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CEO Hubris and Its Impacts on Fair Value Accounting of Securitization

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Abstract

The purpose of this paper is to examine how fair value accounting of securitization is influenced by an underlying personality trait. In this case, the underlying personality trait in focus is hubris. In particular, it is expected that hubristic CEOs report larger gains from securitization due to the use of lower discount rates in the fair value estimations. To gauge hubris, the study evaluates CEO letters to shareholders for US bank holdings companies through the textual analysis software DICTION. This is intended to provide an indirect measure of CEO personality traits. In contrast to hypothesized, the findings suggest that hubris is not a contributing factor to fair value evaluations of securitization and thus the gains are not statistically different from that of less hubristic CEOs. Contributions are made to research examining securitization and corporate decision-making; CEO profiling; as well as fair value and accounting choice theory by showing that unintended decisions of more hubristic CEOs do not impact the accounting method nor the financial reporting through the use of discretion involved in securitization transactions.

Keywords: Securitization, hubris, CEO profile, fair value accounting, textual analysis

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1 Introduction

A widely discussed area within accounting research focuses around the topic of earnings management. Earnings is of course an important accounting item in terms of how vital it is to a business' future and how it could be managed to meet analyst expectations for financial benefits. Earnings can be managed by any number of options at management's disposal. With a number of areas already receiving attention under earnings management, we want to focus on an item that has not received as much criticism namely securitization (Barth and Taylor 2010).

Asset securitization is a transaction in which a company sells future cash flows of certain assets in exchange for current cash flows (Dechow and Shakespeare 2009). This is not a new phenomenon. Dating back to 1695 with the Deutz Co. of the Netherlands, securitization has been an integral part of financial markets (Buchanan and Choudry 2014). Over the centuries it has been a part of a number of economic cycles and none of those is more evident than the most recent financial crisis in 2008-2009. Due to its role in the financial crisis, asset securitization, more specifically as mortgage-backed securities, has been the target of much scrutiny (Cerbioni et al. 2015; Karaoglu 2005; Schwarcz 2009; Jaffee et al. 2009). The combination of subprime

lending and asset securitization was instrumental to the system-wide banking crisis (Peicuti 2013; Laux and Leuz 2009). Primarily, the banking industry utilizes asset securitization but that does not mean that it is the only industry to securitize assets. Many different industries and different companies will securitize other assets such as credit card receivables, auto loans, etc. According to Buchanan and Choudry (2014), global asset securitizations equate to $13.6 trillion as of 2010 so the sheer size of the market plus the broad scope of market participants make this topic important to research further in order to understand financial markets and how they are intertwined. But asset securitization is not only an interesting topic for research due to its size. It is interesting because of the difficulty and lack of general knowledge about the area (Cerbioni et al. 2015; Dechow, Myers, et al. 2010; Laux and Leuz 2009) which could prove to be useful for researchers and practitioners. Further, the very nature of this off-balance sheet item leads it to lack transparency and therefore understanding for many external stakeholders (Cerbioni et al. 2015; Schwarcz 2009).

In regards to securitization, managers have a number of discretionary tools at their disposal to affect a company's earnings. Prior research has looked into these phenomena by studying the timing of the securitization transactions (Dechow and Shakespeare 2009), the size of the reported gain from "cherry-picking" assets that are securitized and the inputs used in fair value estimations of certain assets (Dechow, Myers, et al. 2010). In general the research suggests that managers use the discretionary tools to smooth earnings through securitization (Karaoglu 2005), to change the sign of reported earnings, to window-dress financial statements prior to reporting dates (Dechow and Shakespeare 2009) and to increase their own compensation benefits (Dechow, Myers, et al. 2010). These studies center around contract and market based incentives, which implies that managers make active decisions in response to these incentives. More specifically, Karaoglu (2005) has shown that even if the securitization transactions incur major costs to the firm, managers do engage in these transactions to achieve financial statement outcomes. In that case, this behavior is driven by more contract-based rather than market-based incentives. This is also consistent with the results by Graham et al. (2005) who find that up to seventy-five percent of the examined executives are ready to manage earnings at the expense of economic value in order to reach specific earnings objectives. Furthermore, Dechow, Myers, et al. (2010) looks into the sensitivity of CEO pay to securitization gains. Their results suggest that the securitization gains are exactly as sensitive to CEO pay as other components of earnings. Evidently, the incentive to manage earnings exists. However, as Barth and Taylor (2010) argue, their finding does not reveal anything in regard to the level of discretion in determining the securitization income.

Even if prior research extrapolates from agency theory and suggests that prevailing incentives are strong, this study attempts to tackle this subject by following a unintented perspective of engagement. Instead of focusing on the notion that managers actively engage in opportunistic behavior for privately held benefits, this study attempts to determine to what degree underlying CEO traits could explain financial reporting behaviors in regards to securitization. By looking at the personality of the CEO, we try to address a more passive or unintended avenue of earnings management compared to previously mentioned active strategies. Recent research has shown how underlying personality of CEOs may explain financial reporting behavior or tendencies (Schrand and Zechman 2012). Specifically, our interest leans toward CEO hubris since it has been identified as a behavioral trait that is more likely to result in earnings management (Hsieh et al. 2014). Also, research has shown that CEOs with hubris are more prone to risk-taking (Li and Tang 2010) and to be overconfident in valuing strategic initiatives (Runesson and Samani 2015; Hayward and Hambrick 1997; Roll 1986). Primarily, hubris has been incorporated in these studies which delve into firms making

mergers and acquisitions.

With this idea of hubris, this study brings the hubris hypothesis into the securitization field of research. In the securitization arena, this study focuses on one of the discretionary tools in the hands of managers and that is the fair value estimates. Our objective is to investigate as to whether the input data used for these fair value estimates are distorted by hubristic CEOs, which leads to larger securitization gains being reported.

To investigate this, the attempt is to gauge CEO hubris through analyzing the letters to shareholders in the annual reports of U.S. bank holding companies. From there, the hubris measurement, combined with securitization data and fair value accounting data, is tested for its impact on the financial statements.

Our results suggest that hubris is not a contributing factor in fair value estimations and larger gains. This finding is relevant for investors as they can narrow their focus on the items that are truly affected by hubris and thus increasing the market efficiency. Further, this finding is of interest for persons in a monitoring position, such as the boards of directors or auditors, to cope with this exposure of business leadership risk. As this finding also implies, fair value accounting, as a method, is not impacted by hubris. This knowledge is also relevant for standard setters' discussions of applicable accounting methods. Thus, the results supports the relevant use of this method in securitization contexts.

This study contributes to prior research in the field of securitization and corporate decision-making (eg. Dechow, Myers, et al. 2010; Karaoglu 2005; Barth and Taylor 2010; Cerbioni et al. 2015; Dechow and Shakespeare 2009) by adding knowledge of the unintentional implications of corporate decisions as they pertain to biased financial reporting. This also increases the expansion of the hubris hypothesis from a strategic initiative focus into a fair value accounting perspective. In this sense, the study introduces a missing piece of existing securitization literature, which generally revolves around the topic of earnings management and the consequences of active decision-making. Contributions are also made to the research of CEO characteristics (eg. Li and Tang 2010; Runesson and Samani 2015; Roll 1986; Hribar and Yang 2015; Hsieh et al. 2014) by exploring the reach of hubris in other contexts. Further, this paper contributes to fair value accounting and accounting choice literature (eg. Laux and Leuz 2009; Barth, Landsman, et al. 1995; Niu and Richardson 2006) by providing evidence that more CEO hubris does not lead to a more aggressive choice of accounting.

The remainder of this paper is structured as follows: Section 2 introduces the prior literature in this field. Section 3 formulates the hypotheses used. Section 4 describes the methodology of this study. Section 5 presents the results & analysis. Section 6 offers concluding remarks and proposes future research topics.

2 Literature Review

2.1 Securitization

Before diving into the issues with securitization, one must understand what it is and how it is executed. Securitization in general terms is when a firm, or sponsor, sells cash flows from a certain pool of assets to outside investors and in turn uses the cash from investors to fund current/future opportunities (Dechow and Shakespeare 2009). Examples of assets that could be securitized are account receivables, credit card debt, auto loans, mortgage-backed securities (MBS), etc. Since securitization provides firms with the opportunity to collect cash more quickly, securitization can be seen as a form of financing (ibid.). Compared to seeking a loan from a bank or issuing new equity shares, this type of financing can be viewed as more

of an internal means of funding rather than external.

US GAAP provides guidelines for securitization under Statement of Financial Accounting Standards (SFAS) 140, which replaced the previous standard, SFAS 125. In SFAS 140 (FASB 2000), this financing can be separated into different financial components and the sponsor determines whether it controls each component. This can be accounted for in two different ways. One way is by secured borrowing, which treats the transaction as a loan and the assets being securitized are left on the company's balance sheet until the loan is paid down, i.e. investors are paid back. The other way is to treat it as a sale of a receivable. In this case, it is considered a sale if the sponsoring firm surrenders control over the transferred financial assets. Control of those assets is classified as surrendered when those assets are beyond the reach of the sponsor company and its creditors in case of bankruptcy, which can be done through a special purpose vehicle (SPV). Sometimes, this is also referred to as a special purpose entity (SPE) or a variable interest entity (VIE). To further explain the sales treatment, Karaoglu (2005) states:

"In a sale the sponsor removes, from the balance sheet, those assets over which it has surrendered control and recognizes, on its balance sheet, retained assets and liabilities. Securitizations that are accounted for as sales affect income by allowing the capitalization of future expected income. The gains are determined by the difference between the fair values and the book values of the components sold. The book values of the components are determined by allocating the previous carrying amount between the sold components and retained components (e.g., residual interests) based on their relative fair values at the date of transfer. Therefore, everything else held constant, gains increase in the reported market value of the retained interests." (p. 5)

Since the financial crisis in 2008-2009, FASB has published new statements, SFAS 166 and SFAS 167, in relation to the impact of securitization activity during the financial crisis. SFAS 166 and 167 have provided stricter guidelines for entities that are set up and isolated for securitization activity (FASB 2009a; FASB 2009b). Essentially, a number of SPVs would be eliminated and this would force sponsoring companies to consolidate the SPV activities for financial reporting purposes. This is done to increase transparency in reporting disclosure and reduce the complexity of securitization activity (KPMG 2009).

To illustrate how gains increase in reported market value of the retained interest, we borrow some scenarios presented by Dechow, Myers, et al. (2010). In Exhibit 1, the cash flows related to the transaction for both scenarios are similar in order to show the isolated effects by changes in the fair value estimates, i.e. the discount rates used. In Scenario A, the firm raises funds through securitizing its receivables but reports no gain from the transaction. In Scenario B, everything is equal to Scenario A except the difference is that the firm reports a gain after evaluating the retained interest to be higher.

Scenario A - No Gain

The firm transfers the selected receivables to an SPV, who then splits the cash flow streams into either Tranche A or Tranche B. Tranche A includes 80 percent of the most senior cash flows and are sold to outside investors. In Tranche B, the remaining 20 percent is made up of the most subordinated cash flows and is transferred back to the firm, in the form of retained interest. Thus, the firm typically carries the default risk and prepayment risk of Tranche B. See Exhibit 2.

In this transaction, the firm receives cash of 21.79 from investors and subordinated receivables at a value of 3.08. This equals the carry value of the receivables sold (24.87) and no

gain is recorded. The fair value of the retained interest is based on a discount rate of 42.42%.

Exhibit 1
Scenario A: Securitizing - No Gain (Dechow, Myers, et al. 2010)

Balance Sheet			Year 0	Year 1	Year 2	Year 3
Retained Interest			3.08	2.39	1.40	0.00
Cash		3.08	0.00	2.00	4.00	6.00
Total Assets			**3.08**	**4.39**	**5.40**	**6.00**
Equity		3.08	3.08	3.08	3.08	3.08
Retained Earnings			0.00	1.31	2.32	2.92
Total Equity			**3.08**	**4.39**	**5.40**	**6.00**
Income Statement						
Interest Income				1.31	1.01	0.60
Interest Expense				0.00	0.00	0.00
Net Income				**1.31**	**1.01**	**0.60**
Total Income recognized from transaction						
Gain			0.00			
Interest Income			2.92			
			2.92			
Retained Interest Account						
Beg	3.08	2.39	1.40			
+ int	1.31	1.01	0.60			
-cash	2.00	2.00	2.00			
End	**2.39**	**1.40**	**0.00**			

Scenario B - Gain from Securitization

The firm follows the same procedures as in Scenario A but instead of using a discount rate of 42.42 percent, a selected discount rate of 10 percent is used to determine the fair value of the retained interest. This leads to a fair value of 4.97 compared to 3.08 in Scenario A. In order to determine the gain from securitization, we first add the value of the retained interest (4.97) to the value of the cash received for the receivables sold (21.79), giving us total proceeds of 26.76. The relative fair values of the two components will work as a reference to allocate the carry value of 24.87. The retained interest represents 19 percent (4.97/26.76) of the total proceeds, resulting in an allocated carry value proportion of 4.72 (0.19 x 24.87). By reducing the carry value of the receivables with the proportion related to the retained interest and by subtracting this remaining carry value from the cash received, a gain of 1.64 (21.79 - (24.87-4.72)) from securitization is recognized. Additionally, the fair value of the retained interest leads to an unrealized gain of 0.25 (4.97- 4.72) reported through Other Comprehensive Income. Although items in Other Comprehensive Income are unrealized, there is some expectation from stakeholders that these items will be realized in the future so they therefore hold some bearing on future expectations (Ahmed and Takeda 1995). At the same time, investors generally do not hold these items in high quality since they are unrealized and could change by the next reporting period (ibid.).

Finally, note the fact that the cash flows from retained interest are the same in both scenarios and it is only the timing of the income that is affected by the lower discount rate.

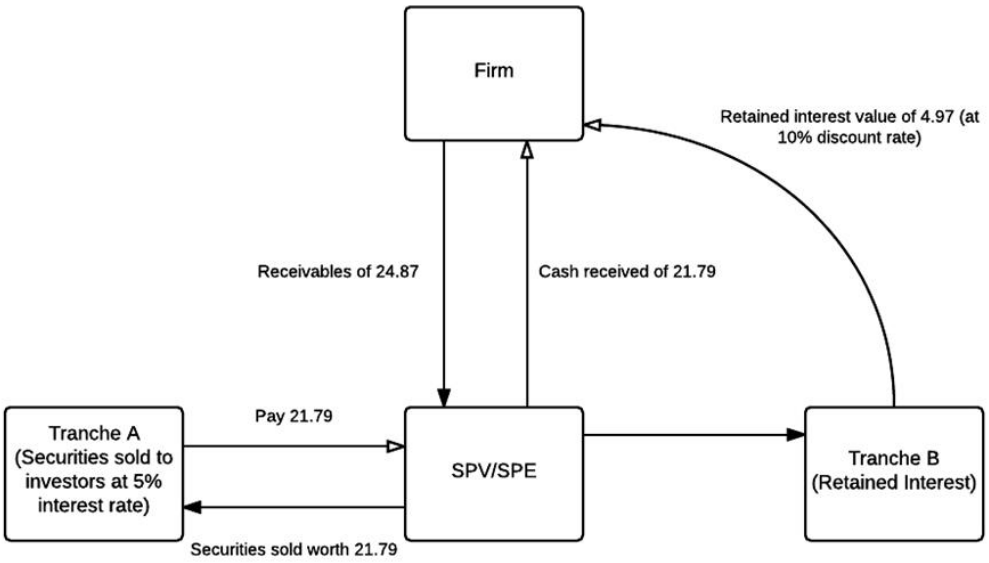
Exhibit 1 cont.
Scenario B: Securitizing - Recognize a Gain (Dechow, Myers, et al. 2010)

Balance Sheet			Year 0	Year 1	Year 2	Year 3
Retained Interest			4.97	3.47	1.82	0.00
Cash		3.08	0.00	2.00	4.00	6.00
Total Assets			**4.97**	**5.47**	**5.82**	**6.00**
Equity		3.08	3.08	3.08	3.08	3.08
Retained Earnings			1.89	2.39	2.74	2.92
Total Equity			**4.97**	**5.47**	**5.82**	**6.00**
Income Statement						
Interest Income				0.50	0.35	0.18
Gain on Securitization			1.64			
Fair Value Retained Interest			0.25			
Comprehensive Income			**1.89**	**0.50**	**0.35**	**0.18**
Total Income recognized from transaction						
Gain			1.64			
Fair Value Retained Interest			0.25			
Interest Income			1.03			
			2.92			
Retained Interest Account						
Beg	4.97	3.47	1.82			
+ int	0.50	0.35	0.18			
-cash	2.00	2.00	2.00			
End	**3.47**	**1.82**	**0.00**			

In Scenario A, all income is recognized as interest income over the years while a part of the income is front-loaded and recorded as a gain in Scenario B.

Exhibit 2

Diagram of simple securitization transaction (Dechow, Myers, et al. 2010)



2.1.1 Issues

Securitization offers a number of benefits when it comes to financial reporting. More specifically, the sale aspect of securitization offers many more benefits than secured borrowing does. The sale treatment offers what is termed as "off-balance sheet" financing. As stated by Dechow and Shakespeare (2009), leverage is lower since no loan is recorded on the balance sheet. First of all, by creating an SPV for the purpose of selling its receivables, a firm can effectively remove items from its balance sheet. This is possible since SPVs are established as a separate entity and therefore are not consolidated as part of the sponsor's financial statements (Gorton and Souleles 2007). Specifically, treating the SPV as a separate entity allows a sponsor to not only hide debt, but also to manage its earnings (Feng et al. 2009). In this sense, companies are able to affect the leverage ratio of the company. By not taking on new loans through secured borrowings or by going to a bank for another loan, the firm is able to appear healthier in terms of its financial position. Firms that utilize sale treatment or "gain on sale" will have lower leverage and therefore appear more liquid, less risky, more profitable and have stronger cash flows relative to a firm that classifies a transaction as a secured borrowing (Dechow and Shakespeare 2009). By lowering the leverage and increasing the liquidity of the firm, a company is able to "window-dress" the financial statements so as to appear better than expected.

Since the implementation of SFAS 166 and 167, the occurrence of a firm creating an SPV to securitize assets and further "window-dressing" the financial statements has been reduced but not eliminated. Going forward securitization transactions are more likely to occur with an independent third party due to this.

Dechow and Shakespeare (ibid.) note that most transactions are structured to meet the definition of sales treatment. Also, Barth and Taylor (2010) fill in with arguing that if the company is not seeking securitization gains the company is probably not involved in these transactions. Based on this, we could argue that the first step of management discretion in securitization relates to the management's ability to structure the transaction to meet the requirements for sales recognition. If unable to meet the requirements, the following issues that will be presented would be less relevant. If these notions by Dechow and Shakespeare (2009) and by Barth and Taylor (2010) hold, the receivables will still be on the balance sheet.

To that end, in a securitization transaction with sales treatment, Karaoglu (2005) addresses three different aspects of management discretion, namely timing, cherry-picking of receivables and fair value estimates. The timing refers simply to the management's discretion over when to make the transaction and when to recognize the income from securitization (Dechow and Shakespeare 2009).

The cherry-picking issue is rooted in a moral hazard problem since the receivables are "sold" to an SPV. A moral hazard exists whereby management faces incentives to lower credit standards since the firm no longer bears the full cost of defaults (Dechow, Myers, et al. 2010). This could lead to selection bias in choosing which assets to securitize as well since firms may want to sell those lower quality receivables. Like in the financial crisis, the use of originate-to-distribute policies by banks provided less incentive to acquire high quality assets (Schwarcz 2009; Laux and Leuz 2009). Further, the firm could suffer business strategy risk because the firm could lose liquidity if demand for the underlying asset slows down (Dechow, Myers, et al. 2010). Again, this is very similar to what occurred during the financial crisis when the demand for housing and restructuring of mortgages slowed (Schwarcz 2009; Laux and Leuz 2009). This moral hazard can translate into transparency issues between investors (both internal and external) and managers of the firm. To cope with this problem, the issuing firm often needs to retain a proportion of the receivables sold, known as the retained interest

described under **Securitization**. This proportion includes the most subordinated claims (Karaoglu 2005). Since the most risk is still on the balance sheet, Niu and Richardson (2006) question whether this transaction should be recognized as a sale when no real transfer of risk has occurred. They further challenge SFAS 140 that it follows a control and component approach compared to the risk and reward approach adopted by IAS 39. As their results suggest, the implicit recourse (an implied understanding that the sponsoring firm will cover the loss of an SPV in the event it should default) is not accounted for when determining gains from securitization. Since the adoption of SFAS 166 and 167, the implicit recourse issue should be improved as more firms will have to consolidate the SPVs in their financial statements

However, if cherry-picking with the purpose of changing the underlying risk seems to be controlled for, the size of reported gains could still be affected by cherry-picking receivables. As historical cost accounting is followed for loans receivables prior to the sales treatment, managers are able to select the receivables with the greatest difference between historical cost and fair value (Karaoglu 2005). Consequently, a higher reported gain from securitization will be recognized. If instead the securitized assets is measured at fair value accounting the gains from cherry-picking receivables would be significantly reduced as the changes in fair values would be reported in the net income along the way (Barth and Taylor 2010).

It is only the retained proportion or interest that is subject to fair value estimates. Accordingly, this leaves room for management discretion as no active market exists for the retained interest. Thus, the fair value is based on the management's assumption of cash flows, discount rates and default rates etc (Karaoglu 2005; Dechow, Myers, et al. 2010). Note that, even if it is only the retained interest that is subject to the management's fair value estimates, the scenarios in Exhibit 1 illustrate how the gain from securitization is strongly affected by a change of estimates for the retained interest.

2.2 CEO Hubris and Securitization

Before going into what it means in a business setting, it is important to have a rooted understanding of what hubris is. Merriam-Webster (2016) defines hubris as an "exaggerated pride or self-confidence". The first instance of research relating to hubris is proposed by Roll (1986) who developed the "hubris hypothesis", which has influenced later research in this field (Hribar and Yang 2015; Runesson and Samani 2015). The hubris hypothesis tries to explain why firms seem to over value strategic decision targets such as acquisitions. Further this hypothesis could be applied to other areas of business in which management has to determine the value of an item.

To compliment this idea of hubris, previous research in psychology has found evidence that, in general, individuals are naturally overconfident especially in terms of how they perform related to others (Larwood and Whittaker 1977). This is commonly exemplified in surveys where respondents are supposed to rate the degree of their skills in relation to others (i.e. driving ability, knowledge, athletic ability, etc). As Weinstein (1980) explained, the overconfidence one feels can be due to an illusion of control, to obscure reference points or limited tangible feedback, or to outcomes in which the individual is highly committed to or invested in. In this sense, hubris can be seen as irrational behavior (Hayward and Hambrick 1997; Runesson and Samani 2015). Irrational behavior like this counters the tenets of the efficient market hypothesis which relies upon the assumptions that markets are rational, adjust to new data effectively and are liquid (Malkiel and Fama 1970). Behavioral decision theory (BDT) and further asset securitization oppose the efficient market hypothesis because BDT assumes that market participants do not always act in a rational manner and that an asymmetry of

information exists in illiquid markets (Simon 1959) such as in securities that rely on fair value estimates.

Leading up to the financial crisis, increased credit expansion and market liquidity led to an irrational sense of overconfidence in the marketplace which only fueled the downward spiral that asset prices experienced in the aftermath (Avgouleas 2009; Laux and Leuz 2009). In addition to this overconfidence, Avgouleas (2009) states that there was a belief among market participants that this type of environment would persist forever, which further exemplifies this irrational overconfidence. As was seen in the aftermath of the financial crisis, this overconfidence or hubris can lead to financial misrepresentation. Some may even argue that this misrepresentation is a result of earnings management in which managers make active decisions to adjust a firm's earnings for specific purpose (Barth and Taylor 2010; Dechow and Shakespeare 2009; Dechow, Myers, et al. 2010; Feng et al. 2009; Karaoglu 2005). Predominately, research has focused on the manager's incentives to opportunistically manipulate or manage earnings to meet a desired outcome. The idea of actively acting opportunistically or management opportunism plays in contrast to the more unintentional inclination that is management hubris (Runesson and Samani 2015). As Chen (2010) states, "financial misreporting may result not simply from a desire of CEOs to inflate earnings for self-benefit but from misjudgment of the true performance" (p. 202).

2.3 Hubris and CEO Disclosures

In order to gauge a CEO's personality traits, research has to find a way that is discernible and concrete. Further, it has to be able to quantify it in order to use it in mathematical models. Prior research has looked at the hubris of CEOs from a third party's perspective by looking at how the CEO is described in articles and news clippings (Brennan and Conroy 2013; Lawrence et al. 2011; Hayward and Hambrick 1997). Others have used textual analysis of disclosures to gain some kind of tone or personality (Runesson and Samani 2015; Brennan and Conroy 2013; Amernic and Craig 2011). There is a debate as to which disclosures should be analyzed and how relevant the information they contain is, especially regarding management's personality or outlook. Some researchers reviewed the Management Discusson & Analysis sections of a company's 10-K filings (Davis and Tama-Sweet 2012) as this provides readers with comments from management as to risks and opportunities with continuing operations. These sections are audited and legally binding so a criticism of using these sections is that they may not actually provide as much qualitative information to investors since the firm could be liable for any misrepresentation.

Another source of management tone is by looking through the CEO letter to shareholders from the annual report (Brennan and Craig 2012; McConnell et al. 1986). These letters are unaudited so management can speak freely to past performance and future risks as well as opportunities (Hooghiemstra 2010). In a study by Amernic and Craig (2011), it is shown how the linguistic techniques of CEOs could prove to be useful in extrapolating future strategic performance and understanding their mindsets. For instance, Brennan and Conroy (2013) find evidence of hubristic tones in CEO letters for a bank in the wake of financial collapse. A criticism of CEO letters, though, is that they may not solely be written by the CEO (Amernic and Craig 2011). For that reason, it could be difficult to judge exactly what the true personality of the CEO is. Even though the letter may not exclusively be written by the CEO, it still provides a way to measure the "tone at the top" (Amernic, Craig, and Tourish 2010) and its leadership (Palmer et al. 2004; Prasad and Mir 2002). For the purpose of this paper, the term CEO hubris also refers to the "tone at the top"-reasoning.

3 Hypotheses

Li and Tang (2010) predict that "CEO hubris is positively related to firm risk taking" and find empirical evidence for the same. In particular, the results suggest that the positive relationship between CEO hubris and firm risk taking is further supported if managerial discretion is stronger. This is because stronger managerial discretion offers more opportunities to create misevaluations. Other studies also prove that the more discretion managers have at their disposal, the more impact on a firm they have (Crossland and Hambrick 2007; Finkelstein and Hambrick 1990). This reasoning would predict that CEOs with hubris that engage in securitization could take on more risks by the use of their discretionary tools in hand. Further, research suggests that overconfident CEOs do not foresee the risks and uncertainties exposed to the firm (Kahneman and Lovallo 1993; Sitkin and Pablo 1992), and are overvaluing strategic initiatives (Roll 1986; Hayward and Hambrick 1997). In the presence of overly optimistic management forecasts, this trait appears once again (Hribar and Yang 2015). In regards to securitization, these discoveries suggest that firms led by a CEO with hubris would report a larger gain from securitization compared to others. Firstly, the securitization transaction offers three levels of managerial discretion and consequently increases the likelihood for risk exposure if CEO hubris is prevalent (Li and Tang 2010). Secondly, the fair value estimates open the door for managerial misjudgment since top executives with hubris tend to have an unduly optimistic outlook of future cash flows (Ben-David et al. 2007), to underrate the risks exposed to the firm (March and Shapira 1987) and to unintentionally report initial misstatements (Schrand and Zechman 2012). This would predict an overly optimistic valuation of the retained interest, which is being recorded through profit and loss as a gain from securitization.

Hypothesis I: CEOs with more hubristic tone are more likely to report larger gains from securitizations.

As noted by Karaoglu (2005), managers are also able to affect the size of the reported gain by selecting receivables to securitize with a market value exceeding current carrying value. In order to separate out the effects of cherry-picking from the valuation of the retained interest, Dechow, Myers, et al. (2010) look into the input data (i.e. discount rate) used for evaluation. Surprisingly, they find a positive correlation between higher discount rates and larger gains. Refer to Exhibit 1, the most logical scenario, all else equal, would be a lower discount rate associated with larger gains. Even if Dechow, Myers, et al. (ibid.) highlight the fact that discount rates are affected by economic factors and management discretion, they did not show a significant explanation in their results. However, as this paper works under the hubris hypothesis that manager passively and unintentionally misjudge evaluations (Chen 2010) the logic relationship is still predictable. Further, the discount rate can be seen as an extension of the management risk taking as it is a discretionary tool used by management to measure underlying risks associated with the asset. Research has also shown that overconfident managers are using too low discount rate when valuing risky cash flows (Hackbarth 2008; Gervais et al. 2007). As the retained portion includes the most subordinated cash flows, we assume that firms with more CEO hubris are using lower discount rates in their evaluation of the retained interest.

Hypothesis II: CEOs with more hubristic tone are more likely to use lower discount rates during fair value estimates.

4 Research Methods and Data collection

4.1 Sample Selection

For the research method, this study looks at US banks, specifically bank holding companies (BHC) with the SIC 6020, from 2010-2014. This study spotlights US banks due to the reliability of data from financial statement reporting requirements enforced by the Federal Reserve and the Securities and Exchange Commission. The time period in focus is chosen in order to look at more recent data and at the same time not have the data skewed by the crisis. It would be remiss to say that the crisis may not have any influence on the data but the purpose is to minimalize the effects as best as possible. With this time period, this led to a potential sample size of 2235 firm-year observations based on 447 companies under this SIC code. All firms have to either be listed on the New York Stock Exchange (NYSE) or Nasdaq. Financial data is collected from the Y-9C schedules publicized on the Federal Reserve of Chicago website. Although vast amounts of bank specific data could be collected from the website, discount rates have to be collected from each BHC's annual report or 10-K filing. After eliminating firm-year observations based on discount rate disclosures and shareholder letter availability, the sample size is reduced to 254 firm-year observations. Table 1, provides more detailed information regarding the composition of this sample.

Table 1: Sample Composition

Total Assets	2010	2011	2012	2013	2014	Total	Indiv. Firms
>$1 Trillion	2	3	3	3	3	14	3
<$1 Trillion, >$100 Billion	4	6	7	8	7	32	8
<$100 Billion, >$10 Billion	11	12	20	20	22	85	24
<$10 Billion, >$1 Billion	20	21	30	28	24	123	34
Total	37	42	60	59	56	254	69

Notes: This table displays the sample composition; SIC 6020.

From the collection, banks either list a weighted average rate, list rates for each type of security, or do not disclose a discount rate. In the case of separate discount rates, a weighted average is used. This could be an issue in terms of having the true discount rate applied to each securitization but this is highly dependent on the companies disclosing this information, which is not always the case. Dechow, Myers, et al. (2010) make mention of this issue of using weighted averages and also state that "...lack of detailed disclosures about the discount rate used in specific securitization transactions limits our empirical analyses". This notion should of course be kept in mind when interpreting the results of the study but in this kind of research we argue that the weighted average is the most suitable way to be able to compare companies with the data available at hand. It should also be mentioned that the weighted average of discount rates does hinder in determining the exact level of management judgement on an individual transaction basis. But while the exact impact of hubris in regards to management's judgements will be difficult to conclude, the results would serve as a general indicator of whether or not hubris influences financial reporting behavior for securitization.

4.2 Models

OLS continuous linear regression models[1] are used to test the hypotheses. To test the first hypothesis, Model I attempts to identify a link between hubris and the size of securitization gains, in which the more hubristic tone from the CEO letters translates into a larger reported gain in the financial statements. Recall that a hubristic CEO tends to be over-optimistic and may take on undue risk therein by reporting a higher value of the retained interest than should be reported; therefore, incurring a gain. Control variables are added to the model to account for factors that could affect this relationship. These controls are explained later on.

The second hypothesis builds off of the correlation implied in the first hypothesis and further delves into the input data that management could use to achieve the desired gain. To test the hypothesis, the study needs to address a form of management discretion. From an accounting perspective, the study focuses on the discount rate used in the fair value evaluation. For this purpose, Model II is designed to see how the discount rates are connected to CEO hubris and the gains from securitization themselves. It should also be considered that the size of the gain could be an explaining factor in this model since prior research has found evidence of a positive relationship between gains from securitization and discount rates (Dechow, Myers, et al. 2010). Discount rates could also be influenced by economic factors. For that reason, we have included some economic controls (described later on) to account for this influence. In a way these models are complementary to each other and thus the second model acts as a validation test of this theory as well. Versions of these complementary models are previously used by Dechow, Myers, et al. (ibid.) to examine the fair value aspect of securitization including input data components.

Model I:

$$\text{Gains}_{i,t} = \alpha + \beta_1 Hubris_{i,t} + \beta_2 Tenure_{i,t} + \beta_3 Shares_{i,t} + \beta_4 Turnover_{i,t} + \beta_5 PSCF_{i,t} + \beta_6 PreSecInc_{i,t} + \beta_7 ROE_{i,t} + \beta_8 Outsiders_{i,t} + \beta_9 Audit_{i,t} + \beta_{10} Ind\_Gain_{i,t} + \beta_{11} P\_Vol_{i,t} + \varepsilon_{i,t}$$

Model II:

$$\text{Dis\_Rates}_{i,t} = \alpha + \beta_1 Gains_{i,t} + \beta_2 Hubris_{i,t} + \beta_3 Tenure_{i,t} + \beta_4 Shares_{i,t} + \beta_5 Turnover_{i,t} + \beta_6 PSCF_{i,t} \beta_7 PreSecInc_{i,t} + \beta_8 ROE_{i,t} + \beta_9 Outsiders_{i,t} + \beta_{10} Audit_{i,t} + \beta_{11} Ind\_Gain_{i,t} + \beta_{12} P\_Vol_{i,t} + \varepsilon_{i,t}$$

In order to control for confounding factors to CEO hubris and gains from securitization, a number of variables are added to the models, see Table 2 for precise definitions.

The first group of variables relates to the power of the CEO. In case that the hubris is prompted by the attained power of the CEO (Owen and Davidson 2009), power such as a relative length of time in the position as CEO, characteristics of the CEO are included. These are CEO tenure, CEO ownership and CEO turnover. In previous research, these

[1] All models are tested in STATA 14. Due to the use of panel data, robust (Cameron and Miller 2015) and Rogers standard error (ibid.; Petersen 2009) measures are used to control for heteroskedasticity.

characteristics are frequently recurring as proxies for CEO power to test for incentives (Ali and Zhang 2015; Ghosh and Moon 2010; Wells 2002) but also to verify that the measure of CEO hubris is not a mirror of CEO power (Runesson and Samani 2015). These variables are collected from the firm's annual reports.

Table 2: Descriptions of Variables

Variable	Description	Source
Gains and Discount rate variables:		
$\text{Gains}_{i,t}$	The gains (losses) from securitization scaled by prior year equity for bank i at time t.	Federal Reserves, Chicago Branch
$\text{Dis\_Rates}_{i,t}$	Weighted average discount rate for bank i at time t.	10-K form
CEO hubris measure:		
$\text{Hubris}_{i,t}$	Consists of 9 Diction variables for bank i at time t. See Table 3.	
CEO attributes:		
$\text{Tenure}_{i,t}$	Tenure measures the number of years that he/she has held the position as CEO for bank i at time t.	Annual report
$\text{Shares}_{i,t}$	CEO share ownership as a percentage of outstanding common shares for bank i at time t.	Annual report
$\text{Turnover}_{i,t}$	Turnover is a dummy variable putting a tick of "1" when there is a change of the CEO during that year and "0" otherwise. This is for bank i at time t.	Annual report
Firm performance attributes:		
$\text{PSCF}_{i,t}$ (PreSecuritized Cash Flow)	Cash from operations + Cash from investing - Proceeds from securitization, for bank i at time t. All of this is divided by prior year equity.	DS: WC04860, DS: WC04870, Annual report
$\text{PreSecInc}_{i,t}$ (PreSecuritized Income)	Net income - Gains, for bank i at time t. All of this is divided by prior year equity.	Federal Reserves, Chicago Branch
$\text{ROE}_{i,t}$	Return on equity, calculated as Net income / Prior year equity *100, for bank i at time t.	Federal Reserves, Chicago Branch
Corporate governance variables:		
$\text{Outsiders}_{i,t}$	The percentage of independent directors of the board for bank i at time t.	Annual report
$\text{Audit}_{i,t}$	Number of announced financial experts in the audit committee for bank i at time t.	Annual report
Other control variables:		
$\text{Ind\_Gain}_{i,t}$ (Industry Gain)	The sum of all gains of sampled companies divided by sum of prior year equity of sampled firms. This is calculated for each year t.	Federal Reserves, Chicago Branch
$\text{P\_Vol}_{i,t}$ (Price Volatility)	"A measure of stock's average annual price movement to a high and low from a mean price for each year." Thomson Reuter's Datastream. This is for bank i at time t.	DS: WC08806

Notes: Table 2 shows descriptions of all variables included in the models; DS is an abbreviation for Thomson Reuter's Datastream

The second group of control variables captures the performance of the firm. As the firm's performance can be reflected in the tone of the CEO communication (Huang et al. 2013), proxies for performance are needed. It is not only for this reason that the measures of performance are added. Even if this paper works under the hubris hypothesis, it would be remiss to disregard the notion that financial incentives to report larger gains may prevail. In the model by Dechow, Myers, et al. (2010) pre-securitized income and pre-securitized free cash flow are included as measures of performance for testing management's incentives to manage earnings. Accordingly, these two factors are added and deflated by prior year equity since assets for banks can be quite large and revenue is an inconsistent measure for banks (ibid.; Laux and Leuz 2009). Since regulators are also very keen on equity/capital ratios following the crisis, equity could provide a consistently audited measure that is also more manageable

than assets. In addition, ROE is added as mean of measuring the performance of the firm and controlling for its potential impact on the tone in the CEO letters.

The third field of variables relates to corporate governance structures. These structures may trigger a hubris environment and consequently affecting the "tone at the top". More specifically, the existence of a financial expert on the audit committee and the number of outside directors in the board are tested since too minimal constraints on a leader could favor hubris development (Owen and Davidson 2009). These are also two proxies previously used in the leadership attribute and accounting research to control for the influence by corporate governance (Schrand and Zechman 2012). In theory, these measures should act as a check on the CEO's power and influence over the company. These measures are also collected from the annual reports of each firm.

Finally, an industry gain variable and a price volatility measure are added to reflect the business environment and the receivable cash flow volatility respectively. The industry gain is calculated in accordance with the definition by Dechow, Myers, et al. (2010), that is, the median level of securitization gains scaled by equity by year. Price volatility is the average annual price fluctuation from mean price in a year and is collected from Thomson Reuters Datastream. This measure is merely a proxy to gauge the residual risk from securitization and to measure the volatility of receivable cash flows. The risk of the most subordinated cash flow should be reflected in the market volatility of equity if investors have sufficient information available. This means that high volatility would predict more risky loans resulting in higher discount rates applied in determining fair value and consequently correlate with smaller gains (ibid.). On the other hand, the fact that residual risk is higher could also imply that receivables sold to investors are more risky. More risky receivables must be more likely to be written down to a lower book value, resulting in larger gains from cherry-picking of receivables. This would predict a reverse correlation between market volatility and size of the gain.

4.3 Hubris Measurement

CEO hubris is measured using the textual analysis software DICTION. This software is used in previous research to measure tones in corporate disclosures (Cho et al. 2010; Yuthas et al. 2002) and CEO letters (Patelli and Pedrini 2015). For this text analysis, CEO letters to shareholders are collected from each BHC's annual reports and placed into text files. From DICTION, the letters are scored on a number of different scales of personal attributes or traits.

The definition of hubris is based on the psychological diagnosis of the hubris syndrome as developed by Owen and Davidson (2009). In psychological terms, it is comprised of criteria of the Narcissistic Personality Disorder (NPD). This narcissism, as a part of the hubris phenomenon, has also been identified by analyzing CEO letters (Amernic and Craig 2011). For instance, it is argued that exaggerations of unlimited success (NPD 1) and self importance (NPD 2) in CEO-speak could serve as indicative of narcissism (Amernic and Craig 2007). In a similar vein, Runesson and Samani (2015) expect this to be applicable for hubris too. A similar expectation is made for this paper as well. In order to measure these psychological parameters of hubris, Runesson and Samani use various textual variables from DICTION, to represent the respective parameters of the hubris syndrome, tabulated in Table 3. Drawing on that pre-tested measurement, this paper adopts the exact definition used in their work. The definition is as follows:

Hubris = Accomplishment + Aggression + Centrality - Concreteness + Exclusion - Passivity + Praise + Satisfaction + Self-reference

Table 3: Hubris syndrome and DICTION variables

Column A: Proposed criteria for hubris syndrome, and their closeness to diagnostic traits of cluster B personality disorders in DSM-IV (Owen and Davidson 2009)	*Column B: Proposed DICTION variables for the hubris syndrome (Runesson and Samani 2015)*	
	High	*Low*
1. A narcissistic propensity to see their world primarily as an arena in which to exercise power and seek glory; NPD 6	Accomplishment, Praise	
2. A predisposition to take actions which seem likely to cast, the individual in a good light — i.e. in order to enhance image; NPD 1	Accomplishment	
3. A disproportionate concern with image and presentation; NPD 3	Accomplishment	
4. A messianic manner of talking about current activities and a tendency to exaltation; NPD 2	Accomplishment, Praise	Concreteness
5. An identification with the nation, or organization to the extent that the individual regards his/her outlook,and interests as identical; (unique)	Accomplishment, Centrality, Praise, Self-reference	Concreteness
6. A tendency to speak in the third person or use the royal 'we'; (unique)	Self-reference	
7. Excessive confidence in the individual's own judgment and contempt for the advice or criticism of others; NPD 9	Self-reference	
8. Exaggerated self-belief, bordering on a sense of omnipotence, in what they personally can achieve; NPD 1 and 2 combined	Satisfaction, Self reference	
9. A belief that rather than being accountable to the mundane court of colleagues or public opinion, the court to which they answer is:History or God; NPD.3	Aggression	Passivity
10. An unshakable belief that in that court they will be vindicated; (unique)	Accomplishment, Centrality, Praise, Satisfaction	
11. Loss of contact with reality; often associated with progressive isolation; APD 3 and 5	Exclusion	Concreteness
12. Restlessness, recklessness and impulsiveness; (unique)	Aggression	Passivity
13. A tendency to allow their 'broad vision', about the moral rectitude of a proposed course, to obviate the need to considerpracticality, cost or outcomes; (unique)	Accomplishment, Praise, Self-reference	Concreteness
14. Hubristic incompetence, where things go wrong because too much self-confidence has led the leader not to worry about the nuts and bolts of policy; HPD 5		Concreteness

Notes:Table 3 shows the features of hubris (Column A) together with matched, DICTION variables (Column B); Variables are further predicted to generate a high or low score on the hubris meaurement by Runesson and Samani (2015).

As an example, the Self-reference variable measures all first-person references (I, I'll, I'm, my and mine etc.) and is appearing in 5 of the 14 parameters of hubris. In the 7th parameter, Self-reference is used as a way to capture "excessive confidence in individual's own judgment and contempt for the advice or criticism of others" (Owen and Davidson 2009). Note that, for concreteness and passivity, the lower the score is the more it contributes to the overall hubris measurement. In this sample, Hubris ranges from -46.27 to 62.08, unwinsorized.

To test the validity of this measurement, an untabulated regression is ran in which CEO hubris acts as a dependent variable. The hubris is predicted by all CEO, performance, and corporate governance variables that are presented in the section, **Models**. The results suggest that this hubris measurement is significant at the 0.1 significance level correlating with Tenure, Outsiders, PreSecInc and ROE. In controlling for heteroskedasticity and robustness, the Shares is also significant. In contrast to the validation test by Runesson and Samani (2015), this test indicates that the definition of CEO hubris captures attributes of CEO power and does not solely reflect hubris. To cope with this, a modified definition of CEO hubris is also tested and included in additional models. The new definition and results are disclosed in the **Additional Analysis**.

Another limitation of this measurement is its inability to separate out the implications from the phenomenon called tone management. Tone management is when managers structure their qualitative text to diverge from concurrent quantitative data (Huang et al. 2013). For instance, Huang et al. (ibid.), find that abnormal positive tone leads to an immediate positive market response which then reverses itself in later quarters. In their reasoning, management may be strategically using its communication platforms to gain a certain return on their personal wealth. These qualitative distortions may be embedded within the hubris measure and could possibly lead to false underlying traits.

5 Results and Analysis

5.1 Descriptive Statistics

Table 4, provides a descriptive summary of all variables. The dependent variables Gains and Dis_Rates, where the former one is scaled by prior year equity, have a mean of 1.13 and 5.99 percent respectively. However, the measures are ranging widely, from -3.8% to 19.9% for Gains and from 1.2% to 22.5% for Discount rate.

The Hubris scores are on average 24.9 with range from -10.56 to 59.64. With a median of 25.1, we can see that the mean and the median are quite close so it could be construed that the sample is not skewed and normal.

In order for more robustness in the testing, Gains, Dis_Rates and the Hubris measurement were winsorized at 1st and 99th percentile, in order to minimize the effects of outliers within the data set.

In terms of CEO characteristics as controls for CEO power, the average CEO has held his or her position around nine years and has a shareholder ownership of 1.52 percent. The third CEO variable is a dummy variable of CEO turnover, with a mean of 6.3%. The result means that a successor took over the position as CEO in 6.3% of all firm year observations.

When it comes to the corporate governance variables, the typical board consists, on average, of 84 percent outside directors and the audit committee consists of almost 2 financial experts on average. The mean of the performance related variables ROE, Pre-securitised income and Pre-securitized cash flow, are 7.84%, 22% and 1.56% respectively. At the first glance, it may look illogical with an average of pre-securitized income that is higher than

the average ROE. Note that ROE is also affected by losses of securitization leading to lower earnings and returns. ROE is ranging from -42.91% to 34.59%. Finally, over the five years period, the average Industry Gain is 1.59% and the Price Volatility fluctuates on average 25.46% from its yearly mean price.

Table 4: Descriptive statistics

Variable	**Mean**	**Std. Dev.**	**Min.**	**Max.**	**N**
Dis_Rates	0.059	0.043	0.012	0.225	254
Gains	0.011	0.032	-0.038	0.199	254
Hubris	24.899	14.454	-10.56	59.64	254
Tenure	9.319	8.976	0	42	254
Shares	0.015	0.029	0	0.19	254
Turnover	0.063	0.243	0	1	254
Audit	1.969	1.228	0	7	254
Outsiders	0.842	0.096	0.333	0.944	254
ROE	0.078	0.064	-0.429	0.346	254
PreSecInc	0.22	0.322	-0.723	3.057	254
PSCF	0.016	1.511	-13.304	6.336	253
P_Vol	25.464	6.536	12.66	47.5	248
Ind_Gain	0.016	0.008	0.006	0.031	254

5.2 Correlations Analysis

Table 5, examines the relationships between all the variables by testing for Pearson's correlations. Consistent with our prediction, a negative correlation between discount rate and gains is found. However, the correlation is weak and not significant at the 5 percent level. This negative correlation is consistent with accounting theory but due to the weak significance, the study cannot rule out the implications found by Dechow, Myers, et al. (2010) where discount rates and gains are positively correlated.

Other variables of interest are P_Vol and Dis_Rates. The positive and significant correlation between the two is expected and predicted by theory (Barth, Landsman, et al. 1995) since price volatility is supposed to be a measure of risk for a certain firm. Similarly, discount rates are measures of risk especially when determining cash flows. Higher price volatility should lead to higher discount rates and/or vice versa. This correlation is however limited to 0.23.

Since price volatility is a measure of perceived risk by the market and discount rates act as a management's perception of risk, a higher correlation would indicate that there is less information asymmetry, under the assumption that management and market perceptions are congruent. In regards to the hubris hypothesis in which the perceptions are distorted, a stronger correlation could then indicate that the discount rate applied reflects the same risks as perceived in the market and that managers do not underestimate risks or neglect risky cash flows.

Finally, the correlations between hubris and the dependent variables, gains and discount rates, are positive however not significant at the 0.05 level. Due to the low significance and near zero correlations, it is suggestive that hubris is not explaining larger gains from securitization by the use of lower estimations of discount rates.

In addition, the variables are tested for multicollinearity. Two tests are conducted including analyzing the variance inflation factors (VIF) of the independent variables and using the *collin* function in STATA. When looking at VIFs, a general rule of thumb says that a VIF over 10 gives cause for concern in terms of multicollinearity (Farrar and Glauber 1967). Accordingly, all the independent variables in both models are tested and none exceed a value of 2. The *collin* function also pulls in the VIF values for the independent variables and also calculates a condition index for each variable. A general rule for this measure says that a condition number of 15 could mean that multicollinearity is a concern. If the condition number exceeds 30, then multicollinearity is a serious concern (ibid.). After running the *collin* function, no variable is found to have a condition number greater than 3. Together, these two measures help to assure that multicollinearity is not a concern in the models.

5.3 Hubris and Gains from securitization

Tabulated results from Model I are shown in Table 6, Column 1. The model tests if gains from securitization are larger when greater CEO hubris is prevalent. Out of all independent variables tested in this model, two are significant. The proxy for CEO hubris is not one of those. This means that no significant relationship between larger gains from securitization and hubristic tones in the CEO letter is found. Instead, the ROE and pre-securitized cash flow, both proxies for firm performance, show significant results. The results may be interpreted as there exist economic incentives to report larger gains from securitization when level of pre-securitized cash flow is lower. As this incentive-based assumption is beyond the scope of this paper, no further discussion is undertaken. These two variables are mainly included for the assumption that firm performance could be reflected in CEO communication and as a result distort the measure of hubris. Since the measure of hubris is not significant, these findings do not support Hypothesis 1.

However, the lack of evidence for Hypothesis I does not mean that the possibility of its correctness should be ruled out.

Firstly, the validity of hubris measurement in terms of the incorporation of certain DICTION variables is arguable. The measurement is not widely tested and the DICTION variables are to some degree subjectively selected even though they are motivated by Runesson and Samani (2015). Other variables included in the DICTION software could further enhance the hubris metric. More testing and research using and improving upon this metric could further attest to its significance.

Secondly, we previously argue as Amernic, Craig, and Tourish (2010) did, that the CEO-letter acts as a proxy for measuring the tone at the top. However, the distance between the tone at the top and the preparer of the financial statements could be farther in practice than is expected. In other words, the CEO-letters may not be an accurate source to capture hubris if the preparers of financial statements are neither a part of nor influenced by the tone at the top.

Thirdly, Karaoglu (2005) highlights the fact that the size of the gains are also affected by cherry picking of receivables. This would also explain the inconsistency of our predictions and results, as the model is not able to separate out this effect, due to the lack of inside information required.

5.4 Hubris and Discount rates

Table 6, Column 2 displays the results from Model II. The results suggest that there is no significant association between hubristic CEOs and discount rates. This may be interpreted

Table 5: Cross-correlation table

Variables	Dis_Rates	Gains	Hubris	Tenure	Shares	Turnover	Audit	Outsiders	ROE	PreSecInc	PSCF	P_Vol	Ind_Gain
Dis_Rates	1.000												
Gains	-0.061	1.000											
	(0.335)												
Hubris	0.019	0.083	1.000										
	(0.768)	(0.189)											
Tenure	-0.046	-0.051	**-0.206**	1.000									
	(0.466)	(0.416)	**(0.001)**										
Shares	**-0.154**	-0.020	-0.079	**0.192**	1.000								
	(0.014)	(0.748)	(0.212)	**(0.002)**									
Turnover	0.037	-0.052	**0.137**	**-0.262**	-0.091	1.000							
	(0.555)	(0.406)	**(0.029)**	**(0.000)**	(0.146)								
Audit	0.040	-0.038	0.050	0.022	-0.062	**0.165**	1.000						
	(0.522)	(0.550)	(0.426)	(0.726)	(0.322)	**(0.008)**							
Outsiders	**0.144**	0.032	-0.033	**-0.288**	**-0.448**	-0.020	-0.054	1.000					
	(0.022)	(0.608)	(0.596)	**(0.000)**	**(0.000)**	(0.747)	(0.388)						
ROE	**-0.110**	0.050	0.033	**0.158**	0.065	**-0.270**	-0.007	0.031	1.000				
	(0.081)	(0.431)	(0.606)	**(0.012)**	(0.300)	**(0.000)**	(0.911)	(0.625)					
PreSecInc	-0.088	**-0.129**	**-0.168**	**0.110**	0.009	**-0.112**	-0.007	0.078	**0.458**	1.000			
	(0.163)	**(0.039)**	**(0.007)**	**(0.080)**	(0.882)	**(0.074)**	(0.908)	(0.217)	**(0.000)**				
PSCF	0.100	**-0.543**	-0.024	-0.035	0.047	0.048	**0.142**	-0.037	**0.121**	**0.135**	1.000		
	(0.111)	**(0.000)**	(0.709)	(0.576)	(0.461)	(0.447)	**(0.024)**	(0.558)	**(0.056)**	**(0.032)**			
P_Vol	**0.231**	0.073	0.102	**-0.288**	-0.067	0.041	0.087	0.020	**-0.358**	**-0.301**	0.018	1.000	
	(0.000)	(0.252)	(0.108)	**(0.000)**	(0.297)	(0.522)	(0.172)	(0.750)	**(0.000)**	**(0.000)**	(0.777)		
Ind_Gain	0.055	**0.120**	-0.032	-0.043	-0.069	0.019	-0.038	0.080	-0.099	**-0.110**	-0.097	**0.178**	1.000
	(0.387)	**(0.056)**	(0.610)	(0.491)	(0.272)	(0.757)	(0.545)	(0.202)	(0.117)	**(0.080)**	(0.125)	**(0.005)**	

Bolded values are significant at the 0.1 level or better

Table 6: Regression table

	(1) Gains	(2) Dis_Rates	(3) Gains	(4) Dis_Rates	(5) Gains	(6) Dis_Rates
Hubris	0.0000690	0.0000647				
	(0.000162)	(0.000267)				
Tenure	-0.000234	0.000553	-0.000242	0.000559	-0.000240	0.000564
	(0.000217)	(0.000636)	(0.000206)	(0.000655)	(0.000208)	(0.000675)
Shares	0.0317	-0.158	0.0305	-0.156	0.0357	-0.144
	(0.0486)	(0.110)	(0.0476)	(0.106)	(0.0469)	(0.112)
Turnover	-0.00167	0.00675	-0.00171	0.00622	-0.00134	0.00692
	(0.00510)	(0.0133)	(0.00526)	(0.0134)	(0.00525)	(0.0128)
Audit	0.00116	0.000464	0.00113	0.000399	0.00110	0.000329
	(0.00143)	(0.00319)	(0.00143)	(0.00322)	(0.00146)	(0.00321)
Outsiders	0.00347	0.0656	0.00273	0.0657	0.00349	0.0676
	(0.0325)	(0.0482)	(0.0315)	(0.0470)	(0.0312)	(0.0469)
ROE	0.106*	-0.00210	0.107*	-0.00487	0.105*	-0.00964
	(0.0561)	(0.0523)	(0.0570)	(0.0496)	(0.0594)	(0.0483)
PreSecInc	-0.0105	-0.00465	-0.0108	-0.00450	-0.0109	-0.00473
	(0.00741)	(0.00380)	(0.00747)	(0.00327)	(0.00771)	(0.00299)
PSCF	-0.0120***	0.00280	-0.0120***	0.00283	-0.0120***	0.00279
	(0.00347)	(0.00300)	(0.00347)	(0.00298)	(0.00346)	(0.00294)
P_Vol	0.000456	0.00153**	0.000445	0.00150**	0.000464	0.00154**
	(0.000414)	(0.000622)	(0.000425)	(0.000613)	(0.000396)	(0.000614)
Ind_Gain	0.249	0.167	0.247	0.170	0.245	0.167
	(0.156)	(0.279)	(0.157)	(0.280)	(0.154)	(0.282)
Gains		-0.0469		-0.0482		-0.0523
		(0.117)		(0.118)		(0.115)
DV_Hubris			0.00198	0.00391		
			(0.00395)	(0.00696)		
HubAlt					0.000140	0.000309
					(0.000207)	(0.000316)
Observations	247	247	247	247	247	247
Adjusted R^2	0.317	0.062	0.317	0.064	0.319	0.068

Robust standard errors in parentheses

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

as the underlying personality traits of hubris, the more passive side of decision-making, is not explaining the choices of discount rates applied. In particular, more CEO hubris does not tend to lead to lower discount rates being used in fair value estimations. On the other hand, the more active decision-making assumption, that managers first decide on the size of the gain and then actively pick a discount rate to achieve that desired outcome, is not supported by the results either. If this notion by Dechow, Myers, et al. (2010) is the case, then Model II would show a significant relationship between discount rates and gains. Dechow, Myers, et al. (ibid.) found a surprisingly positive correlation between discount rates and gains as discussed under Hypotheses 2, however this paper finds no such relationship.

It is important to not dismiss the correctness of Hypothesis II, even though the results tend to support such conclusion to be drawn, without further consideration. The economics and the relevance of other input data are both factors that may explain the unpredicted results of this test.

In first looking at the economics, price volatility is the only one variable that shows a significant relationship with discount rates. This is significant at the 0.05 level. As mentioned before, price volatility and discount rates are both measures that capture the perceived risk. One is a manager's perception and the other is the market's perception. More specifically, the results suggest that if the price volatility increases by one percentage the discount rate increases by 0.15 percentage. This relationship may be interpreted as management's and the market's perception of risk are rather congruent. This congruency could be due to the fact that the market is accurately identifying the underlying risk of each company or that managers do not underestimate the risks and base their evaluations in a similar way as the market. A third option could be the case that managers are choosing market rates in order to evaluate these assets. These arguments are against the hubris hypothesis or that hubristic CEOs use lower discount rates. Another economic aspect that could be explaining an overall effect when it comes to discounts rates is the nature of the low interest rate environment that has been seen in the US market. In response to the financial crisis, the US Federal Reserve has used quantitative easing to artificially push interest rates down. Due to this low rate environment, input data such as discount rates could be abnormally low to what they would be under normal conditions.

In terms of input data, other factors could be playing a more significant role in the valuation process. Other inputs such as default rates and prepayment rates are considered in the fair value calculation but due to the lack of data and consistency in which it is presented, it is difficult to include in this study. If these inputs could be captured, it could be the case that hubris has a greater impact in the choice of default and prepayment rates while discount rates are held relatively consistent across asset types. Therefore, this could explain part of the lack of connection between discount rates in hubris.

However, viewing the results in conjunction and due to the inherent validation test of the models, it further indicates that hubristic CEOs, measured at the CEO letter level, are not more likely to report larger gains from securitization especially not through the use of lower discount rates applied. Thus, the valuation of an accounting item such as securitization is not consistent with prior findings of studies examining the hubris hypothesis and overvaluations of strategic initiatives (Roll 1986; Runesson and Samani 2015) or studies reviewing overconfident managers and biased financial reporting (Schrand and Zechman 2012).

This inconsistency might be explained by the effects of the financial crisis and the relevance of other accounting items being subject to hubris. In the wake of the financial crisis, managers can consciously or unconsciously be treating the securitization item with more caution and not being overly optimistic due to its played role in the crisis. For banks, other accounting

items, such as Loan Loss Provision, that have greater impacts on the financial statements could make hubristic CEOs unintentionally shift their overly optimistic focus to theses items. Thus, rendering securitization less exposed to hubris. In the future a model consisting of both securitization and loan loss provisions in order to control for items that are more subject to active earnings management could be used.

5.5 Additional Analysis

5.5.1 Dummy Variable and Two Sample Mean Difference Test

In an attempt to test the robustness of the results, the study sets hubris as a dummy variable with the median (25.1) as the dividing threshold for hubris that is either high or low (Graham et al. 2005). In this case, anything above the median is defined as hubristic and marked with a "1". Anything else is marked as zero. Further, the dummy is substituted into the models as a test to see if hubris can be a predictive measure at least on a general level.

In using a dummy variable in the model, we can try to see if just the presence of hubris can be an explaining factor in the models. As can be seen in Columns 3 & 4 in Table 6 corresponding to the models in which the dummy variable is substituted in, there is little to no change in the results of the models. In Model I, both ROE and pre-securitized cash flow are significant at the 0.1 and 0.01 levels respectively. Further, Model II shows that price volatility is still the only significant factor at the 0.05 level. These findings are consistent with the original models where hubris is a continuous variable. Seeing as there is little to no difference in the results when the dummy variable is substituted in, this test further adds to the validity of the original findings and that hubris is not a significant factor.

In addition, an untabulated test is conducted by comparing the means in two samples to see whether hubris is having a significance impact on the means for gains and for discount rates. By using the hubris dummy variable, the observations can be divided into separate groups and have their means tested for differences. This test of means can further be extrapolated to validate the decision to not reject the null hypothesis, which is that the means are equal. Since gains and discount rates are the dependent variables in the models, a two sample mean difference test has been conducted for both measures. Based on the hypotheses in this study, a statistical difference in the means for both gains and discount rates should be seen. However, the results show that the means for both groups are not statistically different at the 0.05 significance level, for neither gains nor discount rates; Therefore, the study cannot reject the null hypothesis. This further supports the notion that more CEO hubris is not leading to significant changes in gains and discount rates.

5.5.2 Hubris Measurement

An argument could be made that the definition of hubris could be an issue in the composition of the model. DICTION offers a number of factors that could further add to or subtract from the hubris measurement. By using the hubris measurement developed by Runesson and Samani (2015), the measurement can be adapted for other factors to see if other aspects might enhance the measurement. A more simplified version of the hubris measurement is developed by Amernic, Craig, and Tourish (2010). This is provided below:

Hubris = Accomplishment + Praise + Tenacity

For validation purposes, this study runs further regressions taking in this version of the

hubris measurement into the models as well as testing its validity in terms of CEO power. This measurement is tested for CEO power effects that are seen in the original measurement. In comparison, this alternative version is not influenced to same extent in terms of CEO power. Tenure and Outsiders are no longer statistically significant to the measure. Finally, this measurement is included into Models I & II to test its effects. The results of these regressions can be seen in Columns 5 and 6 in Table 6. As seen in the table, this alternative hubris measurement is also not statistically significant.

6 Conclusion

This paper is unable to find empirical evidence that hubristic CEOs, measured at-a-distance by analyzing CEO letters through the textual analysis software DICTION, are more likley to report larger gains from securitization and especially through the use of lower discount rates during fair value estimations. Results are robust due to a number of extra tests such as creating a dummy variable for hubris, changing the definition for hubris, and further controlled by variables for hubris. However, a separate validation test indicated that the hubris measurement reflects some aspects of CEO power. Regarding power in particular, CEO tenure, CEO ownership and the number of outside directors on the board are reflected. This caused no causality issues within this study as hubris is not a significant factor in the models. In future research, this measurement could be modified and examined as this reflection counters prior tests by Runesson and Samani (2015), and the finding of less CEO power effects in the alternative hubris score further challenges the appropriateness of the measurement.

Furthermore, the findings of this paper are inconsistent with prior literature examining the hubris hypothesis. In this case, a fair value accounting item is examined and compared to previous research focusing on strategic initiatives such as mergers and acquistions. Even though both items exhibit a degree of discretion in their valuations, the hubris hypothesis does not appear to be valid for securitization. A contextual difference here is the item's relative impact on the balance sheet. What kind of role this contextual difference may play in determining hubris is however unknown from this study. Going forward, a way to consider this contextual difference may be to investigate the hubris impact on another discretionary tool with higher relative importance on the balance sheet. For banks, Loan Loss Provisions could provide this context.

By addressing a unintentional inclination of management discretion, this paper contributes to corporate decision-making and in particular the securitization arena where existing literature revolves around active opportunism and earnings management. In this way, the study extends theory related to biased financial reporting beyond that of active decision-making. Future research could look at the different elements of hubris such as *excessive confidence* and *implusiveness* (refer to Table 3 for both) in regards to securitization in order to explore if driving factors in the hubris measurement impact these transactions. In a broader spectra, this study contributes to research on fair value accounting and accounting choice theory, by providing evidence that a fair value accounting item that is subject to an increased level of hubris does not lead to an aggressive choice of accounting. To broaden the picture of accounting choices, future research could examine the hubris hypothesis in the contexts of other accounting items reliant on fair value estimations. In terms of CEO profile literature, this study adds to the scope of the CEO's reach as it pertains to hubris. Future research in this area could further explore the hubris measurement by conducting a comparative study between the different means of communication and the hubris score that each form of communication

produces. This could increase the accuracy of future research in this field.

As it pertains to practitioners, this study contributes to the knowledge of investors and corporate governance primarily. For investors, the results of this study provide some assistance in valuing fair value items on a firm's balance sheet. More specifically, the study shows investors, particularly institutional investors or those with access to text analysis software like DICTION, that unintentional decisions by CEO's are not reflecting unintended risk related to securitization activities. Further, the results of this study can help investors in their valuations by focusing their attention on the main activities that are affected by hubris. Thus improving market efficiency through more accurate valuations. As for the corporate governance, this study could provide some knowledge for how to monitor current CEO performance, and/or to vet potential CEO candidates. Taking into account the hubris of the CEO, boards of directors can grasp a better reflection of the CEO's risk-taking profile and can utilize supplemental data to assess CEO management control and policy-making. Further, this study contributes to the efforts of auditors and regulators especially to evaluate an accounting item's exposure to business leadership risk. Similar to the board of directors, this information helps assess the risk-taking mentality of management which could then be useful in verifying that a bank, in this case, is making reasonable evaluations of its risks and is well capitalized in the event there is another shock to the market in the future. In addition, this knowledge is of interest for standard setters since it proves that the fair value accounting method is not misused and leading to misrepresentation in regards to the unintentional inclination of hubris.

Drawing conclusions from hubris can be difficult due to several factors. Firstly, the fact that it is an indirect measure may not establish the most appropriate representation of an individual CEO's mentality. Secondly, hubris is not an all or nothing measure in the sense that it could have a wide spread effect on the financial statements but rather it could affect only specific areas. Further, to this point, hubris is only judged on a relative basis within the sampled group. There is no clear cut value that constitutes a CEO having hubris or not, or even if it is "good" or "bad" hubris. Based on the measurement, it can only be construed that a CEO has more or less hubris than another. Therefore any judgements or labeling in regards to hubris should be carefully considered. Together with the limits of a rather narrowed sample size and from the disclosures of weighted average discount rates, we beseech readers to interpret the findings with forethought, which may require added attention to the context.

7 Appendix

Appendix 1: Description of DICTION Variables

Variable	Description
Accomplishment	Words expressing task-completion establish, finish, influence, proceed and organized human behavior motivated, influence, leader, manage. Includes capitalistic terms buy, produce, employees, sell, modes of expansion grow, increase, generate, construction and general functionality handling, strengthen, succeed, outputs. Also included is programmatic language: agenda, enacted, working, leadership.
Aggression	A dictionary embracing human competition and forceful action. Its terms connote physical energy (blast, crash, explode, collide), social domination (conquest, attacking, dictatorships, violation), and goal-directedness (crusade, commanded, challenging, overcome). In addition, words associated with personal triumph (mastered, rambunctious, pushy), excess human energy (prod, poke, pound, shove), disassembly (dismantle, demolish, overturn, veto) and resistance (prevent, reduce, defend, curbed) are included.
Centrality	Terms denoting institutional regularities and/or substantive agreement on core values. Included are indigenous terms (native, basic, innate) and designations of legitimacy (orthodox, decorum, constitutional, ratified), systematicity (paradigm, bureaucratic, ritualistic), and typicality (standardized, matter-of-fact, regularity). Also included are terms of congruence (conformity, mandate, unanimous), predictability (expected, continuity, reliable), and universality (womankind, perennial, landmarks).
Concreteness	A large dictionary possessing no thematic unity other than tangibility and materiality. Included are sociological units (peasants, African-Americans, Catholics), occupational groups (carpenter, manufacturer, policewoman), and political alignments (Communists, congressman, Europeans). Also incorporated are physical structures (courthouse, temple, store), forms of diversion (television, football, CD-ROM), terms of accountancy (mortgage, wages, finances), and modes of transportation (airplane, ship, bicycle). In addition, the dictionary includes body parts (stomach, eyes, lips), articles of clothing (slacks, pants, shirt), household animals (cat, insects, horse) and foodstuffs (wine, grain, sugar), and general elements of nature (oil, silk, sand).

Exclusion	A dictionary describing the sources and effects of social isolation. Such seclusion can be phrased passively (displaced, sequestered) as well as positively (self-contained, self-sufficient) and negatively (outlaws, repudiated). Moreover, it can result from voluntary forces (secede, privacy) and involuntary forces (ostracize, forsake, discriminate) and from both personality factors (smallmindedness, loneliness) and political factors (right-wingers, nihilism). Exclusion is often a dialectical concept: hermit vs. derelict, refugee vs. pariah, discard vs. spurn).
Passivity	Words ranging from neutrality to inactivity. Includes terms of compliance (allow, tame, appeasement), docility (submit, contented, sluggish), and cessation (arrested, capitulate, refrain, yielding). Also contains tokens of inertness (backward, immobile, silence, inhibit) and disinterest (unconcerned, nonchalant, stoic), as well as tranquility (quietly, sleepy, vacation).
Praise	Affirmations of some person, group, or abstract entity. Included are terms isolating important social qualities (dear, delightful, witty), physical qualities (mighty, handsome, beautiful),intellectual qualities (shrewd, bright, vigilant, reasonable), entrepreneurial qualities (successful, conscientious, renowned), and moral qualities (faithful, good, noble). All terms in this dictionary are adjectives.
Satisfaction	Terms associated with positive affective states (cheerful, passionate, happiness), with moments of undiminished joy (thanks, smile, welcome) and pleasurable diversion (excited, fun, lucky), or with moments of triumph (celebrating, pride, auspicious). Also included are words of nurturance: healing, encourage, secure, relieved.
Self-reference	All first-person references, including I, I'd, I'll, I'm, I've, me, mine, my, myself. Self-references are treated as acts of indexing whereby the locus of action appears to reside in the speaker and not in the world at large thereby implicitly acknowledging the speaker's limited vision.
Tenacity	All uses of the verb to be (is, am, will, shall) three definitive verb forms (has, must, do) and their variants, as well as all associated contraction's (he'll, they've, ain't). These verbs connote confidence and totality.

Notes: This table provides definitions of the used DICTION variables as expressed by the DICTION-software.

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