Managerial Ability and Fair Value Accounting: The Mediating role of Incentive-based Compensation

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ABSTRACT

This study investigates the relationship between managerial ability, post-acquisition goodwill levels, and changes following mergers and acquisitions (M&A) events. In particular, it investigates the impact of managerial qualities on future goodwill following M&A activities performed in the United States after the implementation of Statement of Financial Accounting Standards "SFAS" 142, Goodwill and Other Intangible Assets, in July 2001. Furthermore, it investigates the mediating role of incentive-based compensation (e.g., equity and cash) in the relationship between managerial abilities and goodwill levels and post-acquisition changes. This study contributes to two overlapping research streams: (1) managerial ability and fair value accounting, and (2) the nonlinear effect of CEO compensation structure on the relationship between managerial ability and fair value accounting.

Keywords: Managerial Ability; Chief Financial Officers; Chief Executive Officers; Incentive-based Compensation; Goodwill Recognition, SFAS 142.

1. Introduction

In July 2001, the Financial Accounting Standard Board (FASB) issued the Statement of Financial Standard (SFAS) Number142 "*Goodwill and Other Intangibles Assets"* (SFAS 142), which addresses the recognition and treatment of post-acquisition goodwill and other intangible assets and how it differs from that of other assets. According to this standard, goodwill is not amortized, like other tangible and identifiable intangible assets, but is subject to periodic fair value-based impairment tests. Thus, while the recognition of tangible and identifiable intangible assets reduces acquirer earnings on a regular basis, recording goodwill does not, unless a goodwill impairment write-off is to be recorded.

After the acquisition, managers should assign the purchase price allocation to tangible and identifiable intangible assets and liabilities acquired based on fair value accounting and the verdict for the value of the respective assets and liabilities. This allocation gives managers discretion not only to misallocate the purchase price allocation between assets but also to mispresent the true value of the assets, especially after the application of SFAS 142, which means that goodwill is not amortized on a

straight-line basis but subject to an annual impairment test. This means that recognizing more goodwill reduces the acquirer's amortization expenses and increases a company's earnings. Consequently, if executives tend to manage earnings, they may be willing to recognize a large amount of goodwill to evade amortization charges linked to other tangible assets that lead to increased earnings and bonus.

SFAS 142 results in unintended negative consequences for firms. For example, Li and Sloan (2017) examine the SFAS 142 standard for the accounting and valuation of goodwill. They find that, because of the discretion afforded by SFAS 142, managers delay goodwill impairments because they constitute bad news for firm performance and value. Additionally, Martinez et al. (2023) critically evaluates the key empirical research on goodwill accounting with the intention of enlightening and adding to contemporary debates on goodwill accounting. Goodwill impairment is materially and negatively associated with stock prices before and after earnings announcements (Atie and Elmberg, 2019; Hirschey and Richardson, 2002). Lee (2011) argued that SFAS 142 implementation relies on unverifiable fair value estimates that are likely to be manipulated. With the purchase price remaining constant, recognizing more goodwill reduces the acquirer's amortization charges and increases a company's earnings. While it can be said that the application of this standard may have led managers to manage earnings,

Demerjian et al. (2012) find that able managers are associated with better financial reporting quality which create incentives to avoid costly earnings management. Others find that talented managers have significant effects on corporate policies, governance, future earnings, and are crucial to the success of corporations (e.g., Chang et al. 2024; Huynh & Tran 2024; Xiaonan and Panpan, 2021; Shavinina and Medvid 2009; Cui and Chi-Moon Leung (2020). Using a sample of US firms, Sun (2016) finds a significant negative association between managerial ability and goodwill impairment because able managers are more likely to use a firm's resources efficiently.

Prior research has examined the effect of CEO bonuses on purchase price allocation after a combination. They focused on the amount recognized as goodwill in acquirer accounts. For example, Shalev et al. (2011) examine how compensation structures affect accounting for business combinations in the U.S. They assume that since the initial valuation of goodwill and other assets affects post-acquisition earnings differently, CEOs are motivated to increase the amount of recorded goodwill to reduce future depreciation and amortization expenses, thereby increasing earnings and bonuses. They expect that the CEO's incentive to over-allocate goodwill becomes stronger as the relative importance of the CEO bonus in his/her pay package increases. In addition, Detzen and Zulch (2012) examine how compensation structures affect accounting for business

combinations in the European context. They state that managers may wish to use flexibility regarding goodwill, depending on their accounting policies. They may want to avoid amortization charges for their personal benefit, given the importance of accounting earnings in determining executive compensation. They examined whether CEOs tend to increase the amount of goodwill recognized in acquisitions if their pre-acquisition cash compensation depends largely on bonuses, possibly to further increase their remuneration. Related to this, Hamberg et al. (2011) use a Swedish sample and find that the amount of goodwill recognized in acquisitions has increased noticeably after Swedish firms adopted IFRS 3. They find that companies with large amounts of goodwill yield abnormal returns and conclude that investors view the increase in earnings due to lower or no goodwill amortization charges as an indication of higher future cash flows.

The main purpose of my study is to extend the growing research on managerial ability by investigating how incentive-based compensation mediates the association between managerial ability and goodwill levels and changes post-M&A. Managerial ability has been defined in the literature from different perspectives. For example, Guzmán et al. (2023) defined managerial ability as managers' knowledge, skills, and experience. Ning-Ning xu, (2017) also described able managers as talented managers who have significant effects on the firms' corporate governance and are

crucial to the success of corporations. In addition, Demerjian et al. (2012) define managerial ability as management efficiency relative to their industry peers in transforming corporate resources into revenue. Similarly, Teng et al. (2021) describe managerial ability as a function of the relationship between organizational performance and the flow of funds, and the extent to which managers can generate expected returns. Moreover, Demerjian et al. (2013) define and expect more able managers to be more knowledgeable about the firm and the industry, as well as to be better able to synthesize information into reliable forward-looking estimates with which to report higher-quality earnings. Collectively, various conceptual and empirical papers support resource-based theory that able managers contribute to enhancing business operating activities and are linked to higher shareholder value. They make claims that high levels of managerial ability bring advantages in organizations (Adner & Helfat, 2003; Tiron et al., 2020).

This study contributes to the current literature on the association between managerial ability and goodwill manipulation in several ways. Goodwill has been considered a very challenging accounting issue for both academics and standard setters over the years (Shahwan 2011). The importance of goodwill in M&A s stems from the significant impact of goodwill on future transactions. Studies suggest that discretion in the standard (SFAS 142) may be used opportunistically to help managers achieve certain targets (e.g., meet/beat analysts, compensation incentives,

and avoid reporting losses). This study provides additional evidence for the ongoing debate regarding the determinants of goodwill impairment. The study captures managerial rent extraction behavior immediately post mergers and acquisitions, while prior research (e.g., Sun 2016) uses a non- merger and acquisition sample. Mergers and Acquisitions are a noteworthy research area not only in the field of finance but also in the accounting field. The importance of capturing managerial incentives to manipulate earnings through goodwill impairment stems from the challenging task of how M&A transactions can be valued. Different valuation methods can be used to obtain different results. Baker, Pan and Wurgler (2010) indicate that behavioral factors can influence the pricing of targets in M mergers and acquisitions A transactions. Target managers obtain personal financial benefits from such acquisitions.

Additionally, Detzen and Zülch (2012) report that the recognition of goodwill and identifiable intangible assets is associated with managerial cash bonuses for companies in the Stoxx Europe 600 index. They find that CEOs whose compensation packages depend on cash bonus intensity (the percentage of the bonus over the total cash compensation) are more likely to over allocate the purchase price to goodwill and limit this relationship if the CEO's bonuses represent 150% to 200% of the base salary. Similarly, a US study by Shalev et al. (2011) found that the allocation of purchase prices to goodwill

was higher when managerial compensation included larger cash bonuses. They conclude that non-amortization of goodwill provides an incentive for managers to record higher amounts of goodwill, thus avoiding amortization and impairment of definite life intangible assets. Anecdotal evidence suggests that goodwill manipulation is driven by compensation incentives and managers' characteristics; however, there is little or no empirical evidence on the direct effect of compensation incentives on the association between managerial ability and goodwill recognition and manipulation. This paper provides incremental contribution to avoid this research gap. Additionally, this paper is of benefits to regulators, policy makers, investors and various stakeholders who are adversely impacted by goodwill impairment and management's opportunism.

2. Literature Review and Hypothesis Development

Prior research suggests that the timing and magnitude of goodwill impairments are associated with managerial incentives. Beatty and Weber (2006) argue that firms are slower to record goodwill impairment if they have debt covenants and earnings-based bonuses and are listed in an exchange with delisting requirements and faster to recognize goodwill impairment if they the CEO has short tenure or high earnings multiple. Collectively, this evidence suggests that managerial incentives play a key role in the speed at which goodwill impairment is recognized.

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Anecdotal evidence suggests that managers use goodwill opportunistically to achieve compensation-related targets. Although this impact seems clear and fixed, there is some evidence that it varies with managerial characteristics. For example, Brochet and Welch (2011) find that executive functional background is a significant explanatory factor for goodwill reporting. Ramanna and Watts (2012) found that

goodwill write-offs are negatively associated with CEO tenure. A subsequent study by Masters-Stout et al. (2007) related CEO tenure to goodwill impairments under the SFAS 142. They found that newly appointed CEOs reported higher impairments than senior CEOs did. Moreover, Zhang and Zhang (2007) predict and find that older CEOs with greater expertise recognize more goodwill upon the completion of the acquisition to reduce amortization expenses than do other CEOs who care less about short-term bonuses. In addition, Beatty, and Weber (2006) hypothesized that the departure of the CEO who made the acquisition decision could explain the difference between actual and predicted goodwill write-offs. Another study by Zang (2008) found that recent management changes were an explanatory variable for earnings management through transitional goodwill impairment losses.

Demerjian et al. (2012) argue that high-ability managers are less likely to utilize real earnings management and that negative consequences after earnings management are diminished among more able managers. They find evidence that better managers manage earnings more successfully and experience fewer negative outcomes such as lower sales or future financial restatements. Consistently, Demerjian, Lewis, Lev, and McVay (2013) assess the impact of individual managers on earnings quality using a measure for managerial ability developed by Demerjian et al. (2012) instead of the manager fixed effects measure. They show that managerial

ability is positively associated with accruals quality and negatively associated with restatements, suggesting that higher-ability managers are better able to make complex accounting judgments and estimates that reflect the underlying nature of their firms' transactions. Others find that talented managers have significant effects on corporate policies and are crucial to the success of corporations (e.g., Bertrand and Schoar 2003; Shavinina and Medvid, 2009; Francis, Sun, & Wu, 2014; Krishnan &Wang, 2015; Demerjian, Lewis-Western, & McVay, 2015; Anggraini & Sholihin, 2023). This provides an opportunity for future research. This study extends the growing body of research on managerial ability by investigating how incentive-based compensation affects managerial ability and post-acquisition goodwill recognition.

Inventive-based compensation can be accounting/equity based or cash flow based, both have gained increasing attention from academicians as well as regulators (Cohen, Dey, and Lys 2013). Shalev, Zhang and Zhang (2013) use merger and acquisition data and provide empirical evidence on the managerial incentives to manipulate the allocation of purchase price post acquisition. They document a positive association between earnings-based bonuses and the overallocation of the purchase price to goodwill, but this association diminished when executive's compensations included cash-based performance measures. The study of Shalev et al. (2013) provide insights on the non-linear association between management's tendency to manipulate fair value accounting and

compensations. Related, Hartzell et al. (2004) find that a large majority of the financial benefits obtained by the targets' managers arise from stock and option appreciation if the targets' CEOs have significant stock holdings within the company because shareholders get an exceptional price from the acquirer. Drawing on this study as well as prior research (eg, chen et al. 2023, Yung and Chen, 2018; Yujie, 2021) that document an association between managerial ability and firm performance, I hypothesize that incentive-based compensation will mediate the association between managerial ability and recorded goodwill post acquisition.

The documented association between the equity incentives of the managers; including stock-based compensation and stock ownership, and earnings management indicates that it's more likely for managers with high equity incentive to sell shares in the future and to be able to meet or go beyond the expectations of the analysts with their reported earnings (e.g., Cheng and Warfield, 2005). On this subject, Fuller et al. (2002) and Coffee (2003) indicate that managers tend more to manipulate earnings, which later leads to increased stock prices, if they have strong incentives such as stock-based compensation and managerial ownership. What strikes more as a revelation is the finding of Cheng and warfield (2005). They find that managers with consistently high equity incentives are less likely to report large positive earnings surprises. Their results collectively indicate that equity incentives lead to incentives for earnings management.

Bradely and Sun (2021) find a significant negative association between managerial ability and goodwill impairment because able managers are more likely to use the firm's resources efficiently. I use a sample of U.S. based merger and acquisition data to extend the study made by Sun. In line with the notion of the study made by Sun (2021) and the growing literature that supports the resource-allocation theory (Lepak et al. 2007; Holcomb et al., 2009), I predict able managers to be associated with positive level and changes in goodwill post acquisition due to their ability to reduce the likelihood of goodwill impairment effectively and efficiently. I also expect managers to be fiduciary responsible for shareholders wealth and to the extent that the merger and acquisition event is not brining the assumed value to the firm, able managers will be associated with positive changes to future goodwill impairment. I therefore hypothesize the below hypothesis:

H1: Managerial Ability is positively associated with goodwill recognition (both levels and changes) post mergers and acquisitions events.

H2: incentive-based compensation (cash versus equity) mediates the association between Managerial Ability and goodwill recognition (both levels and changes) post mergers and acquisitions events.

3. Methodology and Research Design

3.1 Sample Selection:

The researcher started with 128,851 firm-year observations retrieved from Compustat database between 2006 and 2016. The researcher then removed firms in the financial services industries as well as firms with negative goodwill. The researcher started with the year 2006 because the researcher wanted to time my analysis after the application of the Statement of Financial Accounting Standards "SFAS" 142, *Goodwill and Other Intangibles Assets*, in July 2001 and because executive compensation data is different post 2005. The researcher stopped in 2016 because managerial abilities data are available up to only 2016 at the time of collecting data. The researcher then merged this sample with managerial abilities data, and Execucomp data to include managerial abilities proxies and incentive-based compensation. The researcher removed missing observations due to unavailable data in any of the above databases and the final sample is composed of 13,130 firm-year observations, representing 6,532 (6,598) firms with positive (zero) goodwill. Tables 1-3 show the sample distribution by year, industry and variables means form firms with zero and positive goodwill values.

Table 1 - Univariate Analysis:

Variable	N	Mean	25 Pr	50th Pr	75th Pr
$GW_{it\ it+1}$	13,130	1373.9291	10.3248	141.0610	781.1803
Δ GW	13,130	121.4001	0.0000	0.0000	29.1000
GWD	13,130	0.4975	0.0000	0.0000	1.0000
MA1	13,130	0.0185	-0.0771	-0.0236	0.0685
MA2	13,130	0.5814	0.3000	0.6000	0.8000
MA1_ GWD	13,130	0.0088	-0.0245	0.0000	0.0000
MA2_ GWD	13,130	0.2863	0.0000	0.0000	0.6000
CEOcash_comp	13,130	6.5459	6.2634	6.6312	6.9219
CEOequity_comp	13,130	2.4668	0.0840	0.5400	1.9510
LEV	13,130	0.5164	0.3443	0.5010	0.6441
MTB	13,130	4.0989	1.5069	2.3798	3.8755
ROA	13,130	0.0549	0.0268	0.0589	0.0975
BIG4	13,130	0.8970	1.0000	1.0000	1.0000
SIZE	13,130	7.5045	6.3165	7.4058	8.5649

Variables definitions are in appendix A

Table 2 - Sample means classified by *GWD*

Variable	*GWD =0* n= 6,598	*GWD = 1* n= 6,532
MA1	0.0195	0.0176
MA2	0.5873	0.5754
MA1_ GWD	0.0000	0.0176
MA2_ GWD	0.0000	0.5754
CFOcash_comp	6.0146	6.0766
CEOcash_comp	6.5248	6.5671
CFOequity_comp	0.2633	0.1821
CEOequity_comp	2.8573	2.0724
LEV	0.5213	0.5115
MTB	3.9980	4.2009
ROA	0.0456	0.0643
BIG4	0.8747	0.9196
SIZE	7.2469	7.7648

Variables definitions are in appendix A

Table 3 - Sample distribution by year and industry:

Panel A: Sample distribution by data-year:

Data-Year	**# Obs**	**Percent (%)**
2006	323	2.50%
2007	1,535	11.70%
2008	1,269	9.70%
2009	1,162	8.80%
2010	1,351	10.30%
2011	1,392	10.60%
2012	1,315	10.00%

2013	1,299	9.90%
2014	1,252	9.50%
2015	1,180	9.00%
2016	1,052	8.00%
	13,130	**100%**

Panel B: Sample distribution by industry:

Industry Categories	**# Obs**	**Percent (%)**
Agricultural	35	3.0%
Mineral	895	6.8%
Construction	233	1.8%
manufacturing	6,743	51.4%
Transportation, Communication and utilities	849	6.5%
Wholesale Trade	496	3.8%
Retail Trade	1,379	10.5%
Service	2,471	18.8%
	13,130	**100%**

3.2 Research Models

Figure one depicts the hypothesized relations in the research hypotheses. To test H1, the researcher uses Model 1 as shown below. The dependent variable in model 1 is non-negative goodwill value post acquisition in year t+1 and the independent variable of interest is managerial ability in year t. To measure managerial ability, the researcher uses the MA-Score (MA1) as well as rank (MA2) developed in Demerjian et al. (2013). This score assigns a higher score to managers that can produce more

revenues given a certain set of inputs, after controlling for firm effects such as firm size, market share, and complexity. Demerjian et al. (2013) measures the MA-Score in two stages. In the first stage, they use data envelopment analysis (DEA) to estimate firm efficiency within industries. Then, they apply a second stage of analysis to the DEA generated efficiency to purge the ability score of measurable firm-specific characteristics that affect the efficiency score. These include features that aid the manager, such as firm size, market share, positive free cash flows, and firm age; or hinder the manager, such as multi-segment and international operations, which are more complex. They show that managerial ability is not only associated with the changes in firm performance future following new CEO appointments, but also with the stock price reactions to CEO turnover announcements. The results indicate that high-ability managers are less likely to utilize real earnings management and that negative consequences after earnings management are diminished among more able managers. They find evidence that better managers manage earnings more successfully and experience fewer negative outcomes such as lower sales or future financial restatements.

Related, Demerjian et al. (2013) assess the impact of individual managers on earnings quality by using a measure for managerial ability developed by Demerjian et al. (2013) instead of manager fixed effects measure. The authors show that

managerial ability is positively associated with accruals quality and negatively associated with restatements, suggesting that higher ability managers are better able to make complex accounting judgments and estimates that reflect the underlying nature of their firms' transactions.

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The researcher uses models 1 and 2 as shown below to test H1. The researcher adds a set of control variables (Control Variables) to both models that explain the variations in goodwill or managerial discretionary behavior. These control variables are

related to the acquirer's-specific characteristics. For example, the researcher controls for the acquirer's size as measured by total assets (Size), growth as measured by (MTB), Return on Assets (ROA), audit quality (Big4), firm risk as measured by leverage (Lev), industry (IND), and fixed year-effects.

$$GW_{it+1} = \beta_0 + \beta_1 MA_{it} + \sum_{j=1}^{nj} \delta_j \text{ Control Variables}_j + \varepsilon_{it} \quad (1)$$

$$\Delta GW_{it} = \beta_0 + \beta_1 MA_{it} + \sum_{j=1}^{nj} \delta_j \text{ Control Variables}_j + \varepsilon_{it} \quad (2)$$

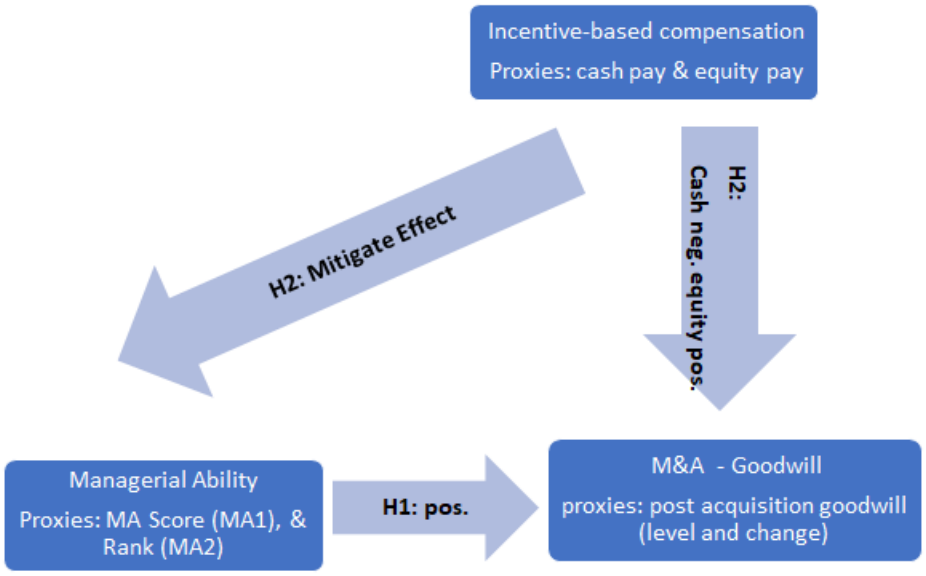
To test H2, the researcher adds to models (1) and (2) interaction term between MA and Incentive-based Compensation, namely, cash pay, and equity pay at year t. The researcher then empirically tests the following models to examine the effect of executive compensations on the association between goodwill impairment and managerial abilities post-merger and acquisition events using the below Regression models.

$$GW_{it+1} = \beta_0 + \beta_1 MA_{it} + \beta_2 MA*IC_{it} + \sum_{j=1}^{nj} \delta_j \text{ Control Variables}_j + \varepsilon_{it} \quad (3)$$

$$\Delta GW_{it} = \beta_0 + \beta_1 MA_{it} + \beta_2 MA*IC_{it} + \sum_{j=1}^{nj} \delta_j \text{ Control Variables}_j + \varepsilon_{it} \quad (4)$$

Figure 1

Managerial ability, incentive-based compensation and goodwill recognition post Mergers and Acquisitions:



Notes to figure (1): The above figure represents the theoretical hypotheses and the links between them as explained in the model. For each theoretical hypothesis, the researcher list empirical proxies used in the analyses. Tests of H1 comprise my main analyses, in which the researcher investigates whether high able managers are positively associated with post-acquisition goodwill. While the researcher primarily relies on prior research to establish H2, the researcher test H2 to verify the effect of the incentive-based compensation on able managers who engage in M&A transactions

and more likely to engage in transactions that increases goodwill and decreases impairment (goodwill change) over time.

4. Results and Conclusion

Tables 4 (5) summarize the results of the regression of Subsequent (changes in) Goodwill Post Mergers and Acquisition on Managerial Ability. As predicated, the researcher finds a consistent and strong significant positive association between goodwill after acquisition and managerial abilities using both measures (score and rank) as shown in Table 4. Further analysis in Table 5 shows a positive and significant association between the level of future goodwill as well as the changes after acquisition and managerial abilities using both measures (score and rank) and managerial abilities. The results in this section are inline with the study made by Sun (2021), which documents a significant positive impact of able managers on goodwill. The results highlight the value of managerial abilities in enhancing shareholder's value by working on increasing goodwill, which is viewed as a premium that can be translated into future cash flows.

Table 4 - Regression of Goodwill subsequent to Mergers and Acquisitions on Managerial Ability:

		(1) Dep var GW_{it+1}		(2) Dep var GW_{it+1}		(3) Dep var GW_{it+1}		(4) Dep var GW_{it+1}	
Independent Variables	Expected sign	Stand. Coff.	t Value	Stand. Coff.	t Value	Stand. Coff.	t Value	Stand. Coff.	t Value
MA1		0.109	13.014***	-	-	0.011	0.969	-	-
MA2		-	-	0.070	8.344***	-	-	-0.015	-1.295
GWD		-	-	-	-	0.116	13.622***	-0.047	-2.540**
MA1_GWD		-	-	-	-	0.146	12.963***	-	-
MA2_GWD		-	-	-	-	-	-	0.211	10.653***
LEV		0.066	7.696***	0.066	7.638***	0.068	7.994***	0.066	7.735***
MTB		-0.004	-0.524	-0.004	-0.445	-0.004	-0.528	-0.004	-0.545
ROA		0.023	2.623***	0.027	3.145***	0.023	2.761***	0.027	3.179***
BIG4		0.077	9.217***	0.079	9.438***	0.065	7.909***	0.067	8.113***
IND _CAT			YES		YES				
FIXED_EFFECT			YES		YES				
N=13,130			**13,130**		**13,130**		**13,130**		**13,130**
F value			79.53		74.65		91.30		83.90
R-square			0.12		0.11		0.15		0.14

Variables definitions are in appendix A.

***, **, * denote significance levels at 1%, 5% and 10% respectively.

Table 5 - Regression of Δ in Goodwill subsequent to Mergers and Acquisitions on Managerial Ability:

		Dep var ΔGW_{it}		**Dep var** ΔGW_{it}		**Dep var** ΔGW_{it}		**Dep var** ΔGW_{it}	
Independent Variables	Expected sign	Stand. Coff.	t Value	Stand. Coff.	t Value	Stand. Coff.	t Value	Stand. Coff.	t Value
MA1		0.097	10.969***	-	-	0.022	1.831*	-	-
MA2		-	-	0.078	8.805***	-	-	0.032	2.599***
GWD		-	-	-	-	0.175	19.526***	0.085	4.394***
MA1_GWD		-	-	-	-	0.115	9.710***	-	-
MA2_GWD		-	-	-	-	-	-	0.121	5.772***
LEV		0.009	0.954	0.008	0.915	0.009	1.033	0.007	0.826
MTB		-0.006	-0.649	-0.005	-0.611	-0.006	-0.668	-0.006	-0.685
ROA		-0.019	-2.058*	-0.018	-1.915*	-0.023	-2.556**	-0.024	-2.665***
BIG4		0.034	3.895***	0.036	4.122***	0.019	2.179**	0.021	2.464**
IND			YES		YES				
FIXED_EFFECT			YES		YES				
N=13,130			**13,130**		**13,130**		**13,130**		**13,130**
F value			7.94		6.07		28.59		24.07
R-square			0.01		0.01		0.01		0.004

Variables definitions are in appendix A.

***, **, * denote significance levels at 1%, 5% and 10% respectively.

The results of testing H2 in table 6 show a consistent negative (positive) association between cash (equity) based compensations and future or the change in goodwill post acquisition. This documented association is not surprising and is consistent with prior research (e.g., Detzen and Zulch 2012) on

the management's tendency to manipulate the accounting numbers in the presence of equity-based compensations. Although some studies such as Armstrong, Jagolinzer, and Larcker (2010) do not find evidence that equity-based compensation provide incentives to manipulate accounting reports, others such as Cheng and Warfield (2005), and Crocker and Slemrod (2007) find that Equity-based compensation may provide financial motivation for managers to manipulate earnings and misrepresent the firm's true value. This implies that managers whose equity-based compensation is more sensitive to company share prices tend to use more aggressive discretionary components of earnings to affect their firms' reported performance.

Table 6 also illustrates the association between managerial ability and subsequent goodwill level and change after introducing the mediating effect of managerial incentives compensations into regression models (1) and (2). Overall, the results suggest that managerial ability mediates and, in some instances, negates the effect of incentive-based compensations on future goodwill, both level and changes. The direction of the intervening effect of managerial abilities seems unclear and provides mixed evidence, an indication of a possible non-linearity of the effect of managerial abilities on the hypothesized relationships in H2. In an addition analysis, the researcher merges the sample with SDC databases to control the effect of the target firm's characteristics and the deal features (e.g., cash or stock purchases). The researcher also

decomposes the sample pre and posts the Accounting Standards Update (ASU) 350–20, which became effective after 12/15/2011 to investigate whether the results are affected by the passage of this standard. The researcher also incorporates other executive characteristics such as tenure, age, agender, new and retiring/resigning CEO versus CFO.

Table 6 - Regression of the Mediating Effect of Incentive-based Compensation on the Association between Goodwill subsequent to Mergers and Acquisitions on Managerial Ability:

		(1) Dep var GW_{it+1}		**(2) Dep var** GW_{it+1}		**(3) Dep var** ΔGW_{it}		**(4) Dep var** ΔGW_{it}	
Independent Variables	Expected sign	Stand. Coff.	t Value	Stand. Coff.	t Value	Stand. Coff.	t Value	Stand. Coff.	t Value
CEOcash_comp		0.073	8.209***	0.099	5.147***	0.000	-0.052	0.001	0.049
CEOcash_comp_MA1		-0.244	-5.494***	-	-	-0.123	-2.612***	-	-
CEOcash_comp_MA2		-	-	-0.137	-2.751***	-	-	-0.035	-0.664
CEOequity_comp		-0.037	-4.484***	-0.055	-2.852***	-0.005	-0.537	-0.003	-0.140
CEOequity_comp_MA1		0.028	3.059***	-	-	0.009	0.903	-	-
CEOcash_comp_MA2		-	-	0.023	1.170	-	-	-0.002	-0.088
MA1		0.237	5.121***	-	-	0.139	2.840***	-	-
MA2		-	-	0.107	2.240**	-	-	0.065	1.285
GWD		0.109	12.866***	-0.052	-2.855***	0.175	19.383***	0.086	4.409***
MA1_GWD		0.147	13.070***	-	-***	0.115	9.619***	-	-
MA2_GWD		-	-	0.212	10.719***	-	-	0.120	5.740***
LEV		0.055	6.379***	0.055	6.328***	0.010	1.054	0.008	0.923
MTB		-0.005	-0.606	-0.005	-0.556	-0.006	-0.702	-0.006	-0.681
ROA		0.017	2.025**	0.022	2.556**	-0.023	-2.569**	-0.024	-2.594**

BIG4		0.059	7.130***	0.061	7.364***	0.019	2.172**	0.022	2.472**
IND			YES		YES				
FIXED_EFFECT			YES		YES				
N=13,130			**13,130**		**13,130**		**13,130**		**13,130**
F value			83.21		75.04		25.55		20.83
R-square			0.15		0.14		0.01		0.04

Variables definitions are in appendix A.

***, **, * denote significance levels at 1%, 5% and 10% respectively.

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Appendix A - Variables definitions and measurements:

Abbreviations	Variables Measurements
GW_{it+1}	Non-negative value of goodwill in year t+1
Δ GW	Change in goodwill value measured as the different between goodwill in year t and year t-1.
GWD	An indicator variable equals one if goodwill is above zero and the change in goodwill from year t-1 to year t is positive, zero otherwise
MA1	Managerial ability score retrieved from Demerjian,, Lev, McVay (2012).
MA2	Managerial ability rank retrieved from Demerjian,, Lev, McVay (2012).
MA1_ GWD	The interaction between MA1 and GWD
MA2_ GWD	The interaction between MA2 and GWD
CEOcash_comp	Cash based compensation of CEOs measured as the natural logarithm of bonuses and salaries.
CEOequity_comp	Equity based compensations of CEOs measured as the percentages of shares owned by CEOs divided by outstanding shares.
CEOcash_comp_MA1	Interaction between CEOcash_comp and MA1
CEOcash_comp_MA2	Interaction between CEOcash_comp and MA2
CEOequity_comp_MA1	Interaction between CEOequity_comp and MA1
CEOequity_comp_MA2	Interaction between CEOequity_comp and MA2
LEV	Leverage as measured by total long-term debt divided by total assets.
MTB	Market-to-book ratio as measured by (stock prices*outstanding shares)/total equity
ROA	Returns on assets as measured by net income divided by total assets
BIG4	An indicator variable that equals one of auditors is one of big 4 audit firms.
SIZE	Natural logarithm of total assets.
IND _CAT	Indicator variables to proxy for industries
FIXED_EFFECT	Indicator variables to proxy for year-fixed effect