An Empirical Analysis of Audit Committee Member Resignations
Due to Policy Disputes with the Management

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Audit Committee (AC) resignations due to policy disputes may imply that the company is financially weak. Statistical analyses are performed to examine financial attributes of firms with pre-crisis (pre-2008) and post-crisis (2008 and after) resignations. Univariate test results indicate that the companies where AC resignations occurred pre-crisis are smaller and have higher total asset turnover ratios and post-crisis resignations are associated with more unqualified audit opinions. Multivariate logit results indicate that size, auditor opinion, intangible assets to total ratios, and inventory turnover ratios are significantly different between the two groups. Tobin’s Q is marginally different between the two groups.

INTRODUCTION

Audit committee (AC) members resign from the board due to a variety of reasons. Sometimes they are getting old and they want to retire. Other times, they are too busy and have too many commitments and hence they resign. On other occasions, they have policy disputes with the management and they publicly air the disputes and then resign. For example, James Smoak resigned from Yadkin Financial’s audit committee in December 2013 citing his dispute with the management over the company's growth strategy. We are using the financial crisis in 2008 (crisis) as the cutoff to examine company characteristics of firms where AC resignations occurred due to policy disputes with the management.

When a firm’s performance is troubled, the outside directors are particularly valuable since their independence enables them to assess objectively the performance of executives and make changes if they are appropriate (Hermaline and Weisbach, 1988). Hermaline and Weisbach (1998) also found that independent directors are added to the board following poor corporate performance. However, it is noted by Fahlenbrach et al. (2010) that outside directors may have weaker incentives to expend effort, may have higher information acquisition costs, and may be more dependent on the CEO for their information. They found that outside directors have incentives to leave when they anticipate that the firm on whose board they sit will perform poorly and/or disclose adverse information. According to Gilson (1990) there are fewer board seats for outside directors after sitting on boards of companies that experienced financial distress. We are focusing on a subset of outside directors, namely, the independent audit committee member resignations, in this research. Next, we discuss how independent audit committees became the mandated norm in US public companies.
In 1998, the “blue ribbon” panel, drawing members from the business, financial and accounting communities was established by the NYSE and the NASDAQ in response to concerns expressed by then SEC Chair Arthur Levitt about the adequacy of oversight of the audit process by independent corporate directors. The report and recommendations of the Blue Ribbon Committee on Improving Audit Effectiveness included the requirements of companies listed on the NYSE and the NASDAQ meeting the size requirement have an audit committee comprised of solely independent directors as well as the composition of the audit committee be comprised of a minimum of three directors, each of whom is financially literate and at least one member should have accounting or related financial management expertise. (NCFFR, 1987).

The barrage of corporate financial scandals in late 1990s and early 2000s caused the Congress to enact the Sarbanes-Oxley Act in 2002 (SOX 2002) and with it the mandated requirements for audit committee requirements. Under Section 407 of SOX (2002), a company is required to disclose whether it has at least one "audit committee financial expert" serving on its audit committee, and if so, the name of the expert and whether the expert is independent of management. Also of note, under SOX (2002) there is a safe-harbor rule in which an audit committee financial expert does not have duties, obligations or liabilities that are any greater than those of any other member of the audit committee. Although the safe harbor exists under the rules, it does not eliminate or alter the general responsibility of all members of the board of directors to protect the interests of the shareholders of the company and to properly assess all matters before acting on them set forth under applicable state law (see SOX 2002). It is hypothesized that audit committee members err on the side of caution more heavily post-crisis and are more cognizant of the negative publicity even more so than pre-crisis. The next section describes prior research and variable used in our model. The third section describes the data and methodology while the fourth gives a detailed explanation of the results. The final section provides a brief conclusion.

PRIOR RESEARCH & VARIABLES USED

Audit committees have served a role within corporate governance for quite some time and their roles and importance have grown immensely especially within public companies. Audit committees first attracted attention in the late 1930’s when the Securities and Exchange Commission (SEC) and New York Stock Exchange encouraged their establishment following a corporate scandal. In 1940, the SEC first recommended the establishment of audit committees in Accounting Series Release No. 19 (SEC, 1940) and since then the SEC has recognized that an audit committee was able to serve an important and necessary function for public companies through subsequent releases and reports including Accounting Series Release No. 123 (SEC, 1972) in which the SEC stated its long interest in corporate audit committees, and even endorsed the establishment of audit committees comprised of outside directors. According to the Public Company Accounting Oversight Board (PCAOB), audit committees play a vital role in the capital markets’ investor protection framework through their oversight of the audit engagement and the company’s financial reporting process. The Sarbanes-Oxley Act of 2002 (SOX 2002), as amended, enhanced the scope of the oversight role played by the public company audit committee by, among other things, making audit committees of listed companies “directly responsible for the appointment, compensation, and oversight” of auditors, imposing stricter independence requirements, and promoting increased audit committee expertise in financial reporting matters. In measuring the impact of the audit committee roles and their oversight impact, the research is mixed related to the independence of the board and performance of the company.

According to Black and Kim (2008) and Aggarwal et al. (2009) firm performance increases with the board of director independence while Bhagat and Black (2002) found no relation between independence of the board and performance of the company. While Duchin et al. (2010) found that adding outside directors to the board does not help or hurt performance on average, but outsiders significantly improve performance when their information cost is low, and hurt performance when their information cost is high. Faleye and Trahan (2006) noted a demonstrated commitment to employee welfare may help the firm to attract and retain better employees as well as encourage them to invest in firm-specific human capital.
The benefits of creating an employee-friendly environment outweigh the costs and these correlations may carry over to the outside director’s decision of whether to stay on the board during a difficult time or not.

In delving deeper into the relationship of audit committees and company performance there are some very interesting findings. According to Vafeas (1999), share price declines are followed by an increase in board meetings and Srinivasan (2005) found that outside directors of firms that restate earnings lose reputational capital. These findings highlight the premise that the outside director resigns in an attempt to prevent a loss of their reputation prior to the decline of the company. Essentially the outside directors are more like to resign when they are needed the most, before their workload increases and prior to their loss of reputation. Whereas according to Yermack (2004) members that sit on board of better performing firms are more likely to receive additional directorships. Fama and Jensen (1983) emphasize the fact that outside directors have incentives to build reputations as expert monitors.

Even though the committee members do not have any additional liability related to their seats on the board, they still experience an impact related to their reputations. Following a financial fraud lawsuit in firms where they are directors, outside directors experience a decline in other board seats they hold (Fich and Shivdasani, 2007). And as Holmstrom (1999) notes, wanting to be seen as doing the right thing and doing the right thing are not always the same. According to Fahlenbrach et al. (2010), outside directors have incentives to quit to protect their reputation or to avoid increases in their workload. Fahlenbrach et al. (2010) also found that following surprise outside director’s departures, affected firms had worse stock performance, worse accounting performance, a greater likelihood of an extreme negative return, a greater likelihood of restatement, and a greater likelihood of being sued by their shareholders. Agrawal and Chen (2011) also found in their study poor operating performance in both the year of dispute and the prior year, poor stock price performance during the 12 months before and 12 months after the episode, and a significantly greater incidence of shareholder class-action lawsuits. Further research in the Fahlenbrach et al (2013) study noted that outside directors tend to leave boards of poorly performing, smaller firms with more risk and take on board seats in larger, more stable firms. Fahlenbrach et al. (2013) further noted that using 2002 and SOX as the cutoff did not alter the results and the relation between surprise director departures and future restatements, litigations, and extreme negative return episodes. A drawback of the Fahlenbrach et al (2013) study is that their sample is based on a significant number of smaller firms and therefore the inability to generalize the results to the set of firms related to capital markets and essentially the application of the SOX rules.

Total Asset Turnover ratio (TATO) is one variable used in this study. Post-crisis, firms downsized by getting rid of under-performing assets and reducing inventories in an attempt to shed excess capacity. This downsizing would however have been offset by a decrease in revenues. To this extent, we would expect the TATO to be different in committee members’ resignations pre-crisis versus post crisis. Intangible assets to total assets ratio (IntanTA) is also used as an explanatory variable in this study. Intangible asset valuation between the two periods is expected to be different based on the conservative valuation of the intangible assets and the influence of the committee members.

Auditor opinion (AUOP) is utilized as a measure of the corporate governance model (Li et al. 2005). It is expected that there will be more unqualified audit opinions in the post-crisis period highlighted the monitoring function of the audit committees. Tobin’s Q is a measure of the firms market value versus replacement cost computed as {Total Assets + (Market Value of Equity – Book Value of Equity)) / Total Assets. This measure is an alternative for the valuation added by the company’s operations and management (see Hirschey and Connolly, 2005 and Adams, 2012). Inventory turnover (INVTO) is expected to be quicker in the post-crisis firms based on the reaction to shed excess capacities and management’s intentions to control inventory levels more carefully.

Return on Equity (ROE) is another explanatory variable used in this study. The ROE measure is anticipated to be consistent between the differing time periods based on the premise that the ratio would be higher for high growth companies and considering the sample we would not expect a high growth before nor after crisis. Logarithm of Total Assets (LNTA) is a measure of total firm size using a logarithmic scale. The ratio has been used by Erkens et al. (2012) to examine the impact of corporate governance during the financial crisis on firm size.
DATA AND METHODOLOGY

The list of AC resignations due to policy dispute was obtained from the Audit Analytics database. Financial data for these 102 companies were also obtained from the COMPUSTAT (Research Insight) database. We analyze data from the years before 2008 (Pre-crisis) and 2008 and after (Post-crisis). The datasets used in this study consists of seven attributes for each firm. These attributes are: Total Assets Turnover ratio (TATO), Intangible assets to Total Assets ratio (IntanTA), Auditor opinion (AUOP), Tobin’s Q ratio, Inventory Turnover (INVTO) ratio, Return on Equity (ROE), and Logarithm of Total Assets (LNTA). Support for using these specific variables is found in prior research described earlier. The dependent variable Y is a dichotomous (0, 1) variable representing the two groups, pre-crisis resignation (Y=1) and post-crisis resignation (Y=0) firms.

We provide a summary of descriptive statistics in Table 1. For pre-crisis and post-crisis firms separately, this table reports the mean, the standard deviation, and T-statistics for variables used in this study. The TATO measure had a mean of 1.13 for pre-crisis firms and a mean of 0.78 for post-crisis firms. The IntanTA ratio had a mean of 0.16 for pre-crisis firms and a mean of 0.11 for post-crisis firms. The Tobin’s Q ratio averaged 2.78 for pre-crisis firms and 3.07 for post-crisis firms. Inventory turnover ratio averaged 26.8 percent for pre-crisis firms and 35.7 percent for post-crisis firms. The return on equity measure had a mean of -55.5 percent for pre-crisis firms and a mean of -18.04 percent for post-crisis firms. Even though both (pre and post crisis) groups are earning a negative return on equity, pre-crisis firms are making a lot bigger losses. The results are similar when we use return on assets as a measure of profitability. In other words, AC members are resigning from companies in the post-crisis period, even though these firms are improving their performance. The size measure averaged 4.37 for pre-crisis firms and 5.25 for post-crisis firms. T-tests for mean difference indicate that logarithm of total assets (size) and total asset turnover ratios are significantly different between the pre-crisis and post-crisis firms. T-test results also indicate that audit opinions (governance proxy) are significantly different between the two groups.

### Table 1
DESCRIPTIVE STATISTICS

<table>
<thead>
<tr>
<th>Variables</th>
<th>Firm Code</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>T-stat</th>
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<tbody>
<tr>
<td>TATO</td>
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<td>51</td>
<td>1.13</td>
<td>0.60</td>
<td>2.149**</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>50</td>
<td>0.78</td>
<td>2.64</td>
<td>2.149**</td>
</tr>
<tr>
<td>IntanTA</td>
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<td>50</td>
<td>0.16</td>
<td>3.09</td>
<td>1.459</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>49</td>
<td>0.11</td>
<td>3.11</td>
<td>1.459</td>
</tr>
<tr>
<td>AUOP</td>
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<td>52</td>
<td>2.33</td>
<td>1.50</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>50</td>
<td>1.84</td>
<td>1.36</td>
<td>1.716*</td>
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<tr>
<td>Tobin’s Q</td>
<td>1</td>
<td>52</td>
<td>2.78</td>
<td>2.59</td>
<td>-0.301</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>48</td>
<td>3.07</td>
<td>6.31</td>
<td>-</td>
</tr>
<tr>
<td>INVTO</td>
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<td>40</td>
<td>26.86</td>
<td>58.07</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>37</td>
<td>35.69</td>
<td>75.54</td>
<td>-0.577</td>
</tr>
<tr>
<td>ROE</td>
<td>1</td>
<td>48</td>
<td>-55.15</td>
<td>229.0</td>
<td>-1.052</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>45</td>
<td>-18.04</td>
<td>60.01</td>
<td>-</td>
</tr>
<tr>
<td>LNTA</td>
<td>1</td>
<td>52</td>
<td>4.37</td>
<td>1.65</td>
<td>-2.227**</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>50</td>
<td>5.25</td>
<td>2.29</td>
<td>-</td>
</tr>
</tbody>
</table>

Firm code: 1 = before 2008; 0 = 2008 and after
*Statistically significant at 10% level
**Statistically significant at 5% level
Correlations among the explanatory variables are not strong. Return on equity is negatively correlated with Tobin’s Q, TATO, and auditor opinion. Tobin’s Q is positively correlated with auditor opinion, TATO and inventory turnover. There is a positive relationship between inventory turnover and TATO, auditor opinion, and Tobin’s Q. Inventory turnover ratio and IntanTA are positively related. A negative relation exists between Tobin’s Q, auditor opinion and IntanTA. None of the correlations are greater than 0.41. According to Judge, Griffiths, Hill and Lee (1980), multicollinearity problems arise only when the correlations among explanatory variables are higher than 0.8. Hence, the degree of collinearity present among explanatory variables appears to be too small to invalidate estimation results. Moreover, the variable inflation factor values (VIF) are all below 1.351, again indicating no multi-collinearity issues.

**MULTIVARIATE TESTS - LOGIT MODEL & RESULTS**

Univariate tests may not produce robust results when independent variables are correlated. Using the independent variables in a multivariate context, however, allows one to examine their relative explanatory power and can lead to better predictions since the information contained in the cross-correlations among variables is utilized. A primary objective of many multivariate statistical techniques is to classify entries correctly into mutually exclusive groups. Logistic regression (Logit), Multiple discriminant analysis, and PROBIT are some of the multivariate models.

In this study, the following logistic regression (LOGIT) model is proposed:

\[
Pr(Y=1|X) = F (\beta_0 + \beta_1 x_1 + \beta_2 x_2 + \ldots + \beta_K x_K )
\] (1)

The dependent variable \(Y\) is a dichotomous (0, 1) variable representing the two groups, pre-crisis resignation (\(Y=1\)) and post-crisis resignation (\(Y=0\)) firms. The independent variables \(X_1\), \(X_2\), ..., \(X_K\) include the Return on equity, Tobin’s Q, Total Assets Turnover, Inventory Turnover, Intangible assets to Total Assets ratio, auditor opinion, and size measures described in the previous section. Specifically these explanatory variables are:

- TATO = Total Assets Turnover ratio
- IntanTA = Intangible assets to Total Assets ratio
- AUOP = Auditor opinion
- Tobin’s Q = Tobin’s Q ratio
- INVTO = Inventory Turnover ratio
- ROE = Return on Equity
- LNTA = Logarithm of Total Assets

It is assumed that no exact linear dependencies exist among \(X\)'s across \(k\), and that the relationship between \(Y\)'s and \(X\)'s are non-linear or logistic (i.e., \(P(Y =1|X) = \exp (\Sigma \beta_K X_K) / [1 + \exp (\Sigma \beta_K X_K)]\)). The null hypotheses would be: \(H_0: \beta_k = 0, \text{ where } k = 1, \ldots, 7;\)
### TABLE 2
LOGIT ANALYSIS RESULTS TO TEST FOR DIFFERENCES IN FINANCIAL ATTRIBUTES - PRE-CRISIS VS POST-CRISIS

<table>
<thead>
<tr>
<th></th>
<th>I</th>
<th>II</th>
</tr>
</thead>
<tbody>
<tr>
<td>TATO</td>
<td>0.534</td>
<td>0.400</td>
</tr>
<tr>
<td></td>
<td>(2.019)</td>
<td>(1.923)</td>
</tr>
<tr>
<td>IntanTA</td>
<td>5.396</td>
<td>3.315</td>
</tr>
<tr>
<td></td>
<td>(5.021)**</td>
<td>(5.084)**</td>
</tr>
<tr>
<td>AUOP</td>
<td>0.247</td>
<td>0.306</td>
</tr>
<tr>
<td></td>
<td>(1.166)</td>
<td>(3.036)*</td>
</tr>
<tr>
<td>Tobin’s Q</td>
<td>0.398</td>
<td>-0.046</td>
</tr>
<tr>
<td></td>
<td>(3.695)*</td>
<td>(0.739)</td>
</tr>
<tr>
<td>INVTO</td>
<td>-0.023</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td>(7.968)**</td>
<td></td>
</tr>
<tr>
<td>ROE</td>
<td>-0.001</td>
<td>-0.001</td>
</tr>
<tr>
<td></td>
<td>(0.145)</td>
<td>(0.085)</td>
</tr>
<tr>
<td>LNTA</td>
<td>---</td>
<td>-0.314</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(4.604)**</td>
</tr>
<tr>
<td>CONSTANT</td>
<td>-1.707</td>
<td>0.337</td>
</tr>
<tr>
<td></td>
<td>(5.933)**</td>
<td>(0.134)</td>
</tr>
</tbody>
</table>

-2 Log Likelihood

<table>
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<th></th>
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<th>II</th>
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<tbody>
<tr>
<td></td>
<td>68.61</td>
<td>103.03</td>
</tr>
<tr>
<td>Nagelkerke R-squared</td>
<td>0.371</td>
<td>0.228</td>
</tr>
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</table>

*a The dependent variable is dichotomous: 1 = before 2008; 0 = 2008 and after
*Statistically significant at 10% level;
**Statistically significant at 5% level

TATO = Total Assets Turnover ratio
IntanTA = Intangible assets to Total Assets ratio
AUOP = Auditor opinion
Tobin’s Q = Tobin’s Q ratio
INVTO = Inventory Turnover ratio
ROE = Return on Equity
LNTA = Logarithm of Total Assets

The main logit results are reported in Table 2 under models I and II. Null hypothesis 1 (H1) suggests that there is no statistically significant difference in TATO ratio between “pre-crisis” and “post-crisis” firms. The coefficient estimate for the TATO variable is 0.534 and is not statistically significant. H2 (null) suggests there is no statistically significant difference in the Intangible assets to Total assets ratios between “pre-crisis” and “post-crisis” firms. The coefficient estimate for the Intangible assets to Total Assets ratio is 5.396 and is
statistically significant at the 5 percent level. This indicates that this ratio was significantly larger for the pre-crisis period than the post-crisis period. The companies may be reluctant to record large amounts for intangible assets in the post-crisis period. This could indicate strong oversight by independent directors on the audit committees.

H3 (null) suggests there is no statistically significant difference in audit opinions (AUOP) between “pre-crisis” and “post-crisis” firms. The coefficient estimate for the AUOP variable is 0.306 (model II) and is statistically significant only at the 10 percent level. This suggests that AUOP is marginally different between the two groups. This suggests that companies had more unqualified audit reports in the post-crisis period, in line with our expectations. Prior research suggests that audit opinion is a proxy for the corporate governance mechanism (Li, C., Song, F., & Wong, S. 2005). Auditors and independent audit committee members could have exercised more oversight and prevented companies from using too many aggressive accounting methods in the post-crisis period.

H4 (null) suggests that there is no statistically significant difference in Tobin’s Q (a proxy for firm valuation and growth) between “pre-crisis” and “post-crisis” firms. The coefficient estimate for Tobin’s Q is 0.398 and is statistically significant only at the 10 percent level in model I. This suggests Tobin’s Q is marginally different between the two groups. We expected the effect of this valuation measure to be indeterminate. H5 (null) suggests that there is no statistically significant difference in the Inventory turnover (INVTO) ratio between “pre-crisis” and “post-crisis” firms. The coefficient estimate for INVTO ratio is -0.023 and is statistically significant at the 5 percent level. This suggests the INVTO ratio is different between the two groups and the companies in the post-crisis period have larger INVTO ratios. This is in line with our expectations since companies have become much more careful about inventory management in the post-crisis period.

H6 (null) suggests that there is no statistically significant difference in return on equity ratios between “pre-crisis” and “post-crisis” firms. The coefficient estimate for this ratio is -0.001, and is not statistically significant. Hence, this hypothesis is not rejected. Companies were reporting negative returns on equity during both the time periods. We performed robustness tests by adding a size variable in model II and dropping the inventory turnover ratio, since it was highly correlated with size. The model I results are confirmed and the same variables as in model I are statistically significant for the most part. A key difference is, in model II, AUOP is statistically significant at the 10 percent level. Another big difference is the result for the size variable in model 2. H7 (null) suggests that there is no statistically significant difference in the size measure (LNTA – Natural Logarithm of Total Assets) between “pre-crisis” and “post-crisis” resignations. The coefficient estimate for LNTA is -0.314 and is statistically significant at the 0.05 level. This suggests that the size measure is different between the two periods. This result indicates that AC members have been resigning from even larger companies during the post-crisis period, indicating that their risk tolerance for aggressive accounting has been reduced in the post-crisis period.

CONCLUSION

In this paper, we explored the relationship between audit committee member resignations due to disputes with management and some key financial and accounting variables. The rules and requirements of SOX were put in place to strengthen the monitoring function of the audit committee and those members who were selected to oversee management’s decisions and functions. If those members resign, a shadow of doubt is cast over the monitoring function. These resignations could be due to various reasons including the committee member having a lot of work in other places, getting too old, but could also be related to a company being in a weak financial position. Even though an audit committee member does not have any additional liability as noted under the safe harbor rules, their reputation and additional board seats in the future may be in jeopardy. The weaker financial position of a company and whether an audit committee member is going resign from the board is compounded based on the post- versus pre-crisis era experienced in 2008.

We addressed some of the limitations of prior studies, by using more recent data and allowing for non-linear relationships between audit committee member resignations and firm performance. We built a non-
linear, multivariate logistic regression (logit) model to examine the relationship between firm characteristics and AC member resignations. Statistical analyses are performed to examine financial attributes of firms with pre-crisis (pre-2008) and post-crisis (2008 and after) resignations. Multivariate logit results indicate that size, auditor opinion, intangible assets to total ratios, and inventory turnover ratios are significantly different between the two groups. Tobin’s Q is marginally different between the two groups. These results imply that independent audit committee members could have exercised more oversight and prevented companies from using too many aggressive accounting methods in the post-crisis period and from recording large amounts of intangible assets. Our results also indicate that AC members have been resigning from even larger companies during the post-crisis period, indicating that their risk tolerance for aggressive accounting has reduced in the post-crisis period. Moreover, AC members were resigning in the post-crisis period from companies that were improving their financial performance, perhaps indicating risk aversion. Since the sample size used in this study is small, generalizing the results should be done with great caution. Also many other AC resignations could be due to unannounced policy disputes and those cases are not included in our sample.

REFERENCES

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