Is it Timing of the Date, of the News or is it Backdating of Option Grants?

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Abstract

This study investigates three hypotheses: 1) the timing of the executive stock option grant dates, 2) the timing of the news around those dates, and 3) whether the option grant dates are backdated retroactively. These three hypotheses are examined simultaneously. The data come from the Amsterdam stock exchange.

The empirical results provide evidence that that there are no significant abnormal cumulative returns in the period before the option grant date. However, we find significant abnormal cumulative returns during a period of 30 trading days after the option grant date, even for scheduled options granted before September 1, 2002.

In addition, we have formed four different sub-samples: scheduled and unscheduled option grants, and, accounting for a change of the rulings as of September 1st, 2002 options granted before and after the latter date. Significant differences in the means of abnormal returns of the various sub samples are observed. These disappear for scheduled option grants after September 2002, but not for unscheduled option grants.

The regression estimates for the periods before and after the introduction of stricter rulings in 2002 are consistent with our findings from the t-tests. The regressions run provide not only evidence that the option grants are timed, but also that the option grants are retroactively backdated. In addition, our findings show that earnings news releases around option grant dates are managed. Our findings are consistent with timing of news being a substitute for backdating and timing of the option grant date. Although after September 2002 stricter rulings regarding the option grant date reduce the opportunities to exploit private information, they do not disappear completely, notwithstanding the requirement of immediately publishing the option grants.

Key words: Option Grants, Timing of Option Grants, Backdating JEL classification: G32, J33

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1. Introduction

According to economic theory stock options align the interests of managers with those of outside shareholders. By means of stock options the managers' wealth is made dependent on a firm's share price. Managers can increase their wealth by exerting effort so that the share price increases. However, wealth can also be increased by influencing the conditions with regard to the contract of the stock option grants. By doing so, a manager's wealth will increase without performing any efforts for a firm's outside shareholders.

This study investigates abnormal returns around the option grant dates on the Netherlands´ stock market. We focus not only on the cumulative stock returns in the weeks around the option grant dates, but also on the relation between the number of options granted and the difference between the highest annual stock price and the strike price of the options granted, the so-called wealth effect of the option grants. The former analysis examines the short term effects of option grants which can be explained by the timing of the option grant dates. The latter analysis (examining the wealth effect) could provide evidence for retroactively backdating the option grants.

The contribution to the literature is that we examine option grants for the same data set taking into account three phenomena at a time: 1) the timing of the date of the option grant, 2) the timing of the news around the option grant date, and 3) the retroactively backdating of the

option grant date. We account explicitly for scheduled and unscheduled option grants. Due to the change in legislation as of September 1, 2002, we are also able to examine to which extent the introduction of stricter rulings affects the abnormal returns of option grants. Furthermore, by using a newly constructed variable accounting for the difference between the highest annual stock price and the strike price of the option granted we examine not only the annual wealth effect of the latter change of the rulings on scheduled and unscheduled option grants, but also the outcome provides evidence for retroactively backdating the option grants. Finally, we examine the extent to which earnings news releases around option grant dates are managed. The remainder of this study is as follows. In section 2 prior literature is presented. The literature reports a number of arguments for adopting option grants, on the one hand, and explanations for the phenomenon of abnormal returns around the date of option grants, on the other. The data, sample and research method are discussed in section 3. Section 4 contains the empirical results and section 5 concludes.

2. Prior Literature

In this section we present three hypotheses regarding abnormal returns around the date of option grants. Previous studies on stock options document that employee stock options can be used in several ways: 1) as incentives (for instance, Smith and Watts, 1992), 2) as substitute for corporate governance mechanisms (Beatty and Zajac, 1994; Baker and Gompers, 2003), 3) to retain employees (Oyer, 2004; Roosenboom and Van der Goot, 2006), and 4) when a firm has cash constraints (Core and Guay, 2001; Oyer and Schaefer, 2005).

An increasing number of studies examine the abnormal returns around the option grant date of executive stock option grants, for instance Heron and Lie (2006), Lie (2005), Chauvin and Shenoy (2001), Aboody and Kasznik (2000) and Yermack (1997), and Bebchuk, Grinstein and Peyer (2007).

Yermack (1997) documents that the abnormal returns of scheduled options disappear, when options are granted at a fixed date each year because of the difficulties to influence the timing of scheduled option grants. Aboody and Kasznik (2000) and Chauvin and Shenoy (2001) investigate the abnormal return pattern around option grants for scheduled options, too. The authors find that there is a significant difference between the share price movements in the preand post- option grants period. According to Aboody and Kasznik (2000), the abnormal returns preceding a scheduled option grant are insignificantly negative. Chauvin and Shenoy (2001), however, find a significant abnormal decrease in the share price during ten days before the grant until the grant date. The difference in results could be explained by the sample period (Lie, 2005). Where Chauvin and Shenoy (2001) use observations in the period 1981-1992, Aboody and Kasznik (2000) use the period 1992-1996. The abnormal returns that Aboody and Kasznik find after the option grant are significantly positive (Aboody and Kasznik, 2000).

Lie (2005) reports that the abnormal returns around option grants are significantly negative before option grants and significantly positive thereafter. The latter author posits that the ability of executives to predict future price movement based on inside information would be too good to be true. Therefore, he assumes that with the benefit of hindsight managers are selecting a date when the stock price is abnormally low, called backdating. Lie (2005) finds that stock prices decline during a period of 30 trading days before the option grant. During a period of 30 trading days after the option grants stock prices increase.

Heron and Lie (2006) use a change in SEC rulings to test whether firms are backdating option grants. Since 2002 the SEC requires that option grants are reported within two days of the option grant date. If the results reported by Lie (2005) could be explained by backdating, this new SEC requirement should have dampened this pattern (Heron and Lie, 2006). The results do indicate that a large part of the return pattern in Lie (2005) can be explained by the backdating argument. However, there still can be seen abnormal returns around the option grant date. The latter leaves room for explanations, such as the timing of information, the timing of the option grant date or by violation of the new SEC requirements.

Bebchuk, Grinstein and Peyer (2007) report that gains from backdating are no substitute for other forms of compensation. Furthermore, the authors find that CEO influence is positively related to opportunistic timing of option grants. Also, Bebchuk et al. show that option grant dates often coincide with the lowest stock price in the grant month. For the Canadian stock market Chourou, Abaoub, and Saadi (2007) document that options are significantly more granted on Mondays than on Fridays. Their empirical results are consistent with the timing hypothesis because of the day-of-the-week-anomaly: stock prices are lower on Mondays than on Fridays.

Three hypotheses emerge from these articles. The first hypothesis refers to the opportunistic timing of the option grant dates: options are granted when the stock price is relatively low (Yermack, 1997). Second, the timing of information argument suggests that given a specific grant date, the flow of information to the market is managed to lower the stock price before the option grant (Aboody and Kasznik, 2000; Chauvin and Shenoy, 2001). Third, the so-called backdating theory (Bebchuk, Grinstein and Peyer, 2007; Chourou, Abaoub, and Saadi, 2007; Heron and Lie, 2006; Lie, 2005) posits that the option grants are backdated retroactively by selecting a date when with the benefit of hindsight the stock price was at or near its annual lowest price. Obviously, if the options are granted at this price, the recipients' increase in wealth is not related to their efforts performed.

5

3. Data, Sample and Method description

Our sample consists of all firms that are listed on the Amsterdam stock exchange which have granted options (once or more times) during the six years encompassing the period 1999-2004. The data is from three sources: 1) financial statement information and stock prices come from DataStream, 2) data on the option grants, such as the number of options awarded to top managers, the exercise price of the options etc. are hand-collected from the annual reports, and 3) similar data on option grants are from September 1, 2002 available on the website of the Autoriteit Financiële Markten (www.afm.nl), the supervisor of the Netherlands capital market. In general, the exercise price of the option is the price of the underlying stock on the date the options were granted. In a small number of cases the exercise price was determined above the market price. The option grants are considered to be scheduled when the date of the option grants was mentioned or when the options were granted each year around the same date (plus or minus three days). Top managers are required to report details of the transaction, such as the date of the option grant, the number of options, and the name of the recipient. Under the new rulings after September 1, 2002 option grants to top managers of firms listed on the Amsterdam stock exchange have to be reported immediately to the AFM. The regulatory change refers to a loophole under the old rulings. The new rulings have closed this loophole that freed top managers from reporting their transactions to the AFM when these were executed for them by so-called independent fund managers. When the date of the option grants was not reported in the annual report, the date was inferred by selecting the date of the share price in that specific year that was equal to the exercise price of the option.

As a check on the option grants date, the online register of the AFM is used. Before September 1, 2002 the majority of the option grants dates were disclosed almost solely in the annual report. Also, we found that some option grant dates were reported to the AFM, but not disclosed in the annual report. In addition to option grants published by the annual reports, those published on the AFM's website, but not by the annual reports are classified as scheduled option grants.

In total, during the years 1999-2004 there were 127 firms listed on the Amsterdam stock exchange that granted options in one or more years of the sample period. A number of firms had multiple option grants in one year. This results in 427 observations during the six years under investigation. Because of the new rulings of the AFM effective from September 1, 2002 a number of option grants were published on its website on the latter date. In most t-tests and

regressions the option grants from this specific date have been omitted. A number of firms have gone private or bankrupt during 1999-2004. We have included them in our study until the last year of their listing to prevent survivorship bias. Furthermore, in a number of cases firms did not award options or the data were missing. This leaves us with 363 observations for the regressions and 416 observations for the t-tests.

Furthermore, from the LexisNexis database we have hand-collected the news announcements from six weeks before to six weeks after the option grant date. The news announcements were classified in five categories. The two lowest categories are bad and very bad news releases, respectively. The two highest categories are good and very good news releases, respectively. If the news announcement could be classified neither as good nor bad, the news release was classified as neutral.

The sample firms belong to one of the three sub-markets at the Amsterdam stock exchange: 1) the Smallcap and Local Market, 2) the Midcap Market, and 3) the Amsterdam Exchange Index (AEX) Market. The market type accounts for the size and the liquidity of a firm's shares. Each firm's cumulative return is compared with the cumulative return of the sub-market to which the firm belongs to calculate its abnormal return. Descriptive statistics of the sample are presented in table 1.

INSERT TABLE 1 ABOUT HERE

If the option grants are randomly distributed during a year, there should be no difference in means between the abnormal returns before and after September 1, 2002. First, to test for abnormal returns before and after the stock option grant date we have compared the means of the cumulative stock returns of the firm with those of the appropriate market index, the Small and Local Market, the MidCap Market, and the AEX Market, respectively. T-tests are used to examine the extent to which the differences in means of the firm's stock returns and the appropriate market index are equal. The null hypothesis is:

 H_0 : mean(CRFirm_{i,t}) = mean(CRIndex_{j,t})

where mean(CRFirm_{i,t}) is the mean of the cumulative stock returns of the firm i (i = 1, 2, ... n) during period t, and mean(CRIndex_{j,t}) is the mean of the cumulative returns of the corresponding market type j (j = 1, 2, 3) during the same period. On the date of the option grants t equals 0. The test is performed for several intervals around the option grant date (t = -

30 to -10, t = -30 to 0, t = -20 to 0, t = -10 to 0, t = 0 to 10, 0 to 20, 0 to 30, and t = 10 to 30). Figure 1 presents the cumulative stock returns of the firm and those of the market index.

INSERT FIGURE 1 ABOUT HERE

Second, we examine the cumulative abnormal returns before the option grants and the corresponding period of time after the option grants. The cumulative abnormal returns are calculated as the cumulative abnormal returns of the firm minus the cumulative returns of the market index. For example, the cumulative abnormal return in the period of 30 trading days before until 10 trading days before the option grant is compared with the cumulative abnormal return in the period of 10 trading days after until 30 trading days after the option grant. Again, a t-test is used to test the differences in the means of the cumulative abnormal return before and after the option grant with the following null hypothesis:

 H_0 : mean(CAR_{i,v}) = mean(CAR_{i,w})

where mean(CAR_{i,v}) is the cumulative abnormal returns of firm i during period v before the date of the option grants and mean(CAR_{i,w}) that of the corresponding period w after the option grants date. Under the null-hypothesis we assume that the cumulative abnormal returns before the option grant are equal to those after the option grants.

INSERT FIGURE 2 ABOUT HERE

Figure 2 shows the cumulative abnormal returns during 30 trading days before until 30 trading days after the date of the option grants. In the next section the empirical results for the t-tests will be presented. See table 2 for descriptive statistics of CRFirm, CRIndex, and CAR.

INSERT TABLE 2 ABOUT HERE

In addition to comparing the differences in the means of the cumulative returns we have conducted a number of regressions with the number of option grants as dependent variable for different model specifications. Each model contains four control variables. These are 1) a firm's market value to capture a possible size effect, 2) its return on assets and 3) profit growth to account for the incentive effect of option grants, and 4) a firm's debt scaled by the book value of its equity to account for a firm's capital structure.

In addition, there are three other variables that explain the variance of the options granted in a specific fiscal year. First, we have constructed a variable that is the difference of a firm's highest stock price during a particular fiscal year and the exercise price of the options granted divided by the options' strike price. A lower yearly minimum price and, hence, a lower exercise price of the option grants increases the wealth of the recipient of the options. For a number of observations we were not able to determine the date of the option grants exactly. In particular for these grants this variable captures the wealth effect on an annual basis of options that is not fully captured by the cumulative returns around the date of the unscheduled option grants. Second, we use a dummy which has a value of one for options granted before September 1, 2002, otherwise its value equals zero. Before the latter the rulings regarding the publishing of option grants are scheduled or not. Its value is one when the date of the option grants could be determined with the help of the annual report or of the AFM's website, otherwise zero. The regressions run are presented in tables 9 and 10.

4. Empirical results

In this section the empirical results for the t-tests, regressions and news releases will be presented.

Cumulative Stock Returns

Table 3 panels A and B provide the results of the t-tests conducted on the cumulative stock returns of the firms and their corresponding market index around the date of the option grant. In panel A the cumulative returns are including the option grants dated on September 1, 2002; in panel B the option grants of the last date are excluded. We have done so because of the stricter rulings of the AFM: many firms have reported their option grants on the last date to the AFM, regardless of the question whether the option grants were awarded on that date.

INSERT TABLE 3 ABOUT HERE

As can be seen in both panels of table 3, the difference between the means of the cumulative returns of the firm and market index are only significant during a period of 20, 30 and 10 until 30 trading days after the option grant. The results provide evidence that there are significant market adjusted positive returns in the period after the option grants, which become significant for a period of 20 or more trading days after the option grant. In addition, as can be seen in

table 3, before the date that the option grants were awarded the means of the cumulative stock returns of the firm are less than those of the market index. However, after the date of the option grant the opposite can be seen: the cumulative stock returns of the firms are higher than those of the market index.

INSERT TABLE 4 ABOUT HERE

Accounting for the stricter rulings since September 1, 2002, table 4 presents cumulative returns for both periods: before and after September 1, 2002. As can be seen in table 4 panels A and B, except for the cumulative returns in panel B before the date of the option grants the means follow a similar pattern as in table 3: before the option grants date the cumulative stock returns are smaller than those of the corresponding market index. Thereafter the cumulative stock returns are higher. Again, after the option grants date the differences in means of the cumulative returns of 20 trading days (only panel A), and 30 trading days and 10 until 30 trading days (both panels) are significant.

Also, we have examined whether the cumulative returns of scheduled option grants provide different results for option grants that are scheduled and those that are not. Table 5 shows the empirical results. As can be seen in panel A of table 5 (scheduled option grants awarded before September 1, 2002) the differences in means after the date of the option grant are significant for three time intervals, namely 20, 30, and 10 till 30 trading days after the date of the option grant. Again, before the date of the option grant the firms' cumulative returns are smaller than those of the appropriate market index. In general, after the date of the option grant the firms' cumulative returns are higher than those of the corresponding market index.

INSERT TABLE 5 ABOUT HERE

Table 5 panel B demonstrates that the differences in means of the unscheduled option grants awarded before September 1, 2002 are never significant. An explanation could be that the date of the unscheduled option grants of the period could not exactly be determined.

Table 5 panels C and D present t-tests of option grants awarded after September 1, 2002. As can be seen, in table 5 panel C only one t-test is significant, namely that of the period of 10 to 30 trading days after the option grants. In panel D of table 5 all t-tests concerning the period after the date of the option grants are significant. Furthermore, the differences in means are much bigger than those of panel C.

Cumulative Abnormal Stock Returns

To further examine the stock returns around the date of the option grants we have compared the means of the cumulative abnormal returns (CARs) before the date of the option grants with those of the corresponding period after that date. The CARs are the firm's cumulative returns during a specific period adjusted for the corresponding market index return. As can be seen in table 6, panels A and B, except for the smallest time interval all cumulative abnormal returns are significant and have the expected direction: negative CARs before the date of the option grants date are smaller than those thereafter.

INSERT TABLE 6 ABOUT HERE

Also, we have examined the differences in the CARs' means before and after September 1, 2002. See table 7 panels A and B. Except for one time interval the results of table 7 panel A are significant and in line with those of table 5: the CARs after the date of the option grants are higher than those before the option grant date. Although the findings of table 7 panel B show that the CARs before the date of the option grant are smaller than those after the date of the grant, the results are never significant. This is consistent with the stricter rulings from the AFM after that date.

INSERT TABLE 7 ABOUT HERE

For the period before September 1, 2002, table 8 panels A and B show CARs for scheduled and unscheduled option grants, respectively. As can be seen in panels A and B, the empirical results of panel A (regarding option grants that are scheduled) are significant; those of panel B are not. Before the option grants date the CARs of table 8 panels A and B are higher than those after the option grant date.

As can be seen in table 8 panel C, for the period after September 1, 2002 the t-tests are never significant, which is in line with the stricter rulings of the AFM. However, regarding the unscheduled option grants in table 8 panel D two t-tests are significant. Obviously, the 37 firms that have not reported their option grants to the AFM do not apply with its rulings.

INSERT TABLE 8 ABOUT HERE

Regressions on the Number of Options Granted

As can be seen in all models of table 9, bigger firms measured by their market value grant more options. Also, option grants per member of a firm's board are a decreasing function of a firm's return on assets. This outcome is consistent with option grants being a substitute for a bonus that is earned when a firm fares well. When a high bonus is awarded, the number of options that is granted to a member of the board is decreasing. Furthermore, the number of option grants is an increasing function of the growth of a firm's net profit and a decreasing function of its capital structure measured by a firm's debt to equity ratio.

In model 1 of table 9 the dummy indicating whether the option grants are scheduled is not significant. The dummy indicating if the options were granted before or after September 1, 2002 is significant and negative: before the last date the number of option grants is smaller than after that date.

In model 2 of table 9 only options granted before September 1, 2002 are considered. The variable indicating the wealth effect measured by the difference between a firm's highest stock price during a particular fiscal year and the exercise price of the options granted is significant and positive. This is consistent with awarding option grants with lower exercise prices that have lower costs for the recipients. The selection of the lowest annual stock price (and, hence, exercise price) for option grants is made possible because of the less strict rulings by the AFM during the years before September 1, 2002. This empirical result provides evidence for retroactively backdating option grants. The dummy for scheduled option grants is not significant.

Model 3 of table 9 presents the estimate of the option grants after September 1, 2002. As can be seen in model 3, the variable of the difference between a firm's highest stock price during a particular year and the exercise price of the options granted is not significant anymore. The latter is consistent with the stricter rulings of the AFM. Because after September 1, 2002 all options granted to members of the board of directors of listed firms should be reported immediately to the AFM (*Autoriteit Financiële Markten*), which publishes the option grants on its website (www.afm.nl), there is almost no opportunity for selecting a low stock price (and, hence, a low exercise price) for the option grants. In addition, in model 3 the dummy for scheduled option grants is negative and significant, which indicates that the number of option grants per member of the board of directors is decreasing after September 1, 2002.

Finally, in model 4 of table 9 we have included five year dummies; the effect of 2004 is captured by the model's constant. As can be seen in model 4, the number of option grants is significantly less in the years 1999 and 2000. An analysis of the correlation coefficients does not raise concerns for the variables used in the regression (not reported).

INSERT TABLE 9 ABOUT HERE

As can be seen in table 10, we have run four regressions, two for the period of time before September 1, 2002, and two thereafter. In each of the four models the control variables have coefficients that are qualitatively similar to those in table 9.

Models 1 and 2 of table 10 present estimates of scheduled and non-scheduled option grants, respectively, awarded before September 1, 2002. As can be seen, the coefficient for the variable indicating the difference between a firm's highest stock price during a particular year and the exercise price of the options granted is significant in both models. However, regarding unscheduled option grants in model 2 the coefficient is almost four times as large as in model 1. In addition, the significance of the coefficient of the unscheduled option grants is greater. This outcome is in line with unscheduled option grants that offer more opportunities to use private information for selecting the lowest annual stock price and, thus, exercise price of the option grants.

Regarding the option grants after September 1, 2002 models 3 and 4 of table 10 show that the number of unscheduled option grants has decreased substantially to 34 firms. However, the last number is still 23 percent of all observations after September 1, 2002. Furthermore, in both models the wealth effect measured by the difference between the annual highest price and the exercise price op the options has disappeared; for model 3 as well as for model 4 the coefficient of the wealth effect is not significant anymore. Both findings indicate that after September 1, 2002 the more strict rulings of the AFM have had effect.

INSERT TABLE 10 ABOUT HERE

Earnings news releases around Option Grant Dates

In addition to the tests aforementioned, we have examined the extent to which the flow of information to the market around option grant dates was timed. Therefore, we have hand-collected earnings news announcements from six weeks before to six weeks after the option grant dates. Table 11 presents logistic regressions of both good and bad news on a dummy indicating whether the earnings news was published before or after the option grant. As can be seen in all model specifications of table 11, bad news is significantly released before the option grant date, whereas the empirical results provide evidence that good news is released after the option grant date. After September 1, 2002, the coefficients in model 3 of table 11 for good and bad news, respectively, are both larger than in model 2 of table 11. The outcome is consistent with the timing of earnings news being used for receiving option grants at a lower price. Similarly, because in model 4 of table 11 the coefficients are greater than those in model 5 of

table 11 these findings provide evidence that news releases are more timed for scheduled than for unscheduled option grants. Hence, the timing of news can be seen as a substitute for the backdating and timing of the date of the option grant. Logistic regressions using all classes of news releases instead of very bad and very good news only provide qualitatively similar results (not reported).

INSERT TABLE 11 ABOUT HERE

In sum, our results are qualitatively similar to Aboody and Kasznik (2000) who find no significant abnormal returns before the option grant date and significant abnormal returns after the option grant date. Yermack (1997) also finds no significant returns before the option grant date and positive returns after the option grant date. Our study differs from Yermack (1997) in that this author finds that most positive abnormal returns occurred a few days after the option grant. In this study, the positive returns are apparent for a period of 20 or more days after the option grant.

5. Conclusions

From a theoretical point of view stock options help to bridge the gap between a firm's top managers and its outside shareholders by aligning their interests. Managers can maximize their own and shareholders' wealth by exerting effort so that their firm's share price increases. However, another possibility to maximize their wealth is to influence the conditions of the contract of the stock option grants. In this way, a manager's wealth will increase by selecting an exercise price that is as low as possible. Obviously, in this situation there is no relation between a manager's efforts and the options granted.

This study focuses on five research questions for the same dataset. First, we examine abnormal returns before and after the option grant date. Second, we account for scheduled and unscheduled option grants. Third, due to the change in legislation as of September 1, 2002, we are able to examine whether the introduction of stricter rulings affects the abnormal returns of option grants. Fourth, by using a newly constructed variable measuring the wealth effect on an annual basis of the option grants we examine whether option grants are retroactively backdated. And finally, we examine the extent to which earnings news releases around option grant dates are managed.

As can be seen in tables 3-5, the empirical results regarding the differences in means of the cumulative stock returns and the appropriate market index are dependent on the period selected, and on being scheduled or not. Under the less strict rulings before September 1, 2002 we find significant differences in means for cumulative abnormal returns after the option grants date for scheduled option grants. These have almost disappeared after September 2002. The absence of abnormal returns for unscheduled option grants before 2002 (table 5 panel B) can be explained by inaccurate data for the latter sub-sample of option grants. However, with the help of more accurate data after September 1, 2002, the differences in means of cumulative returns after the grant date of unscheduled options grants are significant (table 5 panel D).

The findings of the cumulative abnormal returns (CARs) are largely consistent with those of the cumulative stock returns. After the introduction of stricter rulings as of September 1, 2002 the abnormal returns around option grants have decreased. However, for unscheduled option grants the empirical results still provide evidence that private information is used around the date of option grants.

Additional analyses by means of regression estimates include the wealth effect on an annual basis of option grants. The wealth effect is captured by a variable indicating the difference between a firm's highest stock price during a particular year and the exercise price of the options granted. In particular, the latter variable captures the wealth affect of unscheduled option grants of which the precise date of the option grants is less accurate.

When controlling for a firm's market value, return on assets, profit growth, and capital structure, the regression estimates provide evidence that the wealth effect on a yearly basis is only significant during the years before September 2002. This is consistent with the stricter rulings of the AFM after September 1, 2002. Because after the latter date all option grants to members of the board of directors of listed firms must be reported immediately to the AFM, which publishes the option grants on its website, the opportunities for retroactively backdating of option grants have decreased significantly.

Compared to model 1 of table 10, model 2 shows that the coefficient of the wealth effect for unscheduled options is not only almost four times as large as in model 1, but also its significance is greater.

The empirical results provide evidence that, in particular, unscheduled option grants are used to exploit private information for selecting the lowest annual stock price and, hence, the exercise price of the option grants. After September 1, 2002 the wealth effect is never significant. In addition, after September 1, 2002 the number of unscheduled option grants has decreased substantially to 34 firms. However, the last number is still 23 percent of all observations after September 1, 2002.

Finally, the empirical results provide evidence that earnings news announcements around option grant dates are managed: bad news is released before and good news after the option grant date. The various model specifications for news releases are consistent with the stricter rulings after September 1, 2002: after the latter date the effect of good and bad news releases, respectively, increases, which is consistent with timing of news being a substitute for backdating and timing of the option grant date.

In sum, the empirical results provide evidence that tougher monitoring affects the cumulative returns around the option grant date and the number of options granted to members of a firm's board. Given the differences in means of the abnormal returns before and after September 1, 2002, these differences are not only statistically, but also economically significant. Although stricter rulings regarding option grants after September 1, 2002 reduce the opportunities for exploiting private information, this does not disappear completely, notwithstanding the monitoring of the AFM, and its ability to enforce its rulings.

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Figure 1Cumulative Returns of before and after the Option Grant dates of
firms listed at the Amsterdam stock exchange during 1999-2004.



Figure 2 Cumulative Abnormal Returns before and after the Option Grant dates of firms listed at the Amsterdam stock exchange during 1999-2004.



Variable	Mean	Std. Deviation	Minimum	Maximum	Observations
Sales	7,573.171	22,960.880	0.490	212,252.800	425
Net Profit	383.306	1,968.580	(9,542.000)	14,553.310	425
Profit Growth	(0.066)	2.797	(19.450)	20.210	425
Return on Assets	0.020	0.132	(0.812)	0.308	425
Employees (units)	30,603.400	57,180.090	43.000	308,793.000	424
Market Value	6,148.807	15,935.780	1.550	139,936.700	418
Total Assets	30,134.920	118,897.600	6.260	866,200.800	425
Total Debt	8,046.987	35,034.440	-	228,297.000	425
Equity	2,667.495	8,135.623	(469.000)	62,997.170	425
Debt / Equity	1.885	7.799	(65.280)	133.520	425
Option Grants (x 1,000)	51.470	114.559	-	1,741.711	423
Maximum - Strike Price	0.875	3.011	(0.758)	40.923	425

Table 1Descriptive Statistics of firms which grant options listed at the
Amsterdam stock exchange during 1999-2004.

All money amounts in million Euros.

The table presents descriptive statistics of firms listed on the Amsterdam stock exchange during the years 1999-2004 that have awarded option grants during one or more of the examined years to their top managers.

Sales = a firm's net sales. Net Profit = the net profit before extraordinary items. Profit Growth = the Net Profit before extraordinary items of this year minus the Net Profit before extraordinary items of last year divided by the Net Profit before extraordinary items of last year. Return on Assets = a firm's Net Profit divided by the book value of its Total Assets. Employees = the number of employees in full time equivalents. Market Value = the market value of equity at the end of a firm's fiscal year. Total Assets = the book value of a firm's assets. Total Debt = the book value of a firm's total debt. Equity = the book value of a firm's equity. Debt / Equity = book value of the firm's debt divided by the book value of a firm's highest stock price in a specific year minus the strike price of the options granted in that year divided by their strike price.

Variable		Mean	Std. Deviation	Minimum	Maximum	Observations
CR Firm	-3010	-0.001	0.199	-0.754	2.310	427
	-30 - 0	0.003	0.217	-0.821	1.310	427
	-20 - 0	0.000	0.178	-0.608	0.980	427
	-10 - 0	0.003	0.141	-1.000	0.727	427
	0 - 10	0.005	0.137	-1.450	1.140	427
	0 - 20	0.016	0.179	-0.750	1.400	427
	0 - 30	0.031	0.200	-0.701	1.480	427
	10 - 30	0.032	0.207	-0.574	2.330	427
CR Index	-3010	0.002	0.065	-0.210	0.247	427
	-30 - 0	0.009	0.081	-0.248	0.281	427
	-20 - 0	0.007	0.063	-0.223	0.241	427
	-10 - 0	0.006	0.046	-0.209	0.271	427
	0 - 10	0.001	0.039	-0.211	0.172	427
	0 - 20	-0.003	0.079	-0.514	0.220	427
	0 - 30	0.003	0.097	-0.544	0.261	427
	10 - 30	0.002	0.085	-0.536	0.229	427
CAR	-3010	-0.001	0.185	-0.801	2.231	416
	-30 - 0	-0.002	0.194	-0.757	1.255	416
	-20 - 0	-0.004	0.162	-0.811	0.978	416
	-10 - 0	-0.001	0.131	-0.976	0.587	416
	0 - 10	0.004	0.131	-1.384	1.133	416
	0 - 20	0.019	0.170	-0.691	1.358	416
	0 - 30	0.028	0.189	-0.651	1.413	416
	10 - 30	0.029	0.206	-0.544	2.253	416

Table 2Cumulative and Abnormal Stock Returns of firms listed at the
Amsterdam stock exchange during 1999-2004 before and after the
Option Grant dates.

The table shows cumulative stock returns (CR Firm) and cumulative abnormal stock returns (CAR) of firms listed on one of the three sub-markets of the Amsterdam stock exchange during the years 1999-2004 that have awarded option grants during to their top managers in the indicated periods of time before or after the date of the option grants. In addition, the corresponding cumulative returns of the appropriate market index (CR Index) are presented.

CR Firm = cumulative stock returns of the firm. **CR Index** = cumulative returns of one of the three market indices used (AEX Market, MidCap Market, and Small and Local Market). The numbers represent the time intervals before or after the option grant date. For instance, CR Firm-30 to -10, CR Firm-30 to 0, CR Firm0 to 10, are the cumulative stock returns during the period of 30 trading days before the option grant date until 10 days before that date, the cumulative stock returns during the period of 30 trading days until the date of the option grants, and the cumulative stock returns during the period of 10 trading days after the option grant date, respectively. A similar explanation regarding the cumulative returns of the appropriate market index applies to CR Index.

CAR = cumulative abnormal returns. The cumulative abnormal returns are calculated as the cumulative stock returns of a firm minus the cumulative returns of the appropriate market index during the same time interval. For instance, CAR0 to 20 is the cumulative abnormal return for the period beginning at the option grant date until 20 trading days after the option grant date.

Table 3Cumulative Returns of firms listed at the Amsterdam stock
exchange during 1999-2004 before and after the Option Grant
Dates.

CR Firm = cumulative stock returns of the firm. **CR Index** = cumulative returns of the appropriate market index (AEX Market, MidCap Market, and Small and Local Market). The numbers represent the applicable time intervals around the option grant date. For example, CR Firm-30 to -10 is the period of 30 trading days before the date of the option grant until 10 days before that date. CR Index0 to 30 is the period from the option grant date until 30 trading days after the date of the option grant. * Denotes significance at 10%, ** at 5%, *** at 1%, respectively.

Variable		# of obs.	mean	standard deviation	t-value
CR Firm	-3010	416	-0.002	0.199	-0.480
CR Index			0.003	0.066	
CR Firm	-30 - 0	416	0.002	0.216	-0.772
CR Index			0.009	0.081	
CR Firm	-20 - 0	416	-0.001	0.177	-0.958
CR Index			0.007	0.063	
CR Firm	-10 - 0	416	0.003	0.141	-0.511
CR Index			0.006	0.046	
CR Firm	0 - 10	416	0.005	0.137	0.494
CR Index			0.002	0.039	
CR Firm	0 - 20	416	0.014	0.181	0.494
CR Index			-0.003	0.080	
CR Firm	0 - 30	416	0.030	0.200	2.937***
CR Index			0.003	0.098	
CR Firm	10 - 30	416	0.031	0.207	2.875***
CR Index			0.003	0.086	

Panel A: T-tests of cumulative stock and appropriate market returns including option grants dated on September 1, 2002

Panel B: T-tests of cumulative stock and appropriate market returns excluding option grants dated on September 1, 2002

Variable		# of obs.	mean	standard deviation	t-value
CR Firm	-3010	400	0.003	0.199	-0.357
CR Index			0.006	0.064	
CR Firm	-30 - 0	400	0.005	0.216	-0.779
CR Index			0.013	0.080	
CR Firm	-20 - 0	400	-0.001	0.177	-1.138
CR Index			0.008	0.062	
CR Firm	-10 - 0	400	0.001	0.141	-0.831
CR Index			0.006	0.046	
CR Firm	0 - 10	400	0.008	0.138	0.604
CR Index			0.004	0.038	
CR Firm	0 - 20	400	0.022	0.178	2.303**
CR Index			0.002	0.076	
CR Firm	0 - 30	400	0.038	0.196	3.137***
CR Index			0.009	0.095	
CR Firm	10 - 30	400	0.037	0.207	3.004***
CR Index			0.006	0.084	

Table 4Cumulative Returns of firms listed at the Amsterdam stock
exchange during 1999-2004 before and after the Option Grant Dates
before and after September 1, 2002.

CR Firm = cumulative stock returns of the firm. **CR Index** = cumulative returns of the appropriate market index (AEX Market, MidCap Market, and Small and Local Market). The numbers represent the applicable time intervals around the option grant date. For example, CR Firm-30 to -10 is the period of 30 trading days before the date of the option grant until 10 days before that date. CR Index0 to 30 is the period from the option grant date until 30 trading days after the date of the option grant. * Denotes significance at 10%, ** at 5%, *** at 1%, respectively.

Variable		# of obs.	mean	standard deviation	t-value
CR Firm	-3010	260	-0.007	0.234	-0.658
CR Index			0.002	0.067	
CR Firm	-30 - 0	260	-0.006	0.236	-1.133
CR Index			0.010	0.082	
CR Firm	-20 - 0	260	-0.008	0.188	-1.352
CR Index			0.007	0.063	
CR Firm	-10 - 0	260	0.001	0.149	-0.603
CR Index			0.006	0.044	
CR Firm	0 - 10	260	0.000	0.157	0.234
CR Index			-0.002	0.037	
CR Firm	0 - 20	260	0.014	0.201	1.792**
CR Index			-0.007	0.074	
CR Firm	0 - 30	260	0.022	0.224	2.183**
CR Index			-0.006	0.097	
CR Firm	10 - 30	260	0.029	0.248	2.144**
CR Index			-0.003	0.082	

Panel A: T-tests of cumulative stock and appropriate market retu	ırns
before September 1, 2002.	

Panel B:	T-tests	of cu	umulative stock	and ap	opropriate	market returns
after Sept	tember	1, 20	002.			

Variable		# of obs.	mean	standard deviation	t-value
CR Firm	-3010	156	0.008	0.122	0.395
CR Index			0.005	0.063	
CR Firm	-30 - 0	156	0.016	0.181	0.293
CR Index			0.009	0.082	
CR Firm	-20 - 0	156	0.010	0.158	0.418
CR Index			0.006	0.061	
CR Firm	-10 - 0	156	0.006	0.127	0.015
CR Index			0.006	0.048	
CR Firm	0 - 10	156	0.011	0.096	0.642
CR Index			0.007	0.041	
CR Firm	0 - 20	165	0.016	0.145	1.104
CR Index			0.003	0.087	
CR Firm	0 - 30	165	0.043	0.153	2.081**
CR Index			0.018	0.098	
CR Firm	10 - 30	165	0.034	0.114	2.355***
CR Index			0.012	0.091	

Table 5Cumulative Returns before and after the Option Grant Dates of
firms listed at the Amsterdam stock exchange during 1999-2004
before and after September 1, 2002.

CR Firm = cumulative stock returns of the firm. **CR Index** = cumulative returns of the appropriate market index (AEX Market, MidCap Market, and Small and Local Market). The numbers represent the applicable time intervals around the option grant date. For example, CR Firm-30 to -10 is the period of 30 trading days before the date of the option grant until 10 days before that date. CR Index0 to 30 is the period from the option grant date until 30 trading days after the date of the option grant. * Denotes significance at 10%, ** at 5%, *** at 1%, respectively.

Variable		# of obs.	mean	st. deviation	t-value
CR Firm	-3010	113	0.016	0.277	0.207
CR Index			0.010	0.067	
CR Firm	-30 - 0	113	0.019	0.224	0.263
CR Index			0.014	0.080	
CR Firm	-20 - 0	113	0.007	0.161	-0.221
CR Index			0.010	0.063	
CR Firm	-10 - 0	113	0.000	0.161	-0.244
CR Index			0.004	0.041	
CR Firm	0 - 10	113	0.005	0.206	0.337
CR Index			-0.002	0.039	
CR Firm	0 - 20	113	0.044	0.242	2.156 **
CR Index			-0.002	0.064	
CR Firm	0 - 30	113	0.057	0.246	2.635 ***
CR Index			-0.001	0.095	
CR Firm	10 - 30	113	0.064	0.325	2.051 **
CR Index			0.002	0.079	

Panel A: T-tests of cumulative stock and appropriate market returns for scheduled option grants before September 1, 2002.

Panel B: T-tests of cumulative stock and appropriate market returns for unscheduled option grants before September 1, 2002.

Variable		# of obs.	mean	st. deviation	t-value
CR Firm	-3010	132	-0.010	0.192	-0.948
CR Index			0.005	0.061	
CR Firm	-30 - 0	132	-0.012	0.239	-1.342
CR Index			0.015	0.078	
CR Firm	-20 - 0	132	-0.014	0.208	-1.246
CR Index			0.009	0.062	
CR Firm	-10 - 0	132	-0.001	0.144	-0.710
CR Index			0.008	0.047	
CR Firm	0 - 10	132	0.002	0.112	-0.107
CR Index			0.003	0.033	
CR Firm	0 - 20	132	0.006	0.157	0.215
CR Index			0.003	0.071	
CR Firm	0 - 30	132	0.015	0.198	0.644
CR Index			0.004	0.088	
CR Firm	10 - 30	132	0.018	0.165	1.107
CR Index			0.002	0.077	

Variable		# of obs.	mean	st. deviation	t-value
CR Firm	-3010	123	0.014	0.125	0.977
CR Index			0.004	0.059	
CR Firm	-30 - 0	123	0.013	0.188	0.265
CR Index			0.009	0.080	
CR Firm	-20 - 0	123	0.007	0.159	0.078
CR Index			0.006	0.064	
CR Firm	-10 - 0	123	-0.003	0.124	-1.106
CR Index			0.007	0.053	
CR Firm	0 - 10	123	0.006	0.090	-0.089
CR Index			0.007	0.041	
CR Firm	0 - 20	123	0.017	0.130	1.354
CR Index			0.000	0.096	
CR Firm	0 - 30	123	0.037	0.148	1.615
CR Index			0.014	0.105	
CR Firm	10 - 30	123	0.032	0.116	2.095 **
CR Index			0.007	0.099	

Panel C: T-tests of cumulative stock and appropriate market returns for scheduled option grants after September 1, 2002.

Panel D: T-tests of cumulative stock and appropriate market returns for unscheduled option grants after September 1, 2002.

Variable		# of obs.	mean	st. deviation	t-value
CR Firm	-3010	38	-0.002	0.112	-0.890
CR Index			0.011	0.073	
CR Firm	-30 - 0	38	0.026	0.157	0.460
CR Index			0.016	0.085	
CR Firm	-20 - 0	38	0.018	0.147	0.347
CR Index			0.011	0.054	
CR Firm	-10 - 0	38	0.030	0.125	1.220
CR Index			0.006	0.030	
CR Firm	0 - 10	38	0.045	0.097	2.456 **
CR Index			0.008	0.042	
CR Firm	0 - 20	38	0.057	0.110	2.048 **
CR Index			0.020	0.044	
CR Firm	0 - 30	38	0.093	0.136	2.502 **
CR Index			0.036	0.060	
CR Firm	10 - 30	38	0.057	0.094	1.800 *
CR Index			0.029	0.055	

Table 6Cumulative Abnormal Returns before and after the Option Grant
Dates of firms listed at the Amsterdam stock exchange
during 1999-2004.

CAR is the cumulative abnormal return for a specific time interval. The cumulative abnormal return is calculated as the cumulative stock returns of a firm minus the cumulative return of the appropriate market index during the same time interval. For instance, CAR0 to 20 is the cumulative abnormal return for the period beginning at the option grant date until 20 trading days after the option grant date. * Denotes significance at 10%, ** at 5%, *** at 1%, respectively.

Panel A: T-tests of abnormal cumulative stock returns for option grants including option grants dated September 1, 2002.

	# of obs.	mean	standard deviation	t-value
-3010	416	-0.002	0.178	-2.544**
10 - 30		0.026	0.199	
-30 - 0	416	-0.003	0.187	-2.686***
0 - 30		0.024	0.183	
-20 - 0	416	-0.005	0.156	-2.1298**
0 - 20		0.016	0.166	
-10 - 0	416	-0.002	0.126	-0.528
0 - 10		0.003	0.126	
	-3010 10 - 30 -30 - 0 0 - 30 -20 - 0 0 - 20 -10 - 0 0 - 10	# of obs. -30 - 10 416 10 - 30 416 -30 - 0 416 0 - 30 - -20 - 0 416 0 - 20 - -10 - 0 416 0 - 10 -	# of obs. mean -3010 416 -0.002 10 - 30 0.026 -30 - 0 416 -0.003 0 - 30 416 -0.002 0 - 30 416 -0.003 0 - 30 416 -0.005 0 - 20 416 -0.005 0 - 10 - 0 416 -0.002 0 - 100 416 0.003	# of obs. mean standard deviation -3010 416 -0.002 0.178 10 - 30 0.026 0.199 -30 - 0 416 -0.003 0.187 0 - 30 0.024 0.183 -20 - 0 416 -0.005 0.156 0 - 20 0.016 0.166 -10 - 0 416 -0.002 0.126 0 - 10 0.003 0.126

Panel B: T-tests of abnormal cumulative stock returns for option grants excluding option grants dated September 1, 2002.

	# of obs.	mean	standard deviation	t-value
3010	400	-0.001	0.187	2.717***
0 - 30		0.032	0.208	
-30 - 0	400	-0.003	0.196	-2.926***
0 - 30		0.030	0.190	
-20 - 0	400	-0.005	0.165	-2.465**
0 - 20		0.021	0.170	
10 - 0	400	-0.003	0.132	-0.742
0 - 10		0.004	0.132	
	3010 10 - 30 30 - 0 0 - 30 20 - 0 0 - 20 10 - 0 0 - 10	# of obs. 3010 400 0 - 30 30 - 0 30 - 0 400 0 - 30 20 - 0 20 - 0 400 0 - 20	# of obs. mean 3010 400 -0.001 10 - 30 0.032 30 - 0 400 -0.003 0 - 30 0.030 20 - 0 400 -0.005 0 - 20 0.021 10 - 0 400 -0.003 0 - 10 0.004	# of obs. mean standard deviation 3010 400 -0.001 0.187 0 - 30 0.032 0.208 30 - 0 400 -0.003 0.196 0 - 30 0.030 0.190 20 - 0 400 -0.005 0.165 0 - 20 0.021 0.170 10 - 0 400 -0.003 0.132 0 - 10 0.004 0.132

Table 7Cumulative Abnormal Returns before and after the Option Grant
Dates of firms listed at the Amsterdam stock exchange during
1999-2004 before and after September 1, 2002.

CAR is the cumulative abnormal return for a specific time interval. The cumulative abnormal return is calculated as the cumulative stock returns of a firm minus the cumulative return of the appropriate market index during the same time interval. For instance, CAR0 to 20 is the cumulative abnormal return for the period beginning at the option grant date until 20 trading days after the option grant date. * Denotes significance at 10%, ** at 5%, *** at 1%, respectively.

Panel A: T-tests of abnormal cumulative stock returns for option grants before September 1, 2002.

Variable		# of obs.	mean	standard deviation	t-value
CAR	-3010	260	-0.006	0.210	-2.268**
CAR	10 - 30		0.029	0.231	
CAR	-30 - 0	260	-0.011	0.210	-2.658***
CAR	0 - 30		0.026	0.199	
CAR	-20 - 0	260	-0.011	0.171	-2.240**
CAR	0 - 20		0.019	0.179	
CAR	-10 - 0	260	-0.004	0.138	-0.488
CAR	0 - 10		0.002	0.143	

Panel B: T-tests of abnormal cumulative stock returns for option grants after September 1, 2002.

	# of obs.	mean	standard deviation	t-value
-3010	156	0.006	0.102	-1.163
10 - 30		0.020	0.124	
-30 - 0	156	0.011	0.140	-0.778
0 - 30		0.022	0.152	
-20 - 0	156	0.006	0.127	-0.342
0 - 20		0.011	0.142	
-10 - 0	156	0.002	0.102	-0.200
0 - 10		0.004	0.091	
	-3010 10 - 30 -30 - 0 0 - 30 -20 - 0 0 - 20 -10 - 0 0 - 10	# of obs. -30 - 10 156 10 - 30 156 -30 - 0 156 0 - 30 156 -20 - 0 156 0 - 20 156 -10 - 0 156 0 - 10 156	# of obs. mean -30 - 10 156 0.006 10 - 30 0.020 0.021 -30 - 0 156 0.011 0 - 30 156 0.006 -20 - 0 156 0.011 -10 - 0 156 0.011 -10 - 0 156 0.002 0 - 10 0.004 0.004	# of obs. mean standard deviation -30 - 10 156 0.006 0.102 10 - 30 0.020 0.124 -30 - 0 156 0.011 0.140 0 - 30 0.022 0.152 -20 - 0 156 0.006 0.127 0 - 20 0.56 0.011 0.142 -10 - 0 156 0.002 0.102 0 - 10 0.504 0.001 0.012

Table 8Cumulative Abnormal Returns for scheduled and unscheduled
Option Grants of firms listed at the Amsterdam stock exchange
during 1999-2004.

CAR is the cumulative abnormal return for a specific time interval. The cumulative abnormal return is calculated as the cumulative stock returns of a firm minus the cumulative return of the appropriate market index during the same time interval. For instance, CAR0 to 20 is the cumulative abnormal return for the period beginning at the option grant date until 20 trading days after the option grant date. * Denotes significance at 10%, ** at 5%, *** at 1%, respectively.

Panel A: T-tests of abnormal cumulative stock returns for scheduled option grants before September 1, 2002

Variable		# of obs.	mean	st. deviation	t-value
CAR	-3010	113	0.005	0.266	-1.835 *
CAR	10 - 30		0.062	0.319	
CAR	-30 - 0	113	0.005	0.216	-2.509 **
CAR	0 - 30		0.058	0.233	
CAR	-20 - 0	113	-0.003	0.155	-2.083 **
CAR	0 - 20		0.046	0.227	
CAR	-10 - 0	113	-0.004	0.157	-0.383
CAR	0 - 10		0.006	0.198	

Panel B: T-tests of abnormal cumulative stock returns for unscheduled option grants before September 1, 2002

Variable		# of obs.	mean	st. deviation	t-value
CAR	-3010	132	-0.015	0.182	-1.523
CAR	10 - 30		0.016	0.162	
CAR	-30 - 0	132	-0.027	0.229	-1.581
CAR	0 - 30		0.011	0.190	
CAR	-20 - 0	132	-0.022	0.204	-1.239
CAR	0 - 20		0.003	0.152	
CAR	-10 - 0	132	-0.009	0.139	-0.529
CAR	0 - 10		-0.001	0.101	

Variable		# of obs.	mean	st. deviation	t-value
CAR	-3010	118	0.013	0.108	-0.558
CAR	10 - 30		0.022	0.131	
CAR	-30 - 0	118	0.013	0.147	-0.295
CAR	0 - 30		0.018	0.152	
CAR	-20 - 0	118	0.007	0.129	-0.334
CAR	0 - 20		0.012	0.138	
CAR	-10 - 0	118	-0.005	0.096	-0.228
CAR	0 - 10		-0.003	0.088	

Panel C: T-tests of abnormal cumulative stock returns for scheduled option grants after September 1, 2002

Panel D: T-tests of abnormal cumulative stock returns for unscheduled option grants after September 1, 2002

Variable		# of obs.	mean	st. deviation	t-value
CAR	-3010	37	-0.014	0.091	-2.135 **
CAR	10 - 30		0.029	0.097	
CAR	-30 - 0	37	0.011	0.134	-1.813 *
CAR	0 - 30		0.059	0.142	
CAR	-20 - 0	37	0.011	0.134	-1.163
CAR	0 - 20		0.039	0.112	
CAR	-10 - 0	37	0.027	0.124	-0.474
CAR	0 - 10		0.038	0.092	

	1. All Observations		2. Before Sept. 1, 2002		3. After Sept. 1, 2002		<u>4. Year</u>	<u>dummies</u>
Dependent Variable: In(Option Grants)	coefficient	t-value	coefficient	t-value	coefficient	t-value	coefficient	t-value
Constant	8.763	48.060 ***	8.692	39.710 ***	8.748	30.310 ***	8.885	40.440 ***
In(MV)	0.250	10.600 ***	0.211	6.720 ***	0.306	8.110 ***	0.247	10.210 ***
Return on Assets	-2.331	-5.520 ***	-2.143	-4.040 ***	-4.028	-4.830 ***	-2.425	-5.420 ***
Profit Growth	0.049	2.130 **	0.068	2.250 **	0.170	3.100 ***	0.083	3.160 ***
Debt / Equity	-0.021	-1.730 *	-0.025	-1.770 *	-0.019	-0.710	-0.020	-1.610
(Maximum - Strike Price) / Strike Price	0.060	3.380 ***	0.056	2.460 ***	0.093	1.440	0.063	2.960 ***
Scheduled Option Grant (dummy)	-0.043	-0.520	0.018	0.120	-0.436	-2.100 *	-0.121	-0.980
September 1, 2002 (dummy)	-0.271	-2.370 **						
Dummy 1999							-0.485	-2.330 **
Dummy 2000							-0.439	-2.190 **
Dummy 2001							-0.161	-0.810
Dummy 2002							-0.258	-1.220
Dummy 2003							-0.101	-0.550
No. of observations	363		216		147		363	
F-statistics	20.940 **	*	12.020 **	*	13.120 *'	*	13.160 **	*
Adjusted R-squared	0.269		0.235		0.333		0.270	

Table 9Regressions of the Number of Option Grants for firms listed on the Amsterdam stock exchange during 1999-2004.

* Denotes significance at 10%, ** at 5%, *** at 1%, respectively.

The table presents regressions with the Number of Option Grants per member of the board of directors as dependent variable in each of the model specifications. The regressions relate to firms listed during 1999 to 2004 on Euronext AEX Market, Euronext MidCap Market, and Euronext Small and Local Market, respectively. Firms remain included in the sample until their date of delisting or bankruptcy. The option grants are considered to be scheduled when the options were granted each year around the same date (plus or minus three days). The option grant dates which were reported to the AFM (*Autoriteit Financiële Markten*, <u>www.afm.nl</u>), but not disclosed in the annual report are classified as scheduled option grants. Option grants on September 1, 2002 are excluded. The explanation is that because of the stricter rulings of the AFM many firms have reported their option grants on that date to the AFM, regardless of the question whether the option grants were awarded on that date.

In(Option Grants) = log of the number of Options Granted per member of the Board of Directors during a specific fiscal year. **Ln(MV)** = log of the Market Value of Equity at the end of a firm's fiscal year. **Return on Assets** = a firm's Net Profit divided by the book value of its Total Assets. **Profit Growth** is the Net Profit before extraordinary items of this year minus the Net Profit before extraordinary items of last year divided by the Net Profit before extraordinary items of last year. **Debt / Equity** = Debt divided by the book value of a firm's Equity. (**Maximum – Strike Price**) / **Strike Price** = a firm's highest Stock Price in a specific fiscal year minus the Strike Price of the options granted in that year divided by their Strike Price. **Scheduled Option Grant (dummy)** = a dummy valued 1, if the Option Grant of a specific year was reported in the firm's annual report, otherwise 0. **September 1, 2002 (dummy)** = a dummy valued 1, if the options were granted before September 1, 2002, otherwise 0. **Dummy 1999, Dummy 2000, Dummy 2001, Dummy 2002, Dummy 2003** = a dummy valued 1, if the options were granted in fiscal year 1999, 2000, 2001, 2002, or 2003, respectively, otherwise 0.

		Before September 1, 2002			After September 1, 2002			
	1. Scheduled		2. Unscheduled		3. Scheduled		4. Unscheduled	
Dependent Variable: In(Option Grants)	coefficient	t-value	coefficient	t-value	coefficient	t-value	coefficient	t-value
Constant	8.763	25.470 ***	8.642	30.420 ***	8.365	27.850 ***	8.260	15.910 ***
In(MV)	0.206	4.170 ***	0.193	4.190 ***	0.299	6.990 ***	0.315	3.570 ***
Return on Assets	-2.524	-2.490 **	-1.630	-2.400 **	-4.486	-5.150 ***	1.676	0.540
Profit Growth	0.080	1.820 *	0.056	1.260	0.213	3.550 ***	-0.110	-0.760
Debt / Equity	-0.026	-1.750 *	0.013	0.290	-0.012	-0.390	-0.020	-0.280
(Maximum - Strike Price) / Strike Price	0.043	1.830 *	0.164	2.230 **	0.070	0.910	0.180	1.530
No. of observations	106		110		113		34	
F-statistics	7.330 **	*	7.210 **	*	12.650 **	**	4.510 *	**
Adjusted R-squared	0.232		0.222		0.342		0.347	

Table 10 Scheduled and Unscheduled Option Grants of firms listed on the Amsterdam stock exchange during 1999-2004.

* Denotes significance at 10%, ** at 5%, *** at 1%, respectively.

See for an explanation of the variables used the notes to table 9.

In model specifications 1 and 2 the sub-samples refer to Option Grants before September 1, 2002 and scheduled and unscheduled Option Grants, respectively. In model specifications 3 and 4 the sub-samples refer to Option Grants after September 1, 2002 and scheduled and unscheduled Option Grants, respectively.

1. All Observations			2. Before	September 1, 2002	3. After Se	eptember 1, 2002	4. Sch	eduled Grants	5. Unsch	eduled Grants
	coefficient	t-value	coefficient	t-value	coefficient	t-value	coefficient	t-value	coefficient	t-value
Constant	-0.299	-2.600 ***	-0.294	-2.010 **	-0.306	-1.690 *	-0.380	-2.400 **	-0.208	-1.240
Bad News	-1.141	-2.940 **	-0.846	-1.960 **	-1.160	-1.740 **	-1.354	-2.100 **	-1.045	-2.120 **
Good News	0.645	2.400 ***	0.454	1.420	1.000	2.010 *	0.588	1.450	0.654	1.810 *
No. of Observations	427		275		162		214		213	
Probability Chi-squared	0.000		0.024		0.011		0.013		0.006	
Pseudo R-squared	0.032		0.020		0.041		0.030		0.035	

Table 11Earnings News releases around Option Grant dates of firms listed on the Amsterdam stock exchange during 1999-2004.

* Denotes significance at 10%, ** at 5%, *** at 1%, respectively.

News releases are from the LexisNexis database. All model specifications are logistic regressions using the same dependent variable. This is a dummy valued 1 if the news is published after the option grant date, otherwise its value is 0. The earnings news announcements are classified in five categories. The two lowest categories are bad and very bad news releases, respectively. The two highest categories are good and very good news releases, respectively. The middle category is classified as neutral. Announcements refer to news releases by the firm's board of management from six weeks before to six weeks after the option grant date. Observations from September 1, 2002 and of firms for which no earnings news was released are omitted. **Good News** = a dummy valued 1 if very good news is released, otherwise 0. **Bad News** = a dummy valued 1 if very bad news is released, otherwise 0.