yohn and Coller (1997) using log-transformed variables since their distributions are highly skewed. Our models are estimated on the following period [-10, +10], we run four separate regressions to determine whether spreads widen on any of the three days surrounding the earning announcement date and on the event window [-10, +10], and whether trading volume increases in the same periods.

Models on [-10, -2] and [+2, +10] and on days -1, 0 and 1:

$$Ln(spread_{i,t}) = \alpha_0 + \alpha_1 Ln(volume_{i,t}) + \alpha_2 Ln(price_{i,t}) + \alpha_3 Ln(Volatility_{i,t}) + \alpha_4 Per_t$$

$$Ln(spread_{i,t}) = \alpha_0 + \alpha_1 Ln(volume_{i,t}) + \alpha_2 Ln(price_{i,t}) + \alpha_3 Ln(Volatility_{i,t}) + \alpha_4 day_t,$$

where t = day

Given that, we use two proxies for stock market liquidity, we run similar regressions using as dependent variable trading volumes.

$$Ln(volume_{i,t}) = \alpha_0 + \alpha_1 Ln(spread_{i,t}) + \alpha_2 Ln(price_{i,t}) + \alpha_3 Ln(Volatility_{i,t}) + \alpha_4 Per_t \text{ or } \alpha_4 day_t$$

In the spread model, the coefficient on volume is significantly negative. If trading volumes are generally low, market makers will find it difficult to adjust their inventory levels and will increase their spreads to compensate for losses. Price also has a significant negative coefficient showing that lower-price stocks have higher spreads. The coefficient on volatility is significant and positive. This result is in line with prior literature evidence suggesting that the more volatile is the stock price, the more the market maker is exposed to the risk of adverse price movements, and consequently the wider is the bid-ask spread. The volume model shows that spread has insignificant coefficient. The effect is less pronounced in the volume model, suggesting that including event period dummies absorbs much of the spread effect. The volume model has rather less explanatory power than the spread model.

Let's discuss dummies variables coefficients in modeling spreads and volumes for earnings forecasts.  $Per_t$  is dummy equal to 1 if the period goes from -10 to -1 and 0 otherwise. Panel A of table 6 shows that the coefficient on  $Per_t$  is negative and insignificant in the spread model. Furthermore, table 6 reports that the spread increases significantly the day of the announcement of earnings forecasts relatively to the 20 days around the news release. We can then argue that the release of earnings forecasts exacerbates information asymmetry among market participants. Significant increase in spreads one day after the news release suggests that investors have divergent abilities to process management earning forecasts. The increase of spread around the release of earnings forecasts is similar to the findings of Yohn and Coller (1997) who examine management forecasts in the U.S. market. They show that information asymmetry increases the day of management forecasts release and remain high after the announcement has been made. The results are also consistent with the theoretical model in Kim and Verrecchia (1994) and with increases in spreads on the days surrounding formal earnings announcements found in Lee et al. (1993).

Results for trading volumes show that volumes increase from 10 days before the earnings forecasts releases, to 10 days after. The coefficient on  $Per_t$  is significant and negative at the 1% level. Particularly, trading volume is significant and high one day prior to the day of and one day after the news release. These results are due to the increase of trades initiated by informed investors on the basis of their private information before the news release. Moreover, the increase in volumes after the announcement date is explained by the increase in information asymmetry which generates high trading volumes (Kim and Verrecchia, 1994, and Patell and Wolfson, 1981). These results suggest that it is not evident that earnings forecasts reduce market liquidity and hence information asymmetry. This result is similar to that observed on French market by Gajewski (1999). This phenomenon is likely to generate high trading volumes.



**Table 6: Market liquidity around earnings forecasts announcements****Panel A: Effective spread around earnings forecasts**

$$Ln(\text{spread}_{i,t}) = \alpha_0 + \alpha_1 Ln(\text{volume}_{i,t}) + \alpha_2 Ln(\text{price}_{i,t}) + \alpha_3 Ln(\text{Volatility}_{i,t}) + \alpha_4 Per_t \text{ or day}_t$$

Time period	$\alpha_0$	$\alpha_1$	$\alpha_2$	$\alpha_3$	$\alpha_4$	R <sup>2</sup>
Per = 1 for :	-1.513	-0.163	-0.296	0.559	-0.069	0.425
-10 ≤ t ≤ -1	-5.45***	-8.87***	-5.91***	11.49***	-1.33	
Day = 1 for t = -1	-1.509	-0.161	-0.867	0.568	0.040	0.423
	-5.39	-8.78***	-12.65***	11.41***	0.32	
Day = 1 for t = 0	-1.522	-0.162	-0.863	0.564	0.197	0.423
	-5.44***	-8.84***	-12.60***	11.34***	1.68*	
Day = 1 for t = 1	-1.510	-0.163	-0.867	0.569	0.263	0.424
	-5.40***	-8.88***	-12.68***	11.47***	2.15**	

**Panel B: Trading volume around earnings forecasts**

$$Ln(\text{volume}_{i,t}) = \alpha_0 + \alpha_1 Ln(\text{spread}_{i,t}) + \alpha_2 Ln(\text{price}_{i,t}) + \alpha_3 Ln(\text{Volatility}_{i,t}) + \alpha_4 Per_t \text{ or day}_t$$

Per = 1 for :	8.708	-0.0017	-0.415	0.581	-0.206	0.203
-10 ≤ t ≤ -1	14.64***	-0.28	-4.43***	28.52***	-10.05***	
Day = 1 for t = -1	9.05	-0.0008	-1.116	0.593	0.103	0.182
	14.58***	-0.13	-11.94***	27.96***	2.11**	
Day = 1 for t = 0	8.975	-0.0015	-1.099	0.582	0.343	0.192
	14.51***	-0.26	-11.79***	27.68***	7.14***	
Day = 1 for t = +1	8.97	-0.0019	-1.099	0.593	0.332	0.191
	14.60***	-0.31	-11.78***	28.32***	6.96***	

The number of earning forecasts is 216; the number of observations is 4274 since we observe our variables on 21 days. Panel A draws the spread model and Panel B illustrates the volume model. Per is dummy coded as 1 for t = -10 to t = -1 and 0 for t = 0 to t = +10, Day = 1 for t = -1 and 0 otherwise, Day = 1 for t = 0 and 0 otherwise, Day = 1 for t = +1 and 0 otherwise. Spread is daily effective bid-ask spread, Volume is the number of stock shares traded per day, Price is the daily closing share price, and Volatility is the price variance measured by the difference between high and low prices scaled by the low price.

Table 7 illustrates the spread model on panel A and the volume model on panel B for the second category of voluntary disclosures i.e. quarterly earnings announcements. The coefficient on Per<sub>t</sub> is positive and significant indicating that companies experience a decrease in effective spreads from the ten days before the announcement of quarter earnings to the ten days after. This suggests that issuing quarterly earnings disclosures is likely to decrease information asymmetry and hence, increase market liquidity better than the release of earnings forecast. This result confirms those of the graphs showed earlier. Quarterly earnings announcements correspond to actual earnings; as a consequence, they are more credible and influence more significantly market expectations than the release of earnings forecasts. We separately run tests on the effect of mandated quarterly announcements made by French firms listed on the US markets and voluntary quarterly announcements made by French firms listed on the French market only. The results, not reported here, show that there is no differences between both categories of quarterly announcements given that both of them are predicted in

agendas available to investors i.e. the date of announcement of mandated and voluntary quarterly earnings are known a priori to investors who could trade on the basis of this information prior to the announcement day.

**Table 7: Market liquidity around quarterly earnings announcements**

<b>Panel A: Effective spread around quarterly earnings announcements</b>						
$Ln(spread_{i,t}) = \alpha_0 + \alpha_1 Ln(volume_{i,t}) + \alpha_2 Ln(price_{i,t}) + \alpha_3 Ln(Volatility_{i,t}) + \alpha_4 Per_t$ or $day_t$						
Time period	$\alpha_0$	$\alpha_1$	$\alpha_2$	$\alpha_3$	$\alpha_4$	$R^2$
Per = 1 for :	-1.684	-0.147	-0.302	0.565	0.170	0.309
-10 ≤ t ≤ -1	-3.57***	-4.28***	-3.09***	6.61***	1.90*	
Day = 1 for t = -1	-1.561	-0.150	-0.307	0.572	0.304	0.308
	-3.35***	-4.36***	-3.14***	6.69***	1.45	
Day = 1 for t = 0	-1.497	-0.145	-0.308	-0.587	-0.473	0.305
	-3.22	-4.24***	-3.16***	6.86***	-2.26**	
Day = 1 for t = 1	-1.480	-0.146	-0.897	0.588	-0.288	0.307
	-3.15***	-4.28***	-7.22***	6.71***	-1.36	
<b>Panel B: Trading volume around quarterly earnings announcements</b>						
$Ln(volume_{i,t}) = \alpha_0 + \alpha_1 Ln(spread_{i,t}) + \alpha_2 Ln(price_{i,t}) + \alpha_3 Ln(Volatility_{i,t}) + \alpha_4 Per_t$ or $day_t$						
Per = 1 for :	5.807	-0.005	0.305	0.550	-0.073	0.142
-10 ≤ t ≤ -1	10.33***	-0.59	2.03**	16.81***	-2.22**	
Day = 1 for t = -1	5.574	-0.006	-0.187	0.557	0.135	0.139
	10.02***	-0.73	-1.25	16.57***	1.76*	
Day = 1 for t = 0	5.554	-0.003	-0.179	0.543	0.318	0.146
	10.03***	-0.42	-1.20	16.16***	4.16***	
Day = 1 for t = +1	5.594	-0.004	-0.192	0.548	0.349	0.148
	10.16***	-0.51	-1.29	16.34***	4.51***	

The number of quarterly earnings announcements is 92; the number of observations is 1815 since we observe our variables on 21 days. Panel A draws the spread model and Panel B illustrates the volume model. Per is dummy coded as 1 for t = -10 to t = -1 and 0 for t = 0 to t = +10, Day = 1 for t = -1 and 0 otherwise, Day = 1 for t = 0 and 0 otherwise, Day = 1 for t = +1 and 0 otherwise. Spread is daily effective bid-ask spread, Volume is the number of stock shares traded per day, Price is the daily closing share price, and Volatility is the price variance measured by the difference between high and low prices scaled by the low price.

Results in table 7 also show that the decrease in effective spread is associated positively to the decrease of information asymmetry at the day quarterly earnings announcement are disclosed. Panel B of table 7 illustrates results of the volume model. We notice that trading volumes also increase in the event window and around the news release suggesting that quarterly earnings announcements improve market liquidity and decrease information asymmetry among market participants. This result is important for regulators and French managers because it reports economic benefits from adopting voluntary earnings disclosures policies since reduced information asymmetry is likely to lower the firm cost of

capital by shrinking bid-ask spreads and enhancing trading volumes (Leuz and Verrecchia, 2000).

## **Conclusion:**

This paper provides new evidence of voluntary earnings announcements consequences in France. Recently, French-managers have increasingly opted for voluntary earnings announcements in order to inform regularly the market about their firms' performances. These announcements include quarterly earnings announcements and earnings forecasts. Empirical work on voluntary disclosures has shown economic benefits from increased corporate disclosures. This study examines the impact of these announcements on stock price reactions, trading volumes and effective relative bid-ask spreads, proxies of information asymmetry and market liquidity on the French market, which is an order-driven market.

The results of event study methodology are in line with previous studies on showing that the unexpected component of voluntary earnings announcements conveys material information to market participants concluding that it is the surprising effect of the news that changes market expectations. Our findings also show that trading volumes are positive and significant the day of good and bad news releases suggesting that informative announcements act on investors' behaviors through trading in firms' shares. The excess spread increases steadily before the announcement and reaches a peak the day prior to the announcement date. Then it falls down suggesting that information asymmetry is reduced and market liquidity is enhanced. However, information asymmetry is likely to increase prior to the announcement date suggesting that informed investors could trade on the basis of their private information. This advantage dissipates early at the announcement date.

We run multiple-regression with panel data to validate the benefit of releasing voluntarily news on firm performance by separating the effect of quarterly and earnings forecasts. The results show that effective spread decreases after the release of quarterly earnings announcements concluding that these announcements reduce information asymmetry among informed and uninformed investors. Effective spreads widen at the announcement date and remain high one day after the release suggesting that traders who are better able to process management forecasts make the spread wider. Our findings also show that trading volumes are higher the day of announcement than the days of the event study period [-10, +10] validating our evidence on the impact of voluntary earnings announcements on stock market liquidity.

The results provide insights on positive benefits of voluntary earnings disclosure policy on stock prices, market liquidity and hence information asymmetry. Complementing the literature on order-driven markets, our results suggest that voluntary earnings announcements in France reduce information asymmetry and improve stock market liquidity as in quote-driven market. Results shed light on the implications of decisions that could be taken by managers regarding the use of voluntary earnings announcements as a corporate disclosure policy.

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