

Marquette University

e-Publications@Marquette

Finance Faculty Research and Publications

Finance, Department of

2019

Compensation Clawback Policies and Corporate Lawsuits

Matteo Arena

Marquette University, matteo.arena@marquette.edu

Nga Nguyen

Marquette University

Follow this and additional works at: https://epublications.marquette.edu/fin_fac



Part of the [Finance and Financial Management Commons](#)

Recommended Citation

Arena, Matteo and Nguyen, Nga, "Compensation Clawback Policies and Corporate Lawsuits" (2019).

Finance Faculty Research and Publications. 150.

https://epublications.marquette.edu/fin_fac/150

Compensation clawback policies and corporate lawsuits*

Matteo P. Arena

Marquette University
Department of Finance
312 Straz Hall
Milwaukee, WI 53201-1881
Tel: (414) 288-3369
E-mail: matteo.arena@mu.edu

Nga Nguyen

Marquette University
Department of Finance
328 Straz Hall
Milwaukee, WI 53201-1881
Tel: (414) 288-5721
E-mail: nga.nguyen@mu.edu

Abstract

Since the 2008 financial crisis, executive compensation has been the subject of increased regulation, including the mandatory adoption of compensation clawback policies by the Dodd Frank Act. By allowing firms to recoup compensation from managers who breach their fiduciary duty, clawbacks provide a form of discipline that potentially reduces the likelihood of managerial wrongdoing which, in turn, lowers the risk of corporate lawsuits. We examine the association between clawback provisions and corporate litigation and find that firms with higher litigation risk are more likely to adopt a clawback policy. In addition, after the adoption of clawback provisions, litigation risk significantly declines suggesting that clawback policies are effective in reducing the likelihood of corporate lawsuits. Furthermore, firms with clawback policies are more likely to have lawsuits against them dismissed or settled for lower amounts.

JEL Classifications: G30, G34, G38, K20, K22

Keywords: Risk Management, Litigation Risk, Corporate Lawsuits, Clawback, Executive Compensation

* We would like to thank two anonymous referees, John Ashton (the editor), Patty Bick and participants of the 2017 Annual Meeting of the Financial Management Association for helpful comments and suggestions. We thank Victoria Fasi for valuable research assistance. This research was supported in part by the Marquette University Miles grant.

1. Introduction

Excessive risk-taking, negligence, and wrongdoing by financial executives in the last decade contributed to the 2008 U.S. financial crisis, which culminated in a deep global recession. As a response to this crisis, in 2010 congress passed the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank) which requires numerous government bodies to institute several reforms with the goal of increasing financial stability. One important change related to executive pay is the mandatory adoption of clawback provisions. On July 1, 2015, the Securities and Exchange Commission (SEC) proposed rules that would require listed companies to claw back all or part of the undeserved compensation paid to executive officers who committed wrongdoing. While the SEC has not yet finalized this rule, many companies have adopted their own clawback policies.¹

By allowing firms to recoup compensation from executives in case of a breach of their fiduciary duty to the firm, clawbacks provide a form of discipline that is likely to reduce the likelihood of wrongdoing by corporate managers. While compensation clawbacks provide an ex-ante form of discipline, the legal and financial systems provide several ex-post disciplinary mechanisms. Among those, corporate litigation is one of the most common and costly. In the wake of the financial crisis, financial firms along with other corporations have been sued numerous times and, in many cases, have paid multibillion-dollar settlements.

We study the relation between compensation clawbacks and lawsuits and analyze how these two corporate disciplinary forces interact over time. We first ask whether litigation risk affects a firm's decision to adopt a clawback provision. We then examine whether clawback adoption discourages future lawsuits or diminishes the severity of lawsuits (measured by both the

¹ By the end of 2016, approximately 80% of S&P 1500 firms had voluntarily adopted a clawback policy (Gillan and Nguyen, 2018).

dismissal likelihood and the eventual settlement amount). Prior literature on litigation risk and corporate lawsuits has found that the threat of litigation and actual lawsuits can motivate a firm's decision to improve corporate governance practices (e.g. Humphery-Jenner, 2012; Ferris, Jandik, Lawless and Makhija, 2007; Marciukaityte, Szewczyk, Uzun and Varma, 2006; and Farber, 2005). Thus, we hypothesize that firms with higher litigation risk are likely to improve their governance by adopting clawback policies. Furthermore, prior work on clawbacks shows that adopting compensation clawback policies affects subsequent corporate activities (e.g. Chan, Chen, Chen and Yu, 2012; Iskandar-Datta and Jia, 2013; and Babenko, Bennett, Bizjak and Coles, 2017).² We contend that companies experience a decline in litigation risk after the implementation of clawback provisions, and that lawsuits filed against firms with clawbacks are less severe, are more likely to be dismissed, or are associated with lower settlement costs.

Using a sample of S&P 1500 firms from 2007-2014, we find that firms exposed to higher litigation risk are more likely to adopt clawback provisions. Furthermore, our results show that after the adoption of clawbacks, litigation risk declines significantly, supporting our hypothesis that clawback policies are effective in reducing the likelihood of corporate lawsuits. Specifically, we find that after clawback adoption, on average, firms experience 1% lower risk of being sued in the next three years. We also find that when lawsuits occur, firms with clawback policies are more likely to have such lawsuits dismissed or settled for a lower amount compared to other firms. Specifically, firms with clawback policies have 51% higher probability of a lawsuit being dismissed and 12-14% lower settlement costs. Clawbacks, therefore, reduce both litigation risk and litigation costs. Overall, our findings suggest that companies strategically adopt clawback

² Denis (2012) provides an excellent discussion of Chan et al. (2012) along with insights into the potential role of voluntary and mandatory clawback adoptions.

provisions as an internal disciplinary mechanism to effectively reduce the incidence of costlier ex-post disciplinary forces such as lawsuits.

Our paper contributes to both the extensive literature on executive compensation regulations and the growing body of research on corporate litigation. As a major innovation in contracting between the firms and the CEOs, clawbacks have attracted significant interest from academics. Recent work has focused on the causes and consequences of adopting compensation clawback policies. However, the effectiveness of clawback policies is unclear. We are the first to analyze the relation between clawbacks and corporate litigation and show how clawback policies could be effective. Furthermore, our findings have practical implications as they suggest that the SEC rule, if implemented, could significantly reduce overall corporate litigation risk.

The remainder of the paper proceeds as follows. Section 2 includes a brief review of the literature and motivates our hypotheses. Section 3 provides description of our sample and data. Section 4 reports descriptive statistics, while section 5 contains our regression analysis. Finally, section 6 concludes.

2. Literature Review and Hypothesis Development

2.1. Literature Review

On April 10, 2017, Wells Fargo's board announced the clawback of \$75 million in compensation from two former executives as the result of the scandal over fraudulent accounts.³ Clawback provisions, policies that allow companies to recoup compensation from managers who breach their fiduciary duty, are one of the most recent innovations in executive compensation

³ <http://fortune.com/2017/04/10/wells-fargo-carrie-tolstedt-clawback-net-worthfortune-mpw/>

regulation. Clawback policies often specify what situations trigger the recoupment of compensation, the employees subject to the recoupment, and the components of compensation that are subject to recovery. The triggers usually include fraud or misconduct that leads to an accounting restatement.⁴ In 2010, in response to the 2008 financial crisis, congress passed the Dodd-Frank Act which requires companies to include clawback policies. Although the SEC has not yet finalized this rule, many companies have adopted their own clawback policies.

As a major innovation in executive compensation contracting, clawbacks have attracted significant interest from academics. Recent work focuses on the antecedents and consequences of adopting compensation clawback policies. For example, Addy, Chu and Yoder (2014) find that firms with more entrenched managers are less likely to adopt clawbacks while director interlocks increase the likelihood of clawback adoptions. Chen, Greene and Owers (2015) find that the likelihood of voluntarily clawback adoption is associated with lower CEO risk aversion, low earnings volatility, and high internal accounting information quality. Huang, Lim and Ng (2015) find that firms are less likely to have a clawback when the firm's board has higher fraction of directors appointed after the CEO assumed office and when CEOs have longer tenure. More recently, Babenko et al. (2017) report that firms are more likely to have a compensation clawback provision when the firm has fewer growth options, higher stock return volatility, more performance-based pay, a more independent board, and when state law facilitates enforcement of these agreements.

With regard to the consequences of clawback adoption, Chan et al. (2012) find that firms adopting clawbacks are less likely to restate their financials. In addition, they show that investors

⁴ Compensation contracts might also include holdback provisions. Holdbacks effectively eliminate all types of compensation if the executive is dismissed with cause. Gillan and Nguyen (2016) and Gillan and Nguyen (2018) find that holdbacks are larger for firms that pay their CEO more and for firms with more information asymmetry.

and auditors view the adoption of clawbacks as a sign of increased accounting quality and lower audit risk. Iskandar-Datta and Jia (2013) find that clawback adoption is associated with increased shareholder value by lowering financial reporting risk. In addition, they find that firms with previous financial restatements experienced the most economic gain from the subsequent adoption of clawback provisions. Babenko et al. (2017) find that after the adoption of clawbacks, firms experience a reduction in stock return volatility, R&D expenses, patents filings, and capital expenditures. However, some evidence on the effectiveness of clawback provisions is mixed. For example, Addy, Chu and Yoder (2009) find no evidence of improved financial reporting after clawback adoption, contradicting Chan et al. (2012). Furthermore, while Babenko et al. (2017) document an increase in executive compensation following clawback adoption, Iskandar-Datta and Jia (2013) do not find such change. More recently, Gillan and Nguyen (2018) and Gillan and Nguyen (2016) report that while different contracting mechanisms tend to complement to or substitutes for each other, there is no evidence of such association between clawback and other contracting mechanisms.

At the same time, studies on litigation risk and corporate lawsuits have found that the threat of litigation and actual lawsuits can motivate a firm's decision to improve corporate governance practices (Arena and Ferris, 2017). For example, Romano (1991) and Humphery-Jenner (2012) find that managerial turnover is more common for firms involved in litigation. Niehaus and Roth (1999) show that lawsuits that are resolved with large settlements increase the likelihood of CEO turnover. Similarly, executives that are found guilty of financial fraud are often laid off and bear significant financial losses (Karpoff, Lee and Martin, 2008). Ferris et al. (2007) find that corporate boards increase the number of independent directors after derivative litigation. Farber (2005) and Marciukaityte et al. (2006) find that firms involved in a fraud case implement measures to improve

their governance practices such as increasing the number of independent directors or the number of audit committee meetings. In contrast, Daines, Gow and Larcker (2009) focus on corporate governance and transparency ratings but fail to find a link between their empirical proxies and litigation. Kim and Skinner (2012) show that measures of corporate governance and managerial opportunism do not significantly add to the predictive ability of binary choice regression models of litigation risk.⁵

2.2. Hypotheses Development

In this study we connect these two aforementioned strands of the literature by studying the relationship between clawback and litigation risk. Babenko et al. (2017) find that firms with higher stock return volatility are more likely to have a compensation clawback. Addy, Chu and Yoder (2009) and Gillan and Nguyen (2016) find that recent earnings restatements increase the likelihood of a clawback. In addition, Kim and Skinner (2012) report that high stock volatility and earnings restatements are often predictive of future lawsuits and are thus significant determinants of litigation risk. Thus, we contend that factors that increase litigation risk also increase the probability of clawback implementation. In addition, lawsuits positively affect the likelihood of improvements in governance practices. Therefore, we formulate the following hypothesis:

Hypothesis 1: Companies with higher litigation risk are more like to adopt clawback policies.

⁵ In the context of emerging markets, Alfraih (2016) finds that firms listed on the Kuwait Stock Exchange with a larger board, more gender diversity, and more directors with multiple directorships are more likely to comply with the mandatory disclosure requirement. Similarly, Gundeep (2017) reports that firms with more independent boards and more directors with multiple directorships are less likely to violate the Securities Exchange Board of India regulations.

Recent studies on the effectiveness of clawbacks show that the voluntary adoption of clawback provisions strengthens corporate governance by improving accounting quality and reducing agency costs. For example, Chan et al. (2012) find that firms which voluntarily adopt clawbacks are less likely to restate their financials. In addition, investors and auditors view the adoption of a clawback as a sign of increased accounting quality and lower audit risk. In the context of mergers and acquisitions, Brown, Davis-Friday and Guler (2011) find that clawback adoption improves managerial decision making and aligns the interests of executives with those of shareholders.

Furthermore, prior studies provide evidence that stronger corporate governance and managerial monitoring can reduce the incidence of litigation. For instance, Dechow, Sloan and Sweeney (1996) show that CEOs with less power are less likely to engage in opportunistic behavior that triggers litigation. DuCharme, Malatesta and Sefcik (2004) analyze the influence of earnings manipulation and disclosure quality on litigation risk and find that firms that manipulate earnings upward prior to stock issues are more vulnerable to litigation. In general, as the adoption of clawback policies can improve accounting quality and strengthen the overall governance system, we would expect a lower likelihood of managerial misbehavior, and consequently, a reduction in the incidence or the severity of lawsuits. Thus, we formulate the following hypotheses:

Hypothesis 2: After the implementation of clawback provisions, companies experience a decline in litigation risk.

Hypothesis 3: Firms with clawback provisions are more likely to have lawsuits filed against them dismissed or settled with lower costs.

3. Sample formation and variables

Sample. Our sample consists of all S&P 1500 firms from 2007 to 2014. We use 2007 because most firms adopt clawbacks after 2007 (Gillan and Nguyen, 2016). In addition, we use 2014 as our cutoff year so that we can track the outcomes of lawsuits for the following two years. We match this initial sample with the COMPUSTAT database to retrieve financial accounting data and the CRSP database to retrieve stock data. Executive compensation data are from Execucomp while data on clawback provisions are hand-collected by searching SEC filings (e.g., proxy statements and annual reports) and press releases. We then merge this sample with lawsuit data retrieved from the Audit Analytics Corporate Litigation database. This litigation dataset contains information about lawsuit filing, including the start and end dates, lawsuit type, resolution type, and settlement costs when available. The final sample consists of 1,172 unique firms (8,429 firm-year observations).

Matched sample. When studying the effect of clawback adoption on litigation risk we use a matched sample in which we match firms with clawback provisions (i.e. clawback firms) with firms of similar litigation risk without clawback policies in place (i.e. non-clawback firms). Litigation risk is calculated as the probability of litigation as in Kim and Skinner (2012). We use the matched sample to mitigate the concern that a factor that affects litigation risk also drives the adoption of a clawback, or there is reverse causality between clawback adoption and litigation risk (i.e. endogeneity issue). In matching clawback firms with non-clawback firms, it is worth noting that a perfect match would require the non-clawback firm sample to include only firms that do not or will never have clawback policies. However, as of 2016, approximately 80% of the S&P1500 firms have clawbacks in place (Gillan and Nguyen, 2018), therefore restricting the match to those firms that never implemented clawback policies during our sample period would

reduce our ability to find a good match based on litigation risk. As a result, we only require our matching non-clawback firms to not have a clawback in the following two years. In addition, to increase the number of firms in the matched sample, we match one clawback firm with five non-clawback firms that have the closest litigation risk. We choose one-to-five matches because our full sample is dominated with clawback firms; therefore, one non-clawback firm could be a good match with multiple clawback firms. Selecting five non-clawback matched firms allows us to remove duplicate non-clawback firms while still having a sufficient number of non-clawback firms for our test.⁶ The matched sample include 2,371 clawback and 1,398 non-clawback firm-year observations.

Variables. Our variables of interest are clawback related. We construct two clawback indicator variables including *Clawback Implementation* which takes a value of one only for the year a clawback provisions is adopted by the firm and *Clawback* which takes a value of one for every year a clawback provision is present in the compensation contract.

Our dependent variables are litigation risk and lawsuit outcomes. We construct several proxies for litigation risk as follow. We first use an indicator variable equal to one for the firms involved in a litigation event in a particular year and zero otherwise as in Lowry and Shu (2002) and Arena and Julio (2015). We then construct a measure of *ex ante* litigation risk by modeling the probability of being sued as a function of firm characteristics (including recent firm performance) that have been demonstrated to be related to litigation risk in the literature (e.g., Kim and Skinner, 2012; Gande and Lewis, 2009). *Lit Prob* is the expected value from modeling *all* lawsuits whereas *Sec Lit Prob* is the expected value from modeling only securities class

⁶ Our results hold if we relax our restriction for matching from no-clawback in the following two years to no-clawback in the current year or no-clawback in the following year. Our results are also robust if we match one clawback firm with one (or ten) non-clawback firms.

action lawsuits. In addition, we create an industry measure of litigation risk as the number of all lawsuits (securities class action lawsuits) filed against firms in the same industry for each sample firm in the preceding year and label as *Ind Lit Risk* (*Ind Sec Lit Risk*). The two lawsuit-outcome variables are *Dismiss* and *Ln_Settlement*. *Dismiss* is a binary variable that takes a value of one if the lawsuit is ultimately dismissed, and zero otherwise. *Ln_Settlement* is calculated as the natural logarithm of settlement dollar amount paid by the defendant firm at the time of the resolution of the lawsuit.

Finally, we control for commonly used firm characteristics (*Ln_Assets*, *Leverage*, *ROA*, *M/B*, and *# of Institutional Stockholders*), executive compensation (*Total Compensation* and *% Incentive compensation*), and board of director variables (*Board size*, *Board Independence*, and *Duality*) which the prior litigation and clawback literature shows to have impact on firm litigation risk and outcome. Appendix 1 provides more details on the construction of the variables used in the study.

4. Descriptive statistics and univariate analysis

In this section, we discuss univariate results related to clawback measures, litigation risk, and the incidence of lawsuits. Table 1 presents the number of firm-year observations distributed between firms with and without clawback provisions and then segmented between sued and non-sued firms in the same year and the following year. Panel A includes all lawsuits while Panel B includes only securities class action lawsuits. A smaller percentage of firms with clawback provisions are defendants of lawsuits than firms without clawbacks. The Fisher's exact test of homogeneity between the two subsamples show that this difference is statistically significant for all lawsuits and securities lawsuits, both in the same year and in year +1.

[Insert Table 1 here]

In Table 2, we present t-tests of the difference in means for litigation risk proxies when comparing firms with and without clawback policies. The litigation risk proxies are measured in the year the clawback is first adopted. Table 2 shows that at the time of the adoption, firms with clawback provisions have higher litigation risk. It is possible that past wrongdoings or the expectation of future wrongdoing affects the board's decision to implement a clawback policy. This would explain the univariate association between higher litigation risk and clawback provisions.

[Insert Table 2 here]

In the next set of univariate tests, we study whether clawback adoption is associated with lower litigation risk in the following two or three years. As mentioned earlier, to mitigate the concern of reverse causality between clawback adoption and litigation risk, we use a matched sample approach in which we match clawback firms with non-clawback firms of similar litigation risk. We then compare the *change* in litigation risk in the next two (three) years for the clawback firms with the *change* in litigation risk for non-clawback firms in the same period. The change in litigation risk is measured as the difference between the litigation risk in the current year and the litigation risk in the next two (three) years.

[Insert Table 3 here]

Table 3 presents t-tests of the difference in means for the change in litigation risk proxies between firms with and without clawbacks over the following three years. In Panel A, litigation risk is measured as the probability of having any type of lawsuits. While litigation risk declines on average for both the with-clawback and without-clawback subsamples, the decline is significantly

larger for firms that have adopted clawback provisions. For example, one year after the adoption of a clawback policy, the probability of lawsuit decreases by 1.7%, which is significantly larger than the same period change of 0.3% for the average firm that has not adopted a clawback policy (i.e. 1.4% difference-in-difference). The results also show that the difference in the decline between the two subsamples widens over time. Specifically, the difference-in-difference of litigation risk between clawback firms and non-clawback firms is 1.9% and 2.5% after two and three years, respectively.

Panel B focuses on the probability of having a securities class action lawsuit as the measure of litigation risk and provides results similar to those in Panel A. While firms with no clawbacks show little change in their likelihood of having a securities class action lawsuit, firms that adopted clawbacks continue to lower their litigation risk in the next three years. Specifically, in the three years following clawback adoption, firms experience an additional decline in securities litigation risk of 0.8% when compared to other firms.

Together, the results in Table 2 and Table 3 suggest that firms at higher risk of litigation are more likely to adopt clawback provisions (consistent with hypothesis 1), and that after the adoption of clawback provisions their litigation risk declines more than firms without clawbacks (consistent with hypothesis 2).

5. Regression analysis

We further analyze the effect of clawback adoption on litigation risk with a set of regression analyses. To control for the possibility of reverse causality, we measure litigation risk two years and three years after the matching year. Moreover, measuring litigation risk two or three years

after the match allows us to capture the potentially gradual effect that clawbacks might have on managerial behavior. As described in the previous section, we use a matched sample where we match firms with clawback policies with firms that have similar levels of litigation risk but do not have clawback policies in place in the same year or in the next two years. Our dependent variables are the changes in the litigation risk which are measured as the differences between the litigation risk in the current year and the litigation risk in the next two (three) years.

[Insert Table 4 here]

Table 4 reports the results of OLS regressions where the dependent variable is the change in the litigation probability measure. We first focus on the litigation probability calculated using all types of lawsuits. All model specifications include year fixed effects. Panel A reports the results where the change in litigation probability is measured as the difference between litigation risk in the current year and litigation risk in the next two years. Panel B reports the results where the change in litigation probability is measured as the difference between litigation risk in the current year and litigation risk in the next three years. In both panels, after controlling for other variables, the coefficient of the clawback indicator is negative and statistically significant at the 10 percent level in the year +2 specification (Panel A) and negative and statistically significant at the 1 percent level in the year +3 specification (Panel B). In particular, firms that adopt clawback policies lower their likelihood of being sued by 0.3% in the next 2 years (Panel A) and 1% in the next 3 years (Panel B). These results suggest that corporate litigation risk declines after the implementation of a clawback provision, consistent with hypothesis 2.

[Insert Table 5 here]

In Table 5 we replicate the analysis presented in Table 4 by substituting total litigation risk with securities litigation risk. We obtain securities litigation risk by modeling the probability of firms being sued for financial malpractice or accounting misreporting (i.e. securities class action lawsuits). While clawback provisions might curb all types of corporate wrongdoing, their effect might be especially pronounced for financial fraud. While the year +2 specification does not show a significant effect for the presence of a clawback and securities litigation risk, the clawback indicator is marginally significant in the year +3 specification, consistent with the results presented in Table 4. A possible reason for the weaker results in Table 5 compared to those in Table 4 could be that because the number of securities class action lawsuits in reality is small, thus a proxy for litigation risk measured with only securities class action lawsuits might have lower explanatory power than the proxy using all types of lawsuits.

Finally, we examine the effect of clawbacks on the outcome of litigation. Our sample includes all lawsuits from 2007 to 2014 as reported in the Audit Analytics Corporate Litigation database. We include two new variables constructed from the litigation database: *Dismiss* is a binary variable that takes a value of 1 if the lawsuit is ultimately dismissed and zero otherwise; *Ln_Settlement* is the natural logarithm of (\$1 + the settlement amount). If the lawsuit is dismissed, then the settlement amount is set to zero. Our final sample includes 1,845 lawsuits.

[Insert Table 6 here]

In table 6, we report the result from logistic regressions that model the link between clawbacks and the likelihood of a lawsuit being dismissed. As before we include year fixed effects in our model. We find that companies with clawback policies in place at the time of the lawsuit filing are more likely to have their lawsuits dismissed. Specifically, compared to firms

with no clawback policies in place, firms with clawback policies have $\exp(0.41)-1 = 51\%$ higher likelihood of a lawsuit being dismissed, which is significant at the 5% level.

[Insert Table 7 here]

In table 7, we report the results of OLS regressions modeling the link between clawback policies and litigation costs measured by the settlement amount. We control for heteroskedasticity, year fixed effects, and firm clustering in panels A, B and C, respectively. Consistent across all specifications, we find that firms with clawback policies in place at the time the lawsuits start have lower settlement costs than other firms. The *Clawback* indicator variable is significant at the 5% or 10% level depending on the specification. The results are also economically significant. For example, in panel A, on average firms with clawback has approximately 12% lower settlement costs than other firms. Overall, the findings in Tables 6 and 7 are consistent with hypothesis 3 and suggest that clawback policies not only reduce litigation risk, but are also associated with lower litigation costs at the time of the resolution of the lawsuit, either by increasing the likelihood that the lawsuit will be dismissed or decreasing the amount of the settlement.

6. Conclusion

Since the 2008 financial crisis, concerns about excessive executive pay and excessive risk-taking behavior have led to significant regulatory changes to executive compensation. One specific innovation in this area is the adoption of compensation clawbacks which allow companies to recoup compensation from managers in cases of wrongdoing. Clawbacks have attracted significant interest from academics. For example, when focusing on the determinants of clawback adoption, prior literature shows that stock price volatility and prior financial

restatements are positively associated with the presence of clawback policies (e.g. Addly et al., 2014; Gillan and Nguyen, 2016; and Babenko et al., 2017). Moreover, some studies suggest that clawback adoption increases accounting quality and strengthens overall governance (e.g. Chan et al., 2012; and Iskandar-Datta and Jia, 2013). At the same time, prior literature on litigation shows that better monitoring of management and stronger corporate governance can reduce the incidence of lawsuits (e.g. Farber, 2005; Marciukaityte et al., 2006; Ferris et al., 2007; Karpoff, Lee and Martin, 2008; and Arena and Ferris, 2017).

We contribute to both the literature on executive compensation and the literature on corporate litigation by studying the association between clawback provisions and corporate litigation risk. We find that firms with higher litigation risk are more likely to adopt clawback policies. In addition, after the adoption of clawback provisions, we find that litigation risk declines significantly. More importantly, we also find that clawback provisions, by reducing the severity of possible managerial wrongdoing, are associated with lower settlement amounts. Overall, our findings have practical implication as they suggest that companies with high litigation risk should consider adopting clawback policies even before the possible mandatory requirement by the SEC. As an avenue for future research, it would be interesting to revisit this issue after the ratification of the SEC rule on clawback to understand how the mandatory clawback reform could impact litigation risk compared to the current voluntary change in compensation contracting implemented by a portion of publicly-traded firms.

References

- Addy, N.D., Chu, X., Yoder, T. (2009), “Recovering bonuses after restated financials: adopting clawback provisions”, *working paper*.
- Addy, N., Chu, X., Yoder, T. (2014), “Voluntary adoption of clawback provisions, corporate governance, and interlock effects”, *Journal of Accounting and Public Policy*, Vol. 33 No. 2, 167-189.
- Alfraih, M.M. (2016), “The effectiveness of board of directors’ characteristics in mandatory disclosure compliance”, *Journal of Financial Regulation and Compliance*, Vol. 24 No. 2, pp. 154-176.
- Arena, M.P. and Ferris, S.P. (2017), “A Survey of Litigation in Corporate Finance”, *Managerial Finance*, Vol. 43 No.1, pp. 4-18.
- Arena, M.P. and Julio, B. (2015), “The effects of securities class action litigation on corporate liquidity and investment policy”, *Journal of Financial and Quantitative Analysis*, Vol. 50, pp. 251-275.
- Babenko, I., Bennett, B., Bizjak, J. M. and Coles, J. L. (2017), “Clawback provisions”, *working paper*.
- Brown, A.B., Davis-Friday, P. and Guler, L. (2011), “Economic determinants of the voluntary adoption of clawback provisions in executive compensation contracts”, *working paper*.
- Chan, L. H., Chen, K. C., Chen, T. Y. and Yu, Y. (2012), “The effects of firm-initiated clawback provisions on earnings quality and auditor behavior”, *Journal of Accounting and Economics*, Vol. 54 No. 2, pp. 180-196.
- Chen, M. A., Greene, D. T., and Owers, J. E. (2015), “The Costs and Benefits of Clawback Provisions in CEO Compensation”, *Review of Corporate Finance Studies*, Vol. 4 No. 1, pp. 108-154.
- Daines, R., Gow, I. and Larcker, D. (2009), “Rating the Ratings: How Good are Commercial Corporate Governance Ratings?”, *Journal of Financial Economics*, Vol. 98, pp. 439–461.
- Dechow, P. M., Sloan, R. G., and Sweeney, A. P. (1996), “Causes and consequences of earnings manipulation: An analysis of firms subject to enforcement actions by the SEC”, *Contemporary Accounting Research*, Vol. 13 No. 1, pp. 1-36.
- Denis, K. D. (2012), “Mandatory clawback provisions, information disclosure, and the regulation of securities markets”, *Journal of Accounting and Economics*, Vol. 54 No. 2-3, pp. 197-200.
- DuCharme, L. L., Malatesta, P. H., and Sefcik, S. E. (2004), “Earnings management, stock issues, and shareholder lawsuits”, *Journal of Financial Economics*, Vol. 71 No. 1, pp. 27-49.

- Farber, D. B. (2005), "Restoring trust after fraud: Does corporate governance matter?", *The Accounting Review*, Vol. 80 No. 2, pp. 539-561.
- Ferris, S. P., Jandik, T., Lawless, R. M. and Makhija, A. (2007), "Derivative lawsuits as a corporate governance mechanism: Empirical evidence on board changes surrounding filings", *Journal of Financial and Quantitative Analysis*, Vol. 42 No. 1, pp. 143.
- Gande, A., and Lewis, C. M. (2009), "Shareholder-initiated class action lawsuits: Shareholder wealth effects and industry spillovers", *Journal of Financial and Quantitative Analysis*, Vol. 44 No. 04, pp. 823-850.
- Gillan, S.L. and Nguyen, N.Q. (2016), "Incentives, termination payments, and CEO contracting", *Journal of Corporate Finance*, Vol. 41, pp. 445-465.
- Gillan, S.L. and Nguyen, N.Q. (2018), "Clawbacks, holdbacks, and CEO contracting", *Journal of Applied Corporate Finance*, Vol. 30 No. 1, pp. 16-24.
- Gundeeep K.V. (2017), "The influence of board characteristics on corporate illegality", *Journal of Financial Regulation and Compliance*, Vol. 25 No. 2, pp.133-148.
- Huang, S., Lim, C. Y. and Ng, J. (2015), "Not Clawing the Hand That Feeds You: The Case of Co-Opted Boards and Clawbacks", *working paper*.
- Humphery-Jenner, M. L. (2012), "Internal and external discipline following securities class actions", *Journal of Financial Intermediation*, Vol. 21 No. 1, pp. 151-179.
- Iskandar-Datta, M. and Jia, Y. (2013), "Valuation consequences of clawback provisions", *The Accounting Review*, Vol. 88, No. 1, pp. 171-198.
- Karpoff, J. M., Lee, D. S. and Martin, G. S. (2008), "The consequences to managers for financial misrepresentation". *Journal of Financial Economics*, Vol. 88 No. 2, pp. 193-215.
- Kim, I., and Skinner, D. J. (2012), "Measuring securities litigation risk", *Journal of Accounting and Economics*, Vol. 53 No.1, pp. 290-310.
- Lowry, M. and Shu S. (2002), "Litigation risk and IPO underpricing", *Journal of Financial Economics*, Vol. 65 No. 3, pp. 309-335.
- Marciukaityte, D., Szewczyk, S.H., Uzun, H., and Varma, R. (2006), "Governance and performance changes after accusations of corporate fraud", *Financial Analysts Journal*, Vol. 62 No. 3, pp. 32-41.
- Niehaus, G., and Roth, G. (1999), "Insider trading, equity issues, and CEO turnover in firms subject to securities class action", *Financial Management*, Vol. 28 No. 4, pp. 52-72.
- Romano, R. (1991), "The shareholder suit: litigation without foundation?" *Journal of Law, Economics, and Organization*, Vol. 7 No.1, pp. 55-87.

Appendix 1. Variable Definitions

Variable	Definition
Board Independence	The ratio of the number of independent directors divided by the total number of board members
Board Size	Total number of board members
Clawback Implementation	Indicator variable that equals 1 if the firm adopted a clawback provision in that year, zero otherwise.
Clawback	Indicator variable that equals 1 if the firm has a clawback provision in that year, zero otherwise.
Dismiss	Indicator variable that equals 1 if the lawsuit is ultimately dismissed, zero otherwise.
Duality	Indicator variable that equals 1 if the CEO is also the chairman of the board.
%Incentive compensation	The percentage of the CEO's incentive-based compensation (the value of bonus, stock, and option plans) to total compensation.
Ind Lit Risk	The number of lawsuits filed against firms in the same industry in the prior year.
Ind Sec Lit Risk	The number of securities class action lawsuits filed against firms in the same industry in the prior year.
Leverage	The ratio of interest-bearing debt, both long and short term, to market value of equity.
Lawsuit	Indicator variable equals 1 if the firm is sued in a particular year, zero otherwise
Lit Prob	Expected value from modeling lawsuits as a function of firm characteristics and recent firm performance variables (Kim and Skinner, 2012; and Gande and Lewis, 2009).
Securities Lawsuit	Indicator variable equals 1 if the firms involved in a securities class action lawsuit in a particular year, zero otherwise
Sec Lit Prob	Expected value from modeling securities class action lawsuits as a function of firm characteristics and recent firm performance variables (Kim and Skinner, 2012; and Gande and Lewis, 2009).
Ln_Assets	Natural logarithm of total assets.
Ln_Settlement	Natural logarithm of dollar amount of (\$1 + the settlement amount). If the lawsuit is dismissed, then the settlement amount is set to zero.
M/B	Market to book value of assets, calculated as market value of equity plus total assets minus common equity, divided by the total assets of the firm.
# of Institutional Stockholders	Total number of institutional investors.
ROA	Return on assets, measured as net income divided by total assets.
Total Compensation	The CEO's total compensation, which includes salary, bonus, stock, stock option, deferred compensation, and others.

Appendix 2. Variable Summary Statistics

Variable	N	Mean	Median	Std Dev
Number of lawsuits outstanding	8429	0.88	0.00	2.14
Number of lawsuits current year	8429	0.24	0.00	0.78
Lawsuit	8429	0.15	0.00	0.36
Lit Prob	8419	0.14	0.10	0.13
Ind Lit Prob	8429	0.08	0.06	0.09
Securities Lawsuit	8429	0.04	0.00	0.19
Sec Lit Prob	8419	0.04	0.03	0.04
Ind Sec Lit Prob	8429	0.02	0.01	0.04
Clawback	8429	0.39	0.00	0.49
Ln_Assets	8429	8.01	7.90	1.54
Leverage	8232	0.20	0.20	0.17
Total Compensation	8429	5141.78	3453.58	6286.77
Board size	8429	9.40	9.00	2.14
Board Independence	8429	0.78	0.80	0.12
Duality	8429	0.52	1.00	0.50
# of Institutional Stockholders	7861	302.70	215.75	253.81

Table 1**Lawsuit distribution and homogeneity tests for firms with and without clawbacks**

This table presents the number of firm-year observation distributed between firms with and without clawback provisions segmented between firms being sued and not being sued in the same year or year t+1. Panel A includes all lawsuits while panel B only includes securities class action lawsuits. The p-values for Fisher's exact tests of homogeneity between the two subsamples are reported at the bottom of each panel. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

<i>Panel A: All Lawsuits</i>				
Clawback	Lawsuit		Lawsuit t+1	
	0	1	0	1
0	4334	815	4334	749
	84.17%	15.83%	85.26%	14.74%
1	2821	459	2657	410
	86.01%	13.99%	83.63%	13.37%
Chi-Square (p-value)	0.0219**		0.0869*	

<i>Panel B: Securities Lawsuits</i>				
Clawback	Securities Lawsuit		Securities Lawsuit t+1	
	0	1	0	1
0	4934	215	4873	210
	95.82%	4.18%	95.87%	4.13%
1	2821	459	2967	100
	96.98%	3.02%	96.74%	3.26%
Chi-Square (p-value)	0.0062***		0.0465**	

Table 2**Univariate Test - Clawbacks and litigation risk**

This table presents the t-tests of the difference of the means of litigation risk proxies between firms with and without clawbacks. The litigation risk proxies are measured at the year the clawback is first adopted. P-values are reported in the table. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Clawback	<i>Litigation Probability</i>			
	Lit Prob	Sec Lit Prob	Ind Lit Risk	Ind Sec Lit Risk
0	0.1317	0.0367	0.0824	0.0245
1	0.1500	0.0441	0.0839	0.0241
1-0	0.0183***	0.0073***	0.0015	-0.0004
p-value	0.000	0.000	0.375	0.693

Table 3**Univariate Test with matched sample- Clawbacks and litigation risk**

This table presents the t-tests of the difference of the means for the change in litigation risk proxies between firms with and without clawbacks. We use a matching procedure in which we match firms with clawback provisions (i.e. clawback firms) with firms of similar litigation risk in the same year that do not currently have clawbacks in place (i.e. non-clawback firms). P-values are reported in the table. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

<i>Panel A: Lit Prob</i>			
Clawback	Year 1 - Year 0	Year 2 - Year 0	Year 3 - Year 0
0	-0.003	-0.005	-0.008
1	-0.017	-0.024	-0.034
1-0	-0.014***	-0.019***	-0.025***
p-value	0.000	0.000	0.000

<i>Panel B: Sec Lit Prob</i>			
Clawback	Year 1 - Year 0	Year 2 - Year 0	Year 3 - Year 0
0	0.000	-0.001	-0.002
1	-0.005	-0.007	-0.010
1-0	-0.005***	-0.006***	-0.008***
p-value	0.000	0.000	0.000

Table 4**Clawbacks and litigation risk**

This table reports the results from OLS regressions examining the effect of the adoption of clawback provisions on litigation risk two and three years later. The matched sample consists of firms with clawbacks and firms without clawbacks matched by litigation risk in year 0. The dependent variable, *Lit Prob*, is the litigation risk probability calculated by including all types of lawsuits. Appendix 1 describes all the independent variables. P-values are reported in the table. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

<i>Panel A: Litigation Risk in year +2</i>			
Variable	Estimate		p-value
Clawback	-0.0028	*	0.057
Ln_Assets	-0.0004		0.696
Leverage	0.0062		0.219
ROA	0.0231	**	0.021
Total Compensation	0.0000	***	0.000
% Incentive compensation	-0.0005		0.888
# Institutional Stockholders	0.0000	***	0.000
Board size	0.0001		0.897
Board Independence	0.0018		0.787
Duality	0.0007		0.620
Intercept	0.0066		0.397
Year Fixed Effects		Yes	
N		2,707	
<i>Panel B: Litigation Risk in year +3</i>			
Variable	Estimate		p-value
Clawback	-0.0098	***	0.034
Ln_assets	-0.0035		0.226
Leverage	0.0164		0.270
ROA	0.0377		0.209
Total Compensation	0.0001	***	0.000
% Incentive compensation	0.0055		0.610
# Institutional Stockholders	-0.0001	***	0.000
Board size	0.0010		0.440
Board Independence	-0.0152		0.446
Duality	0.0024		0.574
Intercept	0.0467	**	0.044
Year Fixed Effects		Yes	
N		2,141	

Table 5**Clawback firms and security litigation risk**

This table reports the results from OLS regressions examining the effect of the adoption of clawback provisions on security litigation risk in the following two and three years. The matched sample consists of firms with clawback provisions and firms without clawback matched by litigation risk in year 0. The dependent variable, *Sec Lit Prob*, is the litigation risk probability calculated by considering only security class action lawsuits. Appendix 1 describes all the independent variables. P-values are reported in the table. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

<i>Panel A: Sec Litigation Risk in year +2</i>			
Variable	Estimate		p-value
Clawback	-0.0018		0.153
Ln_Assets	-0.0005		0.516
Leverage	0.0062		0.138
ROA	0.0141		0.101
Total Compensation	0.0001	***	0.000
% Incentive compensation	-0.0010		0.746
# Institutional Stockholders	-0.0001	***	0.000
Board size	0.0005		0.186
Board Independence	0.0021		0.699
Duality	0.0005		0.646
Intercept	0.0196		0.621
Year Fixed Effects		Yes	
N		2,707	
<i>Panel B: Sec Litigation Risk in year +3</i>			
Variable	Estimate		p-value
Clawback	-0.0025		0.102
Ln_Assets	-0.0002		0.826
Leverage	0.0043		0.401
ROA	0.0250	**	0.014
Total Compensation	0.0000	***	<.0001
% Incentive compensation	-0.0017		0.648
# Institutional Stockholders	0.0000	***	<.0001
Board size	0.0002		0.591
Board Independence	-0.0004		0.950
Duality	0.0007		0.611
Intercept	0.0073		0.355
Year Fixed Effects		Yes	
N		2,142	

Table 6**Clawbacks and lawsuit dismissals**

This table reports the results from logit model examining the effect of the adoption of clawback provisions on the likelihood that lawsuits are dismissed. The dependent variable is *Dismiss*, a binary variable that takes a value of 1 if the lawsuits are dismissed and zero otherwise. Appendix 1 describes all the independent variables. P-values are reported in the table. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Variable	Estimate		P-value
Clawback	0.4123	**	0.038
Ln_Assets	-0.1063		0.269
Leverage	-0.0255		0.965
ROA	-0.4047		0.716
M/B	0.2028	**	0.022
Total Compensation	0.0000		0.804
% Incentive compensation	-0.8331	**	0.015
# Institutional Stockholders	0.0001		0.749
Board size	0.0690	*	0.085
Board Independence	-0.5589		0.393
Duality	0.0390		0.802
Intercept	3.8180		0.949
Year Fixed Effects	Yes		
N	1846		
Likelihood Ratio	23.22		

Table 7**Clawbacks and lawsuit settlement**

This table reports the results from OLS regressions examining the effect of the adoption of clawback provisions on litigation lawsuit settlement. The dependent variable is *Ln_Settlement*, which is the natural logarithm of the lawsuit settlement amount. We control for heteroscedasticity, year fixed-effects and clustering by firms in panels A, B, and C, respectively. Appendix 1 describes all the independent variables. P-values are reported in the table. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Panel A: OLS w/ Heteroscedasticity standard error			
Variable	Estimate		P-value
Clawback	-0.1216	*	0.051
Ln_Assets	0.0792	*	0.064
Leverage	0.0185		0.922
ROA	-0.1313		0.653
M/B	-0.0344	**	0.029
Total Compensation	0.0000		0.156
% Incentive compensation	0.2432	***	0.008
# Institutional Stockholders	0.0000		0.923
Board size	-0.0260	*	0.051
Board Independence	0.2689		0.198
Duality	0.0357		0.472
Intercept	24.7429		0.170
N	1845		
R-Square	0.0185		
Panel B: OLS w/ Year fixed effects			
Variable	Estimate		P-value
Clawback	-0.1393	**	0.044
Ln_Assets	0.0930	***	0.007
Leverage	-0.0075		0.971
ROA	-0.0778		0.837
M/B	-0.0329		0.193
Total Compensation	0.0000		0.233
% Incentive compensation	0.2845	***	0.008
# Institutional Stockholders	-0.0001		0.655
Board size	-0.0252	*	0.067
Board Independence	0.2164		0.352
Duality	0.0672		0.221
Intercept	-0.7207	**	0.038
N	1845		
R-Square	0.0294		

Panel C: OLS w clustering by firms			
Variable	Estimate		P-value
Clawback	-0.1215	*	0.080
Ln_Assets	0.0792	*	0.100
Leverage	0.0185		0.920
ROA	-0.1313		0.662
M/B	-0.0344	*	0.087
Total Compensation	0.0000		0.165
% Incentive compensation	0.2432	***	0.010
# Institutional Stockholders	0.0000		0.926
Board size	-0.0260		0.092
Board Independence	0.2689		0.190
Duality	0.0357		0.466
Intercept	24.7429		0.234
N	1845		
R-Square	0.018		