# Corporate governance, compensation plans and financial reporting frauds: Doral financial corporation case study.

#### Abstract

During 2000-2004 periods, Doral Financial Corporation, a leading Puerto Rican banking holding company, overstated income by \$921 million or 100 percent on a pre-tax income. Such financial reporting irregularities enabled Doral to place over \$1 billion of debt and equity and to report 28 quarters of consecutive record earnings. We investigate possible triggers of earnings manipulation and possible remedies to restore reputation after earnings restatements. Our results show that the design of executives' compensation packages could play a significant rule in triggering earnings misstatements. Firms experience earnings restatements adopt several corporate governance improvements. However, this might not help much to restore prerestatement good reputation.

*Keywords:* Earnings management; Executives compensation; Corporate governance; Earnings restatement.

JEL classification: G14; G34; G35; M41

1

# I. Introduction

Doral Financial Corporation is a Puerto Rican bank holding company created in 1972. Doral's principal operations are conducted in Puerto Rico with growing business in New York City and other united state areas. Doral offers a variety of financial services through its subsidiaries<sup>1</sup> including residential mortgages, commercial lending, institutional securities, retail and online banking. Doral Financial was the leading residential mortgage lender in Puerto Rico during the 2000-2004 period. The volume of loans originated and purchased by Doral Financial during 2004 and 2003 was approximately \$7.8 billion and \$6.5 billion, respectively. Doral Financial's stock price (adjusted stock price) sharply increased from approximately \$10 (\$85) per share in early 2000 to almost \$50 (\$940) in early 2005 (with two 3 for 2 splits). In 2002 U.S. Banker ranked Doral Financial Corporation "The Best" out of the 100 largest banking companies in the United States. Doral Financial's CEO has been selected among Forbes's Top 10 list of "Best Performing Bosses" in 2003 and 2004.

Doral Financial has traditionally emphasized the origination of 15 to 30 year first mortgage loans secured by single family residences. Doral used more flexible requirements for income verification and credit history, hence such loans used to referred to as "non-conforming" according to Federal Home Loan Mortgage Corporation ('FHLMC'') or Federal National Mortgage Association ('FNMA'').

Doral Financial used to sell and securitize most of its originated and purchased residential mortgage loans. Doral used to pay a pass through rate to loan purchasers. Mortgage proceeds above the pass-through rate were retained by Doral Financial as servicing rights and, any excess

<sup>&</sup>lt;sup>1</sup> Doral Financial has three wholly-owned subsidiaries, which are Doral Bank, Doral Insurance Agency, Inc., and Doral Properties, Inc. Doral Bank has three wholly-owned subsidiaries in operation, Doral Mortgage, LLC, Doral Money, Inc, principally engaged in commercial lending in the New York metropolitan area, and CB, LLC, an entity incorporated to dispose of a real estate project of which Doral Bank took possession during 2005.

over the servicing fees was recorded as interest-only strips ("IOs"). The main source of Doral's gains realized on the sale of the loans during the mentioned period was determined by the difference of the sales price for the loan over its carrying amount.

During 2000-2004 periods, Doral overstated income by \$921 million or 100 percent on a pre-tax income. Such financial reporting irregularities enabled Doral to place over \$1 billions of debt and equity and to report 28 quarters of consecutive record earnings.

In valuing IOs, Doral used to select the lowest of three valuations; one based on an internal valuation model and two other third parties valuations. The SEC mentioned at least four problems with the way this apparently reasonable accounting policy was applied in practice. First, Doral Financial's internal model assumed that interest rates are fixed rather than variable along the life of the underlying mortgage. Hence it used the "spot rate" methodology to compute the value of its IOs rather than using the "forward curve"<sup>2</sup>. Second, Doral Financial's former treasurer and the former director emeritus improperly influenced the third party valuation work. They used to provide inaccurate information to obtain results that were higher or similar to the valuations resulting from the internal model. Third, Doral senior management was informed by late 2004 that the market would value the IOs using the forward curve, however This information was not appropriately communicated to the company's governing bodies or independent accountants prior to the release of the financial results for the year ended December 31, 2004. Fourth, the former CEO and the former director emeritus used questionable assumptions and flawed data to calculate a \$97.5 million impairment charge to the IOs for the fourth quarter of 2004, consequently the impairment was significantly understated.

During 2000-2004 years, Doral recognized gains on sales of approximately \$3.9 billion in mortgages to FirstBank of Puerto Rico. These transactions were not classified as true sales under

<sup>&</sup>lt;sup>2</sup> Using the forward curve, internal model would have produced lower values of IOs

generally accepted accounting principles ("GAAP") because oral agreements between the two firms contained different terms than those in the written contracts. These oral recourse agreements or understandings with FirstBank were not reported in Doral's financial reporting process or appropriately communicated to the audit committee, external auditors or the company's internal and external counsel.

Doral Financial's accounting and disclosure irregularities benefited the company in different aspects; that enabled the company to report 28 quarters of "record earnings", facilitated the placement of over \$1 billion of debt and equity, and also enabled Doral to pay millions of dollars less in interest on certain bond offerings. Furthermore, exceptional record earnings justified dramatic increases in Doral's senior executives' compensations over the mentioned period.

Doral Financial admitted its use of the spot rate internal valuation model for the first time in its 2004's annual report which was filed after the close of the market on March 15, 2005. Closing stock price dropped \$6.64 or 17% to \$31.65 on March 16, \$4.19 or 14% to \$26.31 on March 17, and \$4.89 or 19% to \$21.50 on March 18, 2005. At April 19, 2005, Doral Financial announced that it had decided to incorporate forward curve in IOs valuation and that this would decrease the value of its IOs portfolio by \$400 to \$600 million. Doral Financial's closing stock price dropped \$0.70 or 4.6% to \$16.15 on that day. Doral's stock price continued to plummet until it reached around \$10 by the end of 2005.

Since learning of the above issues, Doral Financial's Board of Directors hired a new management team, restated the company's financial reports and took other significant remedial action that we will show in our study.

4

Doral Financial completed the restatement process in February 2006. The restatements show that Doral's income was overstated by approximately \$921 million on a pre-tax, cumulative basis during the relevant period. Doral Financial attributed approximately \$595.5 million of that amount to the FirstBank true sale and contemporaneous purchase and sale issues, \$283.1 million to IO valuation issues and the remaining amount of approximately \$42 million that was attributed to four other accounting adjustments.

Conducting case study in the context of earnings restatement firms has multiple benefits. First, this enables us to thoroughly investigate compensation plans in a manner not possible using archival type research. Annual reports provide communications regarding incentive packages design and objectives that are not available in datasets like ExecuComp. Second, the current setting enables us to study changes in compensation committee beliefs about the effectiveness of different components of compensation packages. Finally, this setting enables us to investigate qualitative corporate governance issues such as audit committee activities, committee members' fields of experience and the Board of Directors independence.

The remainder of this study is organized as follows; Section II briefly explains the extant literature. Section III summarizes data sources. Section IV investigates the triggers of the reports misstatement. Section V investigates remedies undertaken by the firm to restore the collapsed trust. And Section VI concludes.

#### II. Literature review

Healy and Wahlen (1999) define earnings management as "managers' use of judgment in financial reporting and in structuring transactions to alter financial reports to either mislead some stakeholders about the underlying economic performance of the company or to influence

5

contractual outcomes that depend on reported accounting practices". The vast majority of the accounting literature focuses on detecting and investigating earnings management through accruals manipulation (Jones(, 1991),; Dechow, Sloan and Sweeny(, 1995),; Defond and Jiambalvo (, 1994),; Guay, Kothari and Watts( ,1996); and Kothari, Leone, and Wasley(, 2005)).).

Studies have documented that some firms engage in earnings management to support their stock price before important corporate actions and decisions. Teoh, Welch and Wong (1998b) document that seasoned equity issuers increase their discretionary accruals during the issue year. Cohen and Zarowin (2010) also show that SEO firms engage in real activities manipulation not only accruals management. Earnings management also has been studied prior to other corporate events like management buyouts (Perry and Williams (1994)), initial public offerings (IPOs) (Teoh, Welch, and Wong (1998a) and Shivakumar (2000)), and stock-for-stock mergers (Erickson and Wang (1999) and Louis (2004)). Gong, Louis and Sun (2008) document that post-open market repurchases abnormal returns and reported improvements in operating performance are partially driven by pre-repurchase downward earnings management.

Another set of studies show evidence of earnings management prior to acquisitions. Erickson and Wang (1999) and Louis (2004) find that acquirers overstate their earnings in the quarter preceding a stock-swap acquisition announcement. If investors react favorably to improvements in reported earnings, then the inflated stock price can be a stronger currency for the acquiring firm in acquisitions. Efendi, Srivastava, and Swanson (2007) document that the likelihood that firms engage in earnings management is significantly higher for firms that make one or more sizable acquisitions.

A growing stream in accounting and finance literature asserts that managers use not only accruals but also operational decisions to manipulate earnings. Manage earnings through reducing expenditures on research and development (R&D) received special attention (Baber et al (1991), Bushee (1998) and Bens et al (2002)). Less attention has been paid to another types of real earnings manipulation like overproduction (Thomas and Zhang (2002), timing of asset sales (Bartov (1993) and sales manipulation (Roychowdhury(2006). Furthermore, Fudenberg and Tirole (1995), Healy and Wahlen (1999) and Dechow and Skinner (2000) show that managers could manage earnings through sales acceleration, shipment schedules changes, and research and development expenditure delays. Earnings management through discretionary expenses receives special attention in the accounting and finance literature. Roychowdhury (2006) investigate earnings management through sales manipulation and discretionary expenses. He argued that accruals manipulation has higher *private* costs for involved managers, and then managers engage in real activities management. Accruals manipulation attracts more scrutiny by auditors and regulators. Moreover, the difference between unmanipulated earnings and the desired earnings threshold might be higher than the amount by which managers can manipulate accruals. These reasons make real activities management more attractive. Roychowdhury (2006) investigate three types of real activities management; sales manipulation through accelerating sales timing, price discounts and loose credit terms, reductions in discretionary expenditures and overproduction. He shows that firms that manipulate sales experience unusually low cash flows from operations. We investigate this conjecture in our context to test whether BFRs participate in real activities management in addition to accruals management.

Kedia and Philippon (2009) model the economic consequences of earnings management and fraudulent accounting. They show that manipulative firms not only manage earnings, but also over-invest and over-hire during misreporting periods in order to pool with high productivity firms. They also show that when mispricing is detected, firms shed labor and capital.

#### III. Data

Doral Financial's financial data is downloaded from the Compustat dataset. Stock price data is acquired from the Center for Research in Security Prices (CRSP). Senior executives' compensations including bonuses, salaries, options and stock grants are drawn from company's "employment agreements and other compensation arrangements" section of the proxy statements on SEC/Edgar filings. Company proxy statements have also been used to acquire data on board of directors, audit committee and other corporate governance variables. Analysts' coverage data have been acquired from the I/B/E/S database.

Table I summarize descriptive statistics for Doral financial corporation financial data. We report descriptive statistics for three consecutive time periods; 1995-1999, 2000-2004, and 2005-2009. These three periods represent five years pre-manipulation, manipulation and post-manipulation, respectively. Most statistics in Table 1 exhibits "n" shape pattern through the three time periods. Doral experienced a dramatic explosion with regard to size, leverage and number of employees during the earnings restatement years. The firm starts to shed labor and capital at the beginning of year 2005. Doral profitability measures also experience dramatic drop during years subsequent to the restatement years. For example, return on investments (ROI) dropped from 7.23 % during restatement years to -7.55 in the subsequent period. It is also worth noting that during the restatement years, Doral did not change its dividend policy as measured by

dividends payout ratio. The mean dividends payout ratio is was 20.54 during 1995-1999 period. And it remains almost constant during the restatement period.

## [Please insert Table I here]

# IV. Executives' compensations and the manipulation.

In this section we study Doral's compensation plans before, during and after the earnings misstatement years of 2000-2004. Carefully studying compensation plans of firms that want through earnings restatements and regulatory actions has several benefits; first, it enables us to investigate interlinks between compensation plans and financial reporting frauds. Second, it enables us to test whether certain compositions of compensation plans could provide incentive for manipulative actions rather than for better performance. Third, it provides a natural environment to test how firms design compensation plans before and after manipulation announcements. Finally, the case study enables us to carefully investigate not only components of the compensation plans – which could be studies through archive type research- but also carefully studying terms and provisions of those plans.

#### [Please Insert Table II here]

Table II summarizes the firm CEO's compensation plans' components during the period 1992 2007. Seven contracts had been signed between the firm and its CEOs. Those contracts summarize the evolution of compensation philosophy of Doral financial corporation.

CEO salary which was \$1m at the 1992-1994 contract, had experienced a steady rise to become \$2.4m at the 2003-2004 contract. The majority of the salary increase took place during 2000-2004 miss-statement years. The firm bonus had experienced a major change starting from 1997's

contract. Prior to 1997, the compensation committee considered volume and profitability as two important aspects to connect CEO's bonus with. As a result, part of CEO's bonus was connected to Loan origination and the other part was connected to return on shareholders' equity. Starting from 1997 contract, the firm changed the way of bonuses calculation. it eliminated the incentive bonus for obtaining minimum levels of profitability without regard to return on stockholders' equity. Doral justified this change by indicating that *"incentives for volume of originations were eliminated because the Committee felt that these incentives were less appropriate for a larger and more mature company such as the Corporation*". Although, Doral's option plan – adopted since October, 26 1988- permits the firm to grant options to executives, Doral did not grant any options to CEO during 1992 – 1998 period. The firm starts to grant options to CEO as part of the compensation package at the fourth quarter of 1999. During 1999-2004 period, Doral granted 1.3 millions stock options to CEO.

From the above discussion, we can identify three major changes in Doral's executives' compensations shortly prior to the start of the manipulation years. First the firm changed the base of bonus calculation to exclude volume based criterion. Second, it reduced the cash cap from being three times as of salary to become only twice. Finally, and most importantly, it started to grant stock options as part of the executives' compensation package. Although the firm argued that options grants are used to align executives' interests with those of shareholders, we argue that the magnitude and timing of option grants could be seen as one of incentives to earnings miss-statements.

Starting from year 2000, stock options start to play an increasingly significant rule in forming executives' incentives. Figure I exhibits cash versus exercisable stock option value over the period 1998-2006. The value of exercisable stock options – which constitutes 50% of

CEO's total compensation in year 2000- increased dramatically to represent around 90% of CEO total compensation during years 2003 and 2004.

#### [Please Insert Figure I here]

Executives' incentives might be distorted by the dominance of stock options as the main component of executives' compensation package. If managers over focus on increasing stock prices over specific time period, they might participate in behaviors that transfer value from future shareholders and managers to the incumbent ones. Financial reporting miss-statement could be one form of such behaviors.

Doral's compensation committee in 2002's annual report stated that "The Committee felt it was appropriate to reduce the amount of stock options in light of the increase in cash compensation in the form of base salary and incentive bonus". And that "the base annual salary was increased from \$1,500,000 to \$1,800,000, the maximum incentive bonus was also increased from \$1,500,000 to \$1,800,000 and the number of stock options was reduced from 400,000 to 300,000". These statements implicitly assumed the equivalency of cash compensations and stock options granted to executives. In fact, cash compensations and stock options compensations are in stark difference. Firstly, incentive created by cash starts when the cash is promised and ends when the cash is received by managers. On the other hand, Incentive created by options is extended as long as the manager keeps his options unexercised. Second, incentive from cash is not accumulated like stock options. New options granted and old "un-executed" options jointly constitute managers' incentive that is connected to stock price movements. So, reducing option grants from 400,000 - old and unexecuted- to 300,000 can also be seen as an increase of the CEO stock options portfolio to 700,000. This accumulation of stock options possibly distorted top

management incentives and led to an agency costs not accounted for when designing the compensation plans.

Timing of the options grants also represents an important aspect in executives' options grant strategy. Granting options immediately preceding earnings announcements and other important events' announcements could affect the possibility that managers falsify the announcement for their own benefits.

Figure II highlights the options' granting dates of the firm during the 1999-2006 window.

## [Please insert Figure II here]

Doral granted three batches of stock options to its CEO<sup>3</sup> during 1999-2006 period. These batches consist of 400,000, 300,000 and 600,000 stock options during 1999, 2002 and 2004, respectively. As shown in figure II, the timing of granting those options used to immediately precede the corporate earnings announcements. This timing possibly participated to Doral's regularity of announcing record earnings during the 2000-2004 miss-statement years.

We try to investigate whether the above problems have been recognized by Doral's new board of directors after the earnings restatements and the turbulence years. We investigate the firm new compensations plans during the years following the restatements. Several changes have been added to Doral's compensation plans. First, the firm started to use performance vesting in addition to time vesting requirements for stock options granted. This enables the firm to forfeit granted options if certain business objectives are not met properly. Second, the firm adopted a new vesting system at which options granted vested gradually over longer time periods rather than being vested all at specific date. Third, the compensation committee stated clearly that the

<sup>&</sup>lt;sup>3</sup> Doral's options used to be granted not only for the CEO but also for the top five executive officers.

equity based compensations should not be granted immediately before earnings announcement or any other important corporate announcements. Fourth, the firm started to schedule the payment of bonuses rather than paying them all at once. 50% of CEO's bonus is divided into two postponed installments. The payment of these installments is contingent on the company remaining well capitalized on the date of payment of the two pending installments. Finally, compensation committee added a retroactive claw back provision to the bonus plan. Under this provision, the full bonus amount is subject to a claw back in the event that the company is affected by any enforcement action imposed by its regulators. Doral's compensations committee stated several factors as determinants of stock options awards to top executives. These factors include shares available for grant under the Stock Plan, the executive's position in Doral Financial, his or her contributions to our objectives and total compensation. Our analysis assumes that, firms should also take executives' existing unexecuted options into consideration when designing compensation plans. Since options grants should be designed to link part of executives' compensation to stock price. Boards of directors should carefully specify this part taking into consideration new as well as old unexecuted stock options.

# V. How Doral use corporate governance to restore trust.

There is a vast finance and accounting literature that deals with the relationship between corporate governance and financial reporting frauds. Many of this literature have been triggered by the accounting scandals of Enron and WorldCom in early 2000s. Dechow et al (1996) show that Boards of firms that commit financial reporting misstatements are more likely dominated with insider "non-independent" directors. Those firms are also less likely to have audit committees. Beasley (1996) also find positive association between inside BOD members and financial reporting frauds.

Fewer studies investigate consequences of managerial decisions following the detection of financial reporting frauds. Rosenstein (1990) reports positive abnormal returns in a two days window following outside directors' appointment. Different from Rosenstein (1990) who tests consequences of corporate governance changes on a non-fraud context, a more recent study by Farber (2005) address this issue in a fraudulent context. For a sample of 87 firms committed a financial statement fraud, Farber (2005) investigate the association between post-fraud corporate governance improvements and the reputation restoration by fraudulent firms. Farber (2005) finds that fraud firms that had weaker governance during the manipulation years take several corrective governance actions subsequent to the fraud announcements. Those corrective actions include assigning CEO and Chairperson positions to different persons, increasing board independence and increasing audit committee meetings. Farber shows that these governance improvements help in restoring fraudulent firms' reputation in a form of higher institutional ownership, more analysts' coverage, higher stock returns and lower short interest.

Doral Financial provides a perfect example to test the conjectures of Farber (2005). We test how Doral's corporate governance changed after the earnings statement announcement in 2005 and whether those changes -if any- help Doral to restore market participants' trust.

Table III reports and Figure III exhibits a track of Doral's corporate governance mechanisms over the period 1993-2012.

#### [Please insert Table III here]

Doral financial manipulated its statements during the five years period 2000-2004. Consistent with conjectures of Farber (2005), Doral start to adopt corporate governance changes when their manipulations start to surface in 2005. Before 2005, Doral's CEO and chairperson positions used to be held by the same person. This rule duality has been ended since the earnings restatement in 2005. The BOD size as well as formation has also experienced an improvement during 2005. The number of board members increased from 9 to 11. The percentage of outside board members has also jumped from 66% to 90%. One aspect that Doral's management did not made significant improvement in is the composition and the activity of the audit committee. The number of audit committee members has not changed after the manipulation detection. Audit committee - that used to meet on average 5 times a year during the manipulation years-conducted exceptionally more meetings during the restatement years of 2005 and 2006. However, the activity of the committee returns to normal after the restatement years. This result indicates that increasing audit committee activities might be seen as an emergency remedy rather than a permanent change in firm's corporate governance.

Farber (2005) further shows that fraudulent firms successfully restore their reputation after corporate governance improvements. This restoration takes the form of increasing stock price and analysts' coverage.

Figure IV exhibits Doral's unadjusted as well as adjusted stock price during the period 1993-2013.

## [Please insert Table IV here]

Doral's stock price experienced a dramatic decline that started with the earnings restatement announcement in mid-2005. Stock price continued to decline regardless of corporate governance improvements undertaken by the management. This result is further confirmed by the analysts' coverage test.

## [Please insert Figure IV here]

```
15
```

Figure V tracks the number of analysts that follow Doral. Data is available starting at 2003. The number of analysts following Doral reached its beak in 2005. After the restatement announcement the number of analysts started to decline dramatically. The evidence in Figures IV and V is not consistent with the findings of Farber (2005). Our results show that Doral changes in corporate governance was neither enough to restore analysts attention nor to curb stock price plummeting.

#### References

- Baber, William R., Patricia M Fairfield, and James A. Haggard, 1991, The effect of concern about reported income on discretionary spending decisions; the case of research and development. *Accounting Review* 66, 818-829.
- Bartov Eli, 1993, The timing of asset sales and earnings manipulation, *The Accounting Review* 68, 840-855.
- Beneish, Messod D., and Mark E. Vargus, 2002. Insider trading, earnings quality, and accrual mispricing. *Accounting Review* 4, 755–791.
- Bens, Daniel A., Venky Nagar, and M. H. Franco Wong, 2002, Real investment implications of employee stock option exercises. *Journal of Accounting Research* 40, 359-393.
- Bergstresser, Daniel B., and Thomas Philippon, 2006, CEO incentives and earnings management, *Journal of Financial* Economics 80, 511–529.
- Bushee, Brian J., 1998, The influence of institutional investors on myopic R&D investment behavior. *Accounting Review* 73, 305-333.
- Cohen, Daniel A., and Paul Zarowin, 2010, Accrual-based and real earnings management activities around seasoned equity offerings, *Journal of Accounting and Economics* 50, 2-19.
- Collins V. Daniel, Raunaq S. Pungaliya, and Anand M. Vijh, 2013, The Effects of Firm Growth and Model Specification Choices on Tests of Earnings Management in Quarterly Settings, American Accounting Association working paper, the University of Iowa.
- Dechow, Patricia M., and Douglas J. Skinner, 2000, Earnings management: reconciling the views of accounting academics, practitioners and regulators. *Accounting Horizons* 14, 235-250.
- Dechow, Patricia M., Richard G. Sloan and Amy P. Sweeney, 1995. Detecting earnings management, *Accounting Review* 70, 193-225.
- Baber, William R., Patricia M Fairfield, and James A. Haggard, 1991, The effect of concern about reported income on discretionary spending decisions; the case of research and development. *Accounting Review* 66, 818-829.
- Bartov Eli, 1993, The timing of asset sales and earnings manipulation, *The Accounting Review* 68, 840-855.
- Beneish, Messod D., and Mark E. Vargus, 2002. Insider trading, earnings quality, and accrual mispricing. *Accounting Review* 4, 755–791.

- Bens, Daniel A., Venky Nagar, and M. H. Franco Wong, 2002, Real investment implications of employee stock option exercises. *Journal of Accounting Research* 40, 359-393.
- Bergstresser, Daniel B., and Thomas Philippon, 2006, CEO incentives and earnings management, *Journal of Financial* Economics 80, 511–529.
- Bushee, Brian J., 1998, The influence of institutional investors on myopic R&D investment behavior. *Accounting Review* 73, 305-333.
- Cohen, Daniel A., and Paul Zarowin, 2010, Accrual-based and real earnings management activities around seasoned equity offerings, *Journal of Accounting and Economics* 50, 2-19.
- Collins V. Daniel, Raunaq S. Pungaliya, and Anand M. Vijh, 2013, The Effects of Firm Growth and Model Specification Choices on Tests of Earnings Management in Quarterly Settings, American Accounting Association working paper, the University of Iowa.
- Dechow, Patricia M., and Douglas J. Skinner, 2000, Earnings management: reconciling the views of accounting academics, practitioners and regulators. *Accounting Horizons* 14, 235-250.
- Dechow, Patricia M.. Richard G. Sloan and Amy P. Sweeney, 1995. Detecting earnings management, *Accounting Review* 70, 193-225.
- Hazarika, Sonali, Jonathan M. Karpoff, and Rajarishi Nahata, 2012, Internal corporate governance, CEO turnover, and earnings management, *Journal of Financial Economics* 104, 44-69.
- Healy, Paul M., 1985, The effect of bonus schemes on accounting decisions, *Journal of Accounting and Economics* 7, 85–107.
- Healy, Paul M., and James M. Wahlen, 1999. A review of the earnings management literature and its implications for standard setting. *Accounting Horizons* 13, 365–383.
- Herrmann Don, Tatsuo Inoue and Wayne B. Thomas, 2003, The sale of assets to manage earnings in Japan, *Journal of Accounting Research* 41, 89-108.
- Jones, Jennifer, 1991, Earnings management during import relief investigations, *Journal of Accounting Research* 29, 193–228.
- Kaplan, Steven N. and Bernadette A. Minton, 2012, How Has CEO turnover changed, *International review of finance* 12, 57-87.
- Kedia, Simi and Thomas Philippon, 2009, The economics of fraudulent accounting, *Review of Financial Studies* 22, 2169-2199.

- Kothari, S.P., Andrew J. Leone, and Charles E. Wasley, 2005, Performance matched discretionary accrual measures. *Journal of Accounting and Economics* 39, 163–197.
- Kothari, S.P., Natalie Mizik and Sugata Roychowdhury, 2013, Managing for the Moment: The Role of Real Activity versus Accruals Earnings Management in SEO Valuation. American Accounting Association Working paper, *Massachusetts Institute of Technology*
- Louis, Henock, 2004, Earnings management and the market performance of acquiring firms, *Journal of Financial Economics* 74, 121–148.
- Louis, Henock, and Dahlia Robinson, 2005, Do managers credibly use accruals to signal private information? Evidence from the pricing of discretionary accruals around stock splits, *Journal of Accounting and Economics* 39, 361-380.
- Roychowdhury, Sugata, 2006, Earnings management through real activities manipulation, *Journal of accounting and economics* 42, 335-370.
- Shivakumar, Lakshmanan, 2000, Do firms mislead investors by overstating earnings before seasoned equity offerings?, *Journal of Accounting and Economics* 29, 339–371.
- Teoh, Siew Hong, Ivo Welch, and T.J.Wong, 1998a, Earnings management and the long-run market performance of initial public equity offerings, *Journal of Finance 53*, 1935–1974.
- Teoh, Siew Hong, Ivo Welch, and T.J. Wong, 1998b, Earnings management and the underperformance of seasoned equity offerings, *Journal of Financial Economics* 50, 63–99.

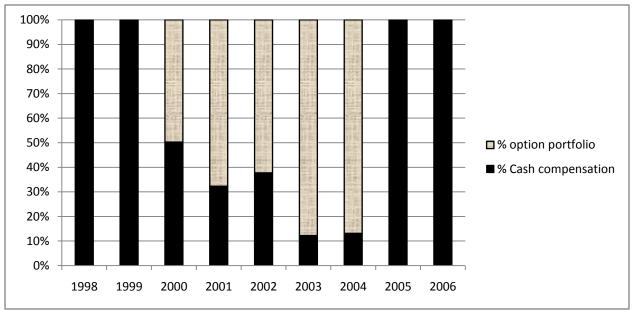


Figure I. Cash versus option compensations 1998-2006

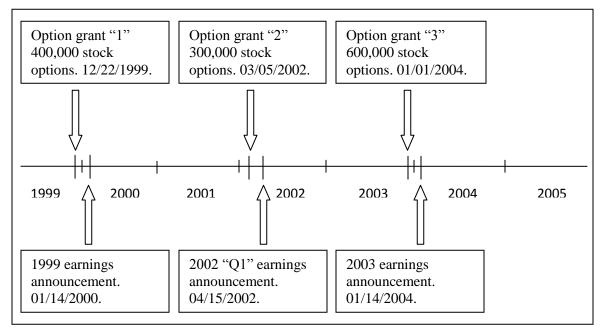


Figure II. Timing of option grants

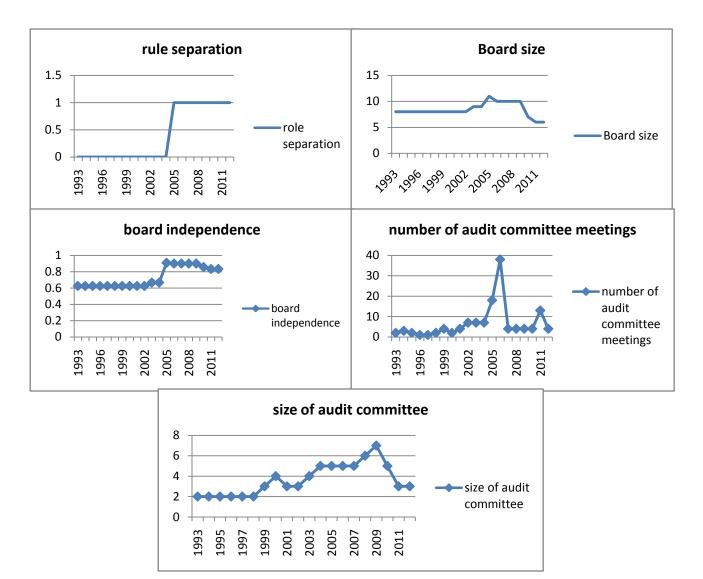


Figure III. Doral's corporate governance 1993-2012

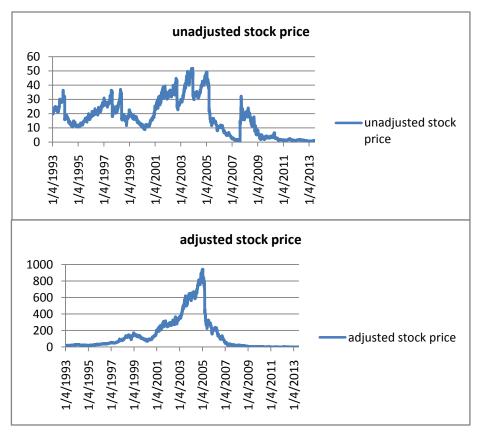


Figure IV. Doral's stock price performance 1993-2013.

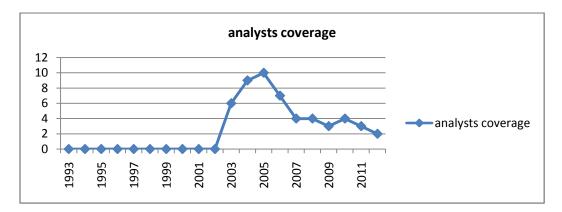


Figure V. Doral's analysts' coverage 1993-2012

# Table IDescriptive statistics

We report descriptive statistics for Doral financial corporation financial data. We report descriptive statistics for three consecutive time periods; 1995-1999, 2000-2004, and 2005-2009. These three periods represent five years pre-manipulation, manipulation and post-manipulation, respectively. *Total asset* is Compustat data item 6. *LTD* is firm's total long term debt (Compustat data item 9). *Equity* is the firm's total common equity (Compustat data item 60). *Sales* is firm's net sales (Compustat data item 12). Employee is the total number of firm's employees (Compustat data item 29). *Net income* is Compustat data item 172. *ROA* is returns on assets defined as the ratio of income before extraordinary items to firm's total assets. *ROE* is the returns on equity defined as the ratio of income before extraordinary items to firm's total invested capital. *Div Payout* is dividends payout ratio defined as total dollar dividends divided by income before extraordinary items.

	1995-1999				2000-2004		2005-2009			
	mean	median	StdDev	mean	median	StdDev	mean	median	StdDev	
Total Asset	2266.62	1857.78	1493.58	9761.80	8421.68	4880.28	11766.07	10231.95	3228	
LTD	202.52	161.36	144.64	1381.08	1484.84	507.74	1422.16	1387.44	320.90	
Equity	223.88	186.94	104.06	713.12	711.36	234.77	494.34	459.61	186.55	
Sales	182.01	135.41	104.01	693.94	711.62	166.64	713.25	646.84	207.03	
Employees	1.05	0.98	0.32	2.11	2.07	0.41	1.51	1.38	0.46	
Net Income	37.51	27.04	21.73	197.11	214.79	89.14	-144.20	-170.90	138.99	
ROA	1.89	1.78	0.40	1.94	1.92	0.75	-1.67	-2.16	1.38	
ROE	17.20	17.34	1.62	24.18	25.37	3.91	-44.72	-26.40	44.97	
ROI	9.42	9.30	1.74	7.27	7.23	1.55	-7.55	-8.03	6.12	
Div. payout	20.54	21.61	1.88	20.36	16.76	8.90	-67.22	0	148.46	

# Table IICEO compensation contracts 1992-2008

We report components of compensation agreements that Doral entered into with CEOs during 1992-2007 period. Salary, Salary is the dollar amount of annual CEO's salary. Bonus is the CEO bonus components as listed in the employment agreements. Bonus is calculated bases on Annual consolidated net income which is calculated as annual consolidated net income after taxes and after adding back incentive compensation payable to executive officers. Equity based compensations consists of any options grants or restricted stock awards for the CEO during the contract period. Max. Cash is the maximum dollar amount of cash compensation (Salary + Bonus) that the CEO can receive during any calendar year covered by the contract.

Plan	Starting	Ending	Salary	Bonus	Equity based	Max.
	date	date				Cash
1	1 1/1/1992 12/31/1994 \$1m		\$1m	- 3/8 of 1% of the FV of mortgage loans on housing units other than new	None	N/A
				project housing units in excess of \$200 million.		
				- 3/16 of 1% of the FV of mortgage loans on new project housing units in		
				excess of \$90 million.		
		- 25% of the Corporation's annual consolidated net income after taxes; to				
				the extent such net income exceeds an amount equal to a 15% ROE.		
2 1/1/1995		12/31/1996	\$0.7m	- \$1.0 million if the Company earns at least \$10.0 million of Net Income.	None	\$4.5m
				- 10% of the Company's annual consolidated net income in excess of \$10		
				million and up to \$20 million to the extent such Adjusted Net Income		
				exceeds an amount equal to a 15% ROE.		
				- 15% of Adjusted Net Income in excess of \$20.0 million to the extent such		
				Adjusted Net Income exceeds an amount equal to a 15% ROE.		
3	1/1/1997	12/31/1999	\$1.5m	15% of the amount of the Corporation's annual consolidated adjusted net	400,000	\$4.5
				income in excess of an amount equal to a 15% ROE.	stock options	
4	1/1/2000	12/31/2001	\$1.5	15% of the amount of Doral Financial's annual consolidated adjusted net	none	\$3m
				income in excess of an amount equal to a 15% ROE.		
5	1/1/2002	12/31/2003	\$1.8	15% of the amount of Doral Financial's annual consolidated adjusted net	300,000	\$3.6
				income in excess of an amount equal to a 15% ROE.	stock options	
6	1/1/2004	12/31/2005	\$2.4	15% of the amount of Doral Financial's annual consolidated adjusted net	600,000	\$4.8
				income in excess of an amount equal to a 15% ROE	Stock options	
7	5/23/2006	Annually	\$1m	- a target bonus opportunity of 150% of base salary and a maximum bonus	200,000	N/A
		renewed		opportunity of 200% of the target bonus, with a guaranteed bonus of	restricted	
				\$1,500,000	stock	
					- 400,000	
					options	

## Table III.

We report a track of corporate governance of Doral Financial Corporation over the period 1993-2012. *Dual* is rule duality dummy variable, it takes the value "1" when the same person serves as CEO and board chairperson, and "0" otherwise. *BOD* is the size of the board of directors measured as the number of BOD members. *Independ*. The board of directors' independence measured as the proportion of outside "non-executive" directors in the board of directors. *Meet* is the number of audit committee meetings during the year as announced in the firm's 10-k. *Aud. Com.* Is the number of members of the audit committee

					Aud.						Aud.
year	Dual	BOD	Independ.	meet	Com.	year	Dual	BOD	Independ.	meet	Com.
1993	1	8	0.625	2	2	2003	1	9	0.666	7	4
1994	1	8	0.625	3	2	2004	1	9	0.666	7	5
1995	1	8	0.625	2	2	2005	0	11	0.909	18	5
1996	1	8	0.625	1	2	2006	0	10	0.9	38	5
1997	1	8	0.625	1	2	2007	0	10	0.9	4	5
1998	1	8	0.625	2	2	2008	0	10	0.9	4	6
1999	1	8	0.625	4	3	2009	0	10	0.9	4	7
2000	1	8	0.625	2	4	2010	0	7	0.857	4	5
2001	1	8	0.625	4	3	2011	0	6	0.833	13	3
2002	1	8	0.625	7	3	2012	0	6	0.833	4	3