

The Market Effects of CEO Turnover: The Case of Post-revolution Tunisia

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The purpose of this paper is to examine how investors react to successive forced turnover of CEO, after the Tunisian revolution. We, firstly, analyze price and trading volume reactions to announcements of these events. Our results show that announcement of a CEO turnover conveys bad news for equity investor's on average. Consistent with negative information content, our results document negative abnormal returns following announcement, together with uncertainty of investors as revealed by decrease or stability of trading volume. These findings are consistent even when the CEO has dual roles, internal and external succession. Next, we evaluate the cross-sectional information content of CEO turnovers. Our findings show that abnormal returns and trading volumes are explained by company characteristics rather than CEO qualities. The abnormal trading volume is affected negatively by external successor, ROA and B/M and positively by size, tenure and CEO compensation.

Keywords: CEO turnover; emergent market; event study

1. Introduction

The change of an inefficient CEO may be a structural break in the life of the company. In fact, CEO attitude has a major effect on the financial, investment and operational decisions of the company. Consequently, this event may affect firm performance. A significant number of studies examined the effect of a departing CEO on performance in developed markets but this theme has not received the same attention in emerging markets, especially the Tunisian market which is experiencing a major change after the revolution¹.

A large body of theoretical and empirical literature has examined the reaction of investors to CEO turnover in different developed markets like the American market, (Weisbach, 1988; Bonnier and Bruner, 1989; Franks, et al., 1998; Huson, Parrino, and Starks, 2001 and Adams and Mansi, 2009), the British market (Dedman and Lin, 2002), the French market (Dherment-Ferere et al., 2002), the Japanese market (Kang and Shivdasani, 1996), the Deutch market (Cools and Praag, 2007) and the Suisse market (Kind and Schläpfer, 2011). The majority of these studies shows that CEO turnover was positively perceived by investors, especially if the depart was forcing and the successor was an outsider.

Unlike other studies, we pursue this theme in the Tunisian market. In fact, we propose to examine the impact of forced CEO departure on stock performance in the Tunisian context. Particularly, after the Tunisian revolution, many CEOs of listed

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companies (31%) were removed by their employees. Some of these CEOs escaped any form of control because they were accused of being protected by their relationship with the ousted president or his family. Others were accused of abusive behaviour before the revolution. Apparently this event will break CEO malfeasances and restore investors' confidence which must be reflected in the market reaction. Hence, our contribution is to study the consequence of a particular kind of CEO turnover on an emerging market and in a revolutionary context.

The remainder of the paper is organized as follows. Section 2 presents a brief overview of the context of the study. Section 3 provides briefly some relevant theoretical and empirical evidences and our hypothesis development. Section 4 focuses on research design. Section 5 presents and discusses empirical results. The final section contains our conclusion.

2. Context of the Study

In order to understand the empirical findings, it is important to present the context of our study. We summarize firstly the characteristic of corporate governance in Tunisia. Secondly, we recapitalize the Tunisian revolution and its repercussions on firms.

2.1 Specificities of Tunisian Corporate Governance

The Tunisian authority has undertaken many actions to improve the legal and regulatory framework of the Tunisian Stock Exchange and to encourage companies to be listed. Indeed, there are two legal sources affecting corporate governance in Tunisia. First, the *company law* represents the legal framework for all Tunisian firms. Second, there is a series of listing requirements that are applied to the listed firms on the Tunisian Stock Exchange, namely, the *code of commerce*, the *Financial Act 94-117* and the *Securities and Exchange Committee regulations*.

Regarding governance characteristics, external mechanisms as in other emerging markets, are not developing well. The corporate governance takes place mainly through two internal mechanisms: ownership structure and internal control. For ownership *structure*, the concentration of ownership is an important feature of the Tunisian governance system (Omri, 2003 and Khanchel, 2007). The capital was owned principally by families, banks and the Tunisian government but foreign investors have important holdings in the financial institutions.

Most of the studies focused on Tunisian corporate governance show that the relations that may exist between the shareholders (majority or not) and the leader are not sufficiently developed. Indeed, the major block-holders exercise significant power forcing leaders to strengthen their position and their role in business. Thus, the Tunisian government tried to reinforce laws which protect shareholders' interests (especially minority shareholders) and enhance the corporate governance quality. Consequently, the Tunisian code of commerce introduced the dualistic structure for *internal control*² (the classic form was the board of directors: the monist structure). According to this new form, the executive board ensures the management functions while the control function is attributed to the supervisory board. In this dualistic structure, members of the supervisory board must be shareholders. On the other side, the members of the executive board are salaried managers rather than social representatives. Furthermore, each member of the executive board has a permanent

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ability of management and representation. We note that the supervisory board appoints the member of the executive board. In the monist structure, administrators are not necessarily shareholders. In fact, the board of directors must be composed by external expertise.

Globally, although reforms have been undertaken, there is a consensus that the Tunisian governance system is weak. (Omri, 2003 and Khanchel, 2007).

2.2 Tunisian Revolution: 14 January 2011

The revolution is a radical change in the contemporary history of Tunisia. Certainly, it will have a significant impact on political, social and economic matters. The outbreak of the revolution is due to many factors. The *first factor* is the social crisis caused by the amplification of unemployment rate (14% in 2010) and the deterioration of purchasing power. The *second factor* is the profound inequalities and regional disparities in development that increased a sense of injustice and humiliation by regions within the country, discriminated against economically, socially and politically. The *third factor* is the abusive behavior of the former president *Ben Ali* and his family, including that of his wife. In fact, they have monopolized the large profitable businesses. In addition, they are directly implicated in corruption, embezzlement and theft. Finally, the *fourth factor* is the suicide of a young unemployed Tunisian in 17 December. The indignation aroused by the suicide led to a strong popular mobilization in all regions of Tunisia. On January 14, many thousands of Tunisians came out in spectacular displays. Their slogan was the fall of the political regime. Indeed, the regime of *Ben Ali* was over-thrown and the latter fled.

Among the most important consequences of this spontaneous popular revolution were the replacement of the former government by a caretaker government, the dissolution of the Party of former President accused of malfeasances, the law of General Legislative Amnesty, the election of a Constituent Assembly which will be responsible for drafting a new constitution. Besides, many ministers and CEOs of companies were criticised by their employees. In fact, these employees denounced privileges to the presidential family and unjust social policy. Other CEOs were dismissed by the board of directors because they had a strong relationship with former regime or they were affiliated with the party of the ousted president.

After presenting the context of our study, we report in the next section the theoretical development of our problem.

3. Literature Review

Theoretically, the reaction of investors following CEO change depends on many factors. The first is the cause of the turnover, attributes of the outgoing CEO and the choice of successor.

3.1 Market Perception of Forced CEO Turnover

Clayton, Hartzell and Rosenberg (2005) develop three hypotheses to explain the cause of turnover and its impact on market performance in general. The first was the *improved management hypothesis* which supposes that forced management turnovers generate higher expected company performance by increasing managerial

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quality. A CEO will be changed if the costs resulting from the turnover are more than offset by the quality differential separating the new and the incumbent CEO. This thesis implies that investors should interpret the change as a positive signal about the quality of the succeeding CEO and expected value of the firm.

According to *the strategy hypothesis* the board will engage a new CEO when it decides to change the business strategy. New strategy requires a different set of managerial skills than those possessed by the removed CEO. In this case, the forced turnover or outside replacement CEO event can be viewed as a signal that the firm will follow a different investment strategy. In this case, when the successor comes from outside the firm, the board is looking for change structurally in the strategy of the company, perhaps because it is dissatisfied with the current strategy.

Concerning *the scapegoat hypothesis*, Clayton et al. (2005) argue that there are no differences between the CEOs but that the board needs to take a decision to report to shareholders its intention to stop poor performance.

Adams and Mansi (2009) show the reaction of shareholders as a consequence of investment policy changes occurring after the turnover event. In fact, the CEO turnover event may inform about the likelihood of future changes in corporate decision making. This hypothesis was supported by Denis and Denis (1995) who claimed that the CEO turnover event is typically followed by a period with increased changes in asset structure. Indeed, the departing CEO may have made sub-optimal investment decisions and the change of CEO offers an opportunity to reverse those investment errors. Therefore, regarding Adams and Mansi (2009), the reactions of shareholders depend on the nature of the event (expected or not). If the event was unexpected, then the turnover announcement may convey information that firm performance was worse than previously thought. In this case, investors react negatively to the informational component of the announcement. There could also be a positive real effect of the announcement if investors anticipate future firm performance to improve.

A large body of empirical study has examined the reaction of investors to CEO turnover. Weisbach (1988) reports significant and positive excess returns around the CEO turnover event in a sample of 153 NYSE firms. Weisbach does not attempt to determine the nature of the CEO turnover.

In the following studies, the issue of forced turnover takes more attention than voluntary turnover. It is widely suggested that the stock price response to forced CEO turnover announcements is higher than the voluntary turnover response. Therefore, researchers examine if the turnover event is forced or voluntary. Denis and Denis (1995) show a significantly positive abnormal return upon the announcement of forced turnover of 2.50%. While the abnormal return is not significant if the turnover is voluntary. Furthermore, Denis and Denis (1995) examine operating performance following turnover and find subsequent accounting measures of performance improve. Additionally, they find that turnover is associated with increased asset restructuring.

Bonnier and Bruner (1989) examine a sample of 70 NYSE financially distressed firms. They report significantly positive and economically important excess returns around the succession announcement date. This finding is consistent with the

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internal corporate control hypothesis that management change following poor performance is associated with gains to shareholders. Cross-sectional tests of the effects reveal a significant title effect and significant interactions between title and appointment of an outside successor and title and firm size.

Khanna and Poulson (1995) do not find a significant reaction to CEO turnover announcements whether the successor is from outside or inside the company in a sample of financially distressed firms. Thus, Khanna and Poulson (1995) provide evidence in support of the scapegoat hypothesis. Warner, Watts and Wruck (1988) report insignificant price reaction in the announcement period.

Cools and Praag (2007) study the impact of forced management departures on stock returns for a sample of Dutch firms. They find a weak or insignificant effect on stock returns but a positive effect on trading volume during the announcement period. They conclude that the CEO turnover was value relevant. Indeed, the positive effect of trading volume suggests that the insignificant aggregate return is caused by the heterogeneity of investors' reactions.

Dedman and Lin (2002) find a negative abnormal return to announcements of British CEO turnover equal to (-3.40%) when this departure is forced. The abnormal return is insignificant when the departure is voluntary. Recently, Kind and Schläpfer (2011) investigate the CEO turnover for 208 Swiss companies. Unlike other studies, they find that investors do not react positively to forced turnover. They consider the quality of the departing CEO. Investors do not esteem the board decision especially when the outgoing CEO is out-performing.

Although the empirical results seem mixed, the majority of empirical work indicates that forced turnovers cause significantly positive excess returns around the announcement date while voluntary turnovers result in insignificant excess returns. For our study, turnovers were considered as forced changes. Indeed, only CEOs who has a strong relationship with the regime of the bygone era were dismissed. Thus, we suppose that investors will react positively to these removals.

Hypothesis 1a: *CEO turnovers increase abnormal stock returns.*

Hypothesis 1b: *CEO turnovers increase abnormal trading volumes.*

3.2 Outgoing CEO Attributes

Unlike previous studies which examine the impact of tenure or duality on probabilities of turnover, we purpose to study the impact of these attributes on investor reaction to CEO turnover. Theoretically, concentration of decision management and control in the CEO reduces board effectiveness in monitoring the CEO (Fama and Jensen, 1983). Therefore, empirical studies show that CEOs are less likely to be replaced following poor firm performance when they are chairman (Maury, 2006).

Alternatively, CEOs with a shorter tenure are considered as less experienced compared to CEOs with a longer tenure. Shen and Cannella (2002) argue that new CEOs need to adjust to their new roles and rapidly develop good relationships with other members of their top management groups, board of directors and powerful outside partners. As time passes, CEOs establish their power in office and, consequently, they may have great latitude to engage in self-serving behaviours that

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might damage shareholder value. Many empirical researches show that the probability of CEO turnover is less likely when CEOs have longer tenure (Shen and Cannella, 2002).

For our study, we propose to examine how turnover of CEOs with dual roles and longer tenure were appreciated by the market. Knowing that these attributes seem to reduce the likelihood of CEO turnover, so turnover of these CEOs may convey positive a signal to investors.

Hypothesis 2a: *Turnovers of CEO with dualistic function or longer tenure affect positively abnormal stock return.*

Hypothesis 2b: *Turnovers of CEO with dualistic function or longer tenure affect positively abnormal trading volume.*

We note that positive or negative reaction is indicated by price reaction. Trading volume reaction is positive whether market reaction is positive or negative.

3.3 Successor Qualities

Regarding the choice of successor, the quality of the new CEO is perceived differently whether the candidate was internal or outside. The internal new CEO is preferred if the board of directors does not provide a structural break in the company's strategy. In fact, the internal successor has better company knowledge. Nevertheless, if a radical break with an existing strategy is essential, an *external successor* may be recommended. Apart from the corporate strategy, other corporate characteristics may affect the choice of a new CEO and the amplitude of price reaction (such as size of company, performance, diversity of corporate activities).

According to Franks et al. (1998), as the CEO and his management team are responsible for poor performance, external succession (especially following forced turnover) is expected to generate a positive market price reaction while internal promotion following poor performance may not be perceived favourably by the market. In well performing companies, internal succession (after non-conflictual turnover) is less costly than external CEO succession. This implies that the expected negative price reaction after internal succession may be less substantial than after external succession. Identically, Dherment-Ferere and Renneboog (2002) presume that following poor performance, an external CEO may be hailed more favourably by the market in contrast to an internal successor who may be remembered for the past corporate under-performance.

Furtado and Rozeff (1987) show that in the absence of poor performance, internal succession may cause less strongly negative reactions in larger companies than in smaller ones (in the case of non-conflictual turnover). If the need for new managerial skills is essential, external succession will cause a larger positive market reaction in smaller firms as it is easier to refocus the strategy of such firms. Moreover, Parrino (1997) suggests that external succession may generate a stronger price reaction in a diversified company than undiversified firms, because a new external manager may bring about higher value-added in diversified firms.

Huson, Parrino and Starks (2001) show the positive stock price reaction is largest when the replacement CEO is an outsider (abnormal return of 2.49%). Since firms

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resorting to forced turnover are most likely suffering from prior poor performance, it is not surprising rational investors anticipate better future performance. Huson et al., (2001) find turnover announcement abnormal stock returns are positively related to subsequent changes in accounting measures of performance. This study reports a decrease of corporate size, measured by the book value of total assets, following forced turnover.

Adams and Mansi (2009) find similar results. The market reaction is positive and significant in three cases. The first when the turnover is forced (2.43%). The second is generated when the successor is an outsider (2.42%). The third is triggered when the departure is voluntary, while the abnormal return was weaker compared to other case (0.27%). The internal successor event generates insignificant returns. They also find that CEO turnover events are associated with lower bondholder values, higher stockholder values and that net changes in firm value are a function of turnover type and the riskiness of the firm's debt. Thus, Adams and Mansi presume that their study gives evidence in support of both the wealth transfer and signaling hypotheses. Dherment-Ferere and Renneboog (2002) report that announcement of a forced CEO resignation is perceived favourably by the market with a significantly positive abnormal return of 0.5%. It seems that the market may have anticipated the forced turnover while, voluntary resignations do not generate price reactions. Moreover, the nomination of an external manager following the performance-related forced CEO turnover increases the abnormal returns by more than 2%. The cumulative abnormal returns for internal CEO successors in poorly performing firms drops by almost 1%. In companies with best past performance and with internal succession, there is no statistically significant price decline.

The study of Kang and Shivdasani (1996) focused on a Japanese sample of 432 CEO turnovers. The results indicate that CEO turnover presents a positive signal to investors. Moreover, the abnormal returns are significant and positive whether the turnovers are forced or voluntary and whether the successor is internal or external. However, the most important abnormal return is realized when the departure is forced (1.02%); if the successor is external (0.95%). For voluntary departure and internal succession abnormal returns are weaker and amount to respectively 0.4% and 0.38%.

Regarding Tunisian CEO turnover post-revolution, we expect that outsider succession will be well perceived than internal because it will cut with past strategy.

Hypothesis 3a: *Outsider (internal) successions generate positive (negative) abnormal returns.*

Hypothesis 3b: *Outsider and internal successions generate positive abnormal trading volumes.*

4. Research Design

4.1 Data

In this study, we found 18 CEO turnover announcements of listed firms occurred after the revolution. By eliminating the incomplete stock prices from the sample list, the final sample consists of 16 turnover announcements from a total of 53 listed companies which represented a percentage of 30%. Accounting information and

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other information about turnover, its date and the new appointment was collected from the site of Tunisian stock market: www.bvmt.tn

4.2 Market Reaction to CEO Turnover Announcement

To analyze the reaction of investors to CEO turnover, we use the standard event study methodology that permits examination of the consequences of the announcement of CEO turnover on stock return and trading volume on the short term.

Analyzing abnormal trading volumes in addition to abnormal returns can likely add an important dimension to the analysis of CEO turnovers. Indeed, trading volume of a given security indicates a lack of consensus among investors regarding the price of that security (Beaver, 1968). The methodology of the study event is based on three main stages.

- **Determination of Parameters of the Analysis:** The first step of a study of events is to define the event and to identify the period during which this event will be studied, called "event window". Following Brown and Warner (1985) the event window must be long enough to detect the effect of the CEO turnover event but short enough to minimize the influence of confounding effects unrelated to the studied event. By using different event windows ranging from one to five days we avoid relying on a specific and possibly restrictive assumption on the length of the event window.

- **Calculation of Abnormal Stock Returns and Abnormal Trading Volume:** In this step, we compute the abnormal stock returns due to the event. The abnormal profitability is the difference between the observed return and normal or theoretical return, which we would normally observe in the absence of event. This return must be modelled on a period preceding the event window called "estimation period". We fixed our estimation period to 70 days before the event period.

- There are several methods or standards for the calculation of the theoretical performance. We choose the market model.

$$R_{it} = \alpha_i + \beta_i R_{mt} + \varepsilon_{it} \quad (1)$$

With R_{it} : Return of stock i on the date t , R_{mt} : Market return on the date t , ε_{it} : Random variable expressing a residual performance that reflects the characteristics of the stock i specific to date t and α_i and β_i : Parameters to be estimated

The abnormal return AR_{it} is determined, during the event window as follow:

$$AR_{it} = R_{it} - (\hat{\alpha}_i + \hat{\beta}_i R_{mt}) \quad (2)$$

The average abnormal return of N companies is calculated as follow:

$$AAR_t = \frac{\sum_{i=1}^N AR_{it}}{N} \quad (3)$$

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Abnormal trading volume is defined as the difference between actual daily trading volume and expected daily trading volume (Bamber, 1987):

$$AV_{it} = V_{it} - \bar{V}_i \quad (4)$$

V_{it} : trading volume of companies i during the event window. Trading volume is measured by the logarithm of traded shares³.

\bar{V}_i : The average trading volume of the company i during the estimation period. The average abnormal trading volume is calculated as follow:

$$AAV_t = \frac{\sum_{i=1}^N AV_{it}}{N} \quad (5)$$

- **Tests on Average Abnormal Returns and Abnormal Trading Volume:** The statistical significance of the average abnormal returns and average trading volume was tested, using a non-parametric test. We use Wilcoxon signed-Ranks test which does not assume normality in the data and it can be used when this assumption is violated.

4.3 Cross Sectional Regression

The objective of this step is to investigate if investor reactions depend on CEO qualities or other firm characteristics. Thus, after determining the abnormal returns and volumes, we propose to evaluate the cross-sectional information content of CEO turnovers by regressing abnormal returns and abnormal trading volumes against a set of explanatory variables.

$$\begin{aligned} \text{Abnormal stock return} = & \alpha_0 + \alpha_1 \text{CEO Qualities} + \alpha_2 \text{Outsider} + \alpha_3 \text{ownership structure} \\ & + \alpha_4 \text{Other corporate characteristics} + \varepsilon_i \end{aligned} \quad (6)$$

$$\begin{aligned} \text{Abnormal trading volume} = & \beta_0 + \beta_1 \text{CEO Qualities} + \beta_2 \text{Outsider} + \beta_3 \text{ownership structure} + \\ & \beta_4 \text{Other corporate characteristics} + \varepsilon_i \end{aligned} \quad (7)$$

CEO qualities are: duality, CEO compensation, tenure of the outgoing CEO. *Outsider* is a dummy variable which is equal to 1 if the new CEO is an outsider and 0 if he is an internal. *Ownership structure* is documented by institutional ownership, foreign ownership and public ownership and *corporate characteristics* are size, leverage and profitability, book to market and return.

5. Empirical Results

5.1 Sample Description

We begin our analysis by a description and overview of the CEO turnover data set reported in Table 1. We describe characteristics of outgoing CEO, origin of the successor, ownership structure, corporate characteristics and industry repartition of our sample.

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Table 1: Summary statistics

Panel A: Outgoing CEO qualities					
	Minimum	Maximum	Mean	Std.	Percent
Tenure	0.38	18	5.4477	4.10	-
Cash-Duality	46,282	946,000	192,190	222,386	-
	-	-	-	-	56.3%
Panel B: Origin of successor					
	Minimum	Maximum	Mean	Std.	Percent
Outside	-	-	-	-	62.5%
Inside	-	-	-	-	37.5%
Panel C: Ownership structure					
	Minimum	Maximum	Mean	Std.	Percent
Block-holder	14%	60%	37%	0.123	-
Institutional	0	61%	20.64%	0.22	-
Public	0	55%	10.95%	0.18	-
Foreign	0	80%	24.45%	0.27	-
Panel D : Corporate characteristics					
	Minimum	Maximum	Mean	Std.	Percent
Size	1,410,00	710,000,00	111,260,00	178837000	-
Leverage	0.02	0.92	0.5063	0.31081	-
Profitability	-0.04	0.29	0.0965	0.09329	-
Book to	0	10.56	0.7742	1.91777	-
Panel E: Sector					
	Financial		Manufacture		Commercia
	43.7%		37.5%		18.8%

Table 1 reports that tenure of outgoing CEO is on average 5 years. It varies from 0.38 year to 18. About 56% of the CEOs of the companies were the chairman of the corporate board of directors. For new appointments, they were 62.5% outsider from the companies. The compensation of CEOs⁴ is, on average, 192,190DT⁵. However, we note that the comparison of the extreme values illustrates that salaries of some CEOs are twenty times the salary of others.

The ownership structure of our sample is clearly concentrated. In the average company, the block-holder holds a majority stake of 37%. The largest shareholder even has a super-majority of 60%. The mean of foreign ownership is about 25%, with a maximum of 80%. Institutional investors own, on average, 20.64% of common shares outstanding. The Government owns on average 10.95% of shares and for certain cases its ownership achieves more than 50%.

In terms of firm-specific characteristics, firms in the sample are relatively large with mean of total asset 111,260,000DT. The mean leverage ratio in the sample is about 50%, indicating that a large portion of the sample consists of firms that have significant debt in their capital structure. On average, firms are with a mean ROA of about 9.65% and a standard deviation of about 0.9%.

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Panel E of Table 1 provides CEO turnover data in percentage by industry. Most of the turnovers occurred in the financial services industry (43.7%), while the least turnovers occurred in commercial industry (18.8%).

5.2 Market Reaction to CEO Turnover Announcement

Table 2 shows the market price reactions (abnormal returns and abnormal trading volume) surrounding the announcement of CEO resignations. We refer to many event windows. We document that during a window of 2, three and four days abnormal returns are negative and insignificant. One day after, the market reacts significantly and negatively to CEO turnover. Mean abnormal return's for the periods [-1 3], [-1 4], and [-1 5] are all negative with values of -0.38%, -0.43% and -0.23%, respectively. Surprisingly, the trading volume reaction takes place neither on the announcement date itself nor over a period of 5 days.

Table 2: Market reaction to CEO turnover announcement

	Anormal return	Z-value	Abnormal volume	Z-value
[-1,0]	-0.41%	-1.66	0.0169	-0.02
[-1,1]	-0.22%	-0.94	-0.1856	-0.45
[-1,2]	-0.49%	-1.552	-0.1976	-0.776
[-1,3]	-0.38%	-1.68*	-0.1976	-1.00
[-1,4]	-0.43%	-2.04**	-0.2335	-1.07
[-1,5]	-0.23%	-1.71*	-0.2250	-1.15

Overall, the findings of this first step reject our hypotheses H_{1a} and H_{1b} and confirm the results of Dedman and Lins (2002). So, the announcement of a CEO turnover seems to convey bad news for equity investors on average. Moreover the insignificant abnormal trading volume indicates increased uncertainty about the value of a stock is why investors prefer to refrain from trading. Our finding corroborates Veronesi's (1999) hypothesis which supposes that that investors under-react to good news in bad times (bear market).

Table 3 presents our empirical findings of the announcement of CEO turnover for different sub-samples distinguished according to the duality, tenure and origin of the successor.

For the CEO turnover when he is not a chairman, the empirical evidence does not show significant abnormal returns or trading volume during different event windows. About CEOs who were also chairman, abnormal returns are negative and insignificant during the four first event windows. Part of the fourth day abnormal returns become significant and achieve -0.52% for [-1 4] window and it grows when we add the fifth day to reach -0.29%. This finding rejects our hypothesis H_{2a} . Investors give the impression of penalizing firms that change CEO with dual roles. Apparently, change will affect both control and management, the first through board of directors and the second through the role of general manager.

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Table 3: Market reaction to CEO turnover for selected subsample

Panel A: CEO duality								
	CEO is not the chairman				CEO is simultaneously the chairman			
	AAR	Z-value	AAV	Z-value	AAR	Z-value	AAV	Z-value
[-1,0]	-0.82%	-1.35	0.052	-0.031	-0.12%	-1.111	-0.010	-0.065
[-1,1]	-0.48%	-0.643	-0.008	-0.226	-0.03%	-0.745	-0.323	-0.625
[-1,2]	-0.44%	-0.911	-0.125	-0.82	-0.5%	-1.273	-0.254	-0.408
[-1,3]	-0.19%	-0.868	-0.198	-1.31	-0.6%	-1.496	-0.196	-0.265
[-1,4]	-0.31%	-1.107	-0.120	-1.007	-0.52%	-1.795*	-0.321	-0.547
[-1,5]	-0.08%	-0.552	-0.042	-0.761	-0.29%	-1.712*	-0.367	-0.835

Panel B : CEO tenure								
	CEO with longer tenure				CEO with shorter tenure			
	AAR	Z-value	AAV	Z-value	AAR	Z-value	AAV	Z-value
[1,0]	-0.88%	-1.680*	0.5313	-0.840	0.34%	-0.280	0.5045	-0.700
[1,1]	-0.03%	-0.706	0.4186	-0.863	0.41%	-0.078	0.3346	-0.784
[1,2]	-0.08%	-0.724	0.7489	-1.655*	0.35%	-0.103	0.2313	-0.569
[1,3]	0.09%	-0.336	0.9738	-2.277**	0.34%	-0.075	0.0679	-0.075
[1,4]	-0.11%	-0.943	1.235	-2.857***	-0.01%	-0.429	0.1875	-0.486
[1,5]	0.19%	-0.319	1.174	-3.142***	-0.06%	-0.465	0.3576	-0.962

Panel C : Successor origin								
	Outside successor				Internal successor			
	AAR	Z-value	AAV	Z-value	AAR	Z-value	AAV	Z-value
[1,0]	-0.82%	-2.12**	0.1595	-0.448	0.33%	-0.314	-0.2207	-0.235
[1,1]	-0.18%	-0.483	0.1517	-0.545	-0.41%	-1.023	-0.7482	-1.198
[1,2]	-0.15%	-0.833	-0.1578	-0.632	-0.94%	-1.543	-0.2642	-0.286
[1,3]	-0.07%	-0.806	-0.3100	-1.366	-0.95%	-1.779*	-0.0104	-0.278
[1,4]	-0.08%	-0.986	-0.3862	-1.715*	-0.9%	-2.011**	0.0208	-0.518
[1,5]	-0.06%	-0.576	-0.3493	-1.829*	-0.63%	-1.682*	-0.0182	-0.481

Regarding CEO tenure, the sub-sample of longer tenure releases significant reaction. The abnormal return is negative in different windows and insignificant except in the event day (-0.88%). Abnormal trading volumes for the periods [-1 2], [-1 3], [-1 4], and [-1 5] are all with positive values of 0.7489, 0.9738, 1.235 and 1.174, respectively. Abnormal trading volume increases from a day to other to achieve a peak in the fourth day and fell the next day. Thus, our hypothesis H_{2b} is confirmed. According to Beaver (1968) positive abnormal volume suggests that published information was interpreted differently by investors. Although, Bamber (1987) concludes that high trading volume is an indicator of divergence in investor opinions. From this point of view, the investor reaction after turnover of CEO who has a long tenure may indicate a divergence about this event according to investor beliefs. In fact, for some investors, the long tenure implies that the out-going CEO may have taken investment decisions that satisfy his personal preferences but not those of the firm's shareholders (Demetz, 1983; Shleifer and Vishny, 1989). In contrast, others assume that the entrenched CEO has specific managerial skills; he is more experienced than new CEO and developed strong working relationships with their top management groups, board of directors and outside stakeholder (Shen and Cannella, 2002). Thus, his departure may affect negatively corporate performance and corporate relationships with their stakeholders. As a consequence, investors satisfied about the CEO turnover will buy the stock and the others will prefer selling it.

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Surprisingly, our results confirm hypotheses H_{3a} and H_{3b} and document an immediate negative market return response to the announcement of an outsider succession (in the event date). Abnormal trading volume is negative and significant in the two last windows [-1 4] [-1 5]. Consistent with negative information content, our result shows negative abnormal returns following announcement, together with uncertainty of investors regarding outside successions as revealed by decrease of trading volumes. More precisely, if investors have not information about the new CEO, they will consider themselves uninformed and prefer waiting to see his first decisions.

As expected in hypothesis H_{3a} , the announcement of internal succession generates lagged negative abnormal return. In fact, for event windows [-1 3] [-1 4] and [-1 5] abnormal returns are respectively -0.95%, -0.9% and -0.63. This result can indicate investors' dissatisfaction about the internal succession. Indeed, an internal succession means continuity of the existing strategy, while the current circumstances require a radical break it (Franks et al. 1998; Dherment-Ferere et al., 2002).

5.3 Factors Explaining the Market Reaction to CEO Turnover

In this sub-section we evaluate the cross-sectional information content of CEO turnovers by regressing abnormal returns and abnormal trading volumes against a set of explanatory variables. Table 4 summarizes the results our multi-variate analysis of abnormal returns.

The abnormal return of first windows [-1 1] is explained by only two variables: public ownership and corporate size. All other coefficients related to explanatory variables are not significant. The coefficient related to public ownership is positive and statistically significant at a level of 1% and the coefficient related to the corporate size of the company is also positive and weakly significant (at a level of 10%).

When we extend the event windows by 4 days or 9 days, the explanatory variables that explain abnormal returns are institutional ownership and leverage for two windows ([-1 5] and [-1 10]). In fact, coefficients related to institutional ownership and leverage are negative and statistically significant at a level of 5% for [-1 5] windows. These coefficients increase in the [-1 10] windows, but still negative and weakly significant.

Our finding shows that the abnormal return generated by CEO turnovers announcement is not explained by either CEO incumbent qualities or origin of successor but by ownership structure and same accounting indicators. Regarding ownership, one possible explanation is that investors seem to trust in public owners and not in institutional owners they may have assumed these to be implicated in bad corporate decisions and to be complacent with the incumbent CEO (Pound, 1988). We can also suggest that the negative coefficient of institutional ownership is the result of their proper trades and thus this reaction reflects the institutional investors' attitudes.

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Table 4: Cross-sectional regressions of abnormal returns

	Event windows		
	[-1, 1]	[-1,5]	[-1,10]
(Constant)	-0.144	0.014	-0.058
<i>p-value</i>	-0.65	0.082	-0.557
Tenure	0.001	0.0005	0.001
<i>p-value</i>	0.484	0.401	0.724
Duality	0.005	0.006	0.0004
<i>p-value</i>	0.294	0.512	-0.066
LN (Cash compensation)	-0.006	0.005	0.007
<i>p-value</i>	-0.329	0.442	0.885
Outsider	-0.004	0.007	0.006
<i>p-value</i>	-0.233	0.617	0.764
Institutional ownership	-0.07	-0.078	-0.047
<i>p-value</i>	-1.319	(-2.037)**	(-1.841)*
Public ownership	0.107	-0.009	0.002
<i>p-value</i>	(2.138)**	-0.232	0.095
Foreign ownership	0.025	-0.015	0.012
<i>p-value</i>	0.581	-0.508	0.584
Profitability	-0.074	0.026	0.014
<i>p-value</i>	-0.679	0.319	0.248
Size	0.023	-0.010	-0.003
<i>p-value</i>	(-1.688)*	-1.049	-0.418
Book to Market	-0.005	0.005	0.002
<i>p-value</i>	-1.107	1.622	1.039
Leverage	0.011	-0.033	-0.018
<i>p-value</i>	0.458	(-2.148)**	(-1.771)*
Ln (Trading Volume)	0.003	0.001	-0.0004
<i>p-value</i>	0.958	0.937	-0.04
Adjusted R Square	0.252	0.114	0.031

Large firms affect positively abnormal return in opposition to leverage which has negative effects. In the context of our study, we note that CEO turnover was forced and caused by their malfeasance which means that debts, which must be a mechanism of management control, fail to put an end to opportunistic behaviour of CEOs as postulated (Jensen et Meckling 1976; Jensen, 1986). On the other hand, investors perceive favourably changes in large firms. The visibility and the reputation of these firms may be the origin of the reaction.

Table 5 provides the results of the cross-sectional regressions of abnormal trading volume.

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Table 5: Cross-sectional regressions of abnormal trading volume

	Event windows		
	[-1 ,1]	[-1,5]	[-1,10]
(Constant)	-13.892	-22.703	-16.431
<i>p-value</i>	-1.186	(-2.717)***	(-2.563)**
Tenure	0.249	0.278	0.205
<i>p-value</i>	(2.497)**	(3.842)***	(3.705)***
Duality	0.863	-0.043	-0.684
<i>p-value</i>	0.913	-0.063	-1.304
Cash compensation	0.624	1.238	1.237
<i>p-value</i>	0.832	(2.261)**	(2.97)***
Outsider	-2.623	-1.233	-0.023
<i>p-value</i>	(-2.751)***	(-1.79)*	-0.044
Institutional ownership	1.554	2.223	0.2
<i>p-value</i>	0.545	1.081	0.13
Public ownership	3.645	0.395	-1.35
<i>p-value</i>	1.180	0.188	-0.836
Foreign ownership	-0.011	0.587	1.391
<i>p-value</i>	-0.005	0.401	1.239
Profitability	-19.456	-15.567	-6.758
<i>p-value</i>	(-3.106)***	(-3.407)***	(-1.936)*
Size	1.024	1.034	0.147
<i>p-value</i>	1.246	(1.804)*	0.334
Book to Market	-0.586	-0.469	-0.162
<i>p-value</i>	(-2.241)**	(-2.587)**	-1.184
Leverage	-0.837	0.852	0.258
<i>p-value</i>	-0.714	0.985	0.394
Stock return	-0.318	5.525	2.139
<i>p-value</i>	-0.031	0.936	0.437
Adjusted R Square	0.298	0.212	0.170

The explanatory variables in the first cross-sectional regression event window [-1 1] explain a large proportion (29.8%) of the total variation in trading volume reactions. Adjusted R squared decreases when we extend the event window.

Coefficients related to external successor, profitability and book to market are negative and statistically significant (within the 5% level) in the first regression which explain abnormal trading volume within [-1 1] event windows. In the same regression, the coefficient related to tenure is positive and statistically significant at a level of 1%.

Within the second event window, coefficients related to external successor, profitability and book to market are also negative and statistically significant. Moreover, coefficients of size, tenure and CEO compensation are positive and statistically significant.

Regarding [-1 10] event window, abnormal trading volume was affected positively by tenure and CEO compensation and negatively by ROA. Our results reveal that tenure increases abnormal trading volume during the event windows. These findings

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corroborate our uni-variate analysis; according to it, we demonstrate that turnover of CEO with longer tenure and CEO compensation affect positively abnormal trading volume. On one hand, the attributes of entrenchment increase abnormal trading volume. Indeed, tenure refers to the entrenchment concept and higher compensation was accorded for more experienced (more entrenched) CEOs (Rose and Shepard, 1994). On another hand, the increase of trading volume is due to divergence of investor's interpretations and heterogeneity of expectations about the entrenchment. Shown from this point of view, some investors consider that change of an entrenched CEO is advantageous to the firm and it breaks opportunistic behavior associated to entrenchment. In contrast, others assume that the entrenched CEO has specific managerial skills; has developed strong working relationships with their top management groups and partners of the company. Therefore, his departure may affect negatively performance of the company. This divergence of interpretation attracts buyer investors and sellers.

Furthermore, our results document that outsider succession affects negatively trading volume, which supports our finding in uni-variate analysis. This finding is explained by the uncertainty of investors regarding outside successions. In other words, if investors have not information about the new CEO, they will consider themselves uninformed and prefer waiting to see his first decisions.

Book to market ratio and profitability affect negatively abnormal trading volume of event windows. The increase of book to market ratio and ROA has been shown to decrease abnormal trading volume. Thus, we can note that more profitable stocks (with high ROA) and under-valued (with high book to market) are not traded or traded weakly during the event period.

6. Summary and Conclusions

The main objective of this paper was to study the impact of CEO turnover announcements on stock prices and trading volume in Tunisian market. From a theoretical point of view, CEO turnover presents a major event in the life of the company because CEO attitudes have a main effect on the financial, investment and operational decisions of the company. Therefore, the departure may affect corporate performance and its market valuation.

Our empirical approach consisted, firstly, of examining market reaction, in terms of price and trading volume, to CEO turnover announcements using the event-study methodology. We next used incumbent CEO qualities, ownership structure and corporate characteristics to explain abnormal return and abnormal trading volume determined in the first step.

Our findings showed negative significant abnormal return and insignificant abnormal trading volume after the CEO turnover announcements. CEO turnover of those who are also chairmen and those with longer tenure generated negative and significant abnormal returns. We have also documented an immediate negative market in terms of return response to the announcement of an outsider succession (in the event date). Abnormal trading volume is negative and significant. For internal succession, the abnormal return is negative and significant.

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Globally, the announcement of a CEO turnover conveys bad news for equity investors on average. Consistent with negative information content, our result documents negative abnormal returns following announcement, together with uncertainty of investors as revealed by decrease or stability of trading volumes in the majority of studied cases. Investors seem to penalize firms that change CEOs with dual roles. Apparently, change will affect both control and management, the first through board of directors and the second through the role of general manager. They are also unsatisfied about either internal or external succession. Indeed, an internal succession indicates continuity of the existing strategy and external succession is opaque.

Regarding the multi-variate analysis, we found that the abnormal return generated by CEO turnovers announcement is not explained by either CEO incumbent qualities or origin of successor but by ownership structure, corporate size and leverage. For the abnormal trading volume, coefficients related to external successor, profitability and book to market are negative and statistically significant. Moreover, coefficients related to size, tenure and CEO compensation are positive and statistically significant.

We conclude that our results are affected by the bear market. In fact, investors' attitudes are pessimistic and hesitant. As a matter of fact, the insignificant abnormal trading volume, in the majority of cases, indicates increased uncertainty about the value of a stock than why investors prefer to refrain from trading. Our findings confirm Veronesi's (1999) hypothesis which supposes that investors under-react to good news in bad time (bear market).

Endnotes

¹ The Tunisia revolution has been occurred in 14 January 2011, after a popular mobilization which has overthrown the political regime. Among the consequences of this revolution were the resignations of many CEO who granted privileges to the presidential family and accused to have unjust social policy. Others CEO was resigned by the board of director because they have a strong relation with former regime or they were affiliated in the party of the ousted president.

² Alike the internal control that exists in Germany.

³ Wang and Lo (2001) show that taking natural logarithms may provide a clearer visual representation of trading volume behavior

⁴ We collect cash compensation, because in Tunisia CEO aren't paid by stock option

⁵ Tunisian Dinars

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