How do Banking Analysts behave around Unanticipated News? Evidence from Operational Risk Event Announcements

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Abstract

We study earnings per share (EPS) forecast revision and accuracy of banking analysts around operational risk event announcements in U.S. banks. We find that first announcements of operational risk events are more informative than their settlement announcements. Optimistic banking analysts revise their forecasts downward more aggressively around operational risk disclosures, thereby improving forecast accuracy. Career concerns of banking analysts cause an upward bias in forecast revision and deterioration in forecast accuracy only if the potential employer is a systemically important bank (SIB). We find consistent evidence linking competition among banking analysts with optimistic and inaccurate forecasts, which is consistent with analysts seeking to use inflated forecasts to curry favour and attract businesses to their brokerage house around the time of operational risk disclosures. Global settlement has no favourable impact on analyst forecast accuracy around operational risk event announcements. We find evidence supporting a materiality threshold of $10 million for the informativeness of operational risk event announcements in SIBs. Overall, our results shed light on optimism bias in banking analyst behaviour upon the arrival of unanticipated news.

Keywords: Operational risk; unanticipated news; banking analyst; forecast revision and accuracy; career concerns; analyst competition; optimism bias

JEL Classifications: G14; G21; G41

1. Introduction

Equity analysts play a crucial role in capital markets by contributing to the reduction of information asymmetries between firms' managers and outside investors. The primary role of analysts consists of discovering information and using their specialized market expertise and technical know-how in interpreting corporate disclosures and converting them into forecasts and recommendations reports that can be useful to investors in making investment decisions (Rubin and Segal 2016; Rubin et al. 2017). When new information is discovered, equity analysts may decide to revise their earnings forecasts, which are then translated into a key basis of information for investors in their on-going trading decision-making (Huang and Zhang 2011).

Some news items are anticipated while others are not. Examples of anticipated news include earnings announcements that are disclosed in the form of quarterly (10-Q) and annual (10-K) financial reports. Empirically, such news has been shown to affect analyst forecasts (Ivkovic and Jegadeesh 2004; Chen et al. 2010). Examples of unanticipated news are items included in 8-K reports (Rubin et al. 2017).[1] Other examples include sudden disruptions in supply chains due to natural disasters, terrorism, and other adverse unexpected events. We study a special type of unanticipated news, which are announcements of operational risk events incurred by banks.

We focus exclusively on operational risk event announcements due to the idiosyncratic nature of operational risk in banks (Lopez 2002; Chernobai et al. 2011). Hence, bank managers cannot escape their responsibility for operational risk events; for example, by attributing their occurrences to systematic risks. In addition, the vast majority of operational risk events are announced by external parties, such as regulators, clients, creditors and other counterparties. Hence, bank managers have little control over the disclosures made in these announcements (Chernobai et al. 2011; Barakat et al. 2019). Banking analyst behaviour around operational risk

event announcements could reveal potential bias from banking analysts' unobservable conflicts of interest. A banking analyst could research a bank's activities to extract private benefit from maintaining close relationships with bank managers. This could be motivated by, for example, career concerns (Horton et al. 2017), developing brokerage business (O'Brien et al. 2005), or competition with other analysts (Huang et al. 2017).

Operational risk is defined as "the risk of loss resulting from inadequate or failed internal processes, people or systems, or from external events" (BCBS 2001, 2). Operational risk has been at the root of many large-scale losses suffered by financial institutions globally. Examples include a $7.2 billion trading loss at Société Générale in 2008, Bernard Madoff's $50 billion Ponzi Scheme in 2008, and a $25 billion fine over improper mortgage loan servicing and foreclosure fraud in 2012 jointly imposed on the five largest U.S. banks: Bank of America Corporation, JP Morgan Chase & Co., Wells Fargo & Co., Citigroup Inc., and Ally Financial Inc. There is lack of regulatory disclosure requirements for operational risk events. They are not mandated to be included in 8-K filings, for example.[2] From an accounting perspective, an operational risk event is considered a loss to a bank. Operational risk events also signal internal control weaknesses, poor corporate governance and risk management ineffectiveness (Chernobai et al. 2011).

Recent studies provide consistent evidence of a significant negative equity market reaction to operational risk event announcements, once they occur, especially for internal fraud events (Perry and de Fontnouvelle 2005; Cummins et al. 2006; Gillet et al. 2010; Sturm 2013). As such, operational risk event announcements are important corporate disclosures conveying valuable signals about firms' anticipated future cash flows and earnings per share. While, arguably, equity value consequences of operational risk events are economically substantial, there is no prior research as to whether material operational losses lead to equity analysts' revisions of earnings forecasts.

Our objective is to examine operational risk event announcements from the perspective of banking analysts. To the best of our knowledge, this is the first study to analyse whether operational risk event announcements are incorporated in analyst forecast revisions. We employ a sample of 310 first announcements and 291 settlement announcements of operational risk events in 56 U.S. banks, followed by 534 banking analysts, from 1990 to 2016.[3] We examine analyst forecast revision and error change (i.e. accuracy) in a reaction window of (−5, +5) around each operational risk event announcement. A comparison between the pre-announcement window (−5, −1) and post-announcement window (0, +5) enables us to determine whether it is the leakage of private information and/or the event disclosure that cause analysts to revise their forecasts.

There are four main themes in this paper. First, since operational risk events can have material consequences on a firm's future earnings, we anticipate that analysts would revise their earnings forecasts downward following announcements of such events. We find that operational risk disclosures are informative and that analysts subsequently revise their earnings forecasts downward. We distinguish between the operational risk event's first press-cutting date (first announcement) and its settlement announcement. Our evidence shows that downward forecast revisions and improvements in forecast accuracy are stronger around the first announcement than around the settlement announcement.[4]

Second, banking analysts may issue optimistic forecasts because of career concerns.[5] Analysts may view banks, whose earnings they are forecasting, as potential employers if the latter has a sell-side equity department (Horton et al. 2017). As such, they are incentivized to satisfy those clients. Horton et al. (2017) find that banking analysts issue forecasts that are relatively more optimistic for employers at the beginning of the year but by the end of the year the forecasts are relatively more pessimistic. This results in a more pronounced walk-down to beatable earnings for employers. Horton et al. (2017) argue that this bias effectively leads to

favourable career outcomes for banking analysts. Motivated by these findings, we study whether career concerns affect analysts' earnings forecast revision and accuracy around operational risk event announcements. We find that career concerns of banking analysts cause an upward bias in forecast revision and deterioration in forecast accuracy only if the potential employer is a systemically important bank (SIB).[6]

Third, we analyse the effect of competition, measured by the number of analysts following the firm, on analyst forecast revision and accuracy around operational risk disclosures. Our paper builds on past literature by asking whether competition among analysts rationalizes analyst forecasts (Lys and Soo 1995; Alford and Berger 1999; Hong and Kacperczyk 2010) or makes analysts attempt to attract investment banking business and gain sales for their brokerage house through the issuance of optimistic forecasts (Schipper 1991; Lim 2001; Hong and Kubik 2003; Cowen et al. 2006). We find consistent evidence of the latter effect: more intense analyst competition boosts forecast optimism bias.

Finally, we exploit the exogenous shocks of the Global Settlement of 2003 and Global Financial Crisis (GFC) of 2007–2009 to deepen our understanding of banking analyst behaviour around unanticipated news. We find that the Global Settlement had no impact on analyst forecast revision and accuracy around operational risk event announcements. However, our results show that banking analysts are reacting more rationally as reflected in more pronounced downward forecast revisions and improvements in forecast accuracy around operational risk event announcements during and following GFC. This result confirms the favourable effects of more stringent scrutiny of operational risk exposure in the banking industry on analyst behaviour upon the arrival of unanticipated news.

Our findings have two major policy implications for banking regulatory and supervisory authorities. First, our evidence demonstrates that operational risk disclosures provide new information, which reduces the error and bias in analyst forecasts, and enhances

market discipline. However, being a non-mandated disclosure, operational risk events incurred by a bank are not publicly disclosed. Therefore, in terms of policy implications, our empirical results favour the public disclosure of material operational risk events. Market participants should not have to wait until operational risk events are disclosed by the media. Hence, regulators could choose to either ask banks to disclose these operational loss data forms that are sent to them on their websites or in their risk reports, or regulators themselves report these operational risk events to the market. We find evidence supporting a materiality threshold of $10 million for the informativeness of operational risk event announcements in SIBs. Hence, our results suggest that, subject to a specific materiality threshold (for example, $10 million in SIBs), there should be a regulatory requirement to publicly disclose aggregate or detailed information on operational risk events incurred by banks.

The second policy implication of this paper is that it calls for banking supervisors to monitor more closely analyst activities that may represent a conflict of interest and, hence, amplify the optimism bias in analyst forecasts. More specifically, analysts who are facing a strong competition are more likely to provide optimistic and inaccurate forecasts around unanticipated news, possibly to attract investment-banking business. Hence, banking supervisors should exert harder efforts to make sure that the regulations imposed to mitigate the overlapping of the analyst research and brokerage business lines are complied with properly in the daily activities of brokerage houses.

The remainder of the paper is organised as follows. Section 2 reviews the literature and develops our hypotheses. Section 3 defines the variables used, clarifies our data sources, and explains our empirical model. Section 4 presents our empirical findings along with robustness tests discussed in Section 5. Section 6 concludes.

2. Hypotheses Development

2.1. Information Content of Operational Risk Event Announcements

Under the rational expectations hypothesis, which postulates that market participants have rational expectations that are updated when new information is released, an equity analyst will act rationally by taking into account all available information when making forecasts and aiming to maximize forecast accuracy (Muth 1961; Givoly 1985). The accuracy of equity analysts' earnings forecasts has been used as a measure to evaluate the uncertainty and information transparency of firms and industries that analysts follow.

Prior studies on analyst forecasts have mainly focused on earnings announcements as the main significant corporate public information causing analysts to revise their forecasts (Ivkovic and Jegadeesh 2004; Chen et al. 2010). Rubin et al. (2017) further argue that a greater number of analysts react and make revisions following anticipated earnings news (70%) than unanticipated 8-K reports (14%). They explain this difference by evaluating the economic impact of news such that anticipated news is considered to generate greater market reaction than unanticipated news. However, despite the weaker market reaction, forecasts issued following unanticipated 8-Ks have been found to be informative for analysts, conveying relevant information for future earnings. Additionally, Rubin et al. (2017) find that revisions following unanticipated 8-K reports are associated with smaller forecast error.

Chernobai et al. (2011) document that operational risk events reveal serious internal control weaknesses, resulting from improper business practices, poor governance and excessive risk-taking of executives in financial firms. As such, this adverse idiosyncratic informational shock, disclosed by the media and hitting financial markets, is likely to deteriorate the expected future cash flows of the affected firm. This adverse financial impact extends beyond cash flows; recent empirical studies provide strong consistent evidence of a negative equity value impact of operational risk event announcements. For instance, Perry and

de Fontnouvelle (2005), Cummins et al. (2006), Gillet et al. (2010), Sturm (2013) and Barakat et al. (2018) find that operational risk event announcements spur severe drops in market prices, which cause adverse reputational effects beyond the nominal operational risk loss amount.

Leakage of private information may cause a significant drop in market values in the days leading up to the actual announcement date. Cummins et al. (2006) examine the impact of information leakage prior to operational risk event announcements on stock market reaction and find that informed traders possessing superior knowledge of internal operations tend to start trading on the private information several days before the announcement. When this happens, equity analysts should react by revising their forecasts downward and correcting any prior optimistic beliefs.

Extant literature documents that analyst forecasts are highly influenced by conflicts of interest (Schipper 1991; Lim 2001; Hong and Kubik 2003; Jackson 2005). A large number of studies find evidence of excessive optimism of sell-side analysts' earnings forecasts because of pressure to generate trading commissions, underwriting activities in investment banking business and career concerns (Lin and McNicolas 1998; Hong and Kubik 2003; Chan et al. 2007; Horton et al. 2017). Lim (2001) argues that analysts who intentionally bias their forecasts upward can still be considered rational when forecasts are issued for firms where an uncertain information environment prevails, and firm management is seen as a vital source of information. In doing so, analysts aim at gaining close relations with the management of forecasted firms to benefit from access to private information and, hence, to enhance their forecast accuracy.

We argue that equity analysts who are not optimistic are less likely to revise their forecasts around operational risk event announcements. Such pessimistic analysts might already know about internal control weaknesses from their prior discovery of private information (e.g. through their connections with firms' managers). Therefore, the operational

risk event announcement does not come as a surprise to them and does not trigger a forecast revision. In contrast, an analyst with an optimistic forecast (i.e. that is upward biased) is expected to revise their forecast in the event of unanticipated news, thus improving forecast accuracy.

It is argued that forecast revisions following corporate announcements are indicative of analysts' interpretation skills, but only if the corporate announcement is unanticipated (Ivkovic and Jegadeesh 2004; Chen et al. 2010; Livnat and Zhang 2012; Rubin et al. 2017). This is because a forecast revision that takes place as a consequence of anticipated corporate news, such as earnings announcements, is potentially affected by the analyst's ability to predict the news. Therefore, analyst reaction to anticipated news is likely to be affected by both the discovery and interpretation skills of the analyst. Following this line of argument, first announcements of unanticipated operational risk events should be linked to the interpretation skills of analysts and settlement announcements should be linked to both the discovery and interpretation skills of the analyst. There is usually a wealth of information publicly disclosed at the market or privately discovered by analysts between the first announcement and settlement announcement of the operational risk event. Hence, the disclosures made in settlement announcements are likely to be more anticipated and less informative than those made in first announcements of operational risk events. Therefore, our first set of hypotheses are formulated as follows:

H_{1a}: Operational risk event announcements are informative to banking analysts.

H_{1b}: First announcements of operational risk events are more informative than their settlement announcements to banking analysts.

2.2. Career Concerns of Banking Analysts

Analysts work in an environment where their actions and performances have a significant impact on their future career prospects. For example, the Wall Street Journal reported that a famous large-cap tech analyst at Merrill Lynch was fired due to bad calls on a key tech stock, which resulted in an erosion of his influence among his buy-side clients (Hong and Kubik 2003). Nocera and Kover (1997) argue that analysts strive to be influential among their buy-side clients to gain the attention of a top-tier brokerage house if they are not already employed at one. This argument is supported by Hong and Kubik (2003) who show that analysts who provide optimistic earnings forecasts relative to the consensus tend to experience favourable job separations and be employed by a higher-status brokerage house. They also find evidence that analysts with relatively poor forecast performance, i.e. less accurate forecasts, are more likely to lead to movements down the brokerage house hierarchy. Therefore, analyst career progression depends on their relative forecast accuracy and optimism bias.

A more recent stream of literature observes a gradual movement from optimism to pessimism in analyst forecasts, referred to as a walk-down to beatable earnings (Richardson et al. 2004; Cowen et al. 2006; Ke and Yu 2006; Horton et al. 2017). Horton et al. (2017) explain that banking analysts provide forecasts for firms with sell-side equity departments, that might be a future potential employer and, hence, they are motivated to satisfy those clients. They find that analysts forecasting for a potential employer are likely to provide an upward revision and be more positively biased (i.e., optimistic) at the beginning of the year, while they tend to issue forecasts that are more pessimistic at the end of the year. This pessimism provides the employer with an opportunity to beat earnings expectations by analysts and enjoy a higher overall return. Analysts with such optimism-to-pessimism patterns are less likely to be fired by their employers. Rather, they experience favourable job separations and move to a higher status brokerage house than those not providing such patterns (Ke and Yu 2006; Horton et al. 2017).

We therefore argue that analyst behaviour around operational risk event announcements is influenced by their career concerns, proposing the following hypothesis:

H_2: Career concerns bias banking analyst behaviour around operational risk event announcements.

2.3. Competition among Banking Analysts

In line with the rational expectations hypothesis, competition motivates analysts to act rationally by considering all available information when making forecasts and striving to maximize forecast accuracy. Extant literature argues that a higher number of analysts following a firm would lead to a lower forecast error (Lys and Soo 1995; Alford and Berger 1999). This argument is supported by Hong and Kacperczyk (2010) who find that competition reduces the optimistic bias in analyst forecasts. In a competitive environment, assuming that consumers of their forecasts demand accuracy, Hong et al. (2000) argue that inexperienced analysts with more career concerns than experienced analysts would tend to display a herding behaviour. Their forecasts follow the consensus in order to minimize their chances of under-performing and losing their jobs.

A competing argument is that competition may encourage analysts to be optimistic in their forecasts to distinguish themselves from other analysts, especially in the eyes of potential employers. We provide three reasons why an optimistic bias is embedded in analyst forecasts: first, pleasing the firm's management in exchange for private firm-specific information (Das et al. 1998; Lim 2001; Barber et al. 2006; Chan et al. 2007), second, attracting investment banking business (Michaely and Womack 1999; Dechow et al. 2000; O'Brien et al. 2005), and finally, stimulating greater trading volume for their brokerage firms to benefit from greater commission revenue (Jackson 2005). Therefore, higher analyst coverage could strengthen competition between analysts and cause an analyst to become optimistic around adverse operational risk event announcements.

Given the competing arguments suggest bias in different directions, the direction of the bias is an empirical issue. Both the above arguments suggest competition leads to biased analyst forecast, thus proposing the following hypothesis:

H_3: Competition biases banking analyst behaviour around operational risk event announcements.

2.4. The Global Settlement of 2003

The impact of major exogenous financial shocks or regulatory changes on analyst forecasts is of concern to academics and practitioners. One such regulation is Regulation Fair Disclosure (Reg FD) of 2000. Reg FD prohibits firms from selectively providing information to analysts before disclosing it to the public. The regulation was imposed with the aim of preventing those with informational advantage to enjoy a profit at the expense of others (Eng et al. 2014). Evidence suggest that analysts have consequently had a lower tendency to issue optimistic forecasts and recommendations (Herrmann et al. 2008; Hovakimian and Saenyasiri 2010).

Another regulation is the Global Settlement implemented on 28 April 2003. It is an exogenous shock to the career concerns of equity analysts (Horton et al. 2017). It aims at restoring the integrity of research, which was compromised due to prior pressure on analysts to attract investment banking businesses. This enforcement agreement created a "Chinese Wall" between investment banking divisions of brokerage houses and banks' research divisions, boosting competition in the sell-side analyst labour market. The Global Settlement has supposedly altered the focus of analysts, making them reluctant to become excessively optimistic for future potential employers. This is mainly because they do not want to disappoint investors who consume their forecasts and risk dismissal (Horton et al. 2017). This implies that analysts are now more interested in keeping their current job rather than looking to be employed by another investment bank. Our fourth hypothesis is therefore as follows:

H_4: Banking analyst behaviour around operational risk event announcements has become less biased after the Global Settlement of 2003.

3. Data and Methodology

3.1. Data and Sample Selection

Data on operational risk event announcements are collected from the Financial Institutions Risk Scenario Trends (FIRST) database, marketed by IBM. FIRST's primary goal is to assist financial institutions in identifying, understanding, and managing their operational risk. The database includes information ranging from the name of the firm in which the event took place to a detailed narrative of the event. The data are collected from public sources, such as the media, SEC press releases, and court orders. From this database, we collect information on first announcement dates, settlement dates, loss amounts and types of operational risk events. We manually double-checked each field for accuracy through the LexisNexis business news database. Each event in our sample has a first announcement date with a corresponding settlement date and known settlement loss amount. For the purpose of this study, we restrict our sample to operational risk event announcements in publicly traded U.S. banks.[7]

Because our focus is on operational risk event announcements and their impact on analyst forecasts, we restrict our sample to operational risk event announcements that do not overlap with any other confounding announcements. We use an event window of five trading days prior to five trading days after the operational risk event announcement (−5, +5). Potentially confounding announcements include any quarterly and annual earnings announcements (10-Qs and 10-Ks, respectively), reported in I/B/E/S as the 'announce date of the actual' of the next quarter (FPI = 6) and next year (FPI = 1), and material corporate announcements (Form 8-Ks), filed with the SEC's Electronic Data Gathering, Analysis and Retrieval online system (EDGAR). These earnings and other non-earnings announcements are likely to cause analysts to revise their forecasts (Rubin et al. 2017).

A part of the operational risk literature did not examine market reactions to operational risk events whose loss amount is lower than $10 million on the assumption that these events

are immaterial (for example, Cummins et al. 2006; Gillet et al. 2010; Barakat et al. 2014). However, other studies on operational risk events have used a lower materiality threshold such as $1 million (for example, Fiordelisi et al. 2013, 2014) or no materiality threshold (for example, Perry and de Fontnouvelle, 2005). Therefore, we are interested in examining the validity of different materiality thresholds in the context of informativeness of operational risk event announcements to equity analysts.[8]

Appendix II reports the analyst reaction ratio,[9] forecast revision, and forecast error change in the event window (-5,+5) around first announcements and settlements of operational risk losses below and above a materiality threshold of $10 million. For the sake of brevity, we denote operational risk events whose loss amount is lower than $10 million as "The Minor Sample" or "Minor Losses" and operational risk events whose loss amount is higher than $10 million as "The Severe Sample" or "Severe Losses". We denote the sample including all operational risk events as "The Full Sample".

Overall, we find that severe loss announcements are more informative than minor loss announcements. The analyst reaction ratio around first announcements of severe losses (14.78%) is higher than that around first announcements of minor losses (11.35%). Moreover, the drop in analyst forecast error around severe loss announcements (0.6090%) is almost 2.5 times that around minor loss announcements (0.2435%). The difference in informativeness is more pronounced around bad news, during and after GFC, and in SIBs. For example, around first announcements of bad news, the drop in analyst forecast for severe losses (0.7881%) is almost four times that for minor losses (0.2005%). However, there is a rare exception where minor loss announcements are more informative than severe loss announcements in Non-SIBs. For example, around first announcements in Non-SIBs, the drop in analyst forecast error for minor losses (0.1784%) is slightly higher than that for severe losses (0.1556%).

We decide to examine the full sample (i.e. including all severe and minor losses) in our main results for several reasons. First, the full sample will cover the whole range of operational risk events, regardless of the loss amount, thus maximising the relevance and reliability of our main results. Second, we will be able to add loss dummies below $10 million (e.g. losses between $1 million and $2 million, losses between $2 million and $3 million etc.) as independent variables in our regressions, thus enabling us to examine lower materiality thresholds in various contexts (for example, SIBs vs. Non-SIBs). Third, to enhance the generalisability of our findings, we will include the results for the severe sample and minor sample in an online appendix, thus allowing for a comparison of the economic magnitude and statistical significance of our results across the full sample, severe sample, and minor sample.[10]

Our full sample comprises 310 first announcements and 291 settlements of operational risk events in 56 publicly traded U.S. banks during the period 1990–2016. Table 1 (Panel A) reports the composition of our final sample after removing events that overlap with 8-Ks, 10-Qs, and 10-Ks announcements within the event window (−5, +5). Table 1 (Panel B) reports information about event-analyst observations and bank-analyst pairs. For first announcements (settlements), there are 6,877 (6,540) event-analyst observations for 2,014 (1,819) bank-analyst pairs. This indicates that, on average, an analyst would follow the same bank around three or more different first announcements and settlements. This is expected since our sample includes large and medium-sized banks that tend to be followed by equity analysts over extended periods of time.

We merge analysts' EPS estimates data from I/B/E/S with operational risk data from our final sample using a firm identifier and the announcement date of the operational risk event within a window (−5, +5), around first press cutting and settlement dates, respectively. We believe that five trading days prior to the first announcement date is reasonable to account for any rumours and leakage of information. The extension to five trading days following the first

announcement date is justified by the fact that analysts may need more time to process the information before they revise their forecasts.[11] We further disentangle the disclosure effects by comparing the pre-announcement period (−5, −1) and post-announcement period (0, +5). Operational risk events are excluded in banks where the number of analysts following is missing or less than three.

Following Horton et al. (2017), we identify all banks with investment arms in our sample. This identification starts with the two-digit Standard Industrial Classification (SIC) codes 60–62 and we also use the information disclosed in banks' annual reports (10-K filings) from SEC Edgar and Bloomberg categorization of investment services to confirm our identification. Banks with sell-side equity departments are classified as 'employers' and those with no sell-side equity departments as 'non-employers.' Additional bank-specific financial data are obtained from Compustat and daily share prices are extracted from the Center for Research in Security Prices (CRSP).

3.2. Measures of Analyst Forecast Quality

We employ two measures of analyst forecast quality. The first measure, *Analyst Forecast* Revision, is defined as the difference between current forecast and previous forecast of analyst *i* for bank *j*, standardized by the share price on day −6. This standardization ensures that we exclude any impact on the bank's share price caused by the leakage of private information in the trading week preceding the announcement date. In a nutshell, we aim to examine by how much an analyst will change their EPS estimation for a bank during the reaction window (−5, +5) around the operational risk event announcement. Analyst forecast revision is computed as follows:

$$Analyst\ Forecast\ Revision_{ij} = \frac{Current\ EPS_{ij} - Previous\ EPS_{ij}}{Share\ Price_{ij}(-6)} \qquad (1)$$

Our second measure is *Analyst Forecast Error*. Forecast error helps to evaluate the accuracy of an analyst forecast, allowing an equity analyst to identify and learn from their mistakes in order to improve their forecasts in the future. An analyst forecast error is measured as the absolute difference between forecast EPS and actual EPS of analyst *i* for bank *j*, standardized by the share price on day −6. Both under-estimation and over-estimation of forecasts are considered as errors in determining the analyst forecast accuracy. The absolute forecast error penalises any variation of analyst forecast from the actual figure, irrespective of the direction of deviation. Analyst forecast error is computed as follows:

$$Analyst\ Forecast\ Error_{ij} = \frac{\left|Forecast\ EPS_{ij} - Actual\ EPS_{ij}\right|}{Share\ Price\ _{ij}(-6)} \qquad (2)$$

We then compute *Analyst Forecast Error Change* as the difference between the current forecast error, i.e. during the reaction window (−5, +5), and the preceding forecast error, i.e. on day −6, of the same analyst *i* for bank *j*, as shown below:

$$Analyst\ Forecast\ Error\ Change_{ij} = Analyst\ Forecast\ Error\ _{ij}(reaction\ window) - Analyst\ Forecast\ Error_{ij}(-6) \qquad (3)$$

A drop in analyst absolute forecast error signifies a more accurate forecast, while an increase in absolute value indicates lower accuracy. Since the time that elapses from one forecast to another varies both over time (across analyst forecasts) and cross-sectional, we make necessary adjustments so that analyst forecast revision and forecast error change are measured on equal terms (Rubin et al. 2017).[12] As such, we utilize an annualized measure by dividing analyst *i*'s forecast revision and forecast error change by the number of days that have elapsed since this analyst's previous forecast and multiply the result by 365.

3.3. Independent Variables

In this section, we present the independent variables that are related to our hypotheses. These variables are divided into three groups: event-level, analyst-level, and bank-level.

From the FIRST database, we use several event-level variables that are related to the characteristics of operational risk event announcements. Following Horton et al. (2017), we use *Global Settlement*, a dummy variable, which indicates whether the operational risk event announcement happened after the global settlement of 28 April 2003. Furthermore, we measure the number of days between the actual EPS announcement date and the operational risk event announcement date using the variable *Walk-Down Effect*. This variable enables us to examine whether the gap in the number of days influences the analyst's decision to revise their forecast following an operational risk disclosure. We utilise *Loss Amount* to control for the loss amount disclosed on the operational risk event's announcement date. Consistent with the operational risk literature (e.g. Perry and de Fontnouvelle 2005; Cummins et al. 2006; Gillet et al. 2010; Sturm 2013; Fiordelisi et al. 2013, 2014), we measure the stock market reaction to operational risk event announcements by the cumulative abnormal return (CAR) estimated using the Fama-French Three Factor model. Our estimation period consists of 250 trading days across our different event windows. We distinguish between event types using a Basel-defined event type classification. We categorize events into the following four event types: internal fraud (IF); clients, products, and business practices (CPBP); external fraud (EF); and all remaining events (OTHERS). Using OTHERS as a reference group, we construct three dummy variables: *IF Dum*, *CPBP Dum* and *EF Dum*.

With regard to analyst-level variables, we employ a dummy variable, *Optimistic Analyst*, to indicate an analyst *i* whose signed forecast error for bank *j* on day −6 is positive. We control for the brokerage house size (*Broker Size*), computed as the number of analysts employed by the brokerage firm employing an analyst *i*. Consistent with Clement (1999), Hong

and Kubik (2003), Horton et al. (2017) and Rubin et al. (2017), we control for the analyst's firm-specific experience (*Firm Experience*), estimated as the number of years an analyst *i* has been following a bank *j*; analyst's general experience (*General Experience*), which is the number of years an analyst *i* has been providing forecasts in I/B/E/S; analyst's industry experience (*Industry Experience*), which is the number of years an analyst *i* has been following the two-digit SIC code of bank *j*, along with the following proxies for the analyst's portfolio complexity: the number of firms (*Number of Firms*) and the number of unique two-digit SIC industries (*Number of Industries*) followed by an analyst *i* on day −6.

We use several bank-level variables. Following Horton et al. (2017), we employ a dummy variable to capture whether an analyst is issuing forecasts for a potential employer (*Potential Employer*). This variable captures the effects of analyst's career concerns on forecast revision and accuracy around an operational risk event announcement. In line with Hong and Kacperczyk (2010) and Huang et al. (2017), we include the number of analysts following the bank on day −6 (*Analysts Following*) as a measure of the level of competition among analysts. Similar to Rubin et al. (2017), we control for the following bank-level variables on day −6: firm size, measured by the natural logarithm of total deflated assets (*Total Assets*); profitability, measured by income before extraordinary items divided by total assets (*ROA*); leverage, measured by the sum of short-term debt and long-term debt divided by total assets (*Leverage*); ratio of book value to market value of equity (*Book to Market Ratio*); and a market-based measure of firm riskiness, measured by the quarterly standard deviation of daily stock returns (*Equity Return Volatility*).[13]

3.4. Descriptive Statistics

Table 2 reports the descriptive statistics and mean comparisons of our measures of analyst forecast quality (i.e. analyst forecast revision and analyst forecast error change). In Table 2 (Panel A), the drop in analyst forecast error is consistently higher around first announcements than settlements, indicating that first announcements are more informative than settlements. The findings of the full sample in Table 2 (Panel A) are robust across the bad-news (Panel B) and good-news (Panel C) subsamples,[14] indicating that first announcements are more informative than settlements, regardless of the CAR's sign. This univariate robustness test suggests that our results are not driven by analyst reactions to movements in equity markets.

Interestingly, mean comparisons in Table 2 (Panel D) show that first announcements are not more informative than settlements before the global financial crisis. However, as reported in Table 2 (Panel E), first announcements have become much more informative than settlements during and after the global financial crisis. Moreover, as reported in Table 2 (Panels F and G), first announcements are more informative than settlements in both SIBs and Non-SIBs. However, the difference in informativeness is mostly of smaller economic magnitude and lower statistical significance in Non-SIBs.

Table 2 (Panel H) shows that the average loss amount is greater than its 75th percentile for first announcements ($114.14 > $26.30 million) and settlements ($28.41 > $16.05 million), thus indicating that the distribution of loss amount is heavily skewed. We address this issue in two ways. First, we use the natural logarithm of loss amount in all regressions. Second, in the robustness checks reported in Tables 10 and A.10, we rerun our main regressions after removing extreme losses at and above the 99th and 95th percentiles. As discussed in Section 5.4, our main results are robust to the exclusion of tail losses at different thresholds.

3.5. Correlation Analysis

Table 3 reports the correlation matrix for all variables included in our regressions. With two exceptions, there do not seem to be remarkable collinearity issues in our set of independent variables. The first exception is a high correlation coefficient between *Number of Firms* and *Number of Industries* (0.7601 for first announcements and 0.7647 for settlements). Nevertheless, we continue to include both variables in all regressions for two reasons. First, both variables are conventional measures of analyst busyness in the literature (for example, see Horton et al. (2017)). Second, Variance Inflation Factor (VIF) scores for both variables have never exceeded 3 in any regression. These VIF scores are much lower than the conventional threshold of 10 (Hair et al. 1995), thus mitigating concerns about multicollinearity in our regressions. Another exception is a high correlation coefficient between *Loss Amount* and *Loss_Above 10m Dum* (0.7958 for first announcements and 0.8042 for settlements). This is expected because of the way both variables are constructed. We addressed this issue in two ways. First, we checked VIF scores for both variables and they have never exceeded 8 in any regression. Second, in unreported robustness checks, we rerun all regressions once after removing only *Loss Amount* and another time after removing only loss dummies. In both cases, our main results remain qualitatively similar.

3.6. Empirical Model

To examine the effects of an operational risk event announcement *k* incurred by a bank *j* on earnings forecast revision and error of an analyst *i* within a reaction window (−5, +5), we estimate the following econometric model:

$$Measure\ of\ Analyst\ Forecast\ Quality_{ijk} = \alpha_{ijk} + \sum_{l=1}^{L} \varphi_l X_{kl} + \sum_{m=1}^{M} \gamma_m Y_{im} + \sum_{n=1}^{N} \delta_n Z_{jn} + \varepsilon_{ijk} \quad (4),$$

where the sets X, Y, and Z consist of event-level variables, analyst-level variables, and bank- level variables, respectively. We estimate an Ordinary Least Squares (OLS) regression model for each analyst *i* following a bank *j*, which incurred an operational risk event announcement *k* for each of our two dependent variables – *Analyst Forecast Revision* and *Analyst Forecast Error Change* – as defined in Section 3.2 and equations (1) and (3).

We estimate the model in equation (4) for the first announcements and settlement announcements, separately. We further differentiate between pre-announcement and post-announcement periods by estimating the models for (−5, −1) and (0, +5), separately. This is to determine whether the result of (−5, +5) is driven by private information that may have leaked prior to the operational risk event announcement or, instead, by operational risk information that has been disclosed. Appendix I presents the definitions and data sources of all variables used in our empirical analysis.

4. Empirical Results

4.1. Univariate Results

Table 4 reports the mean comparisons of our measures of analyst forecast quality (i.e. *Analyst Forecast Revision* and *Analyst Forecast Error Change*) during the pre-announcement period (-5, -1), post-announcement period (0, +5) and full event window (-5, +5) around operational risk event announcements for various subsamples of our independent variables. For dichotomous variables, the two subsamples are determined by the value of the variable, labelled as 1 or 0, and for continuous variables, the two subsamples refer to observations in the top quartile (25p) vs. other three quartiles (75p); labelled as High and Low, respectively.

The results for *Potential Employer* show that analysts following a bank who has an equity research department revise downward more aggressively and improve their forecast accuracy around operational risk event announcements (both first announcements and

settlements). In addition, the results for *Analysts Following* show that analysts facing stronger competition revise downward less aggressively and see their forecast accuracy deteriorate around operational risk event announcements. Moreover, the results for *Optimistic Analyst* show that analysts who are upward biased due to inferior discovery skills revise down more aggressively and improve their forecast accuracy around operational risk event announcements. Furthermore, the results for *Global Settlement* show that, following the global settlement of 2003, analysts revise downward more aggressively and improve their forecast accuracy around operational risk event announcements (both first announcements and settlements).

Finally, the results for *Loss Amount* show that operational risk event announcements disclosing bigger loss amounts improve analyst forecast accuracy. A more thorough inspection of loss dummies reveals that announcements of losses higher than $10 million (i.e. *Loss_Above 10m Dum*) cause a significant drop in analyst forecast error. It is noteworthy that some loss dummies lower than $10 million cause a more aggressive downward forecast revision and a bigger drop in forecast error. For example, in the event window (-5,+5), *Loss_4m Dum* (i.e. announcements of loss amount between $4 million and $5 million) causes a more aggressive downward forecast revision than *Loss_Above 10m Dum* does around first announcements (i.e. 0.7847% versus 0.6359%) and settlements (i.e. 0.6468% versus 0.4006%), respectively. In addition, in the event window (-5,+5) around settlements, *Loss_5m Dum* and *Loss_6m Dum* cause a bigger drop in forecast error than *Loss_Above 10m Dum* does (i.e. 0.8003% and 0.4956% versus 0.3566%, respectively). This also supports our view to examine different levels of materiality threshold below $10 million in our full sample of announcements.

Overall, these univariate results should be interpreted with caution until we check how much they are supported by the multivariate results, which are discussed in the following section.

4.2. Multivariate Results

Table 5 and Table 6 report the determinants of analyst forecast revision and analyst forecast error change around operational risk event announcements in our full sample. For *Analysts Following*, analysts facing stronger competition revise downward less aggressively and see their forecast error increase. For example, in the event window (-5,+5) around first announcements, if the number of analysts following a bank increases from 18 (25^{th} percentile) to 27 (75^{th} percentile), forecast revision and forecast error would increase by 0.2664% and 0.2691%, respectively . An *Optimistic Analyst* would revise downward more aggressively and see their forecast error decrease. For example, in the event window (-5,+5) around settlements, the forecast revision and forecast error of an optimistic analyst would decrease by 0.3703% and 0.32%, respectively. *Potential Employer*, *Global Settlement*, and *Loss Amount* do not enter significantly in any event window around first announcements and settlements.

We consider the most appropriate materiality threshold to be the one that causes the biggest drop in analyst forecast error (i.e. biggest improvement in analyst forecast accuracy) around operational risk event announcements. *Loss_Below 1m Dum* has been used as the reference category in all regressions. Hence, all coefficients of loss dummies should be interpreted with reference to this omitted category. *Loss_Above 10m Dum* indicates that announcements of loss amount higher than $10 million cause the most aggressive downward forecast revision and the biggest drop in forecast error around operational risk event announcements. For example, in the event window (-5,+5) around first announcements, announcements of loss amount higher than $10 million cause a downward forecast revision of 0.3826% and a drop in forecast error of 0.3089%. The results for loss dummies below $10 million do not support the validity of any lower materiality threshold.

5. Robustness Tests

In this section, we will discuss various robustness checks to enhance our understanding of the determinants of analyst forecast quality around operational risk event announcements in various contexts. For the sake of brevity, we will report and discuss the results of robustness checks only for the variables that are utilised to test our research hypotheses (i.e. *Optimistic Analyst* (H_1), *Potential Employer* (H_2), *Analysts Following* (H_3), and *Global Settlement* (H_4)), and to inspect materiality thresholds (i.e. *Loss Amount* and *Loss_Above 10m Dum*). Loss dummies below $10 million will not be reported, but their results will be discussed whenever they provide additional evidence.

5.1. Bad News vs. Good News

To examine the possibility that our main results are driven by analyst reactions to favourable or unfavourable movements in equity markets around operational risk event announcements, we split our full sample into two subsamples: a) Bad News that include only negative CARs and b) Good News that include only positive CARs.[15] Table 7 reports the results of this robustness check (Panel A: Bad News and Panel B: Good News).

For *Potential Employer*, career concerns bias analyst forecasts upward only if the occurrence of the operational risk event is not confirmed yet, that is, in the pre-announcement period for first announcements. For example, an analyst following a potential employer would inflate their forecast by 0.2387%, thus increasing their forecast error by 0.2144% in the event window (-5,-1) for first announcements. On the contrary, once the exact adverse operational risk exposure is confirmed, that is, in the post-announcement period for settlements, career concerns would cause an analyst to revise their forecast downward, thus enhancing their forecast accuracy. For example, an analyst following a potential employer would deflate their forecast by 0.1917%, thus decreasing their forecast error by 0.1285% in the event window (0,+5) for settlements. However, Table 7 (Panel B) shows no career concern effects around

good news. Overall, this indicates that analysts give potential employers the benefit of doubt only for yet-to-be-confirmed bad news, but this effect vanishes once the adverse news is confirmed in settlements.

For *Analysts Following*, with the exception of settlements that reveal bad news, our main results discussed in Section 4 are supported since stronger analyst competition causes an upward bias in forecast revision and an increase in forecast error for bad news (only first announcements) and good news. This indicates that the unfavourable impact of analyst competition on forecast accuracy vanishes once the adverse news is confirmed in settlements. Consistent with our main results, optimistic analysts tend to revise downward more aggressively and see their forecast error decrease around bad news and good news. Like our main results, *Global Settlement* and *Loss Amount* continue to show no significant impact on analyst forecast quality around bad news and good news.

Loss_Above 10m Dum enters significantly negative only around bad news, thus supporting the validity of this materiality threshold. Other loss dummies below $10 million (not reported) do not support the validity of any lower materiality threshold.

5.2. Global Financial Crisis (GFC) Effects

To examine the possibility that our main results are driven by any systematic change in analyst behaviour during and after the global financial crisis (GFC), we split our full sample into two subsamples: a) Before GFC and b) During and After GFC. GFC is supposed to have started on 14 September 2017 when Northern Rock shares crashed, and customers queued in one of the most serious bank runs in modern history. Table 8 reports the results of this robustness check.

For *Potential Employer*, career concerns do not show a clear pattern in the context of GFC. For *Analysts Following*, analyst competition continues to impair analyst forecast accuracy before, during and after GFC. The deteriorating effect becomes more explicit around first announcements and vanishes around settlements during and after GFC. This indicates that

analyst competition still constitutes a remarkable cause of optimism bias despite much regulation imposed on the activities of equity research departments in brokerage houses in recent years.

For *Global Settlement*, it is interesting to note that the coefficients here contradict the univariate results reported in Table 4. For example, in the period between the global settlement and GFC, an analyst would see their forecast error increase by 0.1236% and 0.1512% in the event window (0,+5) around first announcements and settlements, respectively. This indicates that the period between the "Global Settlement" and the eruption of GFC is associated with inflated forecast revisions and a deterioration in forecast accuracy. This could be due to the then-prevailing hype about the strength of the U.S. economy and stability of its banking sector.

Loss_Above 10m Dum enters significantly negative around operational risk event announcements only during and after GFC, thus supporting the validity of this materiality threshold. Other loss dummies below $10 million (not reported) do not support the validity of any lower materiality threshold.

5.3. Systemically Important Banks (SIBs)

To examine whether our main results are consistent or different across large and medium-sized banks, we split our full sample into two subsamples: a) SIBs and b) Non-SIBs. We consider a bank to be a SIB if its total assets exceed $250 billion in the most recent quarter before the announcement date. We select the $250-billion threshold of total assets because it is used in the Economic Growth, Regulatory Relief and Consumer Protection Act to determine systemically important financial institutions (SIFIs).[16] Table 9 reports the results of this robustness check.

It is interesting to note that *Potential Employer* takes opposite signs in SIBs and Non-SIBs. In SIBs, *Potential Employer* is consistently positive across first announcements and settlements. This indicates that career concerns cause an upward bias in forecast revision (for

example, 0.8659% around first announcements) and an increase in forecast error (for example, 0.7785% around first announcements) only if an analyst is following a potential employer that is a SIB. On the contrary, in Non-SIBs, *Potential Employer* is consistently negative across first announcements and settlements. For example, an analyst following a potential employer that is a Non-SIB would see their forecast error drop by 0.1463% in the event window (-5,+5) around first announcements.

Similar to *Potential Employer*, *Analysts Following* enters consistently positive only for SIBs. For example, in SIBs, if the number of analysts following a bank increases from 18 (25th percentile) to 27 (75th percentile), the forecast error would increase by 0.3564% and 0.1629% in the event window (-5,+5) around first announcements and settlements, respectively. On the contrary, *Analysts Following* enters mostly insignificant or negative in Non-SIBs. This supports our main results and indicates that analyst competition causes an upward bias in forecast revision due to analysts attempting to attract business with large banks to their brokerage houses. The results for *Optimistic Analyst* are consistent with our main results. *Global Settlement* and *Loss Amount* do not show a clear pattern across SIBs and Non-SIBs.

It is noteworthy that *Loss_Above 10m Dum* enters significantly negative only for SIBs, thus supporting the validity of this materiality threshold only for large banks. In other words, only in SIBs are announcements of operational losses above $10 million more informative than announcements of operational losses below $10 million. In contrast, differences in informativeness across the $10-million materiality threshold do not exist for Non-SIBs. This supports the results reported in Appendix II. The results indicate that operational risk event announcements (regardless of loss amount) in Non-SIBs are of little informativeness, possibly for two reasons. First, Non-SIBs are subject to less stringent risk management requirements by banking regulators. Therefore, their risk management systems could be more vulnerable, thus making operational risk events more expected. Second, Non-SIBs have less business and

geographical complexity. This makes it easier for banking analysts to discover private information about their activities and deficiencies in internal control systems. Our 'unreported' results show that banking analysts are indeed less optimistic (i.e. have less positive forecast errors) before operational risk event announcements in Non-SIBs.

5.4. Extreme Losses Removed

As discussed in Section 3.4, the distribution of loss amount is heavily skewed. Therefore, we rerun the regressions reported in Tables 5 and 6 after removing extreme losses. Table 10 reports the results of this robustness check at two thresholds of exclusion: 99th percentile (Panel A) and 95th percentile (Panel B).

Expectedly, the economic magnitude of some variables has become smaller, but the main results discussed in Section 4.2 remain qualitatively similar. *Analysts Following* continues to enter significantly positive, and *Optimistic Analyst* continues to enter significantly negative. *Loss_Above 10m Dum* continues to enter significantly negative, thus supporting the validity of a $10-million threshold for the informativeness of operational risk event announcements.

5.5. The Severe Sample

In this section, we discuss how the main results and robustness checks for the severe sample (i.e. operational risk events with loss amount higher than $10 million) complement the results of the full sample (i.e. all operational risk events). The results for the severe sample are reported in Online Appendix A.

The main results for the severe sample (Tables A.4, A.5 and A.6) are qualitatively similar but quantitatively stronger than those for the full sample (Tables 4, 5 and 6). For example, as reported in Table A.6 and Table 6, in the event window (-5,+5) around first announcements, our main variables of interest such as *Analysts following* and *Optimistic*

Analyst have coefficients of 0.0465 (0.0299) and -0.6803 (-0.3906) in the severe sample (full sample), respectively. Hence, the main inferences drawn from the full sample are supported by the main results in the severe sample.

For the robustness checks, we discuss the additional evidence provided in the severe sample. In Table A.7 (Panel A), *Analysts Following* enters significantly negative only in the post-announcement period of settlements. For example, in the event window (0,+5) around settlements that reveal bad news, if the number of analysts following a bank increases from 18 (25th percentile) to 27 (75th percentile), there would be a downward forecast revision of 0.2862% and a drop in analyst forecast error of 0.1566%, respectively. This result indicates that competition makes analysts less biased only if the bad news is confirmed.

In Table A.8 (Panel A) that reports robustness checks before GFC, it is interesting to note that *Global Settlement* enters mostly insignificant or positive, while the same variable enters consistently significant and negative in Table A.7 (Panel A) that reports robustness checks for bad news. This result indicates that it is not the global settlement *per se* that has caused a decrease in analyst bias around operational risk event announcements, rather it is the increased attention that the banking industry and its risks have received during and after GFC.

In Table A.9 (Panel A), the subsample of SIBs does not allow us to examine the effects of *Potential Employer* since all SIBs in the severe sample have an equity research department. However, in Table A.9 (Panel B) that reports robustness checks for Non-SIBs, *Potential Employer* enters significantly negative in the forecast error regression for first announcements and the forecast revision regression for settlements, thus supporting our full sample results reported in Table 9 (Panel B) and indicating that career concerns do not cause bias in analyst behaviour around operational risk event announcements in Non-SIBs.

Finally, in Table A.10, the main inferences drawn from the severe sample remain qualitatively similar after removing extreme losses at the 99th percentile (Panel A) and 95th percentile (Panel B).

5.6. The Minor Sample

In this section, we discuss how the main results and robustness checks for the minor sample (i.e. operational risk events with loss amount lower than $10 million) complement the results of the full sample (i.e. all operational risk events) and the severe sample (i.e. operational risk events with loss amount higher than $10 million). The results for the minor sample are reported in Online Appendix B.

For the main results reported in Tables B.5 and B.6, *Analysts Following* enters insignificant, thus indicating that the main results for this variable in the full sample are driven by the severe sample. *Optimistic Analyst* continues to enter significantly negative but with smaller economic magnitude. *Global Settlement* continues to enter insignificant as in the full sample (Tables 5 and 6) and the severe sample (Tables A.5 and A.6).

The minor sample allows us to re-examine the materiality thresholds below $10 million. Although most loss dummies cause downward forecast revisions (Table B.5), their effects on analyst forecast error are mostly insignificant (Table B.6). Although *Loss_7m Dum* (i.e. announcements of loss amount between $7 million and $8 million) causes a drop in forecast error of 0.3730% around first announcements, all higher-order loss dummies (i.e. *Loss_8m Dum* and *Loss_9m Dum*) enter insignificantly, thus casting doubt on the validity of $7 million as a materiality threshold for the informativeness of operational risk event announcements.

The coefficients in the robustness checks for the minor sample (Tables B.7, B.8, and B.9) either support the robustness checks for the full sample or enter mostly insignificant, thus indicating that the results of some robustness checks in the full sample are driven by the severe sample.

6. Conclusion

Operational risk events are unanticipated disclosures of non-earnings news in the banking industry. We find that operational risk event announcements enhance analyst forecast accuracy for optimistic analysts who have issued upward biased forecasts prior to the announcement (Hypothesis H_{1a}). This is consistent with operational risk events revealing useful information about internal control deficiencies and improper risk management practices. Additionally, our results show that the first announcement of an operational risk event is more informative to banking analysts than its settlement announcement (Hypothesis H_{1b}).

We find that career concerns of banking analysts cause an upward bias in forecast revision and a deterioration in forecast accuracy only if the potential employer is a systemically important bank (SIB) (Hypothesis H_2). In addition, analysts who face fierce competition revise their forecast upward, thus decreasing forecast accuracy, despite the operational risk disclosure (Hypothesis H_3). This unfavourable effect of analyst competition is more pronounced around operational risk event announcements in SIBs. This finding raises a concern that banking analyst behaviour might be compliant with current and potential clients (particularly large banks) to generate business in a competitive brokerage market.

We find that the "Global Settlement" of 2003 has no favourable impact on analyst forecast accuracy around operational risk event announcements (Hypothesis H_4). On the contrary, the period between the "Global Settlement" and the eruption of GFC is associated with inflated forecast revisions and a deterioration in forecast accuracy. This could be due to the then-prevailing hype about the strength of the U.S. economy and stability of its banking sector. We also examine different materiality thresholds in the context of informativeness of operational risk event announcements. We find evidence supporting the validity of a materiality threshold of $10 million for operational risk event announcements in SIBs.

Our findings have two major policy implications for banking regulatory and supervisory authorities. First, banking regulators should work more actively on improving public disclosure of operational risk (subject to a suitable materiality threshold such as $10 million in SIBs) to reduce information asymmetry between bank managers and investors. Second, the unobservable overlapping of the analyst research and brokerage business lines within the same brokerage house is potentially problematic because favourable forecasting during periods of adverse announcements might be used to curry favour with banks to generate brokerage business. Our results show that, despite much regulation being already imposed, there are still sources of bias in banking analyst behaviour upon the arrival of unanticipated news. Hence, more stringent scrutiny by banking supervisors is still needed to ensure that rigid borderlines are maintained between the two conflicting business lines.

Notes

1. An exception is Item 2.02.

2. U.S. banks are required to disclose particular data items on their operational losses in FR Y-14Q filings. However, these regulatory filings are not publicly available.

3. We understand that our sample is not big according to the common standards in the finance literature. However, due to strict sample selection criteria (see Table 1), relatively small samples are common in the operational risk literature. For example, Perry and de Fontnouvelle (2005) have used a global sample of only 115 operational risk events in the period 1974 – 2004. Gillet et al. (2010) analysed only 103 operational risk events in U.S. financial firms in the period 1990 – 2004. Other studies (e.g. Fiordelisi et al. 2013, 2014) have used quite large samples (215 events and 430 events, respectively) due to a low materiality threshold ($1 million) and wider coverage (U.S. and European banks).

4. Settlement announcements usually arrive sometime after the first announcement and are hence expected. This is because there is usually a wealth of information publicly disclosed at the market or privately discovered by analysts between the first announcement and settlement announcement of the operational risk event.

5. Optimistic forecasts (also known as optimistically biased forecasts or upward biased forecasts) are EPS forecasts whose error is positive (i.e. EPS forecast is greater than the actual EPS) as computed from the I/B/E/S Detail History file.

6. A systemically important bank (SIB) is a bank whose total assets exceed $250 billion.

7. We focus our analysis on U.S. banks to mitigate concerns about the regulatory, institutional, and cultural environments of different countries driving analyst forecast revisions.

8. We have considered using a materiality threshold that is relative to bank size. However, most of the operational loss to market value ratios in our sample are lower than 1% and show little meaningful variation, thus making it practically difficult to examine different relative materiality thresholds. The same difficulties hold if we use the operational loss to total assets ratio.

9. Analyst reaction ratio is computed as the number of analysts who revise their EPS forecast (either upward or downward) during the event window (-5,+5) divided by the total number of analysts following the bank on day -6.

10. Apart from Appendixes I and II, all other tables 1 – 10 have the same order for the main results and online appendix. For example, the descriptive statistics are reported in Table 2 (the full sample), Table A.2 (the severe sample), and Table B.2 (the minor sample), and so forth.

11. Since our sample also includes operational risk events with no loss amount disclosed at first announcements, we expect a slowness on the part of analysts to respond. Extant literature on operational risk uses longer event windows including (-10, +10) and (-20, +20). However, we use only (-5, +5) to avoid losing too many observations due to the overlap of operational risk event announcements with other announcements such as 10-Qs, 10-Ks, and 8-Ks.

12. As Rubin et al. (2017) explain, because the analyst's information set consists of emerging forecasts of other analysts as time evolves, along with more private and public information released, the drop in an analyst forecast error is expected to be greater if a longer time has elapsed from the analyst's previous forecast.

13. We do not include bank fixed-effects and analyst fixed effects in all regressions to avoid multicollinearity because: a) some bank-level and analyst-level variables are either time-invariant, such as *Potential Employer*, or show little if no variation over time, such as *Optimistic Analyst*, and b) 40% of banks and 30% of analysts appear only once in our sample. We address the issue of within correlation at the event-level by using robust standard errors clustered at the event-level in all regressions.

14. "Bad News" include only negative CARs and "Good News" include only positive CARs. There are no zero CARs in our final sample. It is noteworthy that equity markets may react favourably to some operational risk event announcements for several reasons such as: 1) the bank has recognised the operational risk event quickly and promised to take a prompt corrective action or 2) the disclosed operational loss amount in the settlement announcement is lower than previously expected.

15. Our sample does not include any zero CARs.

16. The Economic Growth, Regulatory Relief and Consumer Protection Act became effective on May 24, 2018. It has increased the threshold of SIFIs from $50 billion (previously imposed by the Dodd-Frank Act of 2010) to $250 billion in total assets.

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Appendix I: Description of Variables

This table provides the definitions and the sources of the variables used in this study.

Variable	Definition	Data Source
Measures of Analyst Forecast Quality		
Analyst Forecast Revision	Analyst forecast revision is defined as the annualized percentage change in EPS forecast. It is computed as the difference between the current EPS and the previous EPS of analyst *i* for firm *j*, standardised by the share price on day -6, and scaled by the number of calendar days since the previous forecast and multiplied by 365.	I/B/E/S, CRSP
Analyst Forecast Error Change	Analyst forecast error change is defined as the annualized percentage change in forecast error. It is computed as the difference between the current and the previous forecast error of analyst *i* for firm *j* (where, forecast error is defined as the absolute difference between the analyst's forecast and actual EPS, standardised by the share price on day -6), scaled by the number of calendar days since the previous forecast and multiplied by 365.	I/B/E/S, CRSP
Bank-Level Variables		
Potential Employer	1 if the forecast is for a firm with a sell-side equity department (investment bank); 0 otherwise.	SEC Edgar, 10-K filings, I/B/E/S
Analysts Following	Number of analysts following firm *j* on day -6.	I/B/E/S
Total Assets	Natural logarithm of the deflated total assets at the end of the quarter prior to day -6. Measurement units: *ln*(USD billion)	CRSP, Compustat
ROA	Income before extraordinary items scaled by total assets at the end of the quarter prior to day -6. Measurement units: percent	CRSP, Compustat
Leverage	Sum of short-term and long-term debt scaled by total assets at the end of the quarter prior to day -6. Measurement units: percent	CRSP, Compustat
Book to Market Ratio	Book value of equity divided by the market value of equity at the end of the quarter prior to day -6. Measurement units: percent	CRSP, Compustat
Equity Return Volatility	Standard deviation of the daily equity returns at the end of the quarter prior to day -6. Measurement units: percent	CRSP

Analyst-Level Variables

Optimistic Analyst	1 if signed forecast error (i.e. bias) of analyst *i* for firm *j* on day -6 is positive; 0 otherwise.	I/B/E/S
Broker Size	Number of analysts employed by the brokerage firm employing analyst *i* on day -6.	I/B/E/S
Firm Experience	Number of years of firm-specific experience for analyst *i* following firm *j*.	I/B/E/S
General Experience	Number of years analyst *i* following firm *j* is providing forecasts in I/B/E/S.	I/B/E/S
Industry Experience	Number of years of industry experience for analyst *i* following firm *j*.	I/B/E/S
Number of Firms	Number of firms covered by analyst *i* following firm *j* on day -6.	I/B/E/S
Number of Industries	Number of unique two-digit Standard Industrial Classification (SIC) codes of all firms covered by analyst *i* following firm *j* on day -6.	I/B/E/S

Event-Level Variables

Global Settlement	1 if the operational risk event announcement is after the Global Settlement of 2003; 0 otherwise.	Algo FIRST, LexisNexis
Walk-Down Effect	Difference between the actual EPS announcement date and day -6 of the operational risk event announcement date. Measurement units: years	Algo FIRST, LexisNexis, I/B/E/S
Loss Amount	Loss amount disclosed on the operational risk event announcement date. Measurement units: *ln*(USD million)	Algo FIRST, LexisNexis
CAR	Cumulative abnormal returns (CAR) over the reaction window centered on the announcement date.	WRDS Event Study
IF Dum, CPBP Dum, EF Dum	1 if the operational risk event announced is of event types Internal Fraud; Clients, Products, and Business Practices; and External Fraud; 0 otherwise.	Algo FIRST, LexisNexis
Loss_Below 1m Dum	1 if the loss amount of the operational risk event is below $1 million; 0 otherwise.	Algo FIRST, LexisNexis
Loss_Above 10m Dum	1 if the loss amount of the operational risk event is above $10 million; 0 otherwise.	Algo FIRST, LexisNexis
Loss_Xm Dum	1 if the loss amount of the operational risk event is between $X million and $X+1 million; 0 otherwise. For example, Loss_5m Dum indicates that the loss amount is between $5 million and $6 million.	Algo FIRST, LexisNexis

Appendix II: Analyst Reaction Ratio, Forecast Revision, and Forecast Error Change

This appendix reports analyst reaction ratio, forecast revision, and forecast error change around operational risk event announcements.

Panel A: First Announcements

	All Events				Minor Losses (Events below $10m)				Severe Losses (Events above $10m)			
	# Events	Analyst Reaction Ratio	Analyst Forecast Revision	Analyst Forecast Error Change	# Events	Analyst Reaction Ratio	Analyst Forecast Revision	Analyst Forecast Error Change	# Events	Analyst Reaction Ratio	Analyst Forecast Revision	Analyst Forecast Error Change
Full Sample	310	12.68%	-0.4500	-0.3791	195	11.35%	-0.2767	-0.2435	115	14.78%	-0.7438	-0.6090
Bad News	168	13.42%	-0.5176	-0.4104	108	10.71%	-0.2746	-0.2005	60	18.12%	-0.9551	-0.7881
Good News	142	11.76%	-0.3699	-0.3421	87	12.19%	-0.2793	-0.2968	55	11.16%	-0.5132	-0.4136
Before GFC	132	8.62%	-0.1509	-0.1625	90	8.89%	-0.1232	-0.1531	42	8.07%	-0.2103	-0.1824
During & After GFC	178	15.66%	-0.6717	-0.5397	105	13.46%	-0.4083	-0.3209	73	18.59%	-1.0507	-0.8545
SIBs	198	14.83%	-0.6279	-0.4972	123	12.81%	-0.3889	-0.2816	75	17.99%	-1.0197	-0.8508
Non-SIBs	112	8.28%	-0.1354	-0.1702	72	8.36%	-0.0850	-0.1784	40	8.15%	-0.2263	-0.1556

Panel B: Settlements

	All Events				Minor Losses (Events below $10m)				Severe Losses (Events above $10m)			
	# Events	Analyst Reaction Ratio	Analyst Forecast Revision	Analyst Forecast Error Change	# Events	Analyst Reaction Ratio	Analyst Forecast Revision	Analyst Forecast Error Change	# Events	Analyst Reaction Ratio	Analyst Forecast Revision	Analyst Forecast Error Change
Full Sample	291	12.46%	-0.3543	-0.2929	199	11.76%	-0.3083	-0.2330	92	13.83%	-0.4537	-0.4224
Bad News	149	14.06%	-0.4458	-0.3458	108	12.65%	-0.3803	-0.2596	41	17.45%	-0.6184	-0.5729
Good News	142	10.71%	-0.2583	-0.2374	91	10.65%	-0.2230	-0.2015	51	10.81%	-0.3213	-0.3014
Before GFC	104	9.13%	-0.1221	-0.1879	73	8.63%	-0.1201	-0.1705	31	10.13%	-0.1266	-0.2289
During & After GFC	187	14.23%	-0.4834	-0.3513	126	13.45%	-0.4174	-0.2692	61	15.73%	-0.6199	-0.5207
SIBs	198	14.05%	-0.4903	-0.3874	134	13.29%	-0.4324	-0.2979	64	15.57%	-0.6117	-0.5749
Non-SIBs	93	8.61%	-0.0646	-0.0917	65	8.06%	-0.0526	-0.0993	28	9.66%	-0.0926	-0.0738

Table 1: Composition of the Final Sample

This table reports the composition of our final sample comprising first announcements and settlements of operational risk events.

Panel A: Sample Screening Description

Sample Screening Description	Number of Event Announcements	
	First Announcements	Settlements
1. Full sample	923	923
- Operational risk events that overlap with 8-K reports released during the event window (-5, +5)	(603)	(617)
- Operational risk events that overlap with quarterly and annual earnings announcements (10-Qs and 10-Ks) during the event window (-5, +5)	(10)	(15)
2. Final sample	310	291

Panel B: Event-Analyst Observations and Bank-Analyst Pairs

	First Announcements	Settlements
Events	310	291
Banks	52	49
Analysts	489	487
Event-Analyst Observations	6,877	6,540
Bank-Analyst Pairs	2,014	1,819

Table 2: Descriptive Statistics
This table reports the descriptive statistics for our variables. Variable definitions are described in Appendix I.

Panel A: Measures of Analyst Forecast Quality around Operational Risk Event Announcements

	First Announcements					Settlements					Difference in Means
	N	25p	Median	Mean	75p	N	25p	Median	Mean	75p	First Announcements - Settlements (t-test)
Measures of Analyst Forecast Quality											
Analyst Forecast Revision (-5, -1)	6,877	0	0	-0.1679	0	6,540	0	0	-0.1276	0	-0.0403 (-2.1511)**
Analyst Forecast Revision (0, +5)	6,877	0	0	-0.2491	0	6,540	0	0	-0.2183	0	-0.0308 (-1.2057)
Analyst Forecast Revision (-5, +5)	6,877	0	0	-0.4171	0	6,540	0	0	-0.3459	0	-0.0711 (-2.2355)**
Analyst Forecast Error Change (-5, -1)	6,877	0	0	-0.1585	0	6,540	0	0	-0.1228	0	-0.0357 (-2.0934)**
Analyst Forecast Error Change (0, +5)	6,877	0	0	-0.1738	0	6,540	0	0	-0.1482	0	-0.0256 (-1.2600)
Analyst Forecast Error Change (-5, +5)	6,877	0	0	-0.3324	0	6,540	0	0	-0.2710	0	-0.0614 (-2.2994)**

Panel B: Measures of Analyst Forecast Quality around Bad News

	First Announcements					Settlements					Difference in Means
	N	25p	Median	Mean	75p	N	25p	Median	Mean	75p	First Announcements - Settlements (t-test)
Measures of Analyst Forecast Quality											
Analyst Forecast Revision (-5, -1)	3,438	0	0	-0.2183	0	3,466	0	0	-0.1370	0	-0.0812 (-2.8693)***
Analyst Forecast Revision (0, +5)	3,933	0	0	-0.2350	0	3,651	0	0	-0.2565	0	0.0215 (0.6534)
Analyst Forecast Revision (-5, +5)	3,793	0	0	-0.4605	0	3,414	0	0	-0.4200	0	-0.0404 (-0.8795)
Analyst Forecast Error Change (-5, -1)	3,438	0	0	-0.1891	0	3,466	0	0	-0.1281	0	-0.0610 (-2.4038)**
Analyst Forecast Error Change (0, +5)	3,933	0	0	-0.1555	0	3,651	0	0	-0.1646	0	0.0091 (0.3387)
Analyst Forecast Error Change (-5, +5)	3,793	0	0	-0.3425	0	3,414	0	0	-0.3098	0	-0.0326 (-0.8697)

Panel C: Measures of Analyst Forecast Quality around Good News

	First Announcements					Settlements					Difference in Means
	N	25p	Median	Mean	75p	N	25p	Median	Mean	75p	First Announcements - Settlements (t-test)
Measures of Analyst Forecast Quality											
Analyst Forecast Revision (-5, -1)	3,439	0	0	-0.1176	0	3,074	0	0	-0.1169	0	-0.0007 (-0.0274)
Analyst Forecast Revision (0, +5)	2,944	0	0	-0.2680	0	2,889	0	0	-0.1701	0	-0.0979 (-2.4308)**
Analyst Forecast Revision (-5, +5)	3,084	0	0	-0.3637	0	3,126	0	0	-0.2650	0	-0.0987 (-2.2765)**
Analyst Forecast Error Change (-5, -1)	3,439	0	0	-0.1280	0	3,074	0	0	-0.1168	0	-0.0111 (-0.4911)
Analyst Forecast Error Change (0, +5)	2,944	0	0	-0.1983	0	2,889	0	0	-0.1701	0	-0.0708 (-2.2563)**
Analyst Forecast Error Change (-5, +5)	3,084	0	0	-0.3637	0	3,126	0	0	-0.2285	0	-0.0914 (-2.4146)**

Panel D: Measures of Analyst Forecast Quality before GFC

	First Announcements					Settlements					Difference in Means
	N	25p	Median	Mean	75p	N	25p	Median	Mean	75p	First Announcements - Settlements (t-test)
Measures of Analyst Forecast Quality											
Analyst Forecast Revision (-5, -1)	2,911	0	0	-0.0409	0	2,266	0	0	-0.0473	0	0.0064 (0.3824)
Analyst Forecast Revision (0, +5)	2,911	0	0	-0.0924	0	2,266	0	0	-0.0682	0	-0.0242 (-0.9609)
Analyst Forecast Revision (-5, +5)	2,911	0	0	-0.1332	0	2,266	0	0	-0.1154	0	-0.0178 (-0.5814)
Analyst Forecast Error Change (-5, -1)	2,911	0	0	-0.0702	0	2,266	0	0	-0.0917	0	0.0215 (1.0904)
Analyst Forecast Error Change (0, +5)	2,911	0	0	-0.0757	0	2,266	0	0	-0.0761	0	0.0005 (0.0216)
Analyst Forecast Error Change (-5, +5)	2,911	0	0	-0.1459	0	2,266	0	0	-0.1678	0	0.0220 (0.7594)

Panel E: Measures of Analyst Forecast Quality during & after GFC

	First Announcements					Settlements					Difference in Means
	N	25p	Median	Mean	75p	N	25p	Median	Mean	75p	First Announcements - Settlements (t-test)
Measures of Analyst Forecast Quality											
Analyst Forecast Revision (-5, -1)	3,966	0	0	-0.2612	0	4,274	0	0	-0.1702	0	-0.0910 (-3.1832)***
Analyst Forecast Revision (0, +5)	3,966	0	0	-0.3642	0	4,274	0	0	-0.2979	0	-0.0663 (-1.7261)*
Analyst Forecast Revision (-5, +5)	3,966	0	0	-0.6254	0	4,274	0	0	-0.4681	0	-0.1573 (-3.2880)***
Analyst Forecast Error Change (-5, -1)	3,966	0	0	-0.2234	0	4,274	0	0	-0.1393	0	-0.0841 (-3.3780)***
Analyst Forecast Error Change (0, +5)	3,966	0	0	-0.2459	0	4,274	0	0	-0.1864	0	-0.0595 (-1.9546)*
Analyst Forecast Error Change (-5, +5)	3,966	0	0	-0.4693	0	4,274	0	0	-0.3257	0	-0.1436 (-3.6428)***

Panel F: Measures of Analyst Forecast Quality in Systemically Important Banks (SIBs)

	First Announcements					Settlements					Difference in Means
	N	25p	Median	Mean	75p	N	25p	Median	Mean	75p	First Announcements - Settlements (t-test)
Measures of Analyst Forecast Quality											
Analyst Forecast Revision (-5, -1)	4,620	0	0	-0.2301	0	4,625	0	0	-0.1691	0	-0.0610 (-2.3307)**
Analyst Forecast Revision (0, +5)	4,620	0	0	-0.3254	0	4,625	0	0	-0.2831	0	-0.0423 (-1.1976)
Analyst Forecast Revision (-5, +5)	4,620	0	0	-0.5555	0	4,625	0	0	-0.4522	0	-0.1033 (-2.3497)**
Analyst Forecast Error Change (-5, -1)	4,620	0	0	-0.2057	0	4,625	0	0	-0.1576	0	-0.0481 (-2.0436)**
Analyst Forecast Error Change (0, +5)	4,620	0	0	-0.2169	0	4,625	0	0	-0.1886	0	-0.0284 (-1.0203)
Analyst Forecast Error Change (-5, +5)	4,620	0	0	-0.4226	0	4,625	0	0	-0.3462	0	-0.0764 (-2.0960)**

Panel G: Measures of Analyst Forecast Quality in Non-SIBs

	First Announcements					Settlements					Difference in Means
	N	25p	Median	Mean	75p	N	25p	Median	Mean	75p	First Announcements - Settlements (t-test)
Measures of Analyst Forecast Quality											
Analyst Forecast Revision (-5, -1)	2,257	0	0	-0.0406	0	1,915	0	0	-0.0274	0	-0.0132 (-0.8375)
Analyst Forecast Revision (0, +5)	2,257	0	0	-0.0930	0	1,915	0	0	-0.0619	0	-0.0311 (-1.2820)
Analyst Forecast Revision (-5, +5)	2,257	0	0	-0.1337	0	1,915	0	0	-0.0893	0	-0.1133 (-1.5011)
Analyst Forecast Error Change (-5, -1)	2,257	0	0	-0.0620	0	1,915	0	0	-0.0387	0	-0.0233 (-1.3812)
Analyst Forecast Error Change (0, +5)	2,257	0	0	-0.0856	0	1,915	0	0	-0.0507	0	-0.0350 (-1.5917)
Analyst Forecast Error Change (-5, +5)	2,257	0	0	-0.1476	0	1,915	0	0	-0.0893	0	-0.0583 (-2.0670)**

Panel H: Bank-Level, Analyst-Level and Event-Level Variables

	First Announcements					Settlements				
	N	25p	Median	Mean	75p	N	25p	Median	Mean	75p
Bank-Level Variables										
Potential Employer	52	1	1	0.91	1	49	1	1	0.91	1
Analysts Following	52	18	23.00	22.19	27	49	18	23	22.48	27
Total Assets	52	163.08	461.77	749.04	967.39	49	195.84	621.94	822.13	1,332.32
ROA	52	0.12	0.21	0.20	0.30	49	0.12	0.20	0.19	0.29
Leverage	52	20.55	28.45	34.09	55.38	49	18.63	27.50	33	53.34
Book to Market Ratio	52	48.31	74.42	87.90	118.31	49	50.79	87.90	94.61	128.84
Equity Return Volatility	52	0.59	0.79	0.87	1	49	0.60	0.72	0.86	0.97
Analyst-Level Variables										
Optimistic Analyst	489	0	1	0.58	1	487	0	1	0.56	1
Broker Size	489	25	50	70.50	106	487	25	50	68.91	105
Firm Experience	489	4.08	6.79	7.70	11.42	487	4.12	6.81	7.71	11.47
General Experience	489	9.98	14.67	15.18	19.83	487	9.57	14.61	15.14	19.83
Industry Experience	489	4.62	9.33	9.65	13.81	487	4.59	9.21	9.58	13.81
Number of Firms	489	11	15	16.29	20	487	11	15	16.31	20
Number of Industries	489	4	6	6	7	487	4	6	5.96	7
Event-Level Variables										
Global Settlement	310	1	1	0.78	1	291	1	1	0.83	1
Walk-Down Effect	310	0.30	0.45	0.48	0.67	291	0.29	0.46	0.47	0.65
Loss Amount	310	0.71	4.55	114.14	26.30	291	0.55	2.77	28.41	16.05
CAR (-5, -1)	310	-1.55	-0.01	-0.06	1.16	291	-1.48	-0.02	0.04	1.33
CAR (0, +5)	310	-2.15	-0.45	-0.59	1.28	291	-2.15	-0.47	-0.57	1.32
CAR (-5, +5)	310	-2.83	-0.45	-0.66	1.42	291	-2.71	-0.10	-0.53	1.64
IF Dum	310	0	0	0.15	0	291	0	0	0.19	0
CPBP Dum	310	0	1	0.60	1	291	0	1	0.57	1
EF Dum	310	0	0	0.10	0	291	0	0	0.11	0
Loss_Above 10m Dum	310	0	0	0.37	1	291	0	0	0.32	1
Loss_9m Dum	310	0	0	0.01	0	291	0	0	0.01	0
Loss_8m Dum	310	0	0	0.04	0	291	0	0	0.02	0
Loss_7m Dum	310	0	0	0.02	0	291	0	0	0.02	0
Loss_6m Dum	310	0	0	0.02	0	291	0	0	0.03	0
Loss_5m Dum	310	0	0	0.01	0	291	0	0	0.02	0
Loss_4m Dum	310	0	0	0.04	0	291	0	0	0.04	0
Loss_3m Dum	310	0	0	0.05	0	291	0	0	0.04	0
Loss_2m Dum	310	0	0	0.04	0	291	0	0	0.06	0
Loss_1m Dum	310	0	0	0.09	0	291	0	0	0.11	0

Table 3: Correlation Matrix

This table reports the Pearson's correlation coefficients for our variables. Variable definitions are described in Appendix I.

Panel A: First Announcements

	Analyst Forecast Revision	*Analyst Forecast Error Change*	*Potential Employer*	*Analysts Following*	*Total Assets*	*ROA*	*Leverage*	*Book to Market Ratio*	*Equity Return Volatility*	*Optimistic Analyst*	*Broker Size*	*Firm Experience*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
(1)	1.0000											
(2)	0.7536	1.0000										
(3)	-0.0631	-0.0625	1.0000									
(4)	0.0746	0.1051	-0.0800	1.0000								
(5)	-0.1134	-0.0851	0.4154	0.1862	1.0000							
(6)	0.0899	0.0641	-0.2170	0.1974	-0.3357	1.0000						
(7)	-0.0817	-0.0919	0.2567	-0.3021	0.3352	-0.2160	1.0000					
(8)	-0.0506	-0.0265	0.2009	0.0329	0.4861	-0.5607	0.0035	1.0000				
(9)	-0.0845	-0.0850	0.0961	-0.2875	0.0959	-0.3020	0.1806	0.2893	1.0000			
(10)	-0.1219	-0.1373	0.0308	-0.0758	0.1458	-0.1584	0.0569	0.1660	0.1838	1.0000		
(11)	-0.0234	-0.0229	0.0309	-0.0338	-0.0170	0.0223	0.0333	-0.1020	0.0182	-0.0213	1.0000	
(12)	-0.0365	-0.0129	0.0265	-0.0038	0.1357	-0.0559	-0.0123	0.0825	0.0703	0.0631	-0.0186	1.0000
(13)	-0.0220	-0.0099	-0.0042	0.0172	0.0650	0.0022	-0.0522	0.0260	0.0219	0.0456	0.0174	0.5926
(14)	0.0089	0.0177	-0.0061	-0.0082	0.0021	-0.0362	-0.1414	0.0572	0.0192	0.0217	0.0122	0.5990
(15)	0.0474	0.0548	-0.1638	0.0984	-0.2351	0.1281	-0.1963	-0.1247	-0.1376	-0.0565	-0.0603	0.1079
(16)	0.0570	0.0540	-0.1665	0.0644	-0.2245	0.1243	-0.1374	-0.1401	-0.0970	-0.0314	-0.1092	0.0731
(17)	-0.0594	-0.0557	0.2614	-0.1318	0.3977	-0.2382	0.0209	0.4514	0.0620	0.0686	-0.0646	0.1214
(18)	-0.0212	-0.0364	-0.0242	0.0197	0.0075	-0.0476	0.0065	-0.0165	0.0359	0.0486	-0.0187	0.0439
(19)	-0.0928	-0.0830	0.0747	0.0616	0.0881	-0.0541	-0.0242	0.0891	0.0445	0.0499	-0.0100	0.0366
(20)	0.0450	0.0336	0.0441	-0.0164	-0.0916	0.0384	-0.0708	-0.0784	-0.1075	-0.0835	0.0124	-0.0304
(21)	0.0464	0.0407	-0.1229	-0.0877	-0.1331	-0.0327	-0.0501	-0.0038	0.0010	0.0219	0.0006	-0.0219
(22)	-0.0641	-0.0389	0.2585	-0.0943	0.1579	-0.1216	0.1183	0.0769	0.0637	-0.0365	0.0242	-0.0027
(23)	0.0114	-0.0046	-0.2820	0.1759	-0.1681	0.2065	-0.1979	-0.0811	-0.0945	-0.0158	-0.0332	0.0127
(24)	-0.0897	-0.0820	0.0841	0.0959	0.0066	0.0221	-0.0657	0.0309	0.0396	0.0008	-0.0069	0.0289
(25)	0.0195	0.0264	0.0337	0.0246	-0.0008	0.0325	-0.0462	-0.0032	0.0164	0.0125	-0.0033	0.0225
(26)	0.0341	0.0321	-0.1961	0.0436	-0.1247	0.0214	-0.0069	-0.0620	-0.1189	-0.0403	-0.0137	-0.0496
(27)	0.0013	-0.0113	-0.0646	0.0013	-0.0328	0.0262	0.1144	-0.0961	-0.0111	0.0228	0.0245	-0.0310
(28)	0.0052	0.0067	-0.0566	0.0195	0.0070	-0.0014	0.0698	0.0066	0.0086	-0.0923	-0.0107	-0.0235
(29)	0.0200	0.0180	-0.0888	0.0004	-0.0482	0.0406	0.0134	-0.0896	-0.0238	0.0921	0.0133	-0.0030
(30)	-0.0392	-0.0004	0.0669	0.0205	0.0539	-0.0850	0.0752	0.0376	0.0577	0.0209	-0.0016	-0.0103
(31)	0.0059	0.0028	-0.0226	-0.0899	-0.0871	-0.0396	-0.0651	-0.0196	0.1118	-0.0172	0.0287	-0.0139
(32)	0.0144	0.0092	-0.1029	-0.0243	0.0251	-0.0286	-0.0297	0.0304	-0.0070	0.0576	-0.0055	0.0416
(33)	0.0439	0.0272	0.1041	-0.0585	0.1018	0.0319	-0.0067	0.0777	-0.0390	0.0423	-0.0005	0.0289

Panel A: First Announcements (continued)

	General Experience	*Industry Experience*	*Number of Firms*	*Number of Industries*	*Global Settlement*	*Walk-Down Effect*	*Loss Amount*	*CAR (-5,+5)*	*IF Dum*	*CPBP Dum*	*EF Dum*
	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)
(13)	1.0000										
(14)	0.6665	1.0000									
(15)	0.2829	0.1840	1.0000								
(16)	0.1779	0.0435	0.7601	1.0000							
(17)	0.0584	0.0681	-0.1795	-0.2752	1.0000						
(18)	0.0336	0.0333	-0.0206	-0.0364	0.0529	1.0000					
(19)	0.0158	0.0234	-0.0239	-0.0066	-0.0031	0.0325	1.0000				
(20)	-0.0252	-0.0384	0.0419	0.0142	-0.0673	-0.0058	-0.0613	1.0000			
(21)	-0.0096	0.0338	0.0534	0.0609	-0.1026	0.0615	-0.1579	0.0521	1.0000		
(22)	-0.0165	-0.0177	-0.0808	-0.0767	0.1304	-0.0857	0.2663	-0.0504	-0.4885	1.0000	
(23)	0.0254	0.0079	0.0835	0.0966	-0.1419	0.0251	-0.0449	0.0530	-0.1439	-0.4301	1.0000
(24)	0.0052	0.0166	0.0012	0.0103	0.0031	0.0158	0.7958	0.0051	-0.0483	0.1597	-0.0656
(25)	0.0108	0.0254	-0.0069	-0.0151	-0.0444	-0.0105	0.0275	-0.0287	-0.0422	-0.0773	0.2172
(26)	-0.0221	0.0207	0.0617	0.0652	-0.1748	-0.0863	0.0386	0.0019	-0.0472	-0.0265	0.1857
(27)	-0.0293	-0.0205	-0.0128	-0.0075	-0.1317	0.0528	0.0241	-0.1125	-0.0628	0.0055	-0.0553
(28)	-0.0095	0.0006	-0.0055	-0.0081	0.0139	0.0244	0.0159	0.0032	-0.0634	-0.0424	0.0435
(29)	-0.0151	0.0140	0.0115	0.0290	-0.0209	-0.0246	0.0033	0.0610	0.0339	-0.0353	0.0754
(30)	-0.0146	-0.0242	-0.0275	-0.0298	-0.0287	0.0857	-0.0078	0.0386	-0.0332	0.1118	-0.0737
(31)	0.0212	0.0239	0.0103	0.0008	-0.0649	0.0261	-0.0325	-0.0264	0.0041	0.0472	-0.0313
(32)	0.0242	0.0179	-0.0048	-0.0137	0.0731	0.0229	-0.0571	0.0698	-0.0604	0.1081	-0.0705
(33)	0.0335	0.0432	-0.0065	-0.0358	0.1018	0.0261	-0.1758	-0.0517	-0.0029	-0.0189	-0.0439

	Loss_Above 10 Dum	*Loss_9m Dum*	*Loss_8m Dum*	*Loss_7m Dum*	*Loss_6m Dum*	*Loss_5m Dum*	*Loss_4m Dum*	*Loss_3m Dum*	*Loss_2m Dum*	*Loss_1m Dum*
	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)
(24)	1.0000									
(25)	-0.0829	1.0000								
(26)	-0.1512	-0.0198	1.0000							
(27)	-0.1235	-0.0162	-0.0295	1.0000						
(28)	-0.1247	-0.0164	-0.0298	-0.0244	1.0000					
(29)	-0.0946	-0.0124	-0.0226	-0.0185	-0.0187	1.0000				
(30)	-0.1647	-0.0216	-0.0394	-0.0322	-0.0325	-0.0246	1.0000			
(31)	-0.1736	-0.0228	-0.0415	-0.0339	-0.0342	-0.0260	-0.0452	1.0000		
(32)	-0.1576	-0.0207	-0.0377	-0.0308	-0.0311	-0.0236	-0.0411	-0.0433	1.0000	
(33)	-0.2565	-0.0336	-0.0613	-0.0501	-0.0506	-0.0384	-0.0668	-0.0704	-0.0639	1.0000

Panel B: Settlements

	Analyst Forecast Revision	*Analyst Forecast Error Change*	*Potential Employer*	*Analysts Following*	*Total Assets*	*ROA*	*Leverage*	*Book to Market Ratio*	*Equity Return Volatility*	*Optimistic Analyst*	*Broker Size*	*Firm Experience*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
(1)	1.0000											
(2)	0.6981	1.0000										
(3)	-0.0623	-0.0508	1.0000									
(4)	0.0388	0.0707	-0.1049	1.0000								
(5)	-0.1046	-0.0812	0.4653	0.1902	1.0000							
(6)	0.0785	0.0536	-0.2069	0.1415	-0.3337	1.0000						
(7)	-0.0760	-0.0933	0.2565	-0.3275	0.3329	-0.2167	1.0000					
(8)	-0.0469	-0.0097	0.2365	0.1046	0.5049	-0.5171	0.0070	1.0000				
(9)	-0.0464	-0.0454	0.0148	-0.2072	0.0458	-0.2602	0.1017	0.1927	1.0000			
(10)	-0.1201	-0.1250	0.0200	-0.1067	0.1969	-0.1226	0.0680	0.1877	0.1071	1.0000		
(11)	-0.0051	-0.0088	0.0106	-0.0403	-0.0292	0.0265	0.0077	-0.0889	-0.0172	-0.0153	1.0000	
(12)	-0.0288	-0.0072	0.0531	0.0016	0.1473	-0.0428	0.0074	0.0747	0.0735	0.0714	-0.0283	1.0000
(13)	-0.0055	0.0109	0.0095	0.0212	0.0713	0.0130	-0.0387	0.0214	0.0264	0.0431	-0.0071	0.5880
(14)	0.0099	0.0081	0.0002	0.0084	0.0120	-0.0268	-0.1304	0.0710	0.0084	0.0467	-0.0096	0.5841
(15)	0.0330	0.0423	-0.1753	0.0860	-0.2272	0.1049	-0.1861	-0.1221	-0.0888	-0.0466	-0.0566	0.0922
(16)	0.0489	0.0488	-0.1873	0.0541	-0.2295	0.1143	-0.1360	-0.1567	-0.0350	-0.0421	-0.0990	0.0557
(17)	-0.0321	-0.0259	0.3868	-0.0839	0.4039	-0.1742	0.0275	0.4561	0.0594	0.0993	-0.0505	0.0995
(18)	0.0050	-0.0198	0.0473	-0.0283	0.0039	0.0307	0.0869	-0.1519	0.0663	0.0784	0.0275	0.0491
(19)	-0.0308	-0.0499	-0.0109	0.1257	0.0731	0.0305	-0.0431	0.0299	-0.1155	-0.0037	-0.0016	0.0163
(20)	0.0550	0.0468	-0.0669	0.0606	-0.1318	0.1003	-0.1082	-0.1219	-0.1641	-0.0692	0.0325	-0.0427
(21)	0.0191	0.0045	-0.0478	-0.0812	-0.1009	-0.0707	-0.0210	0.0737	0.0712	0.0529	-0.0044	-0.0069
(22)	-0.0509	-0.0419	0.1610	-0.1007	0.1454	-0.0538	0.1116	0.0684	-0.0799	-0.0503	0.0211	-0.0135
(23)	0.0394	0.0432	-0.1824	0.1657	-0.1086	0.1373	-0.1490	-0.1190	0.0350	-0.0064	-0.0342	0.0145
(24)	-0.0225	-0.0422	-0.0173	0.1849	-0.0018	0.0815	-0.1018	-0.0030	-0.1262	-0.0297	-0.0025	0.0118
(25)	0.0134	0.0213	0.0279	0.0181	-0.0222	-0.0443	-0.0655	0.0567	-0.0026	-0.0066	-0.0263	0.0140
(26)	0.0147	0.0167	-0.1008	0.0117	-0.0876	0.0111	0.0455	-0.0605	-0.0763	-0.0169	-0.0128	-0.0476
(27)	0.0001	0.0036	0.0427	-0.0812	-0.0062	-0.0102	0.1987	-0.0691	-0.0167	-0.0555	0.0377	-0.0244
(28)	-0.0120	-0.0254	-0.1211	-0.0276	-0.0354	0.0174	0.0804	-0.0166	0.0579	-0.0368	-0.0235	-0.0206
(29)	-0.0423	-0.0478	-0.0598	-0.0536	-0.0176	0.0096	0.0241	-0.0553	0.0384	0.0714	0.0116	0.0084
(30)	-0.0367	0.0172	0.0659	-0.0357	0.0177	-0.0838	0.0731	0.0312	0.0192	-0.0087	-0.0086	-0.0017
(31)	-0.0050	-0.0023	-0.0053	-0.0298	-0.0126	-0.1239	-0.0290	0.0475	0.0349	-0.0050	0.0351	-0.0273
(32)	0.0113	0.0112	-0.0709	-0.0176	0.0691	-0.0222	-0.0388	0.0561	0.0671	0.0255	-0.0042	0.0414
(33)	0.0390	0.0240	0.0218	-0.0962	0.0543	0.0142	0.0455	0.0041	0.0211	0.0729	-0.0055	0.0271

Panel B: Settlements (continued)

	General Experience	*Industry Experience*	*Number of Firms*	*Number of Industries*	*Global Settlement*	*Walk-Down Effect*	*Loss Amount*	*CAR (-5,+5)*	*IF Dum*	*CPBP Dum*	*EF Dum*
	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)
(13)	1.0000										
(14)	0.6561	1.0000									
(15)	0.2810	0.1800	1.0000								
(16)	0.1611	0.0334	0.7647	1.0000							
(17)	0.0490	0.0657	-0.1884	-0.2996	1.0000						
(18)	0.0352	0.0232	-0.0373	-0.0718	-0.0280	1.0000					
(19)	-0.0049	-0.0227	0.0027	0.0113	-0.0462	-0.0379	1.0000				
(20)	-0.0195	-0.0667	0.0405	0.0554	-0.1890	0.0818	0.0846	1.0000			
(21)	0.0072	0.0672	0.0231	0.0460	-0.0480	-0.0156	-0.1921	-0.1038	1.0000		
(22)	-0.0200	-0.0288	-0.0641	-0.1102	0.1316	-0.0197	0.2785	0.0309	-0.5243	1.0000	
(23)	0.0265	0.0105	0.0889	0.1284	-0.2483	0.0058	-0.0144	0.0467	-0.1759	-0.4207	1.0000
(24)	-0.0027	-0.0234	0.0375	0.0497	-0.0683	-0.0421	0.8042	0.0928	-0.0938	0.1764	-0.0439
(25)	0.0003	0.0333	0.0064	0.0135	0.0418	0.0249	0.0410	0.0106	-0.0419	-0.0101	0.1023
(26)	-0.0202	-0.0106	0.0454	0.0589	-0.1831	-0.0201	0.0501	-0.0550	-0.0191	0.0025	0.0731
(27)	-0.0335	-0.0049	-0.0452	-0.0756	-0.0571	0.1001	0.0476	0.0154	-0.0643	0.0427	0.0208
(28)	-0.0177	-0.0340	0.0035	0.0038	-0.0109	-0.0519	0.0468	-0.0548	-0.0767	-0.0350	0.1305
(29)	0.0004	0.0294	0.0016	0.0074	-0.0133	-0.0383	0.0274	-0.0701	0.0750	-0.0459	0.0375
(30)	-0.0152	0.0144	-0.0268	-0.0593	0.0516	0.0770	0.0275	0.0697	-0.0361	0.0809	-0.0198
(31)	0.0164	0.0218	0.0007	-0.0136	-0.0345	-0.0539	0.0047	-0.0091	-0.0138	0.0828	-0.0783
(32)	0.0333	0.0051	-0.0197	-0.0214	0.0796	0.0826	-0.0349	0.0408	-0.0731	0.0400	0.0286
(33)	0.0196	0.0334	-0.0127	-0.0249	0.0503	0.0340	-0.1376	-0.1013	0.0529	-0.0287	-0.0459

	Loss_Above 10 Dum	*Loss_9m Dum*	*Loss_8m Dum*	*Loss_7m Dum*	*Loss_6m Dum*	*Loss_5m Dum*	*Loss_4m Dum*	*Loss_3m Dum*	*Loss_2m Dum*	*Loss_1m Dum*
	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)
(24)	1.0000									
(25)	-0.0638	1.0000								
(26)	-0.0915	-0.0115	1.0000							
(27)	-0.0979	-0.0123	-0.0176	1.0000						
(28)	-0.1168	-0.0147	-0.0210	-0.0225	1.0000					
(29)	-0.0933	-0.0117	-0.0168	-0.0180	-0.0214	1.0000				
(30)	-0.1508	-0.0189	-0.0271	-0.0290	-0.0347	-0.0277	1.0000			
(31)	-0.1485	-0.0186	-0.0267	-0.0286	-0.0341	-0.0272	-0.0441	1.0000		
(32)	-0.1763	-0.0221	-0.0317	-0.0340	-0.0405	-0.0323	-0.0523	-0.0515	1.0000	
(33)	-0.2411	-0.0303	-0.0434	-0.0464	-0.0554	-0.0442	-0.0715	-0.0704	-0.0836	1.0000

Table 4: Mean Comparisons of Analyst Forecast Quality

This table reports mean comparison of *analyst forecast revision* and *analyst forecast error change* during pre-announcement period (-5, -1), post-announcement period (0, +5), and full event window (-5, +5) around operational risk event announcements for sub-samples of independent variables. For dichotomous variables, the two sub-samples are determined by the value of the variable, labelled as 1 or 0, and for continuous variables, the two sub-samples refer to observations in the top quartile (25p) vs. other three quartiles (75p); labelled as High and Low, respectively. *t-statistics* are reported in parentheses. *, ** and *** denote statistical significance at the 10%, 5%, and 1% level, respectively, and are based on the two-tailed test of mean difference. Variable definitions are described in Appendix I.

Panel A: Analyst Forecast Revision

Variables	Group	First Announcements						Settlements					
		(-5, -1)		(0, +5)		(-5, +5)		(-5, -1)		(0, +5)		(-5, +5)	
		N	Mean (t-stats)	N	Mean (t-stats)	N	Mean (t-stats)	N	Mean (t-stats)	N	Mean (t-stats)	N	Mean (t-stats)
Bank-Level Variables													
Potential Employer	1	6,228	-0.1834	6,228	-0.2732	6,228	-0.4566	5,962	-0.1400	5,962	-0.2396	5,962	-0.3795
	0	649	-0.0195	649	-0.0185	649	-0.0380	578	0.0000	578	0.0008	578	0.0009
			(3.4246)***		(4.0203)***		(5.2385)***		(3.2169)***		(3.9025)***		(5.0483)***
Analysts Following	1	2,268	-0.0864	2,268	-0.1727	2,268	-0.2592	2,134	-0.0756	2,134	-0.1642	2,134	-0.2399
	0	4,609	-0.2080	4,609	-0.2867	4,609	-0.4948	4,406	-0.1528	4,406	-0.2445	4,406	-0.3973
			(-4.0857)***		(-2.8933)***		(-4.7400)***		(-2.9275)***		(-2.1509)**		(-3.4472)***
Analyst-Level Variables													
Optimistic Analyst	1	3,959	-0.2656	3,959	-0.3546	3,959	-0.6202	3,637	-0.2103	3,637	-0.3216	3,637	-0.5319
	0	2,918	-0.0355	2,918	-0.1061	2,918	-0.1415	2,903	-0.0240	2,903	-0.0889	2,903	-0.1129
			(8.1586)***		(6.6476)***		(10.1832)***		(7.5197)***		(6.6271)***		(9.7856)***
Broker Size	1	1,711	-0.2172	1,711	-0.2863	1,711	-0.5035	1,611	-0.1798	1,611	-0.2258	1,611	-0.4056
	0	5,166	-0.1516	5,166	-0.2368	5,166	-0.3884	4,929	-0.1105	4,929	-0.2159	4,929	-0.3264
			(2.0242)**		(1.1551)		(2.1265)**		(2.4154)**		(0.2448)		(1.5930)
Firm Experience	1	1,719	-0.1553	1,719	-0.2977	1,719	-0.4530	1,607	-0.1026	1,607	-0.2624	1,607	-0.3650
	0	5,158	-0.1721	5,158	-0.2329	5,158	-0.4051	4,933	-0.1357	4,933	-0.2040	4,933	-0.3397
			(-0.5221)		(1.5136)		(0.8862)		(-1.1544)		(1.4377)		(0.5086)
General Experience	1	1,774	-0.1508	1,774	-0.2937	1,774	-0.4445	1,688	-0.1071	1,688	-0.2361	1,688	-0.3432
	0	5,103	-0.1739	5,103	-0.2336	5,103	-0.4075	4,852	-0.1347	4,852	-0.2121	4,852	-0.3469
			(-0.7210)		(1.4168)		(0.6906)		(-0.9788)		(0.5989)		(-0.0753)
Industry Experience	1	1,695	-0.1624	1,695	-0.2674	1,695	-0.4298	1,596	-0.1094	1,596	-0.2103	1,596	-0.3196
	0	5,182	-0.1697	5,182	-0.2432	5,182	-0.4129	4,944	-0.1335	4,944	-0.2209	4,944	-0.3544
			(-0.2273)		(0.5634)		(0.3101)		(-0.8382)		(-0.2614)		(-0.6971)

Number of Firms	1	1,628	-0.0774	1,628	-0.1934	1,628	-0.2708	1,578	-0.0756	1,578	-0.1614	1,578	-0.2370
	0	5,249	-0.1960	5,249	-0.2664	5,249	-0.4624	4,962	-0.1441	4,962	-0.2364	4,962	-0.3806
			(-3.6044)***		(-1.6747)*		(-3.4842)***		(-2.3725)**		(-1.8358)*		(-2.8691)***
Number of Industries	1	1,632	-0.0808	1,632	-0.1568	1,632	-0.2376	1,563	-0.0618	1,563	-0.1261	1,563	-0.1879
	0	5,245	-0.1950	5,245	-0.2779	5,245	-0.4729	4,977	-0.1483	4,977	-0.2473	4,977	-0.3956
			(-3.4726)***		(-2.7812)***		(-4.2836)***		(-2.9853)***		(-2.9554)***		(-4.1391)***
Event-Level Variables													
Global Settlement	1	5,242	-0.1960	5,242	-0.2854	5,242	-0.4814	5,368	-0.1325	5,368	-0.2395	5,368	-0.3719
	0	1,635	-0.0778	1,635	-0.1329	1,635	-0.2108	1,172	-0.1053	1,172	-0.1215	1,172	-0.2268
			(3.5954)***		(3.5036)***		(4.9308)***		(0.8434)		(2.5855)***		(2.5989)***
Walk-Down Effect	1	1,773	-0.1341	1,773	-0.2157	1,773	-0.3498	1,749	-0.0769	1,749	-0.1451	1,749	-0.2220
	0	5,104	-0.1797	5,104	-0.2607	5,104	-0.4404	4,791	-0.1461	4,791	-0.2451	4,791	-0.3912
			(-1.4244)		(-1.0626)		(-1.6942)*		(-2.4783)**		(-2.5293)**		(-3.4974)***
Loss Amount	1	1,788	-0.3181	1,788	-0.4181	1,788	-0.7363	1,718	-0.1950	1,718	-0.3044	1,718	-0.4994
	0	5,089	-0.1152	5,089	-0.1898	5,089	-0.3049	4,822	-0.1036	4,822	-0.1877	4,822	-0.2912
			(6.3748)***		(5.4153)***		(8.1224)***		(3.2565)***		(2.9367)***		(4.2804)***
CAR	1	1,598	-0.1262	1,694	-0.3149	1,636	-0.4619	1,497	-0.1017	1,652	-0.1804	1,606	-0.3390
	0	5,279	-0.1806	5,183	-0.2276	5,241	-0.4031	5,043	-0.1353	4,888	-0.2311	4,934	-0.3482
			(-1.6388)		(2.0292)**		(1.0711)		(-1.1430)		(-1.2600)		(-0.1832)
IF Dum	1	966	-0.0261	966	-0.1681	966	-0.1942	1,176	-0.0839	1,176	-0.1912	1,176	-0.2751
			(-1.9916)**		(-0.1456)		(-1.1020)		(0.4862)		(-0.4419)		(-0.1346)
CPBP Dum	1	4,082	-0.2189	4,082	-0.3011	4,082	-0.5200	3,638	-0.1642	3,638	-0.2605	3,638	-0.4247
			(2.9834)***		(2.2467)**		(3.5703)***		(2.4269)**		(0.7646)		(2.0328)**
EF Dum	1	773	-0.1802	773	-0.1749	773	-0.3551	809	-0.0951	809	-0.0693	809	-0.1644
			(1.7673)*		(-0.0273)		(1.0954)		(0.7759)		(-2.7102)***		(-1.8637)*
Others Dum	1	1,056	-0.0918	1,056	-0.1766	1,056	-0.2684	917	-0.0672	917	-0.2171	917	-0.2844
Loss_Above 10m Dum	1	2,664	-0.2691	2,664	-0.3668	2,664	-0.6359	2,204	-0.1558	2,204	-0.2448	2,204	-0.4006
			(5.3798)***		(3.7084)***		(6.1217)***		(2.0674)**		(0.9099)		(1.9126)*
Loss_9m Dum	1	74	-0.0333	74	-0.0209	74	-0.0542	52	0.0000	52	-0.0875	52	-0.0875
			(-0.4360)		(-1.0232)		(-1.1087)		(-0.7850)		(-0.6105)		(-0.9164)
Loss_8m Dum	1	240	-0.0418	240	-0.0273	240	-0.0691	106	-0.1028	106	-0.0445	106	-0.1473
			(-0.6051)		(-1.7645)*		(-1.8327)*		(0.1003)		(-1.1913)		(-0.9337)
Loss_7m Dum	1	162	-0.1839	162	-0.2163	162	-0.4003	121	-0.0923	121	-0.2521	121	-0.3444
			(1.5679)		(0.2645)		(1.0503)		(-0.0230)		(0.3595)		(0.2886)
Loss_6m Dum	1	165	-0.1401	165	-0.2125	165	-0.3526	171	-0.2548	171	-0.2178	171	-0.4725
			(0.9649)		(0.2312)		(0.6985)		(2.2071)**		(0.1109		(1.2851)
Loss_5m Dum	1	96	-0.0826	96	-0.0075	96	-0.0901	110	-0.1873	110	-0.7187	110	-0.9060
			(0.0914)		(-1.2607)		(-1.0360)		(1.0761)		(3.6560)***		(3.6270)***

Loss_4m Dum	1	283	-0.2762	283	-0.5084	283	-0.7847	280	-0.2351	280	-0.4117	280	-0.6468
			(3.3678)***		(3.3118)***		(4.6283)***		(2.3368)**		(2.1867)**		(3.0742)***
Loss_3m Dum	1	313	-0.1670	313	-0.1980	313	-0.3649	272	-0.1873	272	-0.2005	272	-0.3878
			(1.7443)*		(0.1376)		(1.0421)		(1.6122)		(-0.0555)		(0.8167)
Loss_2m Dum	1	260	-0.1761	260	-0.0995	260	-0.2756	377	-0.1246	377	-0.1423	377	-0.2669
			(1.7776)*		(-0.9769)		(0.1396)		(0.6190)		(-0.8478)		(-0.3607)
Loss_1m Dum	1	648	-0.0633	648	-0.0897	648	-0.1529	671	-0.0540	671	-0.0921	671	-0.1461
			(-0.3197)		(-1.6583)*		(-1.5865)		(-1.1095)		(-1.9638)**		(-2.2179)**
Loss_Below 1m Dum	1	1,972	-0.0748	1,972	-0.1862	1,972	-0.2610	2,176	-0.0942	2,176	-0.2054	2,176	-0.2996

Panel B: Analyst Forecast Error Change

Variables	Group	First Announcements						Settlements					
		(-5, -1)		(0, +5)		(-5, +5)		(-5, -1)		(0, +5)		(-5, +5)	
		N	Mean (t-stats)	N	Mean (t-stats)	N	Mean (t-stats)	N	Mean (t-stats)	N	Mean (t-stats)	N	Mean (t-stats)
Bank-Level Variables													
Potential Employer	1	6,228	-0.1732	6,228	-0.1921	6,228	-0.3653	5,962	-0.1318	5,962	-0.1621	5,962	-0.2939
	0	649	-0.0182	649	0.0018	649	-0.0164	578	-0.0298	578	-0.0052	578	-0.0349
			(3.5567)***		(3.8350)***		(5.1898)***		(2.5736)**		(3.2034)***		(4.1092)***
Analysts Following	1	2,268	-0.0587	2,268	-0.0862	2,268	-0.1449	2,134	-0.0593	2,134	-0.0760	2,134	-0.1353
	0	4,609	-0.2077	4,609	-0.2169	4,609	-0.4246	4,406	-0.1536	4,406	-0.1831	4,406	-0.3367
			(-5.5055)***		(-4.1579)		(-6.6992)***		(-3.9290)***		(-3.6123)***		(-5.2823)***
Analyst-Level Variables													
Optimistic Analyst	1	3,959	-0.2354	3,959	-0.2894	3,959	-0.5249	3,637	-0.1793	3,637	-0.2534	3,637	-0.4327
	0	2,918	-0.0542	2,918	-0.0170	2,918	-0.0712	2,903	-0.0520	2,903	-0.0164	2,903	-0.0684
			(7.0517)***		(9.1534)***		(11.4956)***		(5.6274)***		(8.5120)***		(10.1856)***
Broker Size	1	1,711	-0.1917	1,711	-0.2134	1,711	-0.4050	1,611	-0.1429	1,611	-0.1797	1,611	-0.3226
	0	5,166	-0.1476	5,166	-0.1607	5,166	-0.3083	4,929	-0.1162	4,929	-0.1379	4,929	-0.2541
			(1.4957)		(1.5380)		(2.1245)**		(1.0225)		(1.2943)		(1.6485)*
Firm Experience	1	1,719	-0.1483	1,719	-0.2053	1,719	-0.3537	1,607	-0.0934	1,607	-0.1833	1,607	-0.2767
	0	5,158	-0.1619	5,158	-0.1633	5,158	-0.3253	4,933	-0.1324	4,933	-0.1368	4,933	-0.2691
			(-0.4619)		(1.2295)		(0.6249)		(-1.4879)		(1.4395)		(0.1824)
General Experience	1	1,774	-0.1469	1,774	-0.2035	1,774	-0.3504	1,688	-0.0889	1,688	-0.1489	1,688	-0.2378
	0	5,103	-0.1626	5,103	-0.1635	5,103	-0.3261	4,852	-0.1346	4,852	-0.1479	4,852	-0.2825
			(-0.5376)		(1.1827)		(0.5407)		(-1.7761)*		(0.0302)		(-1.0933)
Industry Experience	1	1,695	-0.1540	1,695	-0.1853	1,695	-0.3393	1,596	-0.1006	1,596	-0.1507	1,596	-0.2513
	0	5,182	-0.1600	5,182	-0.1701	5,182	-0.3301	4,944	-0.1299	4,944	-0.1474	4,944	-0.2773
			(-0.2027)		(0.4438)		(0.2023)		(-1.1178)		(0.1024)		(-0.6233)
Number of Firms	1	1,628	-0.0845	1,628	-0.1180	1,628	-0.2025	1,578	-0.0770	1,578	-0.0912	1,578	-0.1682
	0	5,249	-0.1815	5,249	-0.1912	5,249	-0.3727	4,962	-0.1374	4,962	-0.1663	4,962	-0.3037
			(-3.2377)***		(-2.1023)**		(-3.6776)***		(-2.2932)**		(-2.3097)**		(-3.2375)***
Number of Industries	1	1,632	-0.0846	1,632	-0.1065	1,632	-0.1911	1,563	-0.0716	1,563	-0.0688	1,563	-0.1404
	0	5,245	-0.1815	5,245	-0.1948	5,245	-0.3763	4,977	-0.1389	4,977	-0.1731	4,977	-0.3120
			(-3.2378)***		(-2.5390)**		(-4.0066)***		(-2.5480)**		(-3.2008)***		(-4.0911)***

Event-Level Variables													
Global Settlement	1	5,242	-0.1838	5,242	-0.1994	5,242	-0.3832	5,368	-0.1284	5,368	-0.1601	5,368	-0.2885
	0	1,635	-0.0774	1,635	-0.0920	1,635	-0.1694	1,172	-0.0971	1,172	-0.0937	1,172	-0.1908
			(3.5577)***		(3.0908)***		(4.6297)***		(1.0677)		(1.8292)*		(2.0926)**
Walk-Down Effect	1	1,773	-0.1745	1,773	-0.2014	1,773	-0.3759	1,749	-0.1086	1,749	-0.1155	1,749	-0.2240
	0	5,104	-0.1530	5,104	-0.1642	5,104	-0.3173	4,791	-0.1280	4,791	-0.1601	4,791	-0.2881
			(0.7358)		(1.0994)		(1.3026)		(-0.7629)		(-1.4217)		(-1.5842)
Loss Amount	1	1,788	-0.2720	1,788	-0.2875	1,788	-0.5595	1,718	-0.1883	1,718	-0.2290	1,718	-0.4174
	0	5,089	-0.1187	5,089	-0.1339	5,089	-0.2526	4,822	-0.0994	4,822	-0.1194	4,822	-0.2188
			(5.2863)***		(4.5604)***		(6.8611)***		(3.4766)***		(3.4725)***		(4.8879)***
CAR	1	1,598	-0.1382	1,694	-0.2569	1,636	-0.3993	1,497	-0.0922	1,652	-0.1610	1,606	-0.2932
	0	5,279	-0.1647	5,183	-0.1467	5,241	-0.3115	5,043	-0.1319	4,888	-0.1439	4,934	-0.2638
			(-0.8762)		(3.2121)***		(1.8992)*		(-1.4818)		(0.5342)		(0.7063)
IF Dum	1	966	-0.0464	966	-0.1215	966	-0.1678	1,176	-0.0875	1,176	-0.1697	1,176	-0.2572
			(-1.3922)		(-1.1111)		(-1.6818)*		(0.4482)		(0.4635)		(0.6250)
CPBP Dum	1	4,082	-0.1981	4,082	-0.1868	4,082	-0.3849	3,638	-0.1621	3,638	-0.1631	3,638	-0.3252
			(2.8752)***		(0.2413)		(2.0536)**		(2.4184)**		(0.3565)		(1.8312)*
EF Dum	1	773	-0.1857	773	-0.1676	773	-0.3533	809	-0.0535	809	-0.0509	809	-0.1043
			(2.0865)**		(-0.1538)		(1.2411)		(-0.6413)		(-2.1264)**		(-2.1678)**
Others Dum	1	1,056	-0.0882	1,056	-0.1762	1,056	-0.2645	917	-0.0733	917	-0.1474	917	-0.2206
Loss_Above 10m Dum	1	2,664	-0.2409	2,664	-0.2598	2,664	-0.5007	2,204	-0.1581	2,204	-0.1985	2,204	-0.3566
			(4.1618)***		(3.6318)***		(5.4016)***		(1.9641)**		(2.5052)**		(3.1658)***
Loss_9m Dum	1	74	0.0240	74	0.0574	74	0.0813	52	0.0000	52	0.0732	52	0.0732
			(-1.3033)		(-1.3753)		(-1.9010)*		(-0.8950)		(-1.2924)		(-1.5357)
Loss_8m Dum	1	240	-0.0059	240	-0.0511	240	-0.0570	106	-0.0127	106	-0.0697	106	-0.0823
			(-1.7895)*		(-0.9240)		(-1.8262)*		(-1.1186)		(-0.4219)		(-1.0000)
Loss_7m Dum	1	162	-0.2107	162	-0.2408	162	-0.4515	121	-0.1386	121	-0.0943	121	-0.2329
			(1.5523)		(1.3590)		(2.0460)**		(0.4710)		(-0.1934)		(0.1373)
Loss_6m Dum	1	165	-0.1118	165	-0.1504	165	-0.2622	171	-0.2193	171	-0.2763	171	-0.4956
			(0.1427)		(0.3632)		(0.3809)		(1.7144)*		(1.8974)*		(2.5219)**
Loss_5m Dum	1	96	-0.0782	96	-0.0075	96	-0.0856	110	-0.1468	110	-0.6535	110	-0.8003
			(-0.2755)		(-0.9882)		(-0.9578)		(0.5389)		(5.0222)***		(4.2487)***
Loss_4m Dum	1	283	-0.1307	283	-0.2052	283	-0.3359	280	-0.0629	280	-0.0900	280	-0.1530
			(0.5225)		(1.1787)		(1.2700)		(-0.7627)		(-0.3354)		(-0.7151)
Loss_3m Dum	1	313	-0.1607	313	-0.1509	313	-0.3117	272	-0.1693	272	-0.1174	272	-0.2868
			(1.1034)		(0.4894)		(1.0777)		(1.2188)		(0.0644)		(0.8046)
Loss_2m Dum	1	260	-0.1548	260	-0.1019	260	-0.2567	377	-0.1076	377	-0.0977	377	-0.2053
			(0.9252)		(-0.2264)		(0.4050)		(0.1089)		(-0.2696)		(-0.1377)
Loss_1m Dum	1	648	-0.0921	648	-0.1025	648	-0.1946	671	-0.0827	671	-0.0857	671	-0.1684
			(-0.2684)		(-0.3342)		(-0.4324)		(-0.5550)		(-0.6370)		(-0.8293)
Loss_Below 1m Dum	1	1,972	-0.1021	1,972	-0.1180	1,972	-0.2201	2,176	-0.1025	2,176	-0.1131	2,176	-0.2156

Table 5: Determinants of Analyst Forecast Revisions around Operational Risk Event Announcements

This table reports the estimation results for *analyst forecast revision* during pre-announcement period (-5, -1), post-announcement period (0, +5), and full event window (-5, +5) around operational risk event first announcements and settlement announcements. Robust standard errors are used to correct for operational risk event clustering. *t-statistics* are reported in parentheses. *, ** and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively (two-tailed). Variable definitions are described in Appendix I.

	First Announcements			Settlements		
	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)
Bank-Level Variables						
Potential Employer	0.0367	0.0163	-0.0020	-0.0696	-0.0808	-0.1316
	(0.55)	(0.22)	(-0.02)	(-1.35)	(-1.18)	(-1.25)
Analysts Following	0.0165**	0.0127**	0.0296**	0.0084*	0.0008	0.0083
	(1.98)	(2.21)	(2.33)	(1.73)	(0.15)	(1.00)
Total Assets	-0.0910**	-0.0851**	-0.1797**	-0.0405	-0.0691*	-0.1101*
	(-2.30)	(-2.08)	(-2.41)	(-1.62)	(-1.70)	(-1.84)
ROA	0.1735	0.2379	0.5747	0.2760*	0.1371	0.4177
	(0.79)	(0.84)	(1.18)	(1.74)	(0.60)	(1.14)
Leverage	0.0006	-0.0002	0.0010	0.0003	-0.0007	-0.0001
	(0.22)	(-0.10)	(0.20)	(0.18)	(-0.31)	(-0.03)
Book to Market Ratio	0.0015*	0.0002	0.0023	0.0008	0.0003	0.0013
	(1.70)	(0.16)	(1.18)	(1.63)	(0.28)	(0.94)
Equity Return Volatility	-0.0396	-0.0871	-0.0958	0.0067	-0.1348*	-0.0977
	(-0.59)	(-0.99)	(-0.73)	(0.14)	(-1.76)	(-0.91)
Analyst-Level Variables						
Optimistic Analyst	-0.1817***	-0.2048***	-0.3893***	-0.1774***	-0.2000***	-0.3703***
	(-4.11)	(-3.56)	(-4.10)	(-4.96)	(-3.62)	(-4.59)
Broker Size	-0.0004	-0.0002	-0.0006	-0.0004	0.0003	-0.0001
	(-1.33)	(-0.69)	(-1.36)	(-1.54)	(1.19)	(-0.15)
Firm Experience	-0.0021	-0.0089	-0.0111	-0.0045	-0.0078	-0.0121*
	(-0.48)	(-1.35)	(-1.30)	(-1.21)	(-1.33)	(-1.73)
General Experience	-0.0022	-0.0057	-0.0080	-0.0012	-0.0001	-0.0014
	(-0.59)	(-1.49)	(-1.31)	(-0.40)	(-0.04)	(-0.27)
Industry Experience	0.0068	0.0107	0.0180*	0.0074**	0.0042	0.0120
	(1.43)	(1.44)	(1.82)	(1.97)	(0.66)	(1.43)
Number of Firms	-0.0016	-0.0063**	-0.0089**	-0.0024	-0.0062*	-0.0089*
	(-0.75)	(-2.05)	(-2.19)	(-0.93)	(-1.88)	(-1.90)
Number of Industries	0.0089	0.0241**	0.0370***	0.0108	0.0230**	0.0356**
	(1.37)	(2.58)	(2.76)	(1.59)	(2.23)	(2.46)
Event-Level Variables						
Global Settlement	-0.0090	0.0119	-0.0122	0.0762	0.0675	0.1719
	(-0.13)	(0.15)	(-0.09)	(1.08)	(0.76)	(1.13)
Walk-Down Effect	0.0311	-0.1034	-0.0573	0.0828	0.0624	0.1345
	(0.35)	(-0.95)	(-0.32)	(1.22)	(0.61)	(0.91)
Loss Amount	-0.0131	0.0453	0.0336	-0.0174	0.0682	0.0404
	(-0.46)	(0.99)	(0.53)	(-0.77)	(1.16)	(0.57)
CAR	0.0429**	-0.0123	0.0164	0.0222*	-0.0073	0.0153
	(2.14)	(-0.88)	(0.75)	(1.94)	(-0.58)	(0.99)
IF Dum	0.0059	-0.0204	0.0018	-0.0073	0.0387	0.0443
	(0.10)	(-0.27)	(0.02)	(-0.14)	(0.47)	(0.43)
CPBP Dum	-0.0842*	-0.1129	-0.1788*	-0.0650	-0.0365	-0.0838
	(-1.86)	(-1.38)	(-1.70)	(-1.47)	(-0.39)	(-0.72)
EF Dum	-0.2503*	-0.1667	-0.4324*	-0.0483	0.1341	0.0989
	(-1.75)	(-1.22)	(-1.66)	(-0.81)	(1.51)	(0.76)
Loss_Above 10m Dum	-0.2064***	-0.1711*	-0.3826**	-0.0789	-0.0413	-0.1111
	(-2.73)	(-1.83)	(-2.52)	(-1.50)	(-0.50)	(-0.95)
Loss_9m Dum	0.2573*	0.0805	0.3068	0.1015	-0.2075	-0.0848
	(1.72)	(0.40)	(1.02)	(0.73)	(-0.76)	(-0.23)
Loss_8m Dum	-0.0006	-0.1167	-0.0880	0.0527	-0.1919	-0.0483
	(-0.01)	(-0.77)	(-0.38)	(0.37)	(-0.94)	(-0.18)
Loss_7m Dum	0.0320	-0.1878	-0.2190	0.0995	-0.2550	-0.1297
	(0.21)	(-1.05)	(-0.89)	(0.96)	(-1.09)	(-0.47)
Loss_6m Dum	-0.0578	-0.2088	-0.3119	-0.1237	-0.2816	-0.3424
	(-0.43)	(-0.82)	(-0.86)	(-0.75)	(-0.98)	(-0.87)
Loss_5m Dum	0.0328	0.0740	0.1651	0.0207	-0.6960	-0.5848
	(0.36)	(0.45)	(0.72)	(0.21)	(-1.59)	(-1.13)
Loss_4m Dum	-0.2201	-0.3611	-0.5143	-0.0927	-0.3425	-0.4132
	(-1.30)	(-1.29)	(-1.38)	(-0.61)	(-1.51)	(-1.28)
Loss_3m Dum	-0.0270	-0.0952	-0.1508	-0.0384	-0.1312	-0.1033
	(-0.20)	(-0.61)	(-0.51)	(-0.30)	(-0.61)	(-0.31)

Loss_2m Dum	-0.0691	0.0908	0.0277	0.0058	-0.0357	-0.0066
	(-0.49)	(0.96)	(0.14)	(0.06)	(-0.36)	(-0.05)
Loss_1m Dum	0.0743	0.0887	0.1681	0.1093**	0.0537	0.1977*
	(1.03)	(1.10)	(1.29)	(2.00)	(0.65)	(1.71)
Constant	0.0257	0.3261	0.2812	-0.1353	0.4135*	0.1767
	(0.11)	(1.22)	(0.60)	(-0.90)	(1.83)	(0.59)
N	6,877	6,877	6,877	6,540	6,540	6,540
Average VIF	2.03	2.03	2.03	2.17	2.18	2.17
R^2	0.0481	0.0270	0.0557	0.0260	0.0224	0.0384

Table 6: Determinants of Analyst Forecast Error Change around Operational Risk Event Announcements

This table reports the estimation results for *analyst forecast error change* during pre-announcement period (-5, -1), post-announcement period (0, +5), and full event window (-5, +5) around operational risk event first announcements and settlement announcements. Robust standard errors are used to correct for operational risk event clustering. *t-statistics* are reported in parentheses. *, ** and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively (two-tailed). Variable definitions are described in Appendix I.

	First Announcements			Settlements		
	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)
Bank-Level Variables						
Potential Employer	-0.0088	-0.0540	-0.0960	-0.0149	-0.0691	-0.0633
	(-0.14)	(-0.91)	(-0.90)	(-0.28)	(-1.31)	(-0.67)
Analysts Following	0.0170**	0.0129***	0.0299***	0.0077*	0.0046	0.0114
	(2.21)	(2.81)	(2.71)	(1.71)	(1.19)	(1.60)
Total Assets	-0.0642*	-0.0505*	-0.1176*	-0.0325	-0.0428*	-0.0768*
	(-1.73)	(-1.84)	(-1.94)	(-1.36)	(-1.75)	(-1.68)
ROA	0.0691	0.0023	0.1953	0.1867	0.0562	0.2492
	(0.33)	(0.01)	(0.48)	(1.26)	(0.33)	(0.81)
Leverage	-0.0002	-0.0011	-0.0009	-0.0008	-0.0021	-0.0027
	(-0.09)	(-0.60)	(-0.22)	(-0.48)	(-1.32)	(-0.93)
Book to Market Ratio	0.0012	0.0003	0.0020	0.0011**	0.0007	0.0019*
	(1.44)	(0.37)	(1.20)	(2.27)	(0.91)	(1.73)
Equity Return Volatility	-0.0483	-0.0674	-0.0968	-0.0228	-0.0967*	-0.0945
	(-0.86)	(-1.00)	(-0.93)	(-0.51)	(-1.69)	(-1.06)
Analyst-Level Variables						
Optimistic Analyst	-0.1405***	-0.2456***	-0.3906***	-0.1171***	-0.2094***	-0.3200***
	(-3.53)	(-5.90)	(-5.30)	(-3.72)	(-5.34)	(-5.09)
Broker Size	-0.0002	-0.0003	-0.0005	-0.0001	0.0000	-0.0000
	(-0.73)	(-1.04)	(-1.22)	(-0.32)	(0.12)	(-0.14)
Firm Experience	-0.0003	0.0017	0.0015	-0.0002	0.0007	0.0008
	(-0.08)	(0.32)	(0.21)	(-0.05)	(0.15)	(0.15)
General Experience	-0.0035	-0.0027	-0.0062	0.0002	0.0038	0.0040
	(-1.04)	(-0.87)	(-1.20)	(0.09)	(1.29)	(0.95)
Industry Experience	0.0081*	0.0023	0.0106	0.0038	-0.0061	-0.0021
	(1.91)	(0.42)	(1.32)	(1.10)	(-1.32)	(-0.32)
Number of Firms	-0.0004	-0.0020	-0.0031	-0.0015	-0.0026	-0.0044
	(-0.17)	(-0.96)	(-0.86)	(-0.57)	(-1.06)	(-1.07)
Number of Industries	0.0065	0.0103	0.0194	0.0049	0.0150*	0.0217*
	(0.86)	(1.46)	(1.59)	(0.64)	(1.89)	(1.68)
Event-Level Variables						
Global Settlement	-0.0180	-0.0180	-0.0523	0.0164	0.0169	0.0535
	(-0.30)	(-0.27)	(-0.48)	(0.24)	(0.24)	(0.41)
Walk-Down Effect	-0.0580	-0.1076	-0.1536	-0.0322	0.0014	-0.0368
	(-0.70)	(-1.34)	(-1.03)	(-0.53)	(0.02)	(-0.30)
Loss Amount	-0.0035	0.0139	0.0094	-0.0182	0.0091	-0.0188
	(-0.14)	(0.56)	(0.23)	(-0.87)	(0.34)	(-0.45)
CAR	0.0336*	-0.0096	0.0083	0.0189*	-0.0114	0.0085
	(1.74)	(-0.84)	(0.46)	(1.83)	(-1.24)	(0.66)
IF Dum	-0.0040	0.0283	0.0390	-0.0177	-0.0126	-0.0225
	(-0.07)	(0.45)	(0.42)	(-0.36)	(-0.21)	(-0.26)
CPBP Dum	-0.0876**	0.0037	-0.0702	-0.0779*	0.0081	-0.0534
	(-2.10)	(0.07)	(-0.89)	(-1.92)	(0.14)	(-0.64)
EF Dum	-0.2616**	-0.1412	-0.4103*	-0.0161	0.0765	0.0722
	(-2.00)	(-1.27)	(-1.82)	(-0.32)	(1.22)	(0.72)
Loss_Above 10m Dum	-0.1510**	-0.1543**	-0.3089**	-0.0723	-0.1176**	-0.1787**
	(-2.18)	(-2.51)	(-2.56)	-(1.49)	(-2.25)	(-1.98)
Loss_9m Dum	0.2939**	0.2186*	0.4863**	0.1044	0.0608	0.1851
	(2.31)	(1.66)	(2.24)	(0.98)	(0.42)	(0.83)
Loss_8m Dum	0.0343	-0.0864	-0.0226	0.1536	-0.0900	0.1423
	(0.31)	(-0.75)	(-0.12)	(1.39)	(-0.66)	(0.71)
Loss_7m Dum	-0.0150	-0.1597	-0.2292	0.1058	0.0565	0.1860
	(-0.11)	(-1.19)	(-1.13)	(1.08)	(0.43)	(0.90)
Loss_6m Dum	-0.0195	-0.1218	-0.1682	-0.0613	-0.2472*	-0.2511
	(-0.16)	(-1.07)	(-0.79)	(-0.43)	(-1.82)	(-0.97)
Loss_5m Dum	0.0371	0.1444	0.2447	0.0652	-0.5148	-0.3649
	(0.48)	(1.34)	(1.43)	(0.66)	(-1.39)	(-0.80)
Loss_4m Dum	-0.0527	-0.0980	-0.0883	0.1095	0.0367	0.1725
	(-0.52)	(-0.48)	(-0.37)	(1.41)	(0.30)	(1.09)
Loss_3m Dum	-0.0132	-0.0627	-0.0958	-0.0200	-0.0387	0.0065
	(-0.10)	(-0.51)	(-0.38)	(-0.16)	(-0.25)	(0.02)

Loss_2m Dum	-0.0488	0.0234	-0.0069	0.0428	0.0043	0.0727
	(-0.38)	(0.28)	(-0.04)	(0.49)	(0.06)	(0.60)
Loss_1m Dum	0.0522	0.0425	0.0983	0.0910	0.0525	0.1744*
	(0.73)	(0.66)	(0.88)	(1.61)	(0.88)	(1.77)
Constant	-0.0355	0.2070	0.1245	-0.1212	0.2217*	0.0152
	(-0.16)	(1.09)	(0.32)	(-0.87)	(1.78)	(0.07)
N	6,877	6,877	6,877	6,540	6,540	6,540
Average VIF	2.03	2.03	2.03	2.17	2.18	2.17
R^2	0.0419	0.0278	0.0561	0.0211	0.0262	0.0394

Table 7: Robustness Checks - Bad News vs. Good News

This table reports the estimation results for *analyst forecast revision* and *analyst forecast error change* during pre-announcement period (-5, -1), post-announcement period (0, +5), and full event window (-5, +5) around operational risk event first announcements and settlement announcements. Bad News include only negative CARs and Good News include only positive CARs. Robust standard errors are used to correct for operational risk event clustering. *t-statistics* are reported in parentheses. *, ** and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively (two-tailed). Variable definitions are described in Appendix I.

Panel A: Determinants of Analyst Forecast Quality around Bad News

	First Announcements						Settlements					
	Analyst Forecast Revision			Analyst Forecast Error Change			Analyst Forecast Revision			Analyst Forecast Error Change		
	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)
Bank-Level Variables												
Potential Employer	0.2387*	-0.0778	0.0469	0.2144*	-0.0942	0.0724	-0.1103	-0.1917*	-0.0599	0.0223	-0.1285*	0.0948
	(1.89)	(-0.85)	(0.27)	(1.88)	(-1.44)	(0.52)	(-1.34)	(-1.71)	(-0.38)	(0.26)	(-1.72)	(0.64)
Analysts Following	0.0120	0.0050	0.0264*	0.0134	0.0064	0.0278**	0.0059	-0.0053	0.0012	0.0051	-0.0024	0.0045
	(1.04)	(0.80)	(1.71)	(1.29)	(1.26)	(2.05)	(0.73)	(-0.90)	(0.10)	(0.68)	(-0.52)	(0.47)
Analyst-Level Variables												
Optimistic Analyst	-0.1884***	-0.1777***	-0.3060**	-0.2097***	-0.2449***	-0.4296***	-0.1888***	-0.2326***	-0.4088***	-0.1607***	-0.2757***	-0.4336***
	(-2.70)	(-2.86)	(-2.45)	(-3.26)	(-4.85)	(-4.58)	(-4.16)	(-3.81)	(-3.37)	(-3.99)	(-5.47)	(-5.04)
Event-Level Variables												
Global Settlement	-0.0739	-0.1151	-0.1185	-0.0728	-0.0697	-0.0922	0.0546	-0.1528	-0.2669	-0.0249	-0.0775	-0.2292
	(-0.58)	(-1.16)	(-0.69)	(-0.66)	(-0.88)	(-0.60)	(0.51)	(-1.42)	(-1.51)	(-0.25)	(-0.91)	(-1.45)
Loss Amount	-0.0391	0.0349	0.0885	-0.0140	0.0326	0.0240	-0.0027	0.0267	0.1321	-0.0050	0.0207	0.0062
	(-0.97)	(0.89)	(1.04)	(-0.41)	(1.06)	(0.46)	(-0.11)	(0.58)	(1.17)	(-0.21)	(0.60)	(0.10)
Loss_Above 10m Dum	-0.2211***	-0.2479***	-0.3896**	-0.1683**	-0.1531**	-0.3823***	-0.1423**	-0.1785*	-0.1793	-0.1398**	-0.1414*	-0.2840**
	(-2.67)	(-2.83)	(-2.13)	(-2.45)	(-2.20)	(-2.86)	(-2.16)	(-1.84)	(-1.14)	(-2.39)	(-1.86)	(-2.50)
N	3,438	3,933	3,793	3,438	3,933	3,793	3,466	3,651	3,414	3,466	3,651	3,414
Average VIF	2.38	2.15	2.18	2.38	2.15	2.18	2.22	2.26	2.30	2.22	2.26	2.30
R^2	0.0836	0.0330	0.0832	0.0834	0.0333	0.0884	0.0463	0.0361	0.0664	0.0427	0.0463	0.0783

Panel B: Determinants of Analyst Forecast Quality around Good News

	First Announcements						Settlements					
	Analyst Forecast Revision			Analyst Forecast Error Change			Analyst Forecast Revision			Analyst Forecast Error Change		
	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)
Bank-Level Variables												
Potential Employer	-0.0699	0.0787	0.1753	-0.1068	-0.0179	-0.0086	-0.0392	0.0753	0.0406	-0.0445	-0.0094	-0.0020
	(-0.91)	(0.48)	(0.86)	(-1.48)	(-0.14)	(-0.06)	(-0.45)	(0.75)	(0.27)	(-0.56)	(-0.13)	(-0.02)
Analysts Following	0.0111*	0.0188*	0.0066	0.0104*	0.0195**	0.0120	0.0119**	0.0082	0.0202*	0.0099**	0.0077	0.0179*
	(1.89)	(1.66)	(0.41)	(1.89)	(2.33)	(0.91)	(2.48)	(1.16)	(1.88)	(2.05)	(1.38)	(1.93)
Analyst-Level Variables												
Optimistic Analyst	-0.2279***	-0.2571**	-0.5127***	-0.1369*	-0.2653***	-0.4071***	-0.1693***	-0.1436*	-0.2952***	-0.0784	-0.1388***	-0.2065***
	(-2.80)	(-2.45)	(-3.35)	(-1.90)	(-4.09)	(-3.11)	(-3.29)	(-1.76)	(-3.23)	(-1.65)	(-2.92)	(-2.76)
Event-Level Variables												
Global Settlement	-0.1170	-0.0407	-0.1756	-0.1145	-0.0719	-0.1541	0.0871	0.0338	0.1364	0.0341	-0.0192	0.0412
	(-1.26)	(-0.28)	(-0.99)	(-1.36)	(-0.76)	(-1.11)	(1.05)	(0.32)	(0.81)	(0.36)	(-0.25)	(0.30)
Loss Amount	0.0192	0.1026	0.0387	0.0202	0.0236	0.0388	-0.0201	0.1519	0.0010	-0.0244	0.0085	0.0147
	(0.73)	(1.02)	(0.48)	(0.86)	(0.50)	(0.56)	(-0.45)	(1.43)	(0.02)	(-0.56)	(0.23)	(0.28)
Loss_Above 10m Dum	-0.1190	-0.0399	-0.1842	-0.0624	-0.1602	-0.0802	0.0090	0.1634	0.0332	0.0103	-0.0382	0.0234
	(-1.18)	(-0.21)	(-0.86)	(-0.68)	(-1.60)	(-0.44)	(0.11)	(0.89)	(0.23)	(0.14)	(-0.51)	(0.20)
N	3,439	2,944	3,084	3,439	2,944	3,084	3,074	2,889	3,126	3,074	2,889	3,126
Average VIF	2.13	2.31	2.33	2.13	2.31	2.33	2.52	2.53	2.42	2.52	2.53	2.42
R^2	0.0449	0.0411	0.0873	0.0382	0.0481	0.0721	0.0308	0.0387	0.0583	0.0165	0.0324	0.0380

Table 8: Robustness Checks - Global Financial Crisis (GFC) Effects

This table reports the estimation results for *analyst forecast revision* and *analyst forecast error change* during pre-announcement period (-5, -1), post-announcement period (0, +5), and full event window (-5, +5) around operational risk event first announcements and settlement announcements. Global Financial Crisis (GFC) is supposed to have started on 14 September 2007. Robust standard errors are used to correct for operational risk event clustering. *t-statistics* are reported in parentheses. *, ** and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively (two-tailed). Variable definitions are described in Appendix I.

Panel A: Determinants of Analyst Forecast Quality around Operational Risk Event Announcements before GFC

	First Announcements						Settlements					
	Analyst Forecast Revision			Analyst Forecast Error Change			Analyst Forecast Revision			Analyst Forecast Error Change		
	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)
Bank-Level Variables												
Potential Employer	-0.0090	-0.1016	-0.1600*	-0.0038	-0.0554	-0.1098	-0.0300	-0.0611	-0.0608	0.0326	-0.0031	0.0522
	(-0.26)	(-1.38)	(-1.79)	(-0.10)	(-0.93)	(-1.36)	(-0.67)	(-1.16)	(-0.62)	(0.63)	(-0.06)	(0.54)
Analysts Following	0.0124*	0.0174**	0.0301**	0.0095	0.0132**	0.0229*	0.0231***	0.0292***	0.0531***	0.0168*	0.0219***	0.0393**
	(1.89)	(2.46)	(2.25)	(1.41)	(2.46)	(1.98)	(2.95)	(3.31)	(3.11)	(1.84)	(2.97)	(2.37)
Analyst-Level Variables												
Optimistic Analyst	-0.0856***	-0.1352***	-0.2433***	-0.0364	-0.0986***	-0.1583***	-0.0763***	-0.1003***	-0.1768***	-0.0036	-0.0402	-0.0437
	(-3.57)	(-3.29)	(-3.82)	(-1.42)	(-2.73)	(-2.79)	(-2.67)	(-3.03)	(-3.15)	(-0.14)	(-1.35)	(-0.89)
Event-Level Variables												
Global Settlement	0.1636**	0.1883**	0.3216**	0.0649	0.1236**	0.1540	0.2747***	0.2811***	0.5346***	0.1204	0.1512**	0.2504
	(2.61)	(2.08)	(2.55)	(0.92)	(1.98)	(1.41)	(3.61)	(3.18)	(3.45)	(1.25)	(2.01)	(1.62)
Loss Amount	0.0112	0.0285	0.0326	0.0077	0.0109	0.0104	-0.0211	0.0544*	0.0392	0.0014	0.0639**	0.0713
	(0.73)	(1.22)	(1.24)	(0.51)	(0.43)	(0.38)	(-0.95)	(1.68)	(0.77)	(0.06)	(2.10)	(1.50)
Loss_Above 10m Dum	-0.0342	-0.0525	-0.0799	-0.0591	-0.0524	-0.1052	-0.0480	-0.0047	-0.0425	-0.0714	-0.0735	-0.1365
	(-1.19)	(-0.89)	(-1.07)	(-1.39)	(-1.13)	(-1.58)	(-1.09)	(-0.08)	(-0.45)	(-1.46)	(-1.44)	(-1.57)
N	2,911	2,911	2,911	2,911	2,911	2,911	2,266	2,266	2,266	2,266	2,266	2,266
Average VIF	2.53	2.52	2.53	2.53	2.52	2.53	2.66	2.69	2.69	2.66	2.69	2.69
R^2	0.0495	0.0432	0.0664	0.0219	0.0410	0.0472	0.0803	0.0802	0.1389	0.0277	0.0605	0.0791

Panel B: Determinants of Analyst Forecast Quality around Operational Risk Event Announcements during and after GFC

	First Announcements						Settlements					
	Analyst Forecast Revision			Analyst Forecast Error Change			Analyst Forecast Revision			Analyst Forecast Error Change		
	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)
Bank-Level Variables												
Potential Employer	-0.2083	0.0335	-0.1924	-0.2426	-0.1641	-0.4048	-0.0670	0.0204	-0.0157	-0.0033	0.0129	0.0440
	(-1.40)	(0.22)	(-0.70)	(-1.63)	(-1.21)	(-1.55)	(-0.92)	(0.21)	(-0.10)	(-0.03)	(0.14)	(0.26)
Analysts Following	0.0216*	0.0156*	0.0378**	0.0234**	0.0141**	0.0378**	0.0068	-0.0026	0.0042	0.0073	0.0006	0.0075
	(1.78)	(1.88)	(2.12)	(2.06)	(2.17)	(2.42)	(0.97)	(-0.41)	(0.42)	(1.16)	(0.13)	(0.91)
Analyst-Level Variables												
Optimistic Analyst	-0.1592**	-0.1139	-0.2330	-0.1557**	-0.2616***	-0.3880***	-0.1511***	-0.1680**	-0.3018***	-0.1387***	-0.2505***	-0.3721***
	(-2.10)	(-1.14)	(-1.49)	(-2.39)	(-4.15)	(-3.71)	(-3.32)	(-2.01)	(-2.69)	(-3.83)	(-4.80)	(-4.88)
Event-Level Variables												
Loss Amount	0.0085	0.0834	0.0968	0.0167	0.0423	0.0603	-0.0062	0.1046	0.0931	-0.0205	0.0004	-0.0269
	(0.22)	(1.30)	(1.11)	(0.50)	(1.16)	(1.02)	(-0.20)	(1.19)	(0.93)	(-0.68)	(0.01)	(-0.46)
Loss_Above 10m Dum	-0.3492***	-0.2391	-0.6035**	-0.2469**	-0.2414**	-0.4971**	-0.0728	-0.0352	-0.1104	-0.0680	-0.1213*	-0.1841
	(-2.81)	(-1.54)	(-2.37)	(-2.17)	(-2.42)	(-2.48)	(-1.08)	(-0.30)	(-0.71)	-(1.09)	(-1.75)	(-1.57)
N	3,966	3,966	3,966	3,966	3,966	3,966	4,274	4,274	4,274	4,274	4,274	4,274
Average VIF	2.00	2.01	2.01	2.00	2.01	2.01	2.20	2.20	2.20	2.20	2.20	2.20
R^2	0.0660	0.0313	0.0722	0.0639	0.0359	0.0796	0.0319	0.0267	0.0488	0.0301	0.0318	0.0563

Table 9: Robustness Checks – Systemically Important Banks (SIBs)

This table reports the estimation results for *analyst forecast revision* and *analyst forecast error change* during pre-announcement period (-5, -1), post-announcement period (0, +5), and full event window (-5, +5) around operational risk event first announcements and settlement announcements. Systemically Important Banks (SIBs) are banks whose total assets exceed $250 billion. Other banks (Non-SIBs) have total assets below $250 billion. Robust standard errors are used to correct for operational risk event clustering. *t-statistics* are reported in parentheses. *, ** and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively (two-tailed). Variable definitions are described in Appendix I.

Panel A: Determinants of Analyst Forecast Quality around Operational Risk Event Announcements in Systemically Important Banks (SIBs)

	First Announcements						Settlements					
	Analyst Forecast Revision			Analyst Forecast Error Change			Analyst Forecast Revision			Analyst Forecast Error Change		
	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)
Bank-Level Variables												
Potential Employer	0.2454	0.5098***	0.8659**	0.1985	0.5019***	0.7785***	0.1802	0.2839*	0.5259**	0.1982	0.4217***	0.6707***
	(1.21)	(2.77)	(2.59)	(1.05)	(3.34)	(2.72)	(1.33)	(1.86)	(2.19)	(1.61)	(3.83)	(3.43)
Analysts Following	0.0237*	0.0138*	0.0386**	0.0262**	0.0129**	0.0396**	0.0126*	0.0044	0.0166*	0.0134**	0.0051	0.0181**
	(1.95)	(1.70)	(2.16)	(2.35)	(1.98)	(2.52)	(1.94)	(0.73)	(1.66)	(2.24)	(1.08)	(2.10)
Analyst-Level Variables												
Optimistic Analyst	-0.2599***	-0.2400***	-0.4809***	-0.2243***	-0.3259***	-0.5355***	-0.2363***	-0.2437***	-0.4530***	-0.1686***	-0.2906***	-0.4361***
	(-3.69)	(-2.81)	(-3.41)	(-3.76)	(-5.89)	(-5.29)	(-4.60)	(-3.01)	(-3.89)	(-3.82)	(-5.31)	(-5.12)
Event-Level Variables												
Global Settlement	-0.0300	-0.0544	-0.1426	-0.0420	-0.1108	-0.2162	0.1395	0.2468	0.5485*	0.0924	0.1340	0.3574
	(-0.27)	(-0.44)	(-0.69)	(-0.44)	(-1.13)	(-1.30)	(1.07)	(1.52)	(1.77)	(0.73)	(1.09)	(1.36)
Loss Amount	-0.0124	0.0564	0.0433	0.0032	0.0317	0.0314	-0.0190	0.1263	0.0951	-0.0266	0.0040	-0.0340
	(-0.34)	(0.92)	(0.49)	(0.11)	(0.99)	(0.58)	(-0.48)	(1.35)	(0.81)	(-0.74)	(0.09)	(-0.49)
Loss_Above 10m Dum	-0.2802***	-0.2203*	-0.5423***	-0.2257**	-0.2562***	-0.5138***	-0.1101	-0.0603	-0.1620	-0.1197*	-0.1946***	-0.3056***
	(-2.88)	(-1.75)	(-2.67)	(-2.59)	(-3.15)	(-3.24)	(-1.62)	(-0.55)	(-1.08)	(-1.91)	(-2.86)	(-2.68)
N	4,620	4,620	4,620	4,620	4,620	4,620	4,625	4,625	4,625	4,625	4,625	4,625
Average VIF	2.01	2.01	2.02	2.01	2.01	2.02	2.25	2.25	2.25	2.25	2.25	2.25
R^2	0.0614	0.0309	0.0665	0.0624	0.0384	0.0791	0.0307	0.0275	0.0448	0.0290	0.0354	0.0540

Panel B: Determinants of Analyst Forecast Quality around Operational Risk Event Announcements in Other Banks (Non-SIBs)

	First Announcements						Settlements					
	Analyst Forecast Revision			Analyst Forecast Error Change			Analyst Forecast Revision			Analyst Forecast Error Change		
	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)
Bank-Level Variables												
Potential Employer	0.0065	-0.0416	-0.0791	-0.0173	-0.0950**	-0.1463**	-0.0720**	-0.0911***	-0.1727***	0.0113	-0.0504*	-0.0346
	(0.27)	(-0.78)	(-1.03)	(-0.61)	(-2.54)	(-2.30)	(-2.07)	(-2.74)	(-2.97)	(0.30)	(-1.96)	(-0.69)
Analysts Following	-0.0027	-0.0007	-0.0030	0.0005	0.0060	0.0068	-0.0012	-0.0122***	-0.0125**	-0.0008	0.0015	0.0003
	(-1.25)	(-0.16)	(-0.50)	(0.16)	(1.38)	(1.16)	(-0.40)	(-3.10)	(-2.19)	(-0.35)	(0.33)	(0.05)
Analyst-Level Variables												
Optimistic Analyst	-0.0906***	-0.1558***	-0.2442***	-0.0699***	-0.1280***	-0.1956***	-0.0839**	-0.1669***	-0.2504***	-0.0161	-0.0790	-0.0953
	(-3.27)	(-3.21)	(-3.69)	(-2.65)	(-2.92)	(-3.31)	(-2.46)	(-2.72)	(-2.95)	(-0.55)	(-1.60)	(-1.37)
Event-Level Variables												
Global Settlement	-0.0377	0.1233*	0.0936	0.0194	0.1233**	0.1494*	0.0793*	-0.0165	0.0682	0.0298	0.0360	0.0634
	(-1.02)	(1.73)	(1.03)	(0.42)	(2.05)	(1.91)	(1.81)	(-0.37)	(0.95)	(0.94)	(0.80)	(1.00)
Loss Amount	-0.0119	0.0327	0.0229	-0.0192	-0.0081	-0.0256	-0.0192	-0.0218	-0.0388	-0.0111	-0.0014	-0.0134
	(-0.49)	(1.14)	(0.59)	(-0.76)	(-0.28)	(-0.68)	(-1.64)	(-0.87)	(-1.34)	(-0.88)	(-0.06)	(-0.51)
Loss_Above 10m Dum	0.0095	-0.0631	-0.0404	0.0833*	0.0763	0.1694*	0.0177	-0.0176	-0.0036	0.0398	0.0501	0.0926
	(0.19)	(-0.88)	(-0.36)	(1.70)	(1.33)	(1.79)	(0.37)	(-0.27)	-(0.03)	(0.98)	(0.82)	(0.94)
N	2,257	2,257	2,257	2,257	2,257	2,257	1,915	1,915	1,915	1,915	1,915	1,915
Average VIF	2.57	2.58	2.58	2.57	2.58	2.58	2.60	2.66	2.63	2.60	2.66	2.63
R^2	0.0412	0.0350	0.0492	0.0344	0.0306	0.0477	0.0440	0.0339	0.0467	0.0179	0.0227	0.0248

Table 10: Robustness Checks – Extreme Losses Removed

This table reports the estimation results for *analyst forecast revision* and *analyst forecast error change* during pre-announcement period (-5, -1), post-announcement period (0, +5), and full event window (-5, +5) around operational risk event first announcements and settlement announcements. Extreme losses are removed at the 99th percentile (Panel A) and 95th percentile (Panel B). Robust standard errors are used to correct for operational risk event clustering. *t-statistics* are reported in parentheses. *, ** and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively (two-tailed). Variable definitions are described in Appendix I.

Panel A: Determinants of Analyst Forecast Quality around Operational Risk Events with Loss Amount below 99th Percentile

	First Announcements						Settlements					
	Analyst Forecast Revision			Analyst Forecast Error Change			Analyst Forecast Revision			Analyst Forecast Error Change		
	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)
Bank-Level Variables												
Potential Employer	0.0434	0.0194	0.0053	-0.0039	-0.0507	-0.0902	-0.0739	-0.0569	-0.1161	-0.0173	-0.0626	-0.0636
	(0.64)	(0.26)	(0.04)	(-0.06)	(-0.85)	(-0.83)	(-1.41)	(-0.82)	(-1.08)	(-0.33)	(-1.20)	(-0.68)
Analysts Following	0.0154*	0.0127**	0.0285**	0.0162**	0.0128***	0.0290***	0.0087*	0.0022	0.0097	0.0080*	0.0053	0.0121*
	(1.91)	(2.20)	(2.28)	(2.15)	(2.82)	(2.68)	(1.77)	(0.43)	(1.14)	(1.77)	(1.34)	(1.67)
Analyst-Level Variables												
Optimistic Analyst	-0.1923***	-0.2033***	-0.4002***	-0.1488***	-0.2436***	-0.3984***	-0.1774***	-0.1965***	-0.3656***	-0.1178***	-0.2073***	-0.3178***
	(-4.29)	(-3.46)	(-4.14)	(-3.66)	(-5.82)	(-5.31)	(-4.92)	(-3.62)	(-4.54)	(-3.72)	(-5.25)	(-5.02)
Event-Level Variables												
Global Settlement	-0.0192	0.0122	-0.0227	-0.0265	-0.0176	-0.0610	0.0928	0.0663	0.1926	0.0301	0.0247	0.0794
	(-0.28)	(0.15)	(-0.17)	(-0.44)	(-0.26)	(-0.55)	(1.29)	(0.73)	(1.25)	(0.43)	(0.35)	(0.60)
Loss Amount	-0.0459	0.0494	-0.0017	-0.0276	0.0192	-0.0153	-0.0234	0.0910	0.0511	-0.0220	0.0131	-0.0231
	(-1.32)	(0.82)	(-0.02)	(-0.89)	(0.67)	(-0.28)	(-0.87)	(1.41)	(0.64)	(-0.89)	(0.42)	(-0.47)
Loss_Above 10m Dum	-0.2156***	-0.1781*	-0.4018**	-0.1585**	-0.1558**	-0.3204**	-0.0814	-0.0344	-0.1078	-0.0729	-0.1164**	-0.1790*
	(-2.78)	(-1.87)	(-2.58)	(-2.24)	(-2.47)	(-2.57)	(-1.51)	(-0.41)	(-0.91)	(-1.46)	(-2.19)	(-1.93)
N	6,776	6,776	6,776	6,776	6,776	6,776	6,465	6,465	6,465	6,465	6,465	6,465
Average VIF	2.16	2.16	2.16	2.16	2.16	2.16	2.24	2.26	2.25	2.24	2.26	2.25
R^2	0.0508	0.0275	0.0572	0.0439	0.0284	0.0574	0.0266	0.0239	0.0396	0.0217	0.0266	0.0402

Panel B: Determinants of Analyst Forecast Quality around Operational Risk Events with Loss Amount below 95th Percentile

	First Announcements						Settlements					
	Analyst Forecast Revision			Analyst Forecast Error Change			Analyst Forecast Revision			Analyst Forecast Error Change		
	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)
Bank-Level Variables												
Potential Employer	0.0061	-0.0307	-0.0450	-0.0219	-0.0519	-0.0983	-0.0762	-0.0330	-0.0986	-0.0192	-0.0480	-0.0553
	(0.11)	(-0.42)	(-0.40)	(-0.41)	(-0.92)	(-1.01)	(-1.50)	(-0.48)	(-0.93)	(-0.38)	(-0.95)	(-0.62)
Analysts Following	0.0064	0.0130**	0.0190**	0.0073*	0.0110**	0.0180**	0.0042	0.0008	0.0039	0.0037	0.0050	0.0076
	(1.40)	(2.31)	(2.08)	(1.78)	(2.46)	(2.35)	(1.12)	(0.15)	(0.50)	(1.10)	(1.26)	(1.14)
Analyst-Level Variables												
Optimistic Analyst	-0.1930***	-0.2316***	-0.4340***	-0.1181***	-0.2303***	-0.3570***	-0.1662***	-0.1738***	-0.3324***	-0.1056***	-0.1906***	-0.2893***
	(-4.66)	(-4.12)	(-4.77)	(-3.11)	(-5.58)	(-4.84)	(-4.45)	(-3.17)	(-4.08)	(-3.23)	(-4.76)	(-4.52)
Event-Level Variables												
Global Settlement	-0.0392	0.0234	-0.0316	-0.0407	-0.0130	-0.0682	0.0466	0.0311	0.1087	-0.0152	0.0034	0.0111
	(-0.63)	(0.27)	(-0.24)	(-0.73)	(-0.19)	(-0.61)	(0.67)	(0.36)	(0.74)	(-0.23)	(0.05)	(0.09)
Loss Amount	-0.0077	0.1131	0.1029	-0.0222	0.0198	-0.0047	-0.0124	0.1203	0.0878	-0.0125	0.0281	-0.0015
	(-0.27)	(1.64)	(1.16)	(-0.88)	(0.58)	(-0.09)	(-0.41)	(1.62)	(0.97)	(-0.46)	(0.81)	(-0.03)
Loss_Above 10m Dum	-0.1523**	-0.1512	-0.3015**	-0.1243**	-0.1566**	-0.2798**	-0.0531	-0.0198	-0.0701	-0.0465	-0.1022*	-0.1429
	(-2.26)	(-1.60)	(-2.08)	(-2.02)	(-2.43)	(-2.41)	(-0.99)	(-0.23)	(-0.58)	(-0.95)	(-1.85)	(-1.52)
N	6,524	6,524	6,524	6,524	6,524	6,524	6,219	6,219	6,219	6,219	6,219	6,219
Average VIF	2.29	2.29	2.29	2.29	2.29	2.29	2.28	2.31	2.30	2.28	2.31	2.30
R^2	0.0319	0.0287	0.0510	0.0288	0.0278	0.0503	0.0217	0.0244	0.0370	0.0168	0.0255	0.0354

Online Appendix A

The Severe Sample (Loss Amounts Higher than $10 million)

Table A.1: Composition of the Final Sample

This table reports the composition of our final sample comprising first announcements and settlements of operational risk events (with loss amount higher than $10 million).

Panel A: Sample Screening Description

Sample Screening Description	Number of Event Announcements	
	First Announcements	Settlements
1. Full sample	923	923
- Events whose loss amount is lower than $10 million	(539)	(544)
- Operational risk events that overlap with 8-K reports released during the event window (-5, +5)	(266)	(279)
- Operational risk events that overlap with quarterly and annual earnings announcements (10-Qs and 10-Ks) during the event window (-5, +5)	(3)	(8)
2. Final sample	115	92

Panel B: Event-Analyst Observations and Bank-Analyst Pairs

	First Announcements	Settlements
Events	115	92
Banks	29	27
Analysts	362	355
Event-Analyst Observations	2,664	2,204
Bank-Analyst Pairs	1,222	1,026

Table A.2: Descriptive Statistics
This table reports the descriptive statistics for our variables (for operational risk events with loss amount higher than $10 million). Variable definitions are described in Appendix I.

Panel A: Measures of Analyst Forecast Quality around Operational Risk Event Announcements

	First Announcements					Settlements					Difference in Means
	N	25p	Median	Mean	75p	N	25p	Median	Mean	75p	First Announcements - Settlements (t-test)
Measures of Analyst Forecast Quality											
Analyst Forecast Revision (-5, -1)	2,664	0	0	-0.2691	0	2,204	0	0	-0.1558	0	-0.1133 (-3.0356)***
Analyst Forecast Revision (0, +5)	2,664	0	0	-0.3668	0	2,204	0	0	-0.2448	0	-0.1220 (-2.5509)**
Analyst Forecast Revision (-5, +5)	2,664	0	0	-0.6359	0	2,204	0	0	-0.4006	0	-0.2353 (-3.8450)***
Analyst Forecast Error Change (-5, -1)	2,664	0	0	-0.2409	0	2,204	0	0	-0.1581	0	-0.0828 (-2.4256)**
Analyst Forecast Error Change (0, +5)	2,664	0	0	-0.2598	0	2,204	0	0	-0.1985	0	-0.0613 (-1.5766)
Analyst Forecast Error Change (-5, +5)	2,664	0	0	-0.5007	0	2,204	0	0	-0.3566	0	-0.1441 (-2.7567)***

Panel B: Measures of Analyst Forecast Quality around Bad News

	First Announcements					Settlements					Difference in Means
	N	25p	Median	Mean	75p	N	25p	Median	Mean	75p	First Announcements - Settlements (t-test)
Measures of Analyst Forecast Quality											
Analyst Forecast Revision (-5, -1)	1,228	0	0	-0.4235	0	1,055	0	0	-0.2127	0	-0.2108 (-3.2084)***
Analyst Forecast Revision (0, +5)	1,478	0	0	-0.3788	0	1,152	0	0	-0.3601	0	-0.0187 (-0.2758)
Analyst Forecast Revision (-5, +5)	1,385	0	0	-0.7968	0	1,003	0	0	-0.5318	0	-0.2650 (-2.6884)***
Analyst Forecast Error Change (-5, -1)	1,228	0	0	-0.3503	0	1,055	0	0	-0.2039	0	-0.1464 (-2.5029)**
Analyst Forecast Error Change (0, +5)	1,478	0	0	-0.2497	0	1,152	0	0	-0.2677	0	0.0181 (0.3333)
Analyst Forecast Error Change (-5, +5)	1,385	0	0	-0.6077	0	1,003	0	0	-0.4615	0	-0.1462 (-1.7603)*

Panel C: Measures of Analyst Forecast Quality around Good News

	First Announcements					Settlements					Difference in Means
	N	25p	Median	Mean	75p	N	25p	Median	Mean	75p	First Announcements - Settlements (t-test)
Measures of Analyst Forecast Quality											
Analyst Forecast Revision (-5, -1)	1,436	0	0	-0.1371	0	1,149	0	0	-0.1035	0	-0.0335 (-0.8561)
Analyst Forecast Revision (0, +5)	1,186	0	0	-0.3519	0	1,052	0	0	-0.1185	0	-0.2334 (-3.4850)***
Analyst Forecast Revision (-5, +5)	1,279	0	0	-0.4617	0	1,201	0	0	-0.2910	0	-0.1707 (-2.3084)**
Analyst Forecast Error Change (-5, -1)	1,436	0	0	-0.1474	0	1,149	0	0	-0.1162	0	-0.0312 (-0.8232)
Analyst Forecast Error Change (0, +5)	1,186	0	0	-0.2724	0	1,052	0	0	-0.1226	0	-0.1497 (-2.6911)***
Analyst Forecast Error Change (-5, +5)	1,279	0	0	-0.3849	0	1,201	0	0	-0.2691	0	-0.1158 (-1.7928)*

Panel D: Measures of Analyst Forecast Quality before GFC

	First Announcements					Settlements					Difference in Means
	N	25p	Median	Mean	75p	N	25p	Median	Mean	75p	First Announcements - Settlements (t-test)
Measures of Analyst Forecast Quality											
Analyst Forecast Revision (-5, -1)	964	0	0	-0.0430	0	748	0	0	-0.0552	0	0.0122 (0.4161)
Analyst Forecast Revision (0, +5)	964	0	0	-0.1283	0	748	0	0	-0.0540	0	-0.0744 (-1.6371)
Analyst Forecast Revision (-5, +5)	964	0	0	-0.1714	0	748	0	0	-0.1092	0	-0.0622 (-1.1138)
Analyst Forecast Error Change (-5, -1)	964	0	0	-0.0781	0	748	0	0	-0.1040	0	0.0258 (0.7489)
Analyst Forecast Error Change (0, +5)	964	0	0	-0.0860	0	748	0	0	-0.0819	0	-0.0041 (-0.1121)
Analyst Forecast Error Change (-5, +5)	964	0	0	-0.1641	0	748	0	0	-0.1859	0	0.0218 (0.4236)

Panel E: Measures of Analyst Forecast Quality during & after GFC

	First Announcements					Settlements					Difference in Means
	N	25p	Median	Mean	75p	N	25p	Median	Mean	75p	First Announcements - Settlements (t-test)
Measures of Analyst Forecast Quality											
Analyst Forecast Revision (-5, -1)	1,700	0	0	-0.3973	0	1,456	0	0	-0.2075	0	-0.1898 (-3.4548)***
Analyst Forecast Revision (0, +5)	1,700	0	0	-0.5021	0	1,456	0	0	-0.3428	0	-0.1593 (-2.3037)**
Analyst Forecast Revision (-5, +5)	1,700	0	0	-0.8994	0	1,456	0	0	-0.5503	0	-0.3491 (-3.9498)***
Analyst Forecast Error Change (-5, -1)	1,700	0	0	-0.3333	0	1,456	0	0	-0.1860	0	-0.1473 (-3.0060)***
Analyst Forecast Error Change (0, +5)	1,700	0	0	-0.5021	0	1,456	0	0	-0.2584	0	-0.1000 (-1.7731)*
Analyst Forecast Error Change (-5, +5)	1,700	0	0	-0.6916	0	1,456	0	0	-0.4443	0	-0.2472 (-3.2948)***

Panel F: Measures of Analyst Forecast Quality in Systemically Important Banks (SIBs)

	First Announcements					Settlements					Difference in Means
	N	25p	Median	Mean	75p	N	25p	Median	Mean	75p	First Announcements - Settlements (t-test)
Measures of Analyst Forecast Quality											
Analyst Forecast Revision (-5, -1)	1,795	0	0	-0.3748	0	1,554	0	0	-0.2068	0	-0.1680 (-3.1884)***
Analyst Forecast Revision (0, +5)	1,795	0	0	-0.4677	0	1,554	0	0	-0.3094	0	-0.1583 (-2.4232)**
Analyst Forecast Revision (-5, +5)	1,795	0	0	-0.8426	0	1,554	0	0	-0.5162	0	-0.3263 (-3.8783)***
Analyst Forecast Error Change (-5, -1)	1,795	0	0	-0.3310	0	1,554	0	0	-0.2093	0	-0.1217 (-2.5300)**
Analyst Forecast Error Change (0, +5)	1,795	0	0	-0.3448	0	1,554	0	0	-0.2690	0	-0.0759 (-1.4097)
Analyst Forecast Error Change (-5, +5)	1,795	0	0	-0.6758	0	1,554	0	0	-0.4783	0	-0.1976 (-2.7284)***

Panel G: Measures of Analyst Forecast Quality in Non-SIBs

	First Announcements					Settlements					Difference in Means
	N	25p	Median	Mean	75p	N	25p	Median	Mean	75p	First Announcements - Settlements (t-test)
Measures of Analyst Forecast Quality											
Analyst Forecast Revision (-5, -1)	869	0	0	-0.0507	0	650	0	0	-0.0338	0	-0.0169 (-0.6684)
Analyst Forecast Revision (0, +5)	869	0	0	-0.1584	0	650	0	0	-0.0904	0	-0.0681 (-1.3412)
Analyst Forecast Revision (-5, +5)	869	0	0	-0.2091	0	650	0	0	-0.1241	0	-0.0849 (-1.4480)
Analyst Forecast Error Change (-5, -1)	869	0	0	-0.0548	0	650	0	0	-0.0358	0	-0.0190 (-0.7907)
Analyst Forecast Error Change (0, +5)	869	0	0	-0.0841	0	650	0	0	-0.0300	0	-0.0541 (-1.5026)
Analyst Forecast Error Change (-5, +5)	869	0	0	-0.1390	0	650	0	0	-0.0658	0	-0.0731 (-1.6074)

Panel H: Bank-Level, Analyst-Level and Event-Level Variables

	First Announcements					Settlements				
	N	25p	Median	Mean	75p	N	25p	Median	Mean	75p
Bank-Level Variables										
Potential Employer	29	1	1	0.93	1	27	1	1	0.91	1
Analysts Following	29	19	23.00	23.18	28	27	19	25	23.98	30
Total Assets	29	181.44	462.06	791.84	1,482.23	27	233.90	613.53	863.74	1,724.96
ROA	29	0.12	0.21	0.20	0.29	27	0.14	0.21	0.20	0.32
Leverage	29	16.98	28.38	33.04	54.59	27	13.97	24.69	31	44.43
Book to Market Ratio	29	48.11	83.76	90.27	118.31	27	54.35	89.29	95.24	130.86
Equity Return Volatility	29	0.60	0.79	0.88	1	27	0.57	0.68	0.80	0.83
Analyst-Level Variables										
Optimistic Analyst	362	0	1	0.58	1	355	0	1	0.54	1
Broker Size	362	25	50	69.98	105	355	24	51	68.71	104
Firm Experience	362	4.23	6.88	7.87	11.50	355	4.12	6.85	7.79	11.50
General Experience	362	9.98	14.81	15.23	19.83	355	9.33	14.61	15.11	19.83
Industry Experience	362	4.81	9.34	9.77	13.83	355	4.27	9.02	9.40	13.81
Number of Firms	362	11	15	16.31	20	355	11	16	16.76	21
Number of Industries	362	4	6	6	7	355	4	6	6.17	8
Event-Level Variables										
Global Settlement	115	1	1	0.77	1	92	1	1	0.79	1
Walk-Down Effect	115	0.32	0.44	0.50	0.72	92	0.20	0.44	0.47	0.68
Loss Amount	115	20.24	39.35	303.66	110.65	92	18.73	33.63	85.41	111.39
CAR (-5, -1)	115	-1.57	0.11	-0.23	1.49	92	-1.45	0.10	0.26	1.89
CAR (0, +5)	115	-2.49	-0.44	-0.58	1.73	92	-2.10	-0.34	-0.24	1.92
CAR (-5, +5)	115	-3.12	-0.14	-0.84	1.64	92	-1.91	0.35	0.01	2.13
IF Dum	115	0	0	0.13	0	92	0	0	0.14	0
CPBP Dum	115	0	1	0.70	1	92	0	1	0.71	1
EF Dum	115	0	0	0.07	0	92	0	0	0.09	0

Table A.3: Correlation Matrix

This table reports the Pearson's correlation coefficients for our variables. Variable definitions are described in Appendix I.

Panel A: First Announcements

	Analyst Forecast Revision	*Analyst Forecast Error Change*	*Potential Employer*	*Analysts Following*	*Total Assets*	*ROA*	*Leverage*	*Book to Market Ratio*	*Equity Return Volatility*	*Optimistic Analyst*	*Broker Size*	*Firm Experience*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
(1)	1.0000											
(2)	0.8229	1.0000										
(3)	-0.0602	-0.0711	1.0000									
(4)	0.1514	0.1807	0.0669	1.0000								
(5)	-0.1561	-0.1405	0.3551	0.0429	1.0000							
(6)	0.1027	0.0552	-0.2387	0.2676	-0.2820	1.0000						
(7)	-0.1495	-0.1628	0.2336	-0.3640	0.3742	-0.2450	1.0000					
(8)	-0.0496	-0.0128	0.1469	-0.0063	0.4854	-0.5982	-0.0050	1.0000				
(9)	-0.0898	-0.1005	0.0485	-0.2656	0.2010	-0.3640	0.2481	0.2837	1.0000			
(10)	-0.1632	-0.1983	0.0853	-0.1897	0.1631	-0.1845	0.0702	0.1551	0.1884	1.0000		
(11)	-0.0180	-0.0103	0.0087	-0.0281	-0.0264	0.0287	0.0143	-0.0956	0.0116	-0.0371	1.0000	
(12)	-0.0070	0.0054	-0.0256	-0.0332	0.1212	-0.0830	0.0011	0.0827	0.0940	0.0432	-0.0334	1.0000
(13)	-0.0080	-0.0141	-0.0262	-0.0077	0.0699	-0.0085	-0.0368	0.0280	0.0497	0.0603	0.0099	0.6064
(14)	0.0470	0.0534	-0.0728	-0.0437	-0.0098	-0.0704	-0.1266	0.0859	0.0118	0.0261	0.0017	0.6186
(15)	0.0852	0.0859	-0.1100	0.1246	-0.2552	0.1223	-0.2084	-0.1339	-0.1626	-0.0467	-0.0470	0.1196
(16)	0.0876	0.0820	-0.0935	0.0738	-0.2190	0.1158	-0.1508	-0.1774	-0.1264	-0.0284	-0.0852	0.0867
(17)	-0.0998	-0.0916	0.1273	-0.0984	0.4352	-0.2793	0.0333	0.4953	0.1005	0.0544	-0.0611	0.0977
(18)	0.0064	-0.0008	-0.1483	-0.0581	-0.0265	-0.1207	-0.0566	0.0753	0.0885	0.0670	-0.0136	0.0896
(19)	-0.0953	-0.0557	0.1618	-0.1309	0.3030	-0.2216	0.0316	0.2282	0.0581	0.1506	-0.0215	0.0517
(20)	0.1390	0.1256	0.0032	0.1369	-0.1581	0.1280	-0.0676	-0.0723	-0.0982	-0.1129	-0.0018	-0.0580
(21)	0.0709	0.0645	-0.1417	-0.1220	-0.1384	-0.0567	0.1415	-0.0398	-0.0035	0.0346	0.0004	-0.0103
(22)	-0.0702	-0.0545	0.2535	-0.0715	0.1816	-0.0791	-0.0155	0.0675	-0.0147	-0.0239	0.0056	-0.0052
(23)	-0.0126	-0.0229	-0.3477	0.2139	-0.2153	0.2931	-0.2022	-0.1412	-0.1673	-0.1312	-0.0090	-0.0185

Panel A: First Announcements (continued)

	General Experience	*Industry Experience*	*Number of Firms*	*Number of Industries*	*Global Settlement*	*Walk-Down Effect*	*Loss Amount*	*CAR (-5,+5)*	*IF Dum*	*CPBP Dum*	*EF Dum*
	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)
(13)	1.0000										
(14)	0.6959	1.0000									
(15)	0.2745	0.1838	1.0000								
(16)	0.1848	0.0433	0.7752	1.0000							
(17)	0.0129	0.0600	-0.1980	-0.3036	1.0000						
(18)	0.0474	0.0760	-0.0123	-0.0465	0.1227	1.0000					
(19)	0.0402	0.0046	-0.0893	-0.0681	0.1567	0.0051	1.0000				
(20)	-0.0427	-0.0571	0.0832	0.0791	-0.0827	-0.0350	-0.2842	1.0000			
(21)	-0.0111	0.0344	0.0634	0.0604	-0.1279	0.0803	-0.2181	0.1058	1.0000		
(22)	-0.0003	0.0114	-0.0777	-0.0806	0.1922	-0.1287	0.3085	-0.1809	-0.5521	1.0000	
(23)	-0.0100	-0.0575	0.0933	0.0878	-0.1312	0.1065	-0.2013	0.1958	-0.1132	-0.4610	1.0000

Panel B: Settlements

	Analyst Forecast Revision	*Analyst Forecast Error Change*	*Potential Employer*	*Analysts Following*	*Total Assets*	*ROA*	*Leverage*	*Book to Market Ratio*	*Equity Return Volatility*	*Optimistic Analyst*	*Broker Size*	*Firm Experience*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
(1)	1.0000											
(2)	0.8226	1.0000										
(3)	-0.0738	-0.0644	1.0000									
(4)	0.0938	0.1315	-0.1875	1.0000								
(5)	-0.1163	-0.1116	0.5167	0.0524	1.0000							
(6)	0.0707	0.0580	-0.2412	0.2576	-0.3590	1.0000						
(7)	-0.1201	-0.1659	0.2837	-0.3724	0.3631	-0.2579	1.0000					
(8)	-0.0399	-0.0049	0.2371	0.0486	0.5284	-0.5668	0.0348	1.0000				
(9)	-0.0957	-0.1013	0.0639	-0.3076	0.1594	-0.3400	0.2670	0.2746	1.0000			
(10)	-0.1887	-0.1623	0.0912	-0.2664	0.2052	-0.1874	0.1227	0.2007	0.2193	1.0000		
(11)	-0.0125	-0.0132	-0.0014	-0.0629	-0.0493	0.0295	-0.0364	-0.0670	-0.0125	-0.0319	1.0000	
(12)	-0.0088	0.0064	0.0714	-0.0424	0.1375	-0.0703	0.0368	0.0812	0.1034	0.0749	-0.0434	1.0000
(13)	0.0221	0.0342	0.0230	0.0004	0.0682	0.0248	-0.0172	0.0204	0.0472	0.0543	-0.0297	0.6052
(14)	0.0432	0.0361	-0.0183	-0.0538	-0.0078	-0.0304	-0.1036	0.0900	0.0035	0.0754	-0.0444	0.5924
(15)	0.0475	0.0655	-0.1801	0.0921	-0.2411	0.0854	-0.1743	-0.1471	-0.1321	-0.0554	-0.0571	0.0943
(16)	0.0673	0.0790	-0.2255	0.0505	-0.2513	0.1016	-0.1030	-0.2212	-0.0756	-0.0794	-0.0762	0.0442
(17)	-0.0609	-0.0628	0.5282	-0.1283	0.5030	-0.2788	0.1092	0.5120	0.1755	0.1633	-0.0389	0.0906
(18)	0.0402	0.0126	0.0591	-0.1249	-0.0153	-0.1241	0.0470	0.0583	0.1586	0.1346	0.0290	0.1035
(19)	-0.0968	-0.0691	0.0898	-0.0886	0.1192	-0.0181	-0.0582	0.0857	-0.0610	0.0502	0.0288	0.0014
(20)	0.1485	0.1417	-0.2231	0.0895	-0.2620	0.0820	-0.1919	-0.1267	-0.1232	-0.1732	0.0459	-0.0929
(21)	0.0559	0.0380	0.0283	-0.1473	-0.0710	-0.1531	0.2384	0.0245	0.1105	0.0445	0.0061	-0.0012
(22)	-0.0845	-0.0904	0.2140	-0.2145	0.2407	-0.1266	-0.0081	0.1205	0.0032	0.0380	0.0191	0.0255
(23)	0.0546	0.0701	-0.2703	0.2327	-0.2334	0.2087	-0.1483	-0.2335	-0.1590	-0.0599	-0.0254	-0.0126

	General Experience	*Industry Experience*	*Number of Firms*	*Number of Industries*	*Global Settlement*	*Walk-Down Effect*	*Loss Amount*	*CAR (-5,+5)*	*IF Dum*	*CPBP Dum*	*EF Dum*
	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)
(13)	1.0000										
(14)	0.6499	1.0000									
(15)	0.2465	0.1459	1.0000								
(16)	0.1409	0.0028	0.7774	1.0000							
(17)	0.0270	0.0651	-0.2354	-0.3746	1.0000						
(18)	0.0539	0.0745	-0.0152	-0.0576	0.0249	1.0000					
(19)	-0.0108	-0.0117	-0.0621	-0.0376	0.0263	-0.0710	1.0000				
(20)	-0.0194	-0.1019	0.0444	0.1149	-0.2386	0.0917	-0.0484	1.0000			
(21)	-0.0099	0.0566	0.0287	0.0788	-0.1231	0.0463	-0.1310	-0.0370	1.0000		
(22)	0.0125	0.0424	-0.0920	-0.1632	0.2700	0.1373	0.2529	-0.1403	-0.5608	1.0000	
(23)	-0.0186	-0.0604	0.1244	0.1238	-0.2996	-0.1981	-0.2085	0.0578	-0.1309	-0.4943	1.0000

Table A.4: Mean Comparisons of Analyst Forecast Quality

This table reports mean comparison of *analyst forecast revision* and *analyst forecast error change* during pre-announcement period (-5, -1), post-announcement period (0, +5), and full event window (-5, +5) around operational risk event announcements (with loss amount above $10 million) for sub-samples of independent variables. For dichotomous variables, the two sub-samples are determined by the value of the variable, labelled as 1 or 0, and for continuous variables, the two sub-samples refer to observations in the top quartile (25p) vs. other three quartiles (75p); labelled as High and Low, respectively. *t-statistics* are reported in parentheses. *, ** and *** denote statistical significance at the 10%, 5%, and 1% level, respectively, and are based on the two-tailed test of mean difference. Variable definitions are described in Appendix I.

Panel A: Analyst Forecast Revision

Variables	Group	First Announcements						Settlements					
		(-5, -1)		(0, +5)		(-5, +5)		(-5, -1)		(0, +5)		(-5, +5)	
		N	Mean (t-stats)	N	Mean (t-stats)	N	Mean (t-stats)	N	Mean (t-stats)	N	Mean (t-stats)	N	Mean (t-stats)
Bank-Level Variables													
Potential Employer	1	2,495	-0.2865	2,495	-0.3862	2,495	-0.6727	1,994	-0.1725	1,994	-0.2718	1,994	-0.4443
	0	169	-0.0118	169	-0.0816	169	-0.0934	210	0.0031	210	0.0116	210	0.0148
			(2.3988)**		(2.1272)**		(3.1137)***		(2.2152)**		(2.6554)***		(3.4735)***
Analysts Following	1	776	-0.0525	776	-0.1046	776	-0.1571	684	-0.0543	684	-0.1206	684	-0.1750
	0	1,888	-0.3581	1,888	-0.4746	1,888	-0.8327	1,520	-0.2015	1,520	-0.3007	1,520	-0.5021
			(-4.9920)***		(-4.8349)***		(-6.8162)***		(-2.9258)***		(-2.6580)***		(-3.9033)***
Analyst-Level Variables													
Optimistic Analyst	1	1,535	-0.4229	1,535	-0.5412	1,535	-0.9641	1,180	-0.2819	1,180	-0.4397	1,180	-0.7215
	0	1,129	-0.0600	1,129	-0.1298	1,129	-0.1898	1,024	-0.0105	1,024	-0.0202	1,024	-0.0308
			(6.4683)***		(5.8571)***		(8.5368)***		(5.8507)***		(6.7320)***		(9.0149)***
Broker Size	1	660	-0.3085	660	-0.4306	660	-0.7391	543	-0.2413	543	-0.2734	543	-0.5147
	0	2,004	-0.2561	2,004	-0.3459	2,004	-0.6020	1,661	-0.1279	1,661	-0.2354	1,661	-0.3633
			(0.8101)		(1.0471)		(1.3036)		(2.0982)**		(0.5218)		(1.6775)*
Firm Experience	1	676	-0.2226	676	-0.3595	676	-0.5821	558	-0.1158	558	-0.2742	558	-0.3900
	0	1,988	-0.2849	1,988	-0.3693	1,988	-0.6542	1,646	-0.1694	1,646	-0.2348	1,646	-0.4042
			(-0.9696)		(-0.1227)		(-0.6907)		(-0.9997)		(0.5464)		(-0.1579)
General Experience	1	680	-0.2920	680	-0.3481	680	-0.6402	567	-0.1574	567	-0.1729	567	-0.3242
	0	1,984	-0.2612	1,984	-0.3733	1,984	-0.6345	1,637	-0.1513	1,637	-0.2697	1,637	-0.4271
			(0.4807)		(-0.3137)		(0.0545)		(-0.1142)		(-1.3488)		(-1.1563)
Industry Experience	1	644	-0.2070	644	-0.3301	644	-0.5372	536	-0.0876	536	-0.1940	536	-0.2816
	0	2,020	-0.2889	2,020	-0.3785	2,020	-0.6674	1,668	-0.1777	1,668	-0.2611	1,668	-0.4388
			(-1.2540)		(-0.5936)		(-1.2278)		(-1.6609)*		(-0.9166)		(-1.7347)*

Number of Firms	1	631	-0.0896	631	-0.1822	631	-0.2718	508	-0.0759	508	-0.1276	508	-0.2035
	0	2,033	-0.3248	2,033	-0.4241	2,033	-0.7489	1,696	-0.1797	1,696	-0.2799	1,696	-0.4596
			(-3.5865)***		(-2.9497)***		(-4.4818)***		(-1.8781)*		(-2.0454)**		(-2.7773)***
Number of Industries	1	648	-0.1087	648	-0.1897	648	-0.2985	381	-0.0687	381	-0.1240	381	-0.1926
	0	2,016	-0.3206	2,016	-0.4238	2,016	-0.7444	1,823	-0.1740	1,823	-0.2700	1,823	-0.4441
			(-3.2598)***		(-2.8789)***		(-4.2253)***		(-1.7103)*		(-1.7610)*		(-2.4466)**
Event-Level Variables													
Global Settlement	1	2,035	-0.3312	2,035	-0.4347	2,035	-0.7659	1,728	-0.1695	1,728	-0.2895	1,728	-0.4589
	0	629	-0.0680	629	-0.1473	629	-0.2153	476	-0.1062	476	-0.0826	476	-0.1888
			(4.0128)***		(3.5028)***		(5.1736)***		(1.1166)		(2.7170)***		(2.8620)***
Walk-Down Effect	1	523	-0.2514	523	-0.2650	523	-0.5163	503	-0.0671	503	-0.0984	503	-0.1654
	0	2,141	-0.2734	2,141	-0.3917	2,141	-0.6651	1,701	-0.1820	1,701	-0.2881	1,701	-0.4701
			(-0.3132)		(-1.4421)		(-1.3014)		(-2.0725)**		(-2.5401)**		(-3.2943)***
Loss Amount	1	641	-0.4355	641	-0.4235	641	-0.8590	529	-0.2499	529	-0.2854	529	-0.5353
	0	2,023	-0.2164	2,023	-0.3489	2,023	-0.5652	1,675	-0.1261	1,675	-0.2320	1,675	-0.3581
			(3.3587)***		(0.9136)		(2.7679)***		(2.2705)**		(0.7275)		(1.9469)*
CAR	1	603	-0.1599	678	-0.4778	726	-0.5929	558	-0.0682	523	-0.2234	549	-0.4385
	0	2,061	-0.3010	1,986	-0.3289	1,938	-0.6521	1,646	-0.1855	1,681	-0.2514	1,655	-0.3880
			(-2.1147)**		(1.8576)*		(-0.5799)		(-2.1895)**		(-0.3793)		(0.5614)
IF Dum	1	318	0.0126	318	-0.1972	318	-0.1845	285	-0.0369	285	-0.0988	285	-0.1357
			(-2.6949)***		(0.2427)		(-1.1796)		(0.1667)		(-1.5285)		(-1.3941)
CPBP Dum	1	1,844	0.3220	1,844	-0.4237	1,844	-0.7457	1,497	-0.2043	1,497	-0.3024	1,497	-0.5067
			(1.5715)		(2.1480)**		(2.6070)***		(1.9003)*		(0.1299)		(1.2480)
EF Dum	1	230	-0.3536	230	-0.3784	230	-0.7320	228	-0.0931	228	-0.0137	228	-0.1069
			(1.4065)		(1.4561)		(2.0578)**		(1.1397)		(-2.5861)***		(-1.7632)*
Others Dum	1	272	-0.1682	272	-0.1699	272	-0.3381	194	-0.0299	194	-0.2864	194	-0.3163

Panel B: Analyst Forecast Error Change

Variables	Group	First Announcements						Settlements					
		(-5, -1)		(0, +5)		(-5, +5)		(-5, -1)		(0, +5)		(-5, +5)	
		N	Mean (t-stats)	N	Mean (t-stats)	N	Mean (t-stats)	N	Mean (t-stats)	N	Mean (t-stats)	N	Mean (t-stats)
Bank-Level Variables													
Potential Employer	1	2,495	-0.2575	2,495	-0.2800	2,495	-0.5375	1,994	-0.1705	1,994	-0.2192	1,994	-0.3897
	0	169	0.0031	169	0.0392	169	0.0422	210	-0.0410	210	-0.0014	210	-0.0425
			(2.5307)**		(2.7625)***		(3.6795)***		(1.7239)*		(2.4825)**		(3.0287)***
Analysts Following	1	776	-0.0026	776	-0.0266	776	-0.0292	684	-0.0455	684	-0.0477	684	-0.0932
	0	1,888	-0.3389	1,888	-0.3556	1,888	-0.6945	1,520	-0.2088	1,520	-0.2663	1,520	-0.4752
			(-6.1246)***		(-5.3272)***		(-7.9430)***		(-3.4348)***		(-3.9357)***		(-5.2725)***
Analyst-Level Variables													
Optimistic Analyst	1	1,535	-0.3829	1,535	-0.4556	1,535	-0.8385	1,180	-0.2433	1,180	-0.3527	1,180	-0.5959
	0	1,129	-0.0479	1,129	0.0065	1,129	-0.0414	1,024	-0.0601	1,024	-0.0208	1,024	-0.0808
			(6.6439)***		(8.1987)***		(10.4389)***		(4.1583)***		(6.4781)***		(7.7186)***
Broker Size	1	660	-0.2977	660	-0.2772	660	-0.5749	543	-0.2332	543	-0.2316	543	-0.4648
	0	2,004	-0.2223	2,004	-0.2540	2,004	-0.4763	1,661	-0.1336	1,661	-0.1876	1,661	-0.3212
			(1.2960)		(0.3549)		(1.1056)		(1.9471)*		(0.7349)		(1.8357)*
Firm Experience	1	676	-0.1994	676	-0.2669	676	-0.4663	558	-0.0899	558	-0.2407	558	-0.3306
	0	1,988	-0.2551	1,988	-0.2573	1,988	-0.5124	1,646	-0.1813	1,646	-0.1841	1,646	-0.3654
			(-0.9652)		(0.1482)		(-0.5211)		(-1.8023)*		(0.9543)		(-0.4483)
General Experience	1	680	-0.2741	680	-0.2755	680	-0.5496	567	-0.1327	567	-0.1327	567	-0.2655
	0	1,984	-0.2296	1,984	-0.2544	1,984	-0.4839	1,637	-0.1669	1,637	-0.2212	1,637	-0.3882
			(0.7731)		(0.3265)		(0.7436)		(-0.6776)		(-1.5008)		(-1.5912)
Industry Experience	1	644	-0.2032	644	-0.2400	644	-0.4432	536	-0.0966	536	-0.1715	536	-0.2681
	0	2,020	-0.2032	2,020	-0.2661	2,020	-0.5190	1,668	-0.1779	1,668	-0.2072	1,668	-0.3851
			(-0.8485)		(-0.3949)		(-0.8430)		(-1.5812)		(-0.5938)		(-1.4884)
Number of Firms	1	631	-0.1021	631	-0.0993	631	-0.2014	508	-0.0878	508	-0.0811	508	-0.1689
	0	2,033	-0.2840	2,033	-0.3096	2,033	-0.5936	1,696	-0.1792	1,696	-0.2336	1,696	-0.4129
			(-3.0838)***		(-3.1757)***		(-4.3460)***		(-1.7471)*		(-2.4944)**		(-3.0531)***
Number of Industries	1	648	-0.1015	648	-0.1413	648	-0.2427	381	-0.0871	381	-0.0937	381	-0.1809
	0	2,016	-0.2858	2,016	-0.2979	2,016	-0.5836	1,823	-0.1730	1,823	-0.2204	1,823	-0.3933
			(-3.1536)***		(-2.3845)**		(-3.8093)***		(-1.4721)		(-1.8578)*		(-2.3849)**

Event-Level Variables													
Global Settlement	1	2,035	-0.2935	2,035	-0.3083	2,035	-0.6018	1,728	-0.1772	1,728	-0.2316	1,728	-0.4088
	0	629	-0.0709	629	-0.1027	629	-0.1736	476	-0.0890	476	-0.0782	476	-0.1672
			(3.7731)***		(3.1023)***		(4.7440)****		(1.6459)*		(2.4501)**		(2.9527)***
Walk-Down Effect	1	523	-0.2659	523	-0.2573	523	-0.5232	503	-0.1249	503	-0.1057	503	-0.2306
	0	2,141	-0.2348	2,141	-0.2604	2,141	-0.4952	1,701	-0.1680	1,701	-0.2259	1,701	-0.3939
			(0.4914)		(-0.0429)		(0.2892)		(-0.8203)		(-1.9571)*		(-2.0336)**
Loss Amount	1	641	-0.3106	641	-0.2180	641	-0.5286	529	-0.2067	529	-0.2218	529	-0.4286
	0	2,023	-0.2189	2,023	-0.2730	2,023	-0.4919	1,675	-0.1428	1,675	-0.1911	1,675	-0.3339
			(1.5618)		(-0.8339)		(0.4078)		(1.2385)		(0.5091)		(1.1994)
CAR	1	603	-0.1475	678	-0.3740	726	-0.4964	558	-0.0567	523	-0.2134	549	-0.3848
	0	2,061	-0.2683	1,986	-0.2208	1,938	-0.5023	1,646	-0.1925	1,681	-0.1938	1,655	-0.3473
			(-2.0128)**		(2.3684)**		(-0.0678)		(-2.6812)***		(0.3235)		(0.4807)
IF Dum	1	318	-0.0382	318	-0.1145	318	-0.1527	285	-0.0484	285	-0.1521	285	-0.2004
			(-1.4147)		(-0.6738)		(-1.3694)		(0.3533)		(-0.2590)		(-0.1020)
CPBP Dum	1	1,844	-0.2827	1,844	-0.2902	1,844	-0.5729	1,497	-0.2153	1,497	-0.2397	1,497	-0.4550
			(1.8485)*		(1.2277)		(2.1001)**		(2.0407)**		(0.6278)		(1.8330)*
EF Dum	1	230	-0.3279	230	-0.3207	230	-0.6486	228	-0.0254	228	-0.0047	228	-0.0301
			(1.7791)*		(1.2007)		(2.1282)**		(-0.3243)		(-2.3123)**		(-2.2885)**
Others Dum	1	272	-0.1212	272	-0.1717	272	-0.2929	194	-0.0345	194	-0.1763	194	-0.2107

Table A.5: Determinants of Analyst Forecast Revisions around Operational Risk Event Announcements

This table reports the estimation results for *analyst forecast revision* during pre-announcement period (-5, -1), post-announcement period (0, +5), and full event window (-5, +5) around operational risk event first announcements and settlement announcements (with loss amount above $10 million). Robust standard errors are used to correct for operational risk event clustering. *t-statistics* are reported in parentheses. *, ** and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively (two-tailed). Variable definitions are described in Appendix I.

	First Announcements			Settlements		
	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)
Bank-Level Variables						
Potential Employer	-0.1255	-0.0158	-0.2393	-0.0535	-0.0768	-0.0466
	(-0.47)	(-0.07)	(-0.51)	(-0.44)	(-0.57)	(-0.22)
Analysts Following	0.0254	0.0151	0.0397	0.0101	-0.0073	0.0023
	(1.57)	(1.40)	(1.64)	(0.99)	(-0.83)	(0.15)
Total Assets	-0.1181	-0.0661	-0.1835	-0.0449	0.0070	-0.0307
	(-1.44)	(-1.09)	(-1.33)	(-1.04)	(0.15)	(-0.39)
ROA	0.2265	0.3467	1.1265	0.1749	0.1434	0.4292
	(0.37)	(0.55)	(0.91)	(0.66)	(0.35)	(0.66)
Leverage	-0.0005	-0.0058	-0.0060	-0.0014	-0.0048	-0.0070
	(-0.08)	(-1.28)	(-0.56)	(-0.38)	(-1.40)	(-1.14)
Book to Market Ratio	0.0030	-0.0007	0.0037	0.0011	0.0003	0.0017
	(1.36)	(-0.29)	(0.82)	(1.10)	(0.13)	(0.61)
Equity Return Volatility	-0.2269	0.0172	-0.0820	-0.1456	-0.1657	-0.2279
	(-1.49)	(0.12)	(-0.34)	(-1.12)	(-1.01)	(-0.85)
Analyst-Level Variables						
Optimistic Analyst	-0.2697***	-0.3589***	-0.6163***	-0.2159***	-0.3911***	-0.5951***
	(-2.63)	(-3.55)	(-3.25)	(-3.47)	(-4.72)	(-4.62)
Broker Size	-0.0002	-0.0004	-0.0006	-0.0008	0.0002	-0.0006
	(-0.28)	(-0.67)	(-0.68)	(-1.45)	(0.48)	(-0.96)
Firm Experience	0.0029	-0.0049	-0.0024	0.0026	-0.0147	-0.0119
	(0.32)	(-0.40)	(-0.14)	(0.35)	(-1.58)	(-1.17)
General Experience	-0.0098	-0.0052	-0.0173	-0.0060	0.0094	0.0027
	(-1.21)	(-0.68)	(-1.34)	(-0.99)	(1.49)	(0.25)
Industry Experience	0.0148*	0.0148	0.0356**	0.0131**	0.0053	0.0197
	(1.69)	(1.04)	(2.08)	(2.01)	(0.48)	(1.31)
Number of Firms	-0.0036	-0.0049	-0.0097	-0.0060	-0.0072	-0.0138
	(-0.76)	(-0.95)	(-1.19)	(-1.21)	(-1.33)	(-1.65)
Number of Industries	0.0153	0.0348*	0.0543*	0.0185	0.0313*	0.0530**
	(1.11)	(1.93)	(1.92)	(1.38)	(1.68)	(2.09)
Event-Level Variables						
Global Settlement	-0.1526	-0.0208	-0.2300	0.1166	0.0960	0.2017
	(-1.24)	(-0.16)	(-1.07)	(0.82)	(0.55)	(0.68)
Walk-Down Effect	0.2287	0.0305	0.2876	0.1072	0.2861*	0.4254*
	(0.94)	(0.13)	(0.67)	(0.90)	(1.85)	(1.93)
Loss Amount	-0.0064	-0.0075	0.0084	-0.0606*	-0.0477	-0.1150*
	(-0.18)	(-0.19)	(0.12)	(-1.95)	(-1.29)	(-1.86)
CAR	0.0675**	-0.0128	0.0527*	0.0500***	0.0147	0.0337
	(2.35)	(-0.64)	(1.81)	(2.63)	(0.79)	(1.38)
IF Dum	-0.1085	-0.1209	-0.1114	0.1883	0.3281**	0.5664***
	(-0.59)	(-0.82)	(-0.45)	(1.50)	(2.13)	(2.96)
CPBP Dum	-0.2473**	-0.3552***	-0.5166***	0.0138	0.0697	0.1287
	(-2.28)	(-2.96)	(-2.89)	(0.14)	(0.59)	(0.83)
EF Dum	-0.8228**	-0.6722**	-1.5114**	-0.0542	0.3127**	0.3449
	(-2.01)	(-2.04)	(-2.11)	(-0.42)	(2.11)	(1.50)
Constant	0.2231	0.2510	0.0900	0.0603	0.0815	-0.1030
	(0.46)	(0.53)	(0.10)	(0.18)	(0.22)	(-0.18)
N	2,664	2,664	2,664	2,204	2,204	2,204
Average VIF	1.92	1.91	1.90	2.04	2.06	2.04
R^2	0.0975	0.0392	0.1019	0.0636	0.0400	0.0821

Table A.6: Determinants of Analyst Forecast Error Change around Operational Risk Event Announcements

This table reports the estimation results for *analyst forecast error change* during pre-announcement period (-5, -1), post-announcement period (0, +5), and full event window (-5, +5) around operational risk event first announcements and settlement announcements (with loss amount above $10 million). Robust standard errors are used to correct for operational risk event clustering. *t-statistics* are reported in parentheses. *, ** and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively (two-tailed). Variable definitions are described in Appendix I.

	First Announcements			Settlements		
	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)
Bank-Level Variables						
Potential Employer	-0.2415	-0.2083	-0.5187	0.0499	0.0411	0.1826
	(-1.01)	(-1.19)	(-1.29)	(0.42)	(0.39)	(0.93)
Analysts Following	0.0297**	0.0174**	0.0465**	0.0114	-0.0010	0.0096
	(2.00)	(2.09)	(2.24)	(1.20)	(-0.16)	(0.74)
Total Assets	-0.0918	-0.0507	-0.1433	-0.0428	-0.0292	-0.0649
	(-1.24)	(-1.11)	(-1.23)	(-1.05)	(-0.88)	(-0.99)
ROA	-0.1501	-0.3289	-0.0267	-0.0240	0.1060	0.1995
	(-0.27)	(-0.74)	(-0.03)	(-0.10)	(0.32)	(0.36)
Leverage	-0.0009	-0.0051	-0.0057	-0.0025	-0.0061**	-0.0094
	(-0.15)	(-1.53)	(-0.63)	(-0.71)	(-2.05)	(-1.65)
Book to Market Ratio	0.0026	-0.0004	0.0033	0.0014	0.0012	0.0030
	(1.28)	(-0.25)	(0.83)	(1.49)	(0.68)	(1.19)
Equity Return Volatility	-0.2339*	-0.0349	-0.1667	-0.1516	-0.1281	-0.1901
	(-1.87)	(-0.31)	(-0.87)	(-1.26)	(-0.98)	(-0.82)
Analyst-Level Variables						
Optimistic Analyst	-0.2591***	-0.4295***	-0.6803***	-0.1141*	-0.2891***	-0.3918***
	(-3.03)	(-5.37)	(-4.61)	(-1.96)	(-4.10)	(-3.35)
Broker Size	-0.0002	0.0001	-0.0001	-0.0004	0.0000	-0.0004
	(-0.38)	(0.14)	(-0.18)	(-0.85)	(0.07)	(-0.73)
Firm Experience	0.0034	0.0042	0.0074	0.0084	-0.0084	0.0001
	(0.41)	(0.40)	(0.51)	(1.34)	(-1.06)	(0.01)
General Experience	-0.0086	-0.0098	-0.0202*	-0.0026	0.0099*	0.0068
	(-1.20)	(-1.50)	(-1.79)	(-0.47)	(1.71)	(0.70)
Industry Experience	0.0125*	0.0132	0.0304**	0.0058	-0.0021	0.0050
	(1.69)	(1.11)	(2.03)	(0.98)	(-0.22)	(0.35)
Number of Firms	-0.0045	-0.0002	-0.0056	-0.0031	-0.0058	-0.0096
	(-0.98)	(-0.05)	(-0.78)	(-0.76)	(-1.21)	(-1.26)
Number of Industries	0.0166	0.0173	0.0375	0.0091	0.0304*	0.0433*
	(1.27)	(1.17)	(1.49)	(0.73)	(1.83)	(1.83)
Event-Level Variables						
Global Settlement	-0.1601	-0.0511	-0.2563	0.0085	0.0570	0.0509
	(-1.42)	(-0.47)	(-1.34)	(0.06)	(0.40)	(0.19)
Walk-Down Effect	0.1556	-0.0411	0.1361	-0.0496	0.2076	0.1985
	(0.70)	(-0.23)	(0.37)	(-0.43)	(1.65)	(0.97)
Loss Amount	0.0188	0.0250	0.0595	-0.0371	-0.0229	-0.0678
	(0.68)	(0.83)	(1.11)	(-1.35)	(-0.74)	(-1.24)
CAR	0.0586**	-0.0059	0.0433*	0.0464**	0.0065	0.0262
	(2.15)	(-0.37)	(1.88)	(2.61)	(0.44)	(1.23)
IF Dum	-0.1453	-0.0259	-0.0715	0.1713	0.2021*	0.4221**
	(-0.86)	(-0.24)	(-0.33)	(1.61)	(1.75)	(2.46)
CPBP Dum	-0.2493**	-0.2271**	-0.4076**	-0.0114	0.0489	0.0820
	(-2.50)	(-2.26)	(-2.51)	(-0.12)	(0.63)	(0.60)
EF Dum	-0.7724**	-0.5546**	-1.3310**	-0.0009	0.2172*	0.3080
	(-2.10)	(-2.13)	(-2.19)	(-0.01)	(1.68)	(1.32)
Constant	0.1664	0.3954	0.2518	-0.0462	-0.0273	-0.3247
	(0.38)	(1.04)	(0.32)	(-0.15)	(-0.09)	(-0.63)
N	2,664	2,664	2,664	2,204	2,204	2,204
Average VIF	1.92	1.91	1.90	2.04	2.06	2.04
R^2	0.1013	0.0526	0.1224	0.0537	0.0421	0.0793

Table A.7: Robustness Checks - Bad News vs. Good News

This table reports the estimation results for *analyst forecast revision* and *analyst forecast error change* during pre-announcement period (-5, -1), post-announcement period (0, +5), and full event window (-5, +5) around operational risk event first announcements and settlement announcements (with loss amount above $10 million). Bad News include only negative CARs and Good News include only positive CARs. Robust standard errors are used to correct for operational risk event clustering. *t-statistics* are reported in parentheses. *, ** and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively (two-tailed). Variable definitions are described in Appendix I.

Panel A: Determinants of Analyst Forecast Quality around Bad News

	First Announcements						Settlements					
	Analyst Forecast Revision			Analyst Forecast Error Change			Analyst Forecast Revision			Analyst Forecast Error Change		
	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)
Bank-Level Variables												
Potential Employer	-0.0171	0.2414	-0.7502	-0.2036	0.0293	-1.3000*	-0.3074	0.1562	0.0644	-0.0580	0.1482	0.4852*
	(-0.05)	(1.35)	(-0.80)	(-0.58)	(0.20)	(-1.76)	(-1.24)	(0.85)	(0.26)	(-0.30)	(0.93)	(1.76)
Analysts Following	0.0237	-0.0048	0.0468	0.0315	0.0076	0.0693*	0.0029	-0.0318***	-0.0198	0.0090	-0.0174*	-0.0027
	(0.80)	(-0.46)	(1.12)	(1.16)	(0.91)	(1.92)	(0.19)	(-2.87)	(-0.97)	(0.68)	(-1.77)	(-0.15)
Analyst-Level Variables												
Optimistic Analyst	-0.3311*	-0.3005*	-0.5289*	-0.3974***	-0.4390***	-0.7754***	-0.1459	-0.5172***	-0.6419***	-0.0447	-0.4462***	-0.4604***
	(-1.88)	(-1.95)	(-1.81)	(-2.75)	(-3.57)	(-3.56)	(-1.44)	(-3.99)	(-3.64)	(-0.52)	(-4.04)	(-3.08)
Event-Level Variables												
Global Settlement	-1.0731***	-0.0402	-0.5933	-0.9780***	-0.0409	-0.6783*	-0.0483	-0.2119	-0.4659**	-0.1311	-0.1597	-0.5792**
	(-3.25)	(-0.19)	(-1.39)	(-3.29)	(-0.25)	(-1.84)	(-0.25)	(-1.08)	(-2.10)	(-0.81)	(-0.96)	(-2.49)
Loss Amount	-0.1063	0.0281	0.0852	-0.0324	0.0400	0.0911	-0.0271	-0.0082	0.0012	0.0022	-0.0048	0.0103
	(-1.33)	(0.53)	(0.87)	(-0.50)	(0.92)	(1.26)	(-0.76)	(-0.13)	(0.01)	(0.07)	(-0.09)	(0.14)
N	1,228	1,478	1,385	1,228	1,478	1,385	1,055	1,152	1,003	1,055	1,152	1,003
Average VIF	2.30	2.19	2.49	2.30	2.19	2.49	2.58	2.28	2.39	2.58	2.28	2.39
R^2	0.1507	0.0316	0.1346	0.1647	0.0442	0.1657	0.1162	0.0516	0.1820	0.1103	0.0616	0.1902

Panel B: Determinants of Analyst Forecast Quality around Good News

	First Announcements						Settlements					
	Analyst Forecast Revision			Analyst Forecast Error Change			Analyst Forecast Revision			Analyst Forecast Error Change		
	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)
Bank-Level Variables												
Potential Employer	-0.0178	-0.8762*	0.1682	-0.1386	-0.9172**	-0.0647	-0.0619	-0.1282	-0.2306	-0.1097	-0.0159	-0.1367
	(-0.07)	(-1.70)	(0.33)	(-0.67)	(-2.20)	(-0.18)	(-0.50)	(-0.78)	(-1.10)	(-0.81)	(-0.11)	(-0.63)
Analysts Following	0.0217*	0.0318**	0.0220	0.0231**	0.0291**	0.0183	0.0229**	0.0099	0.0204	0.0201**	0.0085	0.0176
	(1.96)	(2.02)	(0.87)	(2.26)	(2.02)	(0.85)	(2.67)	(1.15)	(1.14)	(2.30)	(0.99)	(1.04)
Analyst-Level Variables												
Optimistic Analyst	-0.3177**	-0.4646***	-0.7012***	-0.2331*	-0.3854***	-0.6001***	-0.1607**	-0.1835**	-0.4722***	-0.0656	-0.0696	-0.3002**
	(-2.27)	(-3.45)	(-2.79)	(-1.88)	(-3.39)	(-2.84)	(-2.12)	(-2.27)	(-3.38)	(-0.86)	(-0.96)	(-2.31)
Event-Level Variables												
Global Settlement	-0.1595	-0.1130	-0.2711	-0.2030	-0.0955	-0.2729	0.3898**	0.2274	0.6533	0.2452	0.1110	0.4955
	(-0.95)	(-0.58)	(-0.94)	(-1.34)	(-0.62)	(-1.15)	(2.42)	(1.17)	(1.65)	(1.31)	(0.64)	(1.31)
Loss Amount	0.0546	0.0018	0.0860	0.0598*	0.0519	0.0962	-0.0742	-0.0762**	-0.0271	-0.0836*	0.0023	-0.0054
	(1.57)	(0.02)	(0.66)	(1.91)	(0.80)	(0.89)	(-1.43)	(-2.47)	(-0.33)	(-1.70)	(0.07)	(-0.07)
N	1,436	1,186	1,279	1,436	1,186	1,279	1,149	1,052	1,201	1,149	1,052	1,201
Average VIF	2.23	2.08	2.15	2.23	2.08	2.15	2.37	2.84	2.62	2.37	2.84	2.62
R^2	0.1085	0.0788	0.1469	0.1054	0.0827	0.1599	0.0484	0.0499	0.0684	0.0400	0.0417	0.0584

Table A.8: Robustness Checks - Global Financial Crisis (GFC) Effects

This table reports the estimation results for *analyst forecast revision* and *analyst forecast error change* during pre-announcement period (-5, -1), post-announcement period (0, +5), and full event window (-5, +5) around operational risk event first announcements and settlement announcements (with loss amount above $10 million). Global Financial Crisis (GFC) is supposed to have started on 14 September 2007. Robust standard errors are used to correct for operational risk event clustering. *t-statistics* are reported in parentheses. *, ** and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively (two-tailed). Variable definitions are described in Appendix I.

Panel A: Determinants of Analyst Forecast Quality around Operational Risk Event Announcements before GFC

	First Announcements						Settlements					
	Analyst Forecast Revision			Analyst Forecast Error Change			Analyst Forecast Revision			Analyst Forecast Error Change		
	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)
Bank-Level Variables												
Potential Employer	0.0018	-0.3062*	-0.3186*	-0.0322	-0.2434*	-0.2804*	0.0693	-0.0019	0.0999	0.1301	-0.0134	0.0980
	(0.03)	(-1.84)	(-1.73)	(-0.50)	(-1.70)	(-1.76)	(0.82)	(-0.01)	(0.47)	(1.04)	(-0.10)	(0.42)
Analysts Following	0.0039	0.0214**	0.0193**	0.0031	0.0088	0.0068	0.0256**	0.0381**	0.0612**	0.0197	0.0307**	0.0487*
	(1.34)	(2.16)	(2.32)	(0.91)	(1.22)	(0.99)	(2.44)	(2.32)	(2.31)	(1.35)	(2.12)	(1.77)
Analyst-Level Variables												
Optimistic Analyst	-0.1167**	-0.2300**	-0.3307***	-0.0316	-0.2178***	-0.2331**	-0.1153**	-0.1175***	-0.2412***	0.0551	-0.0318	0.0159
	(-2.40)	(-2.59)	(-2.98)	(-0.65)	(-2.71)	(-2.26)	(-2.40)	(-2.78)	(-3.00)	(1.04)	(-0.70)	(0.18)
Event-Level Variables												
Global Settlement	0.0275	0.1022	0.1453	-0.0279	0.0338	0.0238	0.2832**	0.3315**	0.5953**	0.0135	0.2397	0.2442
	(0.74)	(0.97)	(1.19)	(-0.54)	(0.42)	(0.21)	(2.72)	(2.04)	(2.36)	(0.09)	(1.55)	(0.88)
Loss Amount	-0.0030	0.0433	0.0624	-0.0042	-0.0061	0.0099	-0.0612*	0.0154	-0.0545	-0.0430	0.0199	-0.0131
	(-0.12)	(1.01)	(0.90)	(-0.13)	(-0.18)	(0.16)	(-1.95)	(0.43)	(-0.95)	(-0.99)	(0.48)	(-0.20)
N	964	964	964	964	964	964	748	748	748	748	748	748
Average VIF	2.48	2.41	2.39	2.48	2.41	2.39	3.23	3.40	3.41	3.23	3.40	3.41
R^2	0.0496	0.0550	0.0775	0.0155	0.0622	0.0581	0.1203	0.1007	0.1914	0.0312	0.0579	0.0800

Panel B: Determinants of Analyst Forecast Quality around Operational Risk Event Announcements during and after GFC

	First Announcements						Settlements					
	Analyst Forecast Revision			Analyst Forecast Error Change			Analyst Forecast Revision			Analyst Forecast Error Change		
	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)
Bank-Level Variables												
Potential Employer	-0.7965	0.0019	-0.7829	-0.8888*	-0.3837	-1.2422*	-0.5002*	-0.3433	-0.6737	-0.5456*	-0.2165	-0.5651
	(-1.52)	(0.00)	(-0.87)	(-1.98)	(-1.42)	(-1.93)	(-1.73)	(-1.28)	(-1.33)	(-1.93)	(-0.95)	(-1.22)
Analysts Following	0.0380*	0.0103	0.0504	0.0423**	0.0189*	0.0629**	0.0164	-0.0101	0.0086	0.0173	-0.0014	0.0180
	(1.74)	(0.78)	(1.62)	(2.16)	(1.77)	(2.43)	(1.21)	(-1.24)	(0.52)	(1.40)	(-0.25)	(1.29)
Analyst-Level Variables												
Optimistic Analyst	-0.2483	-0.3432**	-0.5093*	-0.3132**	-0.4444***	-0.6931***	-0.1114*	-0.4088***	-0.4346***	-0.0800	-0.3001***	-0.2953**
	(-1.54)	(-2.44)	(-1.89)	(-2.62)	(-4.15)	(-3.80)	(-1.76)	(-3.88)	(-3.12)	(-1.48)	(-3.70)	(-2.60)
Event-Level Variables												
Loss Amount	0.0151	0.0060	0.0608	0.0446	0.0588	0.1322**	-0.0312	-0.0287	-0.0588	-0.0246	-0.0100	-0.0357
	(0.39)	(0.11)	(0.70)	(1.54)	(1.50)	(2.14)	(-0.82)	(-0.59)	(-0.76)	(-0.73)	(-0.24)	(-0.53)
N	1,700	1,700	1,700	1,700	1,700	1,700	1,456	1,456	1,456	1,456	1,456	1,456
Average VIF	1.94	1.94	1.92	1.94	1.94	1.92	1.98	1.98	1.96	1.98	1.98	1.96
R^2	0.1306	0.0432	0.1288	0.1491	0.0658	0.1726	0.0815	0.0434	0.0942	0.0832	0.0529	0.1120

Table A.9: Robustness Checks – Systemically Important Banks (SIBs)

This table reports the estimation results for *analyst forecast revision* and *analyst forecast error change* during pre-announcement period (-5, -1), post-announcement period (0, +5), and full event window (-5, +5) around operational risk event first announcements and settlement announcements (with loss amount above $10 million). Systemically Important Banks (SIBs) are banks whose total assets exceed $250 billion. Other banks (Non-SIBs) have total assets below $250 billion. Robust standard errors are used to correct for operational risk event clustering. *t-statistics* are reported in parentheses. *, ** and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively (two-tailed). Variable definitions are described in Appendix I.

Panel A: Determinants of Analyst Forecast Quality around Operational Risk Event Announcements in Systemically Important Banks (SIBs)

	First Announcements						Settlements					
	Analyst Forecast Revision			Analyst Forecast Error Change			Analyst Forecast Revision			Analyst Forecast Error Change		
	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)
Bank-Level Variables												
Potential Employer	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Analysts Following	0.0412	0.0160	0.0609*	0.0506**	0.0146	0.0690**	0.0241	0.0034	0.0274	0.0282**	0.0047	0.0333*
	(1.64)	(1.18)	(1.69)	(2.25)	(1.31)	(2.16)	(1.62)	(0.35)	(1.40)	(2.10)	(0.56)	(1.90)
Analyst-Level Variables												
Optimistic Analyst	-0.3907**	-0.4647***	-0.8275***	-0.3715***	-0.5272***	-0.8723***	-0.2125***	-0.4752***	-0.6435***	-0.1059	-0.3232***	-0.3804***
	(-2.57)	(-3.50)	(-3.20)	(-3.15)	(-5.23)	(-4.51)	(-2.81)	(-4.68)	(-4.09)	(-1.61)	(-3.59)	(-2.75)
Event-Level Variables												
Global Settlement	-0.1213	-0.3137	-0.6023	-0.0622	-0.2403	-0.4547	0.2929	0.4863	0.8080	0.2873	0.4690	0.7941
	(-0.45)	(-1.31)	(-1.36)	(-0.26)	(-1.18)	(-1.16)	(0.91)	(1.17)	(1.05)	(0.93)	(1.38)	(1.15)
Loss Amount	0.0079	-0.0143	0.0030	0.0367	0.0447	0.0872	-0.0481	-0.0333	-0.1071	-0.0348	-0.0016	-0.0594
	(0.19)	(-0.29)	(0.03)	(1.15)	(1.24)	(1.28)	(-0.90)	(-0.52)	(-1.00)	(-0.71)	(-0.03)	(-0.62)
N	1,795	1,795	1,795	1,795	1,795	1,795	1,554	1,554	1,554	1,554	1,554	1,554
Average VIF	1.97	1.98	1.93	1.97	1.98	1.93	2.09	2.09	2.08	2.09	2.09	2.08
R^2	0.1186	0.0478	0.1268	0.1295	0.0613	0.1478	0.0787	0.0470	0.0979	0.0795	0.0457	0.1014

Panel B: Determinants of Analyst Forecast Quality around Operational Risk Event Announcements in Other Banks (Non-SIBs)

	First Announcements						Settlements					
	Analyst Forecast Revision			Analyst Forecast Error Change			Analyst Forecast Revision			Analyst Forecast Error Change		
	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)
Bank-Level Variables												
Potential Employer	0.0466	0.1211	-0.1561	0.0031	-0.1261	-0.3692***	-0.2369**	-0.0857	-0.3304**	-0.0653	-0.0135	-0.0671
	(0.88)	(0.92)	(-0.75)	(0.06)	(-1.27)	(-2.78)	(-2.15)	(-1.63)	(-2.46)	(-1.15)	(-0.30)	(-0.78)
Analysts Following	-0.0030	0.0117	0.0104	-0.0031	0.0103	0.0107	-0.0053	-0.0119**	-0.0170*	0.0007	-0.0052	-0.0037
	(-1.00)	(1.51)	(1.06)	(-1.11)	(1.51)	(1.29)	(-0.98)	(-2.60)	(-1.88)	(0.24)	(-1.00)	(-0.58)
Analyst-Level Variables												
Optimistic Analyst	-0.1078*	-0.2354**	-0.2296**	-0.0797	-0.2204**	-0.2078*	-0.0744*	-0.1793	-0.2552*	-0.0089	-0.1206*	-0.1349*
	(-1.96)	(-2.33)	(-2.05)	(-1.44)	(-2.17)	(-1.74)	(-1.84)	(-1.45)	(-1.74)	(-0.37)	(-1.80)	(-1.82)
Event-Level Variables												
Global Settlement	-0.0078	0.3805***	0.4522**	-0.0081	0.1968*	0.2595*	0.1002	-0.0211	0.0786	0.0695	-0.1253	-0.0560
	(-0.19)	(3.09)	(2.44)	(-0.20)	(1.97)	(1.82)	(0.83)	(-0.29)	(0.44)	(0.75)	(-1.55)	(-0.41)
Loss Amount	-0.0389	0.0863**	0.0201	-0.0428	-0.0313	-0.0992*	-0.0312	-0.0278	-0.0601	0.0101	-0.0540*	-0.0443
	(-0.76)	(2.03)	(0.34)	(-0.80)	(-0.72)	(-1.80)	(-1.11)	(-0.98)	(-1.31)	(0.55)	(-2.04)	(-1.36)
N	869	869	869	869	869	869	650	650	650	650	650	650
Average VIF	2.58	2.53	2.67	2.58	2.53	2.67	4.70	4.78	4.72	4.70	4.78	4.72
R^2	0.0580	0.0531	0.0791	0.0450	0.0584	0.0925	0.1003	0.0636	0.0782	0.0112	0.0692	0.0442

Table A.10: Robustness Checks – Extreme Losses Removed

This table reports the estimation results for *analyst forecast revision* and *analyst forecast error change* during pre-announcement period (-5, -1), post-announcement period (0, +5), and full event window (-5, +5) around operational risk event first announcements and settlement announcements (with loss amount above $10 million). Extreme losses are removed at the 99th percentile (Panel A) and 95th percentile (Panel B). Robust standard errors are used to correct for operational risk event clustering. *t-statistics* are reported in parentheses. *, ** and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively (two-tailed). Variable definitions are described in Appendix I.

Panel A: Determinants of Analyst Forecast Quality around Operational Risk Events with Loss Amount below 99th Percentile

	First Announcements						Settlements					
	Analyst Forecast Revision			Analyst Forecast Error Change			Analyst Forecast Revision			Analyst Forecast Error Change		
	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)
Bank-Level Variables												
Potential Employer	-0.1005	-0.0160	-0.2121	-0.2256	-0.2125	-0.5071	-0.0773	-0.0556	-0.0538	0.0427	0.0504	0.1771
	(-0.38)	(-0.07)	(-0.46)	(-0.95)	(-1.21)	(-1.27)	(-0.63)	(-0.41)	(-0.25)	(0.35)	(0.47)	(0.89)
Analysts Following	0.0233	0.0148	0.0363	0.0284*	0.0180**	0.0450**	0.0100	-0.0067	0.0027	0.0113	-0.0007	0.0099
	(1.48)	(1.36)	(1.55)	(1.96)	(2.15)	(2.24)	(0.98)	(-0.76)	(0.18)	(1.19)	(-0.11)	(0.76)
Analyst-Level Variables												
Optimistic Analyst	-0.2909***	-0.3599***	-0.6471***	-0.2725***	-0.4227***	-0.6937***	-0.2140***	-0.3723***	-0.5702***	-0.1147*	-0.2800***	-0.3806***
	(-2.82)	(-3.54)	(-3.39)	(-3.10)	(-5.24)	(-4.59)	(-3.38)	(-4.53)	(-4.42)	(-1.94)	(-3.92)	(-3.20)
Event-Level Variables												
Global Settlement	-0.1730	-0.0220	-0.2586	-0.1730	-0.0434	-0.2692	0.1164	0.0981	0.2038	0.0073	0.0587	0.0513
	(-1.39)	(-0.16)	(-1.18)	(-1.52)	(-0.39)	(-1.39)	(0.82)	(0.57)	(0.69)	(0.05)	(0.42)	(0.19)
Loss Amount	-0.0520	-0.0097	-0.0588	-0.0099	0.0399	0.0302	-0.0719*	-0.0360	-0.1219	-0.0404	-0.0179	-0.0724
	(-1.17)	(-0.19)	(-0.64)	(-0.27)	(1.14)	(0.41)	(-1.88)	(-0.85)	(-1.64)	(-1.20)	(-0.48)	(-1.09)
N	2,608	2,608	2,608	2,608	2,608	2,608	2,170	2,170	2,170	2,170	2,170	2,170
Average VIF	1.92	1.91	1.90	1.92	1.91	1.90	2.11	2.16	2.14	2.11	2.16	2.14
R^2	0.1012	0.0395	0.1069	0.1028	0.0534	0.1251	0.0638	0.0387	0.0818	0.0537	0.0417	0.0790

Panel B: Determinants of Analyst Forecast Quality around Operational Risk Events with Loss Amount below 95th Percentile

	First Announcements						Settlements					
	Analyst Forecast Revision			Analyst Forecast Error Change			Analyst Forecast Revision			Analyst Forecast Error Change		
	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)
Bank-Level Variables												
Potential Employer	-0.0819	-0.0087	-0.1802	-0.2047	-0.1992	-0.4689	-0.1739	-0.1324	-0.2271	-0.0341	-0.0070	0.0428
	(-0.31)	(-0.04)	(-0.39)	(-0.87)	(-1.15)	(-1.18)	(-1.56)	(-0.96)	(-1.11)	(-0.28)	(-0.06)	(0.21)
Analysts Following	0.0208	0.0151	0.0329	0.0260*	0.0155*	0.0392**	0.0108	-0.0065	0.0036	0.0122	-0.0005	0.0109
	(1.30)	(1.39)	(1.42)	(1.78)	(1.87)	(2.00)	(1.02)	(-0.69)	(0.22)	(1.23)	(-0.07)	(0.79)
Analyst-Level Variables												
Optimistic Analyst	-0.3300***	-0.3991***	-0.7254***	-0.2965***	-0.4281***	-0.7228***	-0.2036***	-0.3597***	-0.5418***	-0.1036*	-0.2717***	-0.3561***
	(-3.12)	(-3.87)	(-3.72)	(-3.21)	(-5.23)	(-4.59)	(-3.18)	(-4.38)	(-4.24)	(-1.69)	(-3.72)	(-2.94)
Event-Level Variables												
Global Settlement	-0.2077	-0.0233	-0.3029	-0.2011*	-0.0696	-0.3279*	0.2320*	0.2031	0.4290	0.1013	0.1353	0.2249
	(-1.59)	(-0.17)	(-1.34)	(-1.71)	(-0.62)	(-1.66)	(1.68)	(1.12)	(1.44)	(0.70)	(0.90)	(0.80)
Loss Amount	-0.1067**	-0.0431	-0.1414	-0.0531	-0.0091	-0.0578	-0.1152**	-0.0830*	-0.2170***	-0.0744*	-0.0508	-0.1434*
	(-2.07)	(-0.84)	(-1.34)	(-1.24)	(-0.23)	(-0.69)	(-2.59)	(-1.78)	(-2.64)	(-1.83)	(-1.22)	(-1.87)
N	2,515	2,515	2,515	2,515	2,515	2,515	2,088	2,088	2,088	2,088	2,088	2,088
Average VIF	1.99	1.99	1.98	1.99	1.99	1.98	2.14	2.19	2.16	2.14	2.19	2.16
R^2	0.1096	0.0439	0.1172	0.1084	0.0556	0.1331	0.0711	0.0420	0.0914	0.0581	0.0439	0.0855

Online Appendix B

The Minor Sample (Loss Amounts Lower than $10 million)

Table B.1: Composition of the Final Sample

This table reports the composition of our final sample comprising first announcements and settlements of operational risk events (with loss amount lower than $10 million).

Panel A: Sample Screening Description

Sample Screening Description	Number of Event Announcements	
	First Announcements	Settlements
1. Full sample	923	923
- Events whose loss amount is higher than $10 million	(384)	(379)
- Operational risk events that overlap with 8-K reports released during the event window (-5, +5)	(337)	(338)
- Operational risk events that overlap with quarterly and annual earnings announcements (10-Qs and 10-Ks) during the event window (-5, +5)	(7)	(6)
2. Final sample	195	199

Panel B: Event-Analyst Observations and Bank-Analyst Pairs

	First Announcements	Settlements
Events	195	199
Banks	48	42
Analysts	181	182
Event-Analyst Observations	4,213	4,336
Bank-Analyst Pairs	1,560	1,454

Table B.2: Descriptive Statistics
This table reports the descriptive statistics for our variables (for operational risk events with loss amount lower than $10 million). Variable definitions are described in Appendix I.

Panel A: Measures of Analyst Forecast Quality around Operational Risk Event Announcements

	First Announcements					Settlements					Difference in Means
	N	25p	Median	Mean	75p	N	25p	Median	Mean	75p	First Announcements - Settlements (t-test)
Measures of Analyst Forecast Quality											
Analyst Forecast Revision (-5, -1)	4,213	0	0	-0.1040	0	4,336	0	0	-0.1133	0	0.0093 (0.4561)
Analyst Forecast Revision (0, +5)	4,213	0	0	-0.1747	0	4,336	0	0	-0.2049	0	0.0302 (1.0241)
Analyst Forecast Revision (-5, +5)	4,213	0	0	-0.2787	0	4,336	0	0	-0.3181	0	0.0395 (1.1043)
Analyst Forecast Error Change (-5, -1)	4,213	0	0	-0.1064	0	4,336	0	0	-0.1048	0	-0.0016 (-0.0868)
Analyst Forecast Error Change (0, +5)	4,213	0	0	-0.1195	0	4,336	0	0	-0.1226	0	0.0031 (0.1359)
Analyst Forecast Error Change (-5, +5)	4,213	0	0	-0.2259	0	4,336	0	0	-0.1226	0	0.0015 (0.0519)

Panel B: Measures of Analyst Forecast Quality around Bad News

	First Announcements					Settlements					Difference in Means
	N	25p	Median	Mean	75p	N	25p	Median	Mean	75p	First Announcements - Settlements (t-test)
Measures of Analyst Forecast Quality											
Analyst Forecast Revision (-5, -1)	2,210	0	0	-0.1042	0	2,411	0	0	-0.1039	0	-0.0003 (-0.0113)
Analyst Forecast Revision (0, +5)	2,455	0	0	-0.1484	0	2,499	0	0	-0.2087	0	0.0603 (1.7059)*
Analyst Forecast Revision (-5, +5)	2,408	0	0	-0.2670	0	2,411	0	0	-0.3735	0	0.1065 (2.1996)**
Analyst Forecast Error Change (-5, -1)	2,210	0	0	-0.0996	0	2,411	0	0	-0.0949	0	-0.0046 (-0.1895)
Analyst Forecast Error Change (0, +5)	2,455	0	0	-0.0988	0	2,499	0	0	-0.1170	0	0.0182 (0.6234)
Analyst Forecast Error Change (-5, +5)	2,408	0	0	-0.1899	0	2,411	0	0	-0.2468	0	0.0568 (1.4875)

Panel C: Measures of Analyst Forecast Quality around Good News

	First Announcements					Settlements					Difference in Means
	N	25p	Median	Mean	75p	N	25p	Median	Mean	75p	First Announcements - Settlements (t-test)
Measures of Analyst Forecast Quality											
Analyst Forecast Revision (-5, -1)	2,003	0	0	-0.1037	0	1,925	0	0	-0.1249	0	0.0213 (0.6852)
Analyst Forecast Revision (0, +5)	1,758	0	0	-0.2114	0	1,837	0	0	-0.1996	0	-0.0118 (-0.2337)
Analyst Forecast Revision (-5, +5)	1,805	0	0	-0.2942	0	1,925	0	0	-0.2487	0	-0.0455 (-0.8605)
Analyst Forecast Error Change (-5, -1)	2,003	0	0	0.0000	0	1,925	0	0	-0.1172	0	0.0032 (0.1147)
Analyst Forecast Error Change (0, +5)	1,758	0	0	-0.1483	0	1,837	0	0	-0.1302	0	-0.0181 (-0.4837)
Analyst Forecast Error Change (-5, +5)	1,805	0	0	-0.2739	0	1,925	0	0	-0.2033	0	-0.0707 (-1.5318)

Panel D: Measures of Analyst Forecast Quality before GFC

	First Announcements					Settlements					Difference in Means
	N	25p	Median	Mean	75p	N	25p	Median	Mean	75p	First Announcements - Settlements (t-test)
Measures of Analyst Forecast Quality											
Analyst Forecast Revision (-5, -1)	1,947	0	0	-0.0398	0	1,518	0	0	-0.0434	0	0.0036 (0.1743)
Analyst Forecast Revision (0, +5)	1,947	0	0	-0.0746	0	1,518	0	0	-0.0752	0	-0.0748 (0.0199)
Analyst Forecast Revision (-5, +5)	1,947	0	0	-0.1144	0	1,518	0	0	-0.1185	0	-0.1162 (0.1141)
Analyst Forecast Error Change (-5, -1)	1,947	0	0	-0.0663	0	1,518	0	0	-0.0857	0	0.0194 (0.8065)
Analyst Forecast Error Change (0, +5)	1,947	0	0	-0.0706	0	1,518	0	0	-0.0733	0	0.0027 (0.1060)
Analyst Forecast Error Change (-5, +5)	1,947	0	0	-0.1144	0	1,518	0	0	-0.1589	0	0.0221 (0.6320)

Panel E: Measures of Analyst Forecast Quality during & after GFC

	First Announcements					Settlements					Difference in Means
	N	25p	Median	Mean	75p	N	25p	Median	Mean	75p	First Announcements - Settlements (t-test)
Measures of Analyst Forecast Quality											
Analyst Forecast Revision (-5, -1)	2,266	0	0	-0.1591	0	2,818	0	0	-0.1509	0	-0.0082 (-0.2598)
Analyst Forecast Revision (0, +5)	2,266	0	0	-0.2607	0	2,818	0	0	-0.2748	0	0.0140 (0.3093)
Analyst Forecast Revision (-5, +5)	2,266	0	0	-0.4198	0	2,818	0	0	-0.4257	0	0.0058 (0.1061)
Analyst Forecast Error Change (-5, -1)	2,266	0	0	-0.1409	0	2,818	0	0	-0.1151	0	-0.0258 (-0.9684)
Analyst Forecast Error Change (0, +5)	2,266	0	0	-0.2607	0	2,818	0	0	-0.1492	0	-0.0123 (-0.3527)
Analyst Forecast Error Change (-5, +5)	2,266	0	0	-0.3025	0	2,818	0	0	-0.2644	0	-0.0381 (-0.8707)

Panel F: Measures of Analyst Forecast Quality in Systemically Important Banks (SIBs)

	First Announcements					Settlements					Difference in Means
	N	25p	Median	Mean	75p	N	25p	Median	Mean	75p	First Announcements - Settlements (t-test)
Measures of Analyst Forecast Quality											
Analyst Forecast Revision (-5, -1)	2,825	0	0	-0.1381	0	3,071	0	0	-0.1500	0	0.0118 (0.4210)
Analyst Forecast Revision (0, +5)	2,825	0	0	-0.2350	0	3,071	0	0	-0.2698	0	0.0348 (0.8461)
Analyst Forecast Revision (-5, +5)	2,825	0	0	-0.3731	0	3,071	0	0	-0.4198	0	0.0467 (0.9408)
Analyst Forecast Error Change (-5, -1)	2,825	0	0	-0.1261	0	3,071	0	0	-0.1315	0	0.0054 (0.2175)
Analyst Forecast Error Change (0, +5)	2,825	0	0	-0.1356	0	3,071	0	0	-0.1479	0	0.0122 (0.3942)
Analyst Forecast Error Change (-5, +5)	2,825	0	0	-0.2617	0	3,071	0	0	-0.2794	0	0.0176 (0.4457)

Panel G: Measures of Analyst Forecast Quality in Non-SIBs

	First Announcements					Settlements					Difference in Means
	N	25p	Median	Mean	75p	N	25p	Median	Mean	75p	First Announcements - Settlements (t-test)
Measures of Analyst Forecast Quality											
Analyst Forecast Revision (-5, -1)	1,388	0	0	-0.0344	0	1,265	0	0	-0.0241	0	-0.0103 (-0.5059)
Analyst Forecast Revision (0, +5)	1,388	0	0	-0.0521	0	1,265	0	0	-0.0473	0	-0.0048 (-0.1920)
Analyst Forecast Revision (-5, +5)	1,388	0	0	-0.0864	0	1,265	0	0	-0.0714	0	-0.0150 (-0.4664)
Analyst Forecast Error Change (-5, -1)	1,388	0	0	-0.0664	0	1,265	0	0	-0.0401	0	-0.0263 (-1.1592)
Analyst Forecast Error Change (0, +5)	1,388	0	0	-0.0866	0	1,265	0	0	-0.0613	0	-0.0253 (-0.9111)
Analyst Forecast Error Change (-5, +5)	1,388	0	0	-0.1530	0	1,265	0	0	-0.1014	0	-0.0516 (-1.4363)

Panel H: Bank-Level, Analyst-Level and Event-Level Variables

	First Announcements					Settlements				
	N	25p	Median	Mean	75p	N	25p	Median	Mean	75p
Bank-Level Variables										
Potential Employer	48	1	1	0.89	1	42	1	1	0.91	1
Analysts Following	48	17	22.00	21.61	27	42	18	22	21.79	27
Total Assets	48	142.57	461.49	723.80	910.89	42	165.60	666.18	802.89	1,149.43
ROA	48	0.12	0.21	0.20	0.31	42	0.12	0.18	0.19	0.29
Leverage	48	21.98	28.53	34.71	55.38	42	20.51	28.65	34	53.40
Book to Market Ratio	48	48.31	69.12	86.50	118.31	42	50.66	86.31	94.32	128.70
Equity Return Volatility	48	0.57	0.73	0.87	1	42	0.63	0.79	0.89	1.03
Analyst-Level Variables										
Optimistic Analyst										
Broker Size	181	0	1	0.58	1	182	0	1	0.57	1
Firm Experience	181	25	51	70.82	107	182	25	50	69.01	106
General Experience	181	4.01	6.76	7.60	11.33	182	4.16	6.76	7.67	11.33
Industry Experience	181	9.98	14.61	15.15	19.83	182	9.98	14.61	15.16	19.83
Number of Firms	181	4.59	9.26	9.57	13.74	182	4.72	9.34	9.68	13.81
Number of Industries	181	11	15	16.28	20	182	11	15	16.09	20
Event-Level Variables	181	4	6	6	7	182	4	5	5.86	7
Global Settlement										
Walk-Down Effect										
Loss Amount	195	1	1	0.78	1	199	1	1	0.84	1
CAR (-5, -1)	195	0.23	0.45	0.47	0.67	199	0.30	0.46	0.47	0.64
CAR (0, +5)	195	0.46	1.09	2.37	3.90	199	0.36	0.99	2.06	3.09
CAR (-5, +5)	195	-1.55	-0.06	0.05	1.16	199	-1.48	-0.06	-0.06	1.31
IF Dum	195	-2.06	-0.45	-0.59	1.13	199	-2.15	-0.57	-0.72	1.19
CPBP Dum	195	-2.76	-0.61	-0.55	1.31	199	-2.91	-0.42	-0.78	1.46
EF Dum	195	0	0	0.16	0	199	0	0	0.21	0
Loss_9m Dum	195	0	1	0.54	1	199	0	1	0.50	1
Loss_8m Dum	195	0	0	0.12	0	199	0	0	0.13	0
Loss_7m Dum	195	0	0	0.02	0	199	0	0	0.01	0
Loss_6m Dum	195	0	0	0.06	0	199	0	0	0.03	0
Loss_5m Dum	195	0	0	0.04	0	199	0	0	0.03	0
Loss_4m Dum	195	0	0	0.04	0	199	0	0	0.04	0
Loss_3m Dum	195	0	0	0.02	0	199	0	0	0.03	0
Loss_2m Dum	195	0	0	0.06	0	199	0	0	0.07	0
Loss_1m Dum	195	0	0	0.08	0	199	0	0	0.06	0

Table B.3: Correlation Matrix

This table reports the Pearson's correlation coefficients for our variables. Variable definitions are described in Appendix I.

Panel A: First Announcements

	Analyst Forecast Revision	*Analyst Forecast Error Change*	*Potential Employer*	*Analysts Following*	*Total Assets*	*ROA*	*Leverage*	*Book to Market Ratio*	*Equity Return Volatility*	*Optimistic Analyst*	*Broker Size*	*Firm Experience*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
(1)	1.0000											
(2)	0.6562	1.0000										
(3)	-0.0576	-0.0501	1.0000									
(4)	0.0241	0.0550	-0.1662	1.0000								
(5)	-0.0794	-0.0382	0.4489	0.2755	1.0000							
(6)	0.0875	0.0789	-0.2123	0.1541	-0.3669	1.0000						
(7)	-0.0288	-0.0343	0.2852	-0.2520	0.3120	-0.1970	1.0000					
(8)	-0.0480	-0.0355	0.2273	0.0536	0.4867	-0.5409	0.0129	1.0000				
(9)	-0.0763	-0.0679	0.1160	-0.3103	0.0310	-0.2676	0.1396	0.2915	1.0000			
(10)	-0.0889	-0.0864	0.0048	-0.0036	0.1351	-0.1433	0.0482	0.1732	0.1810	1.0000		
(11)	-0.0305	-0.0364	0.0426	-0.0365	-0.0114	0.0190	0.0455	-0.1057	0.0228	-0.0116	1.0000	
(12)	-0.0600	-0.0259	0.0486	0.0106	0.1444	-0.0411	-0.0184	0.0810	0.0534	0.0757	-0.0092	1.0000
(13)	-0.0349	-0.0056	0.0058	0.0326	0.0620	0.0084	-0.0625	0.0245	0.0038	0.0362	0.0221	0.5840
(14)	-0.0225	-0.0120	0.0239	0.0117	0.0092	-0.0167	-0.1504	0.0382	0.0229	0.0190	0.0189	0.5864
(15)	0.0150	0.0285	-0.1929	0.0822	-0.2228	0.1316	-0.1888	-0.1190	-0.1220	-0.0626	-0.0684	0.1005
(16)	0.0325	0.0314	-0.2070	0.0571	-0.2282	0.1292	-0.1274	-0.1164	-0.0789	-0.0334	-0.1241	0.0639
(17)	-0.0244	-0.0245	0.3301	-0.1546	0.3749	-0.2145	0.0129	0.4237	0.0376	0.0775	-0.0667	0.1363
(18)	-0.0429	-0.0666	0.0292	0.0633	0.0267	-0.0085	0.0484	-0.0716	0.0041	0.0379	-0.0215	0.0164
(19)	0.0156	-0.0072	-0.0566	0.0410	0.0386	-0.0599	0.0564	0.0316	-0.0008	0.0392	0.0008	0.0047
(20)	-0.0558	-0.0669	0.0689	-0.1344	-0.0438	-0.0243	-0.0733	-0.0838	-0.1157	-0.0620	0.0230	-0.0101
(21)	0.0210	0.0160	-0.1101	-0.0616	-0.1301	-0.0184	-0.1744	0.0193	0.0066	0.0149	0.0002	-0.0265
(22)	-0.0364	-0.0032	0.2485	-0.1354	0.1460	-0.1527	0.2245	0.0762	0.1009	-0.0449	0.0371	-0.0086
(23)	0.0198	-0.0007	-0.2500	0.1683	-0.1444	0.1671	-0.2061	-0.0465	-0.0527	0.0453	-0.0466	0.0323
(24)	0.0185	0.0304	0.0479	0.0421	-0.0003	0.0428	-0.0686	-0.0008	0.0253	0.0162	-0.0049	0.0320
(25)	0.0318	0.0307	-0.2181	0.0758	-0.1580	0.0312	-0.0225	-0.0745	-0.1462	-0.0520	-0.0188	-0.0586
(26)	-0.0150	-0.0334	-0.0643	0.0171	-0.0407	0.0363	0.1420	-0.1194	-0.0080	0.0294	0.0301	-0.0353
(27)	-0.0092	-0.0054	-0.0547	0.0408	0.0099	0.0017	0.0824	0.0135	0.0174	-0.1187	-0.0147	-0.0257
(28)	0.0178	0.0158	-0.0954	0.0122	-0.0604	0.0534	0.0096	-0.1118	-0.0257	0.1183	0.0160	-0.0004
(29)	-0.0838	-0.0218	0.0962	0.0475	0.0704	-0.1026	0.0865	0.0556	0.0833	0.0272	-0.0035	-0.0072
(30)	-0.0151	-0.0180	-0.0095	-0.0959	-0.1103	-0.0452	-0.1029	-0.0185	0.1542	-0.0221	0.0353	-0.0116
(31)	0.0005	-0.0058	-0.1067	-0.0120	0.0334	-0.0317	-0.0538	0.0459	-0.0010	0.0746	-0.0084	0.0598
(32)	0.0331	0.0099	0.1529	-0.0452	0.1353	0.0483	-0.0322	0.1138	-0.0382	0.0561	-0.0029	0.0481

Panel A: First Announcements (continued)

	General Experience	*Industry Experience*	*Number of Firms*	*Number of Industries*	*Global Settlement*	*Walk-Down Effect*	*Loss Amount*	*CAR (-5,+5)*	*IF Dum*	*CPBP Dum*	*EF Dum*
	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)
(13)	1.0000										
(14)	0.6479	1.0000									
(15)	0.2882	0.1841	1.0000								
(16)	0.1733	0.0434	0.7505	1.0000							
(17)	0.0874	0.0732	-0.1680	-0.2571	1.0000						
(18)	0.0254	0.0082	-0.0255	-0.0308	0.0123	1.0000					
(19)	0.0063	0.0243	-0.0118	0.0027	-0.1097	0.0486	1.0000				
(20)	-0.0122	-0.0248	0.0110	-0.0356	-0.0562	0.0143	0.0188	1.0000			
(21)	-0.0084	0.0348	0.0481	0.0623	-0.0884	0.0530	-0.1865	0.0171	1.0000		
(22)	-0.0277	-0.0392	-0.0848	-0.0788	0.0964	-0.0682	0.1905	0.0374	-0.4538	1.0000	
(23)	0.0452	0.0441	0.0791	0.1034	-0.1484	-0.0130	0.1211	-0.0353	-0.1640	-0.4095	1.0000
(24)	0.0144	0.0343	-0.0087	-0.0184	-0.0565	-0.0114	0.1951	-0.0391	-0.0570	-0.0808	0.2559
(25)	-0.0276	0.0299	0.0800	0.0868	-0.2251	-0.1053	0.3344	0.0038	-0.0679	-0.0031	0.2141
(26)	-0.0371	-0.0237	-0.0163	-0.0081	-0.1688	0.0685	0.2565	-0.1554	-0.0853	0.0320	-0.0769
(27)	-0.0115	0.0034	-0.0069	-0.0088	0.0184	0.0330	0.2412	0.0053	-0.0861	-0.0286	0.0428
(28)	-0.0189	0.0200	0.0149	0.0387	-0.0264	-0.0288	0.1641	0.0851	0.0363	-0.0255	0.0837
(29)	-0.0179	-0.0278	-0.0353	-0.0367	-0.0365	0.1111	0.2600	0.0551	-0.0513	0.1761	-0.1032
(30)	0.0289	0.0347	0.0137	0.0034	-0.0833	0.0364	0.2231	-0.0357	-0.0054	0.0956	-0.0522
(31)	0.0325	0.0265	-0.0060	-0.0157	0.0951	0.0319	0.1441	0.0985	-0.0847	0.1698	-0.0986
(32)	0.0463	0.0626	-0.0082	-0.0442	0.1354	0.0387	0.0610	-0.0718	-0.0195	0.0287	-0.0756

	Loss_9m Dum	*Loss_8m Dum*	*Loss_7m Dum*	*Loss_6m Dum*	*Loss_5m Dum*	*Loss_4m Dum*	*Loss_3m Dum*	*Loss_2m Dum*	*Loss_1m Dum*
	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)
(24)	1.0000								
(25)	-0.0329	1.0000							
(26)	-0.0267	-0.0491	1.0000						
(27)	-0.0270	-0.0496	-0.0404	1.0000					
(28)	-0.0204	-0.0375	-0.0305	-0.0308	1.0000				
(29)	-0.0359	-0.0660	-0.0537	-0.0542	-0.0410	1.0000			
(30)	-0.0379	-0.0696	-0.0567	-0.0572	-0.0433	-0.0760	1.0000		
(31)	-0.0343	-0.0630	-0.0513	-0.0518	-0.0392	-0.0688	-0.0727	1.0000	
(32)	-0.0570	-0.1048	-0.0853	-0.0861	-0.0651	-0.1144	-0.1208	-0.1093	1.0000

Panel B: Settlements

	Analyst Forecast Revision	*Analyst Forecast Error Change*	*Potential Employer*	*Analysts Following*	*Total Assets*	*ROA*	*Leverage*	*Book to Market Ratio*	*Equity Return Volatility*	*Optimistic Analyst*	*Broker Size*	*Firm Experience*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
(1)	1.0000											
(2)	0.6191	1.0000										
(3)	-0.0563	-0.0437	1.0000									
(4)	0.0107	0.0437	-0.0498	1.0000								
(5)	-0.0981	-0.0633	0.4370	0.2840	1.0000							
(6)	0.0863	0.0571	-0.1874	0.0508	-0.3219	1.0000						
(7)	-0.0548	-0.0567	0.2406	-0.2805	0.3187	-0.1847	1.0000					
(8)	-0.0509	-0.0127	0.2366	0.1424	0.4934	-0.4948	-0.0077	1.0000				
(9)	-0.0254	-0.0232	-0.0136	-0.1205	-0.0112	-0.2101	-0.0005	0.1559	1.0000			
(10)	-0.0834	-0.1057	-0.0192	-0.0031	0.1926	-0.0863	0.0345	0.1813	0.0478	1.0000		
(11)	-0.0011	-0.0064	0.0168	-0.0274	-0.0188	0.0254	0.0307	-0.0996	-0.0201	-0.0071	1.0000	
(12)	-0.0397	-0.0147	0.0434	0.0254	0.1526	-0.0301	-0.0067	0.0716	0.0618	0.0701	-0.0206	1.0000
(13)	-0.0211	-0.0032	0.0020	0.0357	0.0730	0.0073	-0.0512	0.0219	0.0159	0.0371	0.0044	0.5791
(14)	-0.0098	-0.0103	0.0097	0.0548	0.0226	-0.0221	-0.1500	0.0613	0.0066	0.0305	0.0082	0.5804
(15)	0.0255	0.0299	-0.1717	0.0728	-0.2195	0.1120	-0.1888	-0.1089	-0.0595	-0.0399	-0.0564	0.0905
(16)	0.0397	0.0329	-0.1640	0.0426	-0.2174	0.1160	-0.1487	-0.1224	-0.0042	-0.0190	-0.1117	0.0615
(17)	-0.0170	-0.0065	0.3019	-0.0347	0.3475	-0.1073	-0.0323	0.4285	-0.0165	0.0601	-0.0577	0.1065
(18)	-0.0179	-0.0437	0.0392	0.0491	0.0150	0.1236	0.1044	-0.2666	0.0096	0.0451	0.0266	0.0188
(19)	0.0094	-0.0091	-0.0287	-0.0183	0.1295	-0.0755	0.1162	0.0433	-0.0104	0.0283	-0.0098	0.0155
(20)	-0.0059	-0.0162	0.0407	0.0095	-0.0472	0.1019	-0.0380	-0.1211	-0.1757	0.0015	0.0250	-0.0123
(21)	-0.0005	-0.0177	-0.0847	-0.0251	-0.1156	-0.0259	-0.1506	0.0940	0.0398	0.0531	-0.0092	-0.0078
(22)	-0.0289	-0.0050	0.1435	-0.0957	0.1029	-0.0424	0.2026	0.0469	-0.0874	-0.0858	0.0233	-0.0358
(23)	0.0307	0.0269	-0.1426	0.1494	-0.0507	0.1111	-0.1580	-0.0691	0.1121	0.0161	-0.0384	0.0278
(24)	0.0151	0.0241	0.0336	0.0402	-0.0278	-0.0484	-0.0906	0.0688	-0.0131	-0.0105	-0.0324	0.0183
(25)	0.0161	0.0167	-0.1286	0.0386	-0.1094	0.0230	0.0456	-0.0741	-0.1078	-0.0243	-0.0159	-0.0578
(26)	-0.0026	-0.0007	0.0516	-0.0850	-0.0080	-0.0028	0.2382	-0.0847	-0.0357	-0.0722	0.0460	-0.0288
(27)	-0.0186	-0.0396	-0.1551	-0.0081	-0.0445	0.0335	0.0866	-0.0207	0.0530	-0.0500	-0.0293	-0.0240
(28)	-0.0564	-0.0673	-0.0772	-0.0490	-0.0221	0.0213	0.0184	-0.0678	0.0327	0.0849	0.0139	0.0118
(29)	-0.0513	0.0143	0.0800	-0.0106	0.0219	-0.0893	0.0733	0.0377	0.0002	-0.0164	-0.0111	0.0000
(30)	-0.0107	-0.0112	-0.0099	-0.0032	-0.0161	-0.1395	-0.0561	0.0578	0.0199	-0.0118	0.0429	-0.0320
(31)	0.0094	0.0050	-0.0940	0.0204	0.0868	-0.0098	-0.0724	0.0686	0.0556	0.0254	-0.0058	0.0547
(32)	0.0438	0.0184	0.0228	-0.0712	0.0689	0.0430	0.0272	0.0042	-0.0117	0.0834	-0.0077	0.0382

Panel B: Settlements (continued)

	General Experience	*Industry Experience*	*Number of Firms*	*Number of Industries*	*Global Settlement*	*Walk-Down Effect*	*Loss Amount*	*CAR (-5,+5)*	*IF Dum*	*CPBP Dum*	*EF Dum*
	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)
(13)	1.0000										
(14)	0.6596	1.0000									
(15)	0.3017	0.2016	1.0000								
(16)	0.1733	0.0528	0.7562	1.0000							
(17)	0.0618	0.0639	-0.1554	-0.2489	1.0000						
(18)	0.0244	-0.0078	-0.0486	-0.0774	-0.0661	1.0000					
(19)	-0.0022	-0.0046	-0.0406	-0.0538	0.0101	0.0200	1.0000				
(20)	-0.0195	-0.0409	0.0321	0.0063	-0.1451	0.0825	0.0490	1.0000			
(21)	0.0143	0.0696	0.0262	0.0387	-0.0233	-0.0507	-0.2185	-0.1303	1.0000		
(22)	-0.0355	-0.0581	-0.0617	-0.0996	0.0813	-0.0909	0.2282	0.1081	-0.5023	1.0000	
(23)	0.0474	0.0422	0.0744	0.1353	-0.2301	0.1052	0.1184	0.0482	-0.2000	-0.3885	1.0000
(24)	0.0001	0.0396	0.0112	0.0212	0.0482	0.0283	0.1765	0.0224	-0.0560	0.0014	0.1184
(25)	-0.0254	-0.0158	0.0626	0.0810	-0.2440	-0.0306	0.2370	-0.0632	-0.0325	0.0229	0.0824
(26)	-0.0420	-0.0090	-0.0533	-0.0904	-0.0823	0.1227	0.2422	0.0333	-0.0862	0.0735	0.0197
(27)	-0.0224	-0.0459	0.0101	0.0123	-0.0244	-0.0728	0.2704	-0.0599	-0.1030	-0.0176	0.1499
(28)	0.0001	0.0339	0.0065	0.0154	-0.0253	-0.0540	0.1962	-0.0835	0.0777	-0.0361	0.0399
(29)	-0.0195	0.0137	-0.0274	-0.0666	0.0535	0.0910	0.2870	0.1144	-0.0593	0.1328	-0.0317
(30)	0.0201	0.0229	0.0081	-0.0080	-0.0579	-0.0775	0.2395	0.0065	-0.0327	0.1345	-0.1018
(31)	0.0413	0.0012	-0.0170	-0.0164	0.0881	0.0973	0.2072	0.0786	-0.1063	0.0882	0.0252
(32)	0.0241	0.0354	-0.0049	-0.0169	0.0447	0.0313	0.1106	-0.1100	0.0365	0.0174	-0.0691

	Loss_9m Dum	*Loss_8m Dum*	*Loss_7m Dum*	*Loss_6m Dum*	*Loss_5m Dum*	*Loss_4m Dum*	*Loss_3m Dum*	*Loss_2m Dum*	*Loss_1m Dum*
	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)
(24)	1.0000								
(25)	-0.0174	1.0000							
(26)	-0.0187	-0.0268	1.0000						
(27)	-0.0223	-0.0321	-0.0343	1.0000					
(28)	-0.0178	-0.0255	-0.0273	-0.0327	1.0000				
(29)	-0.0289	-0.0416	-0.0445	-0.0532	-0.0424	1.0000			
(30)	-0.0285	-0.0410	-0.0438	-0.0524	-0.0417	-0.0680	1.0000		
(31)	-0.0340	-0.0488	-0.0523	-0.0625	-0.0498	-0.0811	-0.0798	1.0000	
(32)	-0.0471	-0.0677	-0.0725	-0.0867	-0.0690	-0.1124	-0.1107	-0.1320	1.0000

Table B.4: Mean Comparisons of Analyst Forecast Quality

This table reports mean comparison of *analyst forecast revision* and *analyst forecast error change* during pre-announcement period (-5, -1), post-announcement period (0, +5), and full event window (-5, +5) around operational risk event announcements (with loss amount below $10 million) for sub-samples of independent variables. For dichotomous variables, the two sub-samples are determined by the value of the variable, labelled as 1 or 0, and for continuous variables, the two sub-samples refer to observations in the top quartile (25p) vs. other three quartiles (75p); labelled as High and Low, respectively. *t-statistics* are reported in parentheses. *, ** and *** denote statistical significance at the 10%, 5%, and 1% level, respectively, and are based on the two-tailed test of mean difference. Variable definitions are described in Appendix I.

Panel A: Analyst Forecast Revision

Variables	Group	First Announcements						Settlements					
		(-5, -1)		(0, +5)		(-5, +5)		(-5, -1)		(0, +5)		(-5, +5)	
		N	Mean (t-stats)	N	Mean (t-stats)	N	Mean (t-stats)	N	Mean (t-stats)	N	Mean (t-stats)	N	Mean (t-stats)
Bank-Level Variables													
Potential Employer	1	3,733	-0.1145	3,733	-0.1976	3,733	-0.3121	3,968	-0.1236	3,968	-0.2234	3,968	-0.3470
	0	480	-0.0222	480	0.0037	480	-0.0185	368	-0.0018	368	-0.0053	368	-0.0071
			(2.0339)**		(3.1072)***		(3.7435)***		(2.3602)**		(2.8908)***		(3.7118)***
Analysts Following	1	1,268	-0.0869	1,268	-0.1428	1,268	-0.2297	1,162	-0.0858	1,162	-0.1753	1,162	-0.2611
	0	2,945	-0.1113	2,945	-0.1884	2,945	-0.2997	3,174	-0.1233	3,174	-0.2157	3,174	-0.3390
			(-0.7765)		(-1.0154)		(-1.2872)		(-1.1528)		(-0.8505)		(-1.3496)
Analyst-Level Variables													
Optimistic Analyst	1	2,424	-0.1659	2,424	-0.2364	2,424	-0.4024	2,457	-0.1759	2,457	-0.2650	2,457	-0.4409
	0	1,789	-0.0200	1,789	-0.0911	1,789	-0.1111	1,879	-0.0313	1,879	-0.1263	1,879	-0.1577
			(5.0142)***		(3.4918)***		(5.7911)***		(4.9909)***		(3.2689)***		(5.5098)***
Broker Size	1	1,043	-0.1531	1,043	-0.2096	1,043	-0.3627	1,057	-0.1401	1,057	-0.2105	1,057	-0.3506
	0	3,170	-0.0878	3,170	-0.1632	3,170	-0.2510	3,279	-0.1046	3,279	-0.2031	3,279	-0.3077
			(1.9543)*		(0.9709)		(1.9314)*		(1.0594)		(0.1526)		(0.7222)
Firm Experience	1	1,060	-0.1011	1,060	-0.2572	1,060	-0.3583	1,103	-0.1111	1,103	-0.2645	1,103	-0.3756
	0	3,153	-0.1049	3,153	-0.1470	3,153	-0.2519	3,233	-0.1140	3,233	-0.1845	3,233	-0.2985
			(-0.1129)		(2.3213)**		(1.8506)*		(-0.0877)		(1.6568)*		(1.3144)
General Experience	1	1,094	-0.0630	1,094	-0.2598	1,094	-0.3228	1,121	-0.0847	1,121	-0.2681	1,121	-0.3528
	0	3,119	-0.1183	3,119	-0.1448	3,119	-0.2632	3,215	-0.1232	3,215	-0.1828	3,215	-0.3060
			(-1.6812)*		(2.4481)**		(1.0482)		(-1.1705)		(1.7743)*		(0.8011)
Industry Experience	1	1,052	-0.1164	1,052	-0.2293	1,052	-0.3457	1,060	-0.1204	1,060	-0.2185	1,060	-0.3389
	0	3,161	-0.0998	3,161	-0.1565	3,161	-0.2564	3,276	-0.1109	3,276	-0.2005	3,276	-0.3114
			(0.4967)		(1.5288)		(-.256357)		(0.2818)		(0.3677)		(0.4614)

Number of Firms	1	997	-0.0696	997	-0.2005	997	-0.2701	1,013	-0.0737	1,013	-0.1769	1,013	-0.2506
	0	3,216	-0.1146	3,216	-0.1667	3,216	-0.2813	3,323	-0.1253	3,323	-0.2134	3,323	-0.3387
			(-1.3263)		(0.6966)		(-0.1914)		(-1.5177)		(-0.7343)		(-1.4594)
Number of Industries	1	984	-0.0624	984	-0.1350	984	-0.1974	974	-0.0599	974	-0.1264	974	-0.1864
	0	3,229	-0.1166	3,229	-0.1868	3,229	-0.3034	3,362	-0.1287	3,362	-0.2276	3,362	-0.3563
			(-1.5901)		(-1.0627)		(-1.7967)*		(-1.9952)**		(-2.0072)**		(-2.7773)***
Event-Level Variables													
Global Settlement	1	3,207	-0.1102	3,207	-0.1906	3,207	-0.3008	3,640	-0.1149	3,640	-0.2157	3,640	-0.3306
	0	1,006	-0.0840	1,006	-0.1240	1,006	-0.2080	696	-0.1046	696	-0.1481	696	-0.2528
			(0.7752)		(1.3787)		(1.5865)		(0.2618)		(1.1792)		(1.1182)
Walk-Down Effect	1	1,150	-0.0940	1,150	-0.1898	1,150	-0.2838	1,128	-0.0989	1,128	-0.2268	1,128	-0.3256
	0	3,063	-0.1077	3,063	-0.1690	3,063	-0.2767	3,208	-0.1183	3,208	-0.1972	3,208	-0.3155
			(-0.4241)		(0.4489)		(0.1254)		(-0.5920)		(0.6167)		(0.1743)
Loss Amount	1	1,333	-0.0813	1,333	-0.2136	1,333	-0.3665	1,112	-0.1826	1,112	-0.2930	1,112	-0.4756
	0	2,880	-0.1529	2,880	-0.1567	2,880	-0.2380	3,224	-0.0894	3,224	-0.1745	3,224	-0.2638
			(2.3077)**		(1.2857)		(2.3959)**		(2.8301)***		(2.4628)**		(3.6239)***
CAR	1	941	-0.1138	992	-0.1836	934	-0.3526	957	-0.1454	1,131	-0.1675	1,019	-0.2861
	0	3,272	-0.1011	3,221	-0.1720	3,279	-0.2576	3,379	-0.1041	3,205	-0.2180	3,317	-0.3280
			(0.3649)		(0.2406)		(1.5821)		(1.1897)		(-1.0541)		(-0.6956)
IF Dum	1	648	-0.0451	648	-0.1538	648	-0.1989	891	-0.0989	891	-0.2208	891	-0.3197
			(-0.5358)		(-0.3634)		(-0.5741)		(0.5090)		(0.3339)		(0.5460)
CPBP Dum	1	2,238	-0.1339	2,238	-0.2001	2,238	-0.3340	2,141	-0.1361	2,141	-0.2312	2,141	-0.3674
			(1.6641)*		(0.3566)		(1.2555)		(1.3659)		(0.5110)		(1.1924)
EF Dum	1	543	-0.1067	543	-0.0887	543	-0.1954	581	-0.0959	581	-0.0911	581	-0.1869
			(0.8793)		(-1.3449)		(-0.6032)		(0.4210)		(-1.6813)*		(-1.1629)
Others Dum	1	784	-0.0652	784	-0.1790	784	-0.2442	723	-0.0773	723	-0.1986	723	-0.2758
Loss_9m Dum	1	74	-0.0333	74	-0.1654	74	-0.0542	52	0.0000	52	-0.0875	52	-0.0875
			(-0.4360)		(-1.0232)		(-1.1087)		(-0.7850)		(-0.6105)		(-0.9164)
Loss_8m Dum	1	240	-0.0418	240	-0.0273	240	-0.0691	106	-0.1028	106	-0.0445	106	-0.1473
			(-0.6051)		(-1.7645)*		(-1.8327)*		(0.1003)		(-1.1913)		(-0.9337)
Loss_7m Dum	1	162	-0.1839	162	-0.2163	162	-0.4003	121	-0.0923	121	-0.2521	121	-0.3444
			(1.5679)		(0.2645)		(1.0503)		(-0.0230)		(0.3595)		(0.2886)
Loss_6m Dum	1	165	-0.1401	165	-0.2125	165	-0.3526	171	-0.2548	171	-0.2178	171	-0.4725
			(0.9649)		(0.2312)		(0.6985)		(2.2071)**		(0.1109)		(1.2851)
Loss_5m Dum	1	96	-0.0826	96	-0.0075	96	-0.0901	110	-0.1873	110	-0.7187	110	-0.9060
			(0.0914)		(-1.2607)		(-1.0360)		(1.0761)		(3.6560)***		(3.6270)***
Loss_4m Dum	1	283	-0.2762	283	-0.5084	283	-0.7847	280	-0.2351	280	-0.4117	280	-0.6468
			(3.3678)***		(3.3118)***		(4.6283)		(2.3368)**		(2.1867)**		(3.0742)***

Loss_3m Dum	1	313	-0.1670	313	-0.1980	313	-0.3649	272	-0.1873	272	-0.2005	272	-0.3878
			(1.7443)*		(0.1376)		(1.0421)		(1.6122)		(-0.0555)		(0.8167)
Loss_2m Dum	1	260	-0.1761	260	-0.0995	260	-0.2756	377	-0.1246	377	-0.1423	377	-0.2669
			(1.7776)*		(-0.9769)		(0.1396)		(0.6190)		(-0.8478)		(-0.3607)
Loss_1m Dum	1	648	-0.0633	648	-0.0897	648	-0.1529	671	-0.0540	671	-0.0921	671	-0.1461
			(-0.3197)		(-1.6583)*		(-1.5865)		(-1.1095)		(-1.9638)**		(-2.2179)**
Loss_Below 1m Dum	1	1,972	0.0748	1,972	-0.1862	1,972	-0.2610	2,176	-0.0942	2,176	-0.2054	2,176	-0.2996

Panel B: Analyst Forecast Error Change

Variables	Group	First Announcements						Settlements					
		(-5, -1)		(0, +5)		(-5, +5)		(-5, -1)		(0, +5)		(-5, +5)	
		N	Mean (t-stats)	N	Mean (t-stats)	N	Mean (t-stats)	N	Mean (t-stats)	N	Mean (t-stats)	N	Mean (t-stats)
Bank-Level Variables													
Potential Employer	1	3,733	-0.1168	3,733	-0.1334	3,733	-0.2502	3,968	-0.1124	3,968	-0.1333	3,968	-0.2457
	0	480	-0.0257	480	-0.0114	480	-0.0371	368	-0.0233	368	-0.0073	368	-0.0306
			(2.1642)**		(2.3885)**		(3.2554)***		(1.9470)*		(2.1461)**		(2.8778)***
Analysts Following	1	1,268	-0.0763	1,268	-0.0495	1,268	-0.1258	1,162	-0.0744	1,162	-0.0635	1,162	-0.1379
	0	2,945	-0.1194	2,945	-0.1496	2,945	-0.2690	3,174	-0.1160	3,174	-0.1443	3,174	-0.2602
			(-1.4772)		(-2.8304)***		(-3.1579)***		(-1.4454)		(-2.1844)**		(-2.6006)***
Analyst-Level Variables													
Optimistic Analyst	1	2,424	-0.1421	2,424	-0.1842	2,424	-0.3262	2,457	-0.1486	2,457	-0.2057	2,457	-0.3543
	0	1,789	-0.0582	1,789	-0.0319	1,789	-0.0900	1,879	-0.0476	1,879	-0.0140	1,879	-0.0616
			(3.1011)***		(4.6470)***		(5.6261)***		(3.9269)***		(5.8264)***		(6.9950)***
Broker Size	1	1,043	-0.1271	1,043	-0.1941	1,043	-0.3212	1,057	-0.1040	1,057	-0.1616	1,057	-0.2656
	0	3,170	-0.0996	3,170	-0.0949	3,170	-0.1946	3,279	-0.1051	3,279	-0.1101	3,279	-0.2152
			(0.8837)		(2.6379)***		(2.6253)***		(-0.0356)		(1.3511)		(1.0392)
Firm Experience	1	1,060	-0.1030	1,060	-0.1597	1,060	-0.2627	1,103	-0.1060	1,103	-0.1494	1,103	-0.2554
	0	3,153	-0.1076	3,153	-0.1060	3,153	-0.2135	3,233	-0.1044	3,233	-0.1135	3,233	-0.2179
			(-0.1468)		(1.4357)		(1.0251)		(0.0548)		(0.9549)		(0.7834)
General Experience	1	1,094	-0.0679	1,094	-0.1588	1,094	-0.2266	1,121	-0.0667	1,121	-0.1571	1,121	-0.2238
	0	3,119	-0.1200	3,119	-0.1057	3,119	-0.2257	3,215	-0.1181	3,215	-0.1106	3,215	-0.2287
			(-1.7076)*		(1.4325)		(0.0199)		(-1.7653)*		(1.2426)		(-0.1040)
Industry Experience	1	1,052	-0.1153	1,052	-0.1412	1,052	-0.2565	1,060	-0.1027	1,060	-0.1402	1,060	-0.2429
	0	3,161	-0.1035	3,161	-0.1123	3,161	-0.2157	3,276	-0.1055	3,276	-0.1169	3,276	-0.2225
			(0.3836)		(0.7700)		(0.8470)		(-0.0966)		(0.6104)		(0.4202)
Number of Firms	1	997	-0.1167	997	-0.1298	997	-0.2031	1,013	-0.0696	1,013	-0.0979	1,013	-0.1675
	0	3,216	-0.0733	3,216	-0.1163	3,216	-0.2330	3,323	-0.1156	3,323	-0.1302	3,323	-0.2457
			(-1.3781)		(0.3540)		(-0.6094)		(-1.5243)		(-0.8332)		(-1.5870)
Number of Industries	1	984	-0.0735	984	-0.0836	984	-0.1571	974	-0.0723	974	-0.0553	974	-0.1276
	0	3,229	-0.1165	3,229	-0.1304	3,229	-0.2469	3,362	-0.1143	3,362	-0.1421	3,362	-0.2564
			(-1.3589)		(-1.2196)		(-1.8247)*		(-1.3736)		(-2.2131)**		(-2.5791)***

Event-Level Variables													
Global Settlement	1	3,207	-0.1143	3,207	-0.1302	3,207	-0.2445	3,640	-0.1053	3,640	-0.1261	3,640	-0.2314
	0	1,006	-0.0815	1,006	-0.0853	1,006	-0.1668	696	-0.1026	696	-0.1043	696	-0.2069
			(1.0447)		(1.1787)		(1.5908)		(0.0774)		(0.4882)		(0.4307)
Walk-Down Effect	1	1,150	-0.0905	1,150	-0.1762	1,150	-0.3251	1,128	-0.1118	1,128	-0.1060	1,128	-0.2178
	0	3,063	-0.1489	3,063	-0.0982	3,063	-0.1887	3,208	-0.1024	3,208	-0.1285	3,208	-0.2309
			(1.9459)*		(2.1404)**		(2.9211)***		(0.3218)		(-0.6013)		(-0.2753)
Loss Amount	1	1,333	-0.1103	1,333	-0.1334	1,333	-0.2437	1,112	-0.1218	1,112	-0.1720	1,112	-0.2938
	0	2,880	-0.1046	2,880	-0.1130	2,880	-0.2177	3,224	-0.0990	3,224	-0.1056	3,224	-0.2046
			(0.1967)		(0.5845)		(0.5822)		(0.7812)		(1.7720)*		(1.8697)*
CAR	1	941	-0.1376	992	-0.1556	934	-0.2960	957	-0.1287	1,131	-0.1380	1,019	-0.2588
	0	3,272	-0.0975	3,221	-0.1084	3,279	-0.2060	3,379	-0.0981	3,205	-0.1172	3,317	-0.2178
			(1.2499)		(1.2348)		(1.7954)*		(0.9960)		(0.5581)		(0.8338)
IF Dum	1	648	-0.0504	648	-0.1249	648	-0.1752	891	-0.1000	891	-0.1753	891	-0.2753
			(-0.7528)		(-0.8754)		(-1.1393)		(0.4143)		(0.6383)		(0.7471)
CPBP Dum	1	2,238	-0.1284	2,238	-0.1015	2,238	-0.2300	2,141	-0.1249	2,141	-0.1095	2,141	-0.2344
			(1.3828)		(-1.7062)*		(0.6685)		(1.0899)		(-0.6320)		(0.1839)
EF Dum	1	543	-0.1254	543	-0.1028	543	-0.2283	581	-0.0645	581	-0.0690	581	-0.1335
			(1.0396)		(-1.2293)		(-0.3499)		(-0.4798)		(-1.2773)		(-1.3502)
Others Dum	1	784	-0.0768	784	-0.1778	784	-0.2546	723	-0.0837	723	-0.1396	723	-0.2233
Loss_9m Dum	1	74	0.0240	74	0.0574	74	0.0813	52	0.0000	52	0.0732	52	0.0732
			(-1.3033)		(-1.3753)		(-1.9010)*		(-0.8950)		(-1.2924)		(-1.5357)
Loss_8m Dum	1	240	-0.0059	240	-0.0511	240	-0.0570	106	-0.0127	106	-0.0697	106	-0.0823
			(-1.7895)*		(-0.9240)		(-1.8262)*		(-1.1186)		(-0.4219)		(-1.0000)
Loss_7m Dum	1	162	-0.2107	162	-0.2408	162	-0.4515	121	-0.1386	121	-0.0943	121	-0.2329
			(1.5523)		(1.3590)		(2.0460)**		(0.4710)		(-0.1934)		(0.1373)
Loss_6m Dum	1	165	-0.1118	165	-0.1504	165	-0.2622	171	-0.2193	171	-0.2763	171	-0.4956
			(0.1427)		(0.3632)		(0.3809)		(1.7144)*		(1.8974)**		(2.5219)**
Loss_5m Dum	1	96	-0.0782	96	-0.0075	96	-0.0856	110	-0.0629	110	-0.6535	110	-0.8003
			(-0.2755)		(-0.9882)		(-0.9578)		(-0.7627)		(5.0222)***		(4.2487)***
Loss_4m Dum	1	283	-0.1307	283	-0.2052	283	-0.3359	280	-0.0629	280	-0.0900	280	-0.1530
			(0.5225)		(1.1787)		(1.2700)		(-0.7627)		(-0.3354)		(-0.7151)
Loss_3m Dum	1	313	-0.1607	313	-0.1509	313	-0.3117	272	-0.1693	272	-0.1174	272	-0.2868
			(1.1034)		(0.4894)		(1.0777)		(1.2188)		(0.0644)		(0.8046)
Loss_2m Dum	1	260	-0.1548	260	-0.1019	260	-0.2567	377	-0.1076	377	-0.0977	377	-0.2053
			(0.9252)		(-0.2264)		(0.4050)		(0.1089)		(-0.2696)		(-0.1377)
Loss_1m Dum	1	648	-0.0921	648	-0.1025	648	-0.1946	671	-0.0827	671	-0.0857	671	-0.1684
			(-0.2684)		(-0.3342)		(-0.4324)		(-0.5550)		(-0.6370)		(-0.8293)
Loss_Below 1m Dum	1	1,972	-0.1021	1,972	-0.1180	1,972	-0.2201	2,176	-0.1025	2,176	-0.1131	2,176	-0.2156

Table B.5: Determinants of Analyst Forecast Revisions around Operational Risk Event Announcements

This table reports the estimation results for *analyst forecast revision* during pre-announcement period (-5, -1), post-announcement period (0, +5), and full event window (-5, +5) around operational risk event first announcements and settlement announcements (with loss amount below $10 million). Robust standard errors are used to correct for operational risk event clustering. *t-statistics* are reported in parentheses. *, ** and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively (two-tailed). Variable definitions are described in Appendix I.

	First Announcements			Settlements		
	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)
Bank-Level Variables						
Potential Employer	-0.0314	-0.0727	-0.0898	-0.0893	-0.0699	-0.1638
	(-0.65)	(-0.83)	(-0.75)	(-1.49)	(-0.82)	(-1.32)
Analysts Following	0.0066	0.0066	0.0094	0.0064	0.0040	0.0099
	(1.20)	(0.96)	(0.95)	(1.29)	(0.69)	(1.04)
Total Assets	-0.0411	-0.0792	-0.1174	-0.0456	-0.1107**	-0.1617**
	(-1.28)	(-1.51)	(-1.61)	(-1.39)	(-2.10)	(-2.08)
ROA	0.1743	0.3037	0.4729	0.3597*	0.2457	0.5811
	(0.95)	(0.99)	(1.12)	(1.88)	(0.99)	(1.37)
Leverage	0.0017	0.0026	0.0036	0.0020	0.0008	0.0034
	(0.91)	(0.96)	(0.92)	(1.10)	(0.32)	(0.81)
Book to Market Ratio	0.0002	0.0006	0.0008	0.0007	0.0004	0.0012
	(0.38)	(0.52)	(0.68)	(1.34)	(0.40)	(1.00)
Equity Return Volatility	0.0403	-0.1637*	-0.1581	0.0424	-0.1130	-0.0554
	(0.86)	(-1.84)	(-1.38)	(1.13)	(-1.62)	(-0.58)
Analyst-Level Variables						
Optimistic Analyst	-0.1374***	-0.1097	-0.2538***	-0.1423***	-0.1018*	-0.2453***
	(-3.56)	(-1.60)	(-2.61)	(-3.64)	(-1.68)	(-2.86)
Broker Size	-0.0005*	-0.0002	-0.0007	-0.0002	0.0004	0.0002
	(-1.95)	(-0.48)	(-1.50)	(-0.79)	(1.04)	(0.35)
Firm Experience	-0.0059	-0.0150**	-0.0204**	-0.0079*	-0.0066	-0.0147*
	(-1.21)	(-2.10)	(-2.29)	(-1.81)	(-0.94)	(-1.70)
General Experience	0.0033	-0.0073*	-0.0035	0.0014	-0.0058	-0.0040
	(1.11)	(-1.88)	(-0.68)	(0.46)	(-1.49)	(-0.82)
Industry Experience	-0.0006	0.0117	0.0099	0.0042	0.0070	0.0111
	(-0.10)	(1.56)	(0.96)	(0.91)	(0.96)	(1.19)
Number of Firms	-0.0006	-0.0053	-0.0053	0.0001	-0.0044	-0.0050
	(-0.29)	(-1.39)	(-1.22)	(0.03)	(-1.06)	(-0.98)
Number of Industries	0.0046	0.0105	0.0120	0.0045	0.0128	0.0198
	(0.67)	(1.02)	(0.89)	(0.59)	(1.09)	(1.22)
Event-Level Variables						
Global Settlement	0.0493	0.0104	0.0070	0.0436	-0.0072	0.0669
	(0.66)	(0.10)	(0.05)	(0.51)	(-0.07)	(0.39)
Walk-Down Effect	-0.0382	-0.1384	-0.1535	-0.0153	-0.0406	-0.0770
	(-0.67)	(-1.23)	(-1.02)	(-0.23)	(-0.38)	(-0.50)
Loss Amount	0.0119	0.2087**	0.2359**	0.0428	0.2372**	0.2678**
	(0.56)	(2.02)	(2.00)	(1.34)	(2.34)	(2.35)
CAR	0.0041	-0.0155	-0.0291	-0.0023	-0.0284*	-0.0080
	(0.45)	(-0.82)	(-1.46)	(-0.23)	(-1.77)	(-0.52)
IF Dum	0.0154	-0.0308	-0.0331	-0.0525	-0.0370	-0.0918
	(0.25)	(-0.36)	(-0.27)	(-0.88)	(-0.44)	(-0.83)
CPBP Dum	-0.0476	-0.0520	-0.1020	-0.0713	-0.0770	-0.1461
	(-1.05)	(-0.49)	(-0.77)	(-1.44)	(-0.76)	(-1.17)
EF Dum	-0.0986	-0.0916	-0.2143	-0.0539	0.0511	-0.0044
	(-1.27)	(-0.76)	(-1.29)	(-0.76)	(0.50)	(-0.03)
Loss_9m Dum	0.0844	-0.4824	-0.4943	-0.0449	-0.7481*	-0.7607
	(0.73)	(-1.44)	(-1.20)	(-0.30)	(-1.84)	(-1.54)
Loss_8m Dum	-0.0226	-0.7037**	-0.7701**	-0.1999	-0.8561**	-0.9711**
	(-0.22)	(-2.18)	(-2.01)	(-1.19)	(-2.32)	(-2.29)
Loss_7m Dum	-0.1345	-0.7631**	-1.0496***	-0.1373	-0.8156**	-0.9240**
	(-1.09)	(-2.28)	(-2.69)	(-1.03)	(-2.25)	(-2.29)
Loss_6m Dum	-0.1481	-0.7177**	-0.9165*	-0.3580*	-0.8580**	-1.1585**
	(-0.96)	(-2.02)	(-1.89)	(-1.88)	(-2.21)	(-2.35)
Loss_5m Dum	-0.0026	-0.4584	-0.4214	-0.1756	-1.2784**	-1.3628**
	(-0.02)	(-1.56)	(-1.19)	(-1.45)	(-2.57)	(-2.39)
Loss_4m Dum	-0.2047	-0.8312**	-1.0372**	-0.2215	-0.7916***	-0.9831**
	(-1.38)	(-2.35)	(-2.38)	(-1.38)	(-2.60)	(-2.50)
Loss_3m Dum	-0.1029	-0.4844*	-0.6606*	-0.1613	-0.5933**	-0.6891*
	(-0.94)	(-1.90)	(-1.91)	(-1.10)	(-2.12)	(-1.77)
Loss_2m Dum	-0.0842	-0.2924*	-0.3730	-0.0916	-0.3655**	-0.4276**
	(-0.68)	(-1.74)	(-1.57)	(-0.94)	(-2.21)	(-2.11)

Loss_1m Dum	0.0326	-0.1750	-0.1868	0.0065	-0.2285*	-0.1820
	(0.53)	(-1.48)	(-1.27)	(0.11)	(-1.73)	(-1.18)
Constant	0.0163	0.6840*	0.8688**	0.0134	0.8756**	0.8621**
	(0.11)	(1.89)	(2.01)	(0.08)	(2.37)	(1.98)
N	4,213	4,213	4,213	4,336	4,336	4,336
Average VIF	2.00	1.99	2.00	1.95	1.97	1.96
R^2	0.0174	0.0339	0.0457	0.0189	0.0339	0.0413

Table B.6: Determinants of Analyst Forecast Error Change around Operational Risk Event Announcements

This table reports the estimation results for *analyst forecast error change* during pre-announcement period (-5, -1), post-announcement period (0, +5), and full event window (-5, +5) around operational risk event first announcements and settlement announcements (with loss amount below $10 million). Robust standard errors are used to correct for operational risk event clustering. *t-statistics* are reported in parentheses. *, ** and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively (two-tailed). Variable definitions are described in Appendix I.

	First Announcements			Settlements		
	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)
Bank-Level Variables						
Potential Employer	-0.0536	-0.0742	-0.1097	-0.0541	-0.1025*	-0.1592
	(-1.17)	(-1.34)	(-1.22)	(-0.86)	(-1.72)	(-1.53)
Analysts Following	0.0049	0.0064	0.0080	0.0049	0.0073	0.0118
	(0.93)	(1.15)	(0.96)	(1.08)	(1.57)	(1.43)
Total Assets	-0.0067	-0.0179	-0.0216	-0.0304	-0.0400	-0.0751
	(-0.21)	(-0.50)	(-0.38)	(-0.98)	(-1.21)	(-1.24)
ROA	0.1791	0.2612	0.4301	0.3138*	0.1346	0.4298
	(1.03)	(1.04)	(1.21)	(1.80)	(0.76)	(1.27)
Leverage	0.0006	0.0007	0.0006	0.0008	-0.0004	0.0008
	(0.35)	(0.35)	(0.20)	(0.50)	(-0.24)	(0.25)
Book to Market Ratio	-0.0002	0.0004	0.0003	0.0008*	0.0002	0.0012
	(-0.32)	(0.49)	(0.29)	(1.94)	(0.36)	(1.40)
Equity Return Volatility	0.0137	-0.1041*	-0.1211	0.0093	-0.0607	-0.0407
	(0.27)	(-1.69)	(-1.38)	(0.27)	(-1.22)	(-0.57)
Analyst-Level Variables						
Optimistic Analyst	-0.0689*	-0.1343***	-0.2083***	-0.1004***	-0.1636***	-0.2645***
	(-1.91)	(-2.95)	(-2.87)	(-3.01)	(-4.00)	(-4.27)
Broker Size	-0.0002	-0.0006*	-0.0008*	0.0001	-0.0000	0.0000
	(-0.91)	(-1.68)	(-1.81)	(0.36)	(-0.15)	(0.10)
Firm Experience	-0.0035	-0.0025	-0.0056	-0.0043	0.0042	-0.0002
	(-0.82)	(-0.47)	(-0.84)	(-1.10)	(0.76)	(-0.03)
General Experience	0.0011	0.0015	0.0029	0.0017	0.0003	0.0023
	(0.40)	(0.53)	(0.79)	(0.69)	(0.11)	(0.64)
Industry Experience	0.0023	-0.0034	-0.0021	0.0026	-0.0070	-0.0045
	(0.47)	(-0.73)	(-0.31)	(0.63)	(-1.48)	(-0.69)
Number of Firms	0.0016	-0.0024	-0.0002	-0.0003	-0.0002	-0.0010
	(0.59)	(-0.95)	(-0.04)	(-0.09)	(-0.06)	(-0.24)
Number of Industries	0.0009	0.0029	0.0007	0.0009	0.0040	0.0068
	(0.09)	(0.42)	(0.06)	(0.09)	(0.52)	(0.47)
Event-Level Variables						
Global Settlement	0.0368	-0.0059	-0.0137	0.0154	0.0004	0.0382
	(0.50)	(-0.08)	(-0.11)	(0.19)	(0.00)	(0.27)
Walk-Down Effect	-0.1491**	-0.1510*	-0.2820**	-0.1068*	-0.1398*	-0.2634**
	(-2.58)	(-1.96)	(-2.49)	(-1.75)	(-1.76)	(-2.17)
Loss Amount	-0.0178	0.0263	0.0213	0.0123	0.0544	0.0574
	(-0.98)	(0.61)	(0.42)	(0.40)	(1.09)	(0.88)
CAR	-0.0018	-0.0126	-0.0271*	-0.0043	-0.0262**	-0.0102
	(-0.21)	(-0.78)	(-1.77)	(-0.49)	(-2.25)	(-0.85)
IF Dum	0.0356	0.0529	0.0746	-0.0599	-0.0431	-0.1058
	(0.60)	(0.79)	(0.74)	(-1.06)	(-0.68)	(-1.13)
CPBP Dum	-0.0403	0.0897	0.0466	-0.0725	0.0098	-0.0603
	(-0.96)	(1.33)	(0.49)	(-1.63)	(0.15)	(-0.65)
EF Dum	-0.1110	-0.0102	-0.1391	-0.0154	0.0753	0.0590
	(-1.59)	(-0.13)	(-1.19)	(-0.26)	(1.05)	(0.53)
Loss_9m Dum	0.2616***	0.1376	0.3194	0.0552	-0.0400	0.0396
	(2.68)	(0.88)	(1.49)	(0.44)	(-0.20)	(0.14)
Loss_8m Dum	0.1508*	-0.1232	-0.0125	0.0157	-0.2942	-0.2139
	(1.94)	(-0.77)	(-0.06)	(0.13)	(-1.41)	(-0.79)
Loss_7m Dum	-0.0408	-0.2106	-0.3730**	-0.0411	-0.1112	-0.1310
	(-0.36)	(-1.35)	(-2.03)	(-0.33)	(-0.61)	(-0.51)
Loss_6m Dum	0.0351	-0.1403	-0.1428	-0.2047	-0.4536**	-0.6140**
	(0.25)	(-0.89)	(-0.55)	(-1.21)	(-2.46)	(-2.00)
Loss_5m Dum	0.0931	0.0562	0.1765	-0.0431	-0.7238*	-0.6953
	(1.00)	(0.44)	(0.97)	(-0.37)	(-1.85)	(-1.47)
Loss_4m Dum	0.0732	-0.1501	-0.0850	0.0553	-0.0797	0.0002
	(0.94)	(-0.73)	(-0.34)	(0.57)	(-0.51)	(0.00)
Loss_3m Dum	0.0127	-0.0662	-0.1133	-0.0653	-0.1702	-0.1831
	(0.11)	(-0.45)	(-0.46)	(-0.45)	(-0.96)	(-0.60)
Loss_2m Dum	0.0160	-0.0314	-0.0129	-0.0014	-0.0842	-0.0616
	(0.14)	(-0.33)	(-0.08)	(-0.01)	(-0.92)	(-0.45)

Loss_1m Dum	0.0595	-0.0067	0.0142	0.0305	-0.0376	0.0239
	(0.88)	(-0.10)	(0.14)	(0.49)	(-0.49)	(0.22)
Constant	-0.1325	0.0883	0.0999	-0.0328	0.2965	0.2462
	(-0.84)	(0.50)	(0.41)	(-0.20)	(1.53)	(0.87)
N	4,213	4,213	4,213	4,336	4,336	4,336
Average VIF	2.00	1.99	2.00	1.95	1.97	1.96
R^2	0.0127	0.0196	0.0313	0.0139	0.0284	0.0327

Table B.7: Robustness Checks - Bad News vs. Good News

This table reports the estimation results for *analyst forecast revision* and *analyst forecast error change* during pre-announcement period (-5, -1), post-announcement period (0, +5), and full event window (-5, +5) around operational risk event first announcements and settlement announcements (with loss amount below $10 million). Bad News include only negative CARs and Good News include only positive CARs. Robust standard errors are used to correct for operational risk event clustering. *t-statistics* are reported in parentheses. *, ** and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively (two-tailed). Variable definitions are described in Appendix I.

Panel A: Determinants of Analyst Forecast Quality around Bad News

	First Announcements						Settlements					
	Analyst Forecast Revision			Analyst Forecast Error Change			Analyst Forecast Revision			Analyst Forecast Error Change		
	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)
Bank-Level Variables												
Potential Employer	0.0716	-0.1768	-0.0084	0.1130	-0.1485*	-0.0473	-0.1042	-0.1521	-0.0903	-0.0158	-0.1197	-0.1591
	(0.77)	(-1.61)	(-0.05)	(1.46)	(-1.96)	(-0.49)	(-1.49)	(-1.13)	(-0.46)	(-0.19)	(-1.14)	(-1.05)
Analysts Following	0.0090	0.0057	0.0085	0.0056	0.0002	0.0015	0.0093	0.0052	0.0075	0.0057	0.0015	0.0038
	(1.18)	(0.90)	(0.83)	(0.81)	(0.03)	(0.21)	(1.28)	(0.85)	(0.69)	(0.87)	(0.28)	(0.42)
Analyst-Level Variables												
Optimistic Analyst	-0.1209**	-0.0748	-0.0984	-0.1042**	-0.1101**	-0.1829**	-0.1388***	-0.0515	-0.1387	-0.1416***	-0.1598***	-0.3233***
	(-2.44)	(-1.29)	(-0.83)	(-2.24)	(-2.19)	(-2.48)	(-2.97)	(-0.98)	(-1.18)	(-3.26)	(-3.62)	(-4.17)
Event-Level Variables												
Global Settlement	0.2139*	-0.1127	-0.1445	0.1814	-0.1097	-0.0251	0.1784	-0.2318*	-0.3505*	0.1052	-0.0700	-0.0754
	(1.70)	(-1.36)	(-1.07)	(1.53)	(-1.43)	(-0.25)	(1.52)	(-1.98)	(-1.91)	(0.91)	(-0.78)	(-0.60)
Loss Amount	0.0211	0.1017*	0.3000*	-0.0040	0.0566	0.0036	0.0354	0.1721***	0.3611**	0.0019	0.1015**	0.0397
	(0.84)	(1.77)	(1.83)	(-0.17)	(1.23)	(0.06)	(1.15)	(3.18)	(2.41)	(0.07)	(2.44)	(0.48)
N	2,210	2,455	2,408	2,210	2,455	2,408	2,411	2,499	2,411	2,411	2,499	2,411
Average VIF	2.18	2.21	2.22	2.18	2.21	2.22	2.03	2.16	2.10	2.03	2.16	2.10
R^2	0.0277	0.0478	0.0535	0.0310	0.0363	0.0376	0.0313	0.0535	0.0673	0.0274	0.0551	0.0524

Panel B: Determinants of Analyst Forecast Quality around Good News

	First Announcements						Settlements					
	Analyst Forecast Revision			Analyst Forecast Error Change			Analyst Forecast Revision			Analyst Forecast Error Change		
	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)
Bank-Level Variables												
Potential Employer	-0.0727	-0.3057	0.1811	-0.1315*	0.0386	0.0914	-0.0548	0.2010	0.2088	-0.0568	0.0157	0.0698
	(-0.77)	(-1.49)	(1.00)	(-1.75)	(0.36)	(0.54)	(-0.48)	(1.11)	(0.95)	(-0.55)	(0.19)	(0.37)
Analysts Following	0.0026	-0.0041	-0.0110	-0.0002	0.0130	0.0072	0.0043	0.0062	0.0074	0.0024	0.0073	0.0163
	(0.46)	(-0.29)	(-0.56)	(-0.03)	(1.65)	(0.52)	(0.77)	(0.64)	(0.53)	(0.40)	(1.09)	(1.48)
Analyst-Level Variables												
Optimistic Analyst	-0.1422**	-0.0837	-0.2419*	-0.0372	-0.1241**	-0.1418	-0.1569**	-0.1383	-0.1718	-0.0561	-0.0989*	-0.1319
	(-2.16)	(-0.77)	(-1.84)	(-0.73)	(-2.00)	(-1.42)	(-2.62)	(-1.64)	(-1.45)	(-1.10)	(-1.90)	(-1.59)
Event-Level Variables												
Global Settlement	-0.1345	-0.0359	-0.1864	-0.1034*	-0.0281	-0.1290	-0.1285	-0.0795	-0.0786	-0.1726	-0.0799	-0.1606
	(-1.66)	(-0.20)	(-0.99)	(-1.70)	(-0.28)	(-0.90)	(-1.39)	(-0.55)	(-0.40)	(-1.66)	(-1.03)	(-1.33)
Loss Amount	-0.0291	0.3885*	0.0567	-0.0918***	-0.0477	-0.0303	0.0568	0.3800*	0.0510	0.0442	-0.0429	0.0581
	(-0.76)	(1.99)	(0.64)	(-2.69)	(-0.80)	(-0.41)	(0.60)	(1.88)	(0.66)	(0.48)	(-0.77)	(0.91)
N	2,003	1,758	1,805	2,003	1,758	1,805	1,925	1,837	1,925	1,925	1,837	1,925
Average VIF	2.63	2.59	2.52	2.63	2.59	2.52	2.62	2.41	2.46	2.62	2.41	2.46
R^2	0.0326	0.0641	0.0979	0.0245	0.0415	0.0621	0.0395	0.0619	0.0750	0.0232	0.0444	0.0464

Table B.8: Robustness Checks - Global Financial Crisis (GFC) Effects

This table reports the estimation results for *analyst forecast revision* and *analyst forecast error change* during pre-announcement period (-5, -1), post-announcement period (0, +5), and full event window (-5, +5) around operational risk event first announcements and settlement announcements (with loss amount below $10 million). Global Financial Crisis (GFC) is supposed to have started on 14 September 2007. Robust standard errors are used to correct for operational risk event clustering. *t-statistics* are reported in parentheses. *, ** and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively (two-tailed). Variable definitions are described in Appendix I.

Panel A: Determinants of Analyst Forecast Quality around Operational Risk Event Announcements before GFC

	First Announcements						Settlements					
	Analyst Forecast Revision			Analyst Forecast Error Change			Analyst Forecast Revision			Analyst Forecast Error Change		
	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)
Bank-Level Variables												
Potential Employer	-0.0096	-0.0784	-0.1127	0.0232	-0.0141	-0.0140	-0.0435	-0.1413*	-0.1437	-0.0024	-0.0924	-0.0589
	(-0.19)	(-0.95)	(-1.01)	(0.41)	(-0.21)	(-0.14)	(-0.77)	(-1.95)	(-1.16)	(-0.04)	(-1.47)	(-0.49)
Analysts Following	0.0181*	0.0178**	0.0309*	0.0145	0.0141**	0.0226	0.0212**	0.0242**	0.0480**	0.0165	0.0160**	0.0359*
	(1.85)	(2.09)	(1.84)	(1.43)	(2.09)	(1.53)	(2.02)	(2.54)	(2.23)	(1.43)	(2.08)	(1.76)
Analyst-Level Variables												
Optimistic Analyst	-0.0736***	-0.0862**	-0.1721***	-0.0374	-0.0303	-0.0783	-0.0728**	-0.0814**	-0.1356**	-0.0201	-0.0182	-0.0236
	(-2.81)	(-2.19)	(-2.92)	(-1.19)	(-0.89)	(-1.52)	(-2.14)	(-2.15)	(-2.25)	(-0.55)	(-0.50)	(-0.40)
Event-Level Variables												
Global Settlement	0.2206***	0.2051**	0.3268**	0.1014	0.1170	0.1137	0.2570***	0.2368**	0.4603**	0.1320	0.0717	0.1893
	(2.68)	(2.05)	(2.33)	(1.05)	(1.56)	(0.93)	(2.75)	(2.30)	(2.53)	(1.18)	(0.82)	(1.08)
Loss Amount	0.0117	0.0410	0.0527	0.0168	0.0365	0.0511	0.0301	0.1076***	0.1451**	0.0349	0.0790*	0.1213*
	(0.56)	(1.18)	(1.20)	(0.87)	(1.04)	(1.16)	(0.95)	(2.72)	(2.29)	(1.11)	(1.78)	(1.91)
N	1,947	1,947	1,947	1,947	1,947	1,947	1,518	1,518	1,518	1,518	1,518	1,518
Average VIF	2.44	2.49	2.48	2.44	2.49	2.48	2.73	2.75	2.70	2.73	2.75	2.70
R^2	0.0644	0.0591	0.1035	0.0315	0.0524	0.0851	0.0732	0.0805	0.1317	0.0332	0.0730	0.0876

Panel B: Determinants of Analyst Forecast Quality around Operational Risk Event Announcements during and after GFC

	First Announcements						Settlements					
	Analyst Forecast Revision			Analyst Forecast Error Change			Analyst Forecast Revision			Analyst Forecast Error Change		
	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)
Bank-Level Variables												
Potential Employer	-0.0878	0.0913	0.0304	-0.0742	-0.0576	-0.1074	-0.0283	0.1697	0.1488	0.0499	0.0506	0.1022
	(-0.71)	(0.57)	(0.13)	(-0.69)	(-0.43)	(-0.61)	(-0.36)	(1.38)	(0.84)	(0.47)	(0.45)	(0.58)
Analysts Following	-0.0008	0.0067	0.0020	0.0013	0.0047	0.0052	0.0009	0.0078	0.0075	0.0015	0.0054	0.0065
	(-0.12)	(0.60)	(0.14)	(0.22)	(0.57)	(0.47)	(0.19)	(0.99)	(0.73)	(0.35)	(0.94)	(0.78)
Analyst-Level Variables												
Optimistic Analyst	-0.1201*	0.0400	-0.0910	-0.0423	-0.1142	-0.1632	-0.1300**	-0.0199	-0.1610	-0.1294***	-0.1895***	-0.3290***
	(-1.82)	(0.39)	(-0.62)	(-0.81)	(-1.61)	(-1.52)	(-2.52)	(-0.23)	(-1.30)	(-3.54)	(-3.14)	(-4.01)
Event-Level Variables												
Loss Amount	0.0382	0.4869***	0.5676***	-0.0380	0.0253	0.0078	0.0596	0.3598**	0.3840**	0.0140	0.0449	0.0324
	(0.85)	(2.97)	(2.98)	(-1.06)	(0.23)	(0.07)	(1.25)	(2.61)	(2.52)	(0.29)	(0.53)	(0.31)
N	2,266	2,266	2,266	2,266	2,266	2,266	2,818	2,818	2,818	2,818	2,818	2,818
Average VIF	2.04	2.05	2.07	2.04	2.05	2.07	1.94	1.98	1.97	1.94	1.98	1.97
R^2	0.0219	0.0581	0.0674	0.0176	0.0274	0.0379	0.0253	0.0448	0.0513	0.0196	0.0309	0.0410

Table B.9: Robustness Checks – Systemically Important Banks (SIBs)

This table reports the estimation results for *analyst forecast revision* and *analyst forecast error change* during pre-announcement period (-5, -1), post-announcement period (0, +5), and full event window (-5, +5) around operational risk event first announcements and settlement announcements (with loss amount below $10 million). Systemically Important Banks (SIBs) are banks whose total assets exceed $250 billion. Other banks (Non-SIBs) have total assets below $250 billion. Robust standard errors are used to correct for operational risk event clustering. *t-statistics* are reported in parentheses. *, ** and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively (two-tailed). Variable definitions are described in Appendix I.

Panel A: Determinants of Analyst Forecast Quality around Operational Risk Event Announcements in Systemically Important Banks (SIBs)

	First Announcements						Settlements					
	Analyst Forecast Revision			Analyst Forecast Error Change			Analyst Forecast Revision			Analyst Forecast Error Change		
	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)
Bank-Level Variables												
Potential Employer	-0.0930	0.3996	0.2564	-0.0711	0.4041**	0.2914	0.0351	0.1417	0.2326	0.0500	0.3018***	0.3956**
	(-0.57)	(1.56)	(0.83)	(-0.49)	(1.99)	(1.21)	(0.25)	(0.81)	(0.94)	(0.41)	(2.72)	(2.13)
Analysts Following	0.0070	0.0067	0.0097	0.0041	0.0077	0.0087	0.0076	0.0007	0.0069	0.0070	0.0070	0.0132
	(1.08)	(0.66)	(0.72)	(0.69)	(1.03)	(0.82)	(1.36)	(0.09)	(0.60)	(1.36)	(1.22)	(1.41)
Analyst-Level Variables												
Optimistic Analyst	-0.1514**	-0.0705	-0.2144	-0.0943*	-0.2013***	-0.2903***	-0.1846***	-0.0846	-0.2593**	-0.1349***	-0.2368***	-0.3660***
	(-2.49)	(-0.66)	(-1.42)	(-1.79)	(-3.03)	(-2.85)	(-3.14)	(-0.97)	(-2.05)	(-2.83)	(-4.09)	(-4.34)
Event-Level Variables												
Global Settlement	-0.0069	0.1508	0.0009	-0.0315	-0.0534	-0.1951	0.0279	0.0410	0.2437	0.0000	-0.0314	0.1109
	(-0.05)	(0.92)	(0.00)	(-0.25)	(-0.53)	(-1.04)	(0.16)	(0.21)	(0.68)	(0.00)	(-0.27)	(0.40)
Loss Amount	0.0074	0.3529**	0.3826*	-0.0246	0.0204	0.0126	0.0759	0.4348***	0.4879***	0.0356	0.0511	0.0686
	(0.17)	(2.16)	(1.92)	(-0.77)	(0.26)	(0.14)	(1.30)	(2.76)	(2.70)	(0.61)	(0.54)	(0.55)
N	2,825	2,825	2,825	2,825	2,825	2,825	3,071	3,071	3,071	3,071	3,071	3,071
Average VIF	2.09	2.08	2.10	2.09	2.08	2.10	2.06	2.09	2.09	2.06	2.09	2.09
R^2	0.0202	0.0439	0.0520	0.0156	0.0276	0.0393	0.0211	0.0451	0.0475	0.0157	0.0377	0.0395

Panel B: Determinants of Analyst Forecast Quality around Operational Risk Event Announcements in Other Banks (Non-SIBs)

	First Announcements						Settlements					
	Analyst Forecast Revision			Analyst Forecast Error Change			Analyst Forecast Revision			Analyst Forecast Error Change		
	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)	(-5, -1)	(0, +5)	(-5, +5)
Bank-Level Variables												
Potential Employer	0.0042	-0.1322**	-0.1456	0.0294	-0.0452	-0.0233	-0.0620*	-0.1090**	-0.1686**	-0.0002	-0.0643	-0.0540
	(0.09)	(-2.25)	(-1.58)	(0.78)	(-0.81)	(-0.31)	(-1.91)	(-2.28)	(-2.30)	(-0.00)	(-1.53)	(-0.71)
Analysts Following	-0.0066	-0.0166**	-0.0238**	-0.0021	-0.0074	-0.0100	-0.0066*	-0.0047	-0.0119	-0.0041	0.0051	-0.0010
	(-1.54)	(-2.21)	(-2.36)	(-0.45)	(-1.15)	(-1.21)	(-1.69)	(-0.78)	(-1.22)	(-1.13)	(0.84)	(-0.11)
Analyst-Level Variables												
Optimistic Analyst	-0.0915**	-0.1661***	-0.2742***	-0.0659**	-0.0755*	-0.1516**	-0.0697**	-0.1316***	-0.2033***	-0.0117	-0.0083	-0.0256
	(-2.55)	(-3.48)	(-3.35)	(-2.12)	(-1.73)	(-2.25)	(-2.37)	(-2.77)	(-2.84)	(-0.36)	(-0.18)	(-0.39)
Event-Level Variables												
Global Settlement	-0.0776	-0.0810	-0.1710*	-0.0045	-0.0820	-0.0960	0.0191	-0.0024	0.0110	-0.0036	-0.0003	-0.0229
	(-1.20)	(-1.31)	(-1.67)	(-0.07)	(-1.42)	(-1.22)	(0.55)	(-0.05)	(0.15)	(-0.10)	(-0.00)	(-0.32)
Loss Amount	-0.0094	0.0318	0.0394	-0.0118	0.0274	0.0268	-0.0095	0.0367	0.0254	-0.0279	0.0553**	0.0217
	(-0.61)	(0.76)	(1.05)	(-0.62)	(0.74)	(0.67)	(-0.65)	(1.07)	(0.65)	(-1.65)	(2.08)	(0.62)
N	1,388	1,388	1,388	1,388	1,388	1,388	1,265	1,265	1,265	1,265	1,265	1,265
Average VIF	2.63	2.58	2.60	2.63	2.58	2.60	2.65	2.70	2.67	2.65	2.70	2.67
R^2	0.0469	0.0648	0.0766	0.0530	0.0463	0.0745	0.0506	0.0329	0.0584	0.0374	0.0390	0.0499