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探討金融海嘯期間流動性風險與股價報酬之

關聯性-以三種不同類別的證券化資料分析

The Relation between Liquidity Risk and the Stock

Returns during the Financial Crisis: An Examination

Using the Three Types of Securitized Loans

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論文摘要

　　證券化是金融控股公司的主要活動之一。而根據文獻的實證研究發現其實有很多已從帳上除列的資產證券化的風險事實上並非完全移轉，創始機構會藉由保留權益使部分風險留在創始機構內部。投資人在評估創始機構的價值或風險時，會衡量這些保留權益，因證券化結構複雜，資訊不透明嚴重，故導致投資人在衡量創始機構的價值或風險時，有估計風險或價值不確定性提高的問題，這反映出相關的資訊品質不好，進而影響公司的股價及流動性風險。又文獻提到三種已除列的資產證券化，其外部可辨認的信用風險程度不同，我認為這三種證券化的資訊品質及流動性風險程度也會有所不同。

　　在金融海嘯期間發生許多直接或間接影響流動性的重大事件，且上述提到已除列的資產證券化隱含資訊品質造成的估計風險及流動性風險的增加，故本研究以這段期間為研究期間，以上述三種已除列的資產證券化來探討股價報酬與流動性風險的關聯性；本研究亦測試此三種證券化資料下股價與流動性風險關聯性是否如預期有顯著差異。

關鍵字：證券化；保留權益；資訊品質；流動性風險；金融海嘯

Abstract

Securitization has been the main activity in many bank holding companies. According to the prior literature, some risks of the off-balance sheet securitized loans are retained on the originator through retained interests that are evaluated by many parameters, leading to higher estimation risks and increasing the uncertainty of the originator's value, which implies that the information qualities are poor and thus influences the firm's liquidity risk and stock price.

Since during the financial crisis period, there are many liquidity-related events, I investigate the association between the stock return and liquidity risk by examining if the three off-balance sheet banks' loan securitizations reflecting information quality and liquidity risk are relevant to investors due to the estimation risks and uncertainty of retained interests on the originator. In addition, there are differences in the externally verifiable credit risk, retained risks and information qualities of three loan types of off-balance sheet ABS, so I further assume that the associations between the investors' reaction and the three loan types are different.

Keywords: securitizations; retained interests; information quality; liquidity risk; financial crisis

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I. Introduction

In a speech titled "Four Questions about the Financial Crisis", Chairman of Fed, Ben S. Bernanke mentioned that the credit boom and subprime mortgages problems surfaced in 2007; mortgage delinquencies and defaults rose. Investors, stunned by losses on assets, such as the asset-backed mortgage securitization that they had believed to be safe, began to pull back from a wide range of credit markets. The crisis deepened last September when the failure or near-failure of several major financial firms caused many financial and credit markets to freeze up.

Above description indicates that the cause of the recent financial crisis is related to the securitization with information asymmetry between the issuers and investors. Investors lay a good part of the blame for the crisis on the poor transparency of securitization information, resulting in widespread mispricing of securitization and the subsequent market illiquidity. During the financial crisis, the market for securitization almost completely shut down, in turn creating an enormous overhang of illiquid assets on banks' balance sheets. Since large bank holding companies are very active in securitization activities and many significant liquidity-related events occurred during the financial crisis, providing me a good opportunity to examine the liquidity risk information through securitizations. Thus, I investigate the association between the investors' reactions to the financial crisis events and liquidity risk through the three loan

types of off-balance sheet securitizations reported by the bank holding companies.

The securitization structure can be very complex. In a typical securitization, the originator transfers a pool of financial assets to a special-purpose entity (SPE) which then finances the purchase via the issuance of asset-backed securities (hereafter, ABS), enhances the credit rating of the ABS, and sells to investors, with the transfer often retaining some portion of the ABS or other retained interests[1] such as contractual first-loss interests[2] and implicit recourse[3] to mitigate adverse selection problems due to the information asymmetry. Under SFAS No. 140, if control over all or a portion of the transferred asset is surrendered, a sale is recognized by taking the transferred assets off the balance sheet.

Several prior studies show that some risks of the off-balance sheet securitizations are retained on the originator by contractual or non-contractual retained interests. Thus when the investors value the originator, they will estimate the value or risks of the retained interests by many parameters but the related information is poorly transparent,

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[1] Contractual interests bearing first or other early risk of loss or implicit recourse are similar to derivatives in having relatively small value and concentrated risk compared to the securitized assets. (Chen et al. 2008)

[2] Chen et al. (2008) distinguish two types of first-loss contractual retained interests: credit-enhancing interest-only strips and other subordinated ABS. These types differ in whether they receive principal payments and in their degree of subordination. Credit-enhancing interest-only strips receive no principal and typically are subordinated to subordinated ABS, and so they are riskier than subordinated ABS, all else being equal.

[3] Purchasers of ABS may be protected against adverse selection if issuers have the incentive and ability to provide implicit recourse—i.e., to take actions to increase the value of the assets in the securitization SPE—when the securitized financial assets under-perform. Issuers can provide implicit recourse by: (1) contributing assets to the SPE for less than their fair value, (2) purchasing assets from the SPE at a price greater than their fair value, (3) exchanging better quality assets for worse quality assets and (4) providing recourse or other credit enhancement beyond contractual requirements. (Chen et al. 2008)

which may cause relatively high estimation risks and increase the uncertainty of the originator's value.

Jeffrey Ng (2008) defines the information quality as an attribute of publicly available information that could lower (i) investors' information uncertainty over the value of a stock and/or (ii) adverse selection among investors when stock trades occur. He suggests that higher information quality is associated with lower liquidity risk[4]. Hence, according to his definition of information quality and conclusion, the information quality of the three off-balance sheet securitized loans are poor since the values or risks of them are estimated by many parameters, which causes higher estimation risks, increases investors' information uncertainty and thus is associated with higher liquidity risks. Moreover, Chen et al. (2008), examine that the characteristic of three off-balance sheet securitized loans (ABS) that vary in the extent and external verifiability of the loans' credit risk captures differences in banks' retention of the risks of the loans. Three off-balance sheet securitized loans (ABS) consist of: mortgages (MBS), consumer loans (CONSBS), and commercial loans (COMMBS). Generally, commercial loans have higher and difficult to verify credit risk, consumer loans have relatively high but easier to verify credit risk, and mortgages have relatively low and

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[4] Pastor and Stambaugh (2003) define liquidity risk as the covariation ("liquidity beta") between the returns of a stock (due to the effects of order flow) and the market liquidity factor. Lev and Zhou (2009) define liquidity as the risk of inability to quickly sell for a foreseeable price, which is the definition used in this study.

easy to verify credit risk[5]. Combining the implications of the two studies, I assume that since the credit risks and external verifiability of the loans' credit risk can affect the investors' estimation, this characteristic can also capture the difference in the estimation risks of three off-balance sheet securitized loans and the information qualities of them are different. That is, the off-balance sheet securitized loan with higher external verifiability of credit risk implies the higher information quality and thus is associated with lower liquidity risk.

Lev and Zhou (2009) investigate the relation between investors' firm-specific reaction during the last four months of the 2008 financial crisis, conditioned on the reported values of three liquidity levels of assets and liabilities under SFAS No. 157. They suggest that the information risk[6] is positively associated with liquidity risk, consistent with Jeffrey Ng (2008), and the separation of fair-valued assets/liabilities reflecting the differences in information quality/risks can capture liquidity risk information.

On the basis of the prior research, I develop the hypothesis that during the financial crisis period, the three off-balance sheet securitized loans reflecting poor information quality are relevant to investors owing to the estimation risks and uncertainty of retained

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[5] More homogeneous/standardized loans generally have more externally verifiable credit risk (Chen et al. 2008).
[6] In this study, I assume that information risk is the same as information quality in substance.

interests on the originator, thereby affecting the originator's stock trading volume, price and liquidity risk. In addition, there are differences in the retained risks and information qualities of three types of off-balance sheet ABS, so I further assume that the associations between the investors' reaction and the three loan types are different.

My research design is basically based on Lev and Zhou (2009). First, I identify 137 crisis events (dates) from February 27, 2007 to December 28, 2009 and classify them into seven groups by the nature of the events. The first group —*Distress Events*, consists of episodes related to the revelations of severe problems and failures of major financial firms and investment fraud in capital market, signaling constrained liquidity across the economy; the second group—*Rescue Events* consists of the government actions taken to rescue firms in distress and to stabilize the banking system; the third group—*Fed Events*, consists of announcements of liquidity injections and interest rate cuts by the Federal Reserve; the fourth group—*Positive Policy Events*, consists of government policies and legislative actions to reverse the crisis and I expect the investor react to these polices in this group positively. The fifth group—*Negative Policy Events*, consist of government policies that have been classified into the Policy group in Lev and Zhou's study (2009), indicating that some prior policies are failed, so I expect investor react to the polices in this group negatively. The sixth group—*Capital Infusion Events* consists of bank capital purchases under the TARP Capital Purchase Program;

the seventh group—*Other Positive Events*, consists of the events that the nature of them

does not meet the definitions of any other six groups and the events may affect the stock

market positively. Regarding the seven event groups, I expect investors to react

negatively to the Distress and Negative Policy Events groups, and positively to the

Rescue, Fed, Positive Policy Events, Capital Infusion Events and Other Positive Events

groups.

Second, my analyses start with documenting investors' reaction to each of the 137

crisis events and to the seven aggregate groups of events (Table 3). For the seven

aggregate groups of events, investors' reactions of four groups are statistically

significant, and in the expected direction.

Third, I proceed to regress cross-sectionally the event raw returns on three

off-balance sheet banks' loan securitizations (all deflated by market value of equity),

along with multiple control variables by groups. In sum, the empirical results don't

support my hypothesis, which may imply that liquidity has limited or indirect effects on

stock pricing or is due to the limitations of the research design.

The remainder of the study is organized as follows. Section II describes

securitizations, their characteristics, and the accounting under SFAS No. 140,

Accounting for Transfers and Servicing of Financial Assets and Extinguishments of

Liabilities (FASB 2000), briefly. Section III describes the prior literatures and my

hypothesis. Section IV describes the research design, variables and data. Section V

presents the results of the descriptive analyses and the regression analyses conducted to

test the hypothesis. Section VI concludes.

II.   Background

Typical Securitization Structure and Certain General Characteristics[7]

In a typical securitization, the originator transfers a pool of financial assets with a stream of cash flows, such as mortgages, loans, and leases to a special-purpose entity (SPE). The SPE finances the purchase via the issuance of asset-backed securities, enhances the credit rating of the ABS, and sells to investors, with the issuer often retaining some portion of the ABS or other contractual interests (e.g., servicing rights and recourse obligations). Then the SPE uses the proceeds from the securities it has issued, backed by the pool of assets, to pay for the purchase of those assets from the originator (Chen et al. 2008, Niu and Richardson 2006, Landsman et al 2007, and Chiu 2006). For the past few years, the statistics from Bond Market Association show that the issuance of ABS (including mortgages) on average declines from the amount of 2.74 trillion in 2006 to 1.48 trillion in 2008. But in 2009, the amount of ABS (including mortgages) increases to 2.1 trillion. Furthermore, the ABS constitutes at least one-third of the bond market in the U.S. in 2009.

Chen et al (2008) illustrate three general characteristics of banks' loan securitizations accounted for as sales. The first characteristic is three broad types of loans that vary in the extent and external verifiability of the loans' credit risk, consisting

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[7] I refer to Chen et al. (2008) to discuss certain general characteristics.

of: 1–4 family residential mortgages, other consumer loans, and commercial loans and leases. The characteristic is one of the bases used to develop my hypothesis.

The second characteristic is whether the loans are revolving (credit card receivables or home equity lines of credit). The issuers of revolving loan securitizations typically provide implicit recourse such as contractual provisions for early amortization when the securitized loans under-perform and master trusts that do not segregate the loans from different securitizations.

The third characteristic is the magnitude and type of contractual retained interests. They distinguish two types of first-loss contractual retained interests: credit-enhancing interest-only strips and other subordinated ABS. Credit-enhancing interest-only strips receive no principal and typically are subordinated to subordinated ABS, and so they are riskier than subordinated ABS.
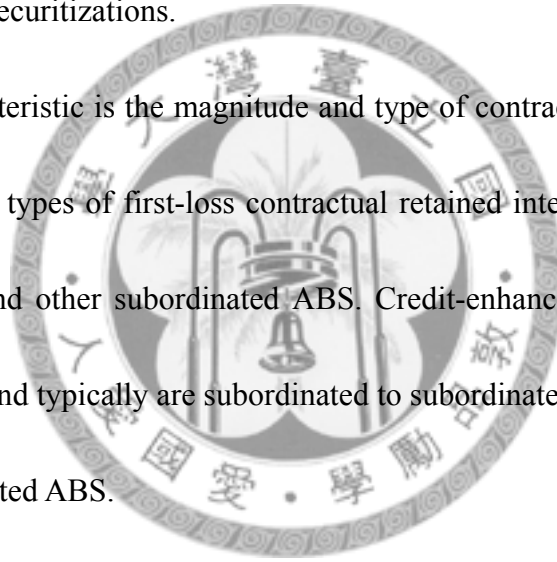
Accounting for Securitizations under SFAS No. 140

Under SFAS No. 140, if control over all or a portion of the transferred asset is surrendered, a sale is recognized to the extent that the issuer receives consideration other than the ABS issued in that securitization. The transferor has surrendered control over transferred assets if and only if all of three conditions are met. First, the transferred assets have been isolated from the transferor. Second, each transferee has the right to pledge or exchange the assets (or beneficial interests) it received. Third, the transferor

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does not effectively maintain control though an agreement to repurchase the transferred assets.

A securitization that qualifies for sale accounting but for which the issuer retains a portion of the ABS is treated as a partial sale of the securitized assets. Under sale accounting, the transferor records a "sale" by taking the transferred assets off the books, recording cash in the amount received and recognizes any noncash proceeds that are not beneficial interests in the securitized assets at fair value, recognizing retained ABS at the book value of the securitized assets times the fair value of the retained securities divided by the fair value of the securitized assets, recognizing retained contractual interests other than ABS, including servicing assets and recourse liabilities, at fair value and recognizing any gain or loss on the transaction to make the journal entry balance. If all three conditions are not met, the transaction is accounted for as a secured borrowing (Adhikari and Betancourt 2008, SFAS No. 140, SFAS No.156, and Chen et al 2008).

SFAS No. 140 requires that servicing assets and liabilities be subsequently measured by (a) amortization in proportion to and over the period of estimated net servicing income or loss and (b) assessment for asset impairment or increased obligation based on their fair values (Chen et al 2008).

SFAS No. 140 requires an entity with securitized financial assets to disclose information about accounting policies, volume, cash flows, key assumptions made in

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determining fair values of retained interests, and sensitivity of those fair values to changes in key assumptions. It also requires that entities that securitize assets disclose for the securitized assets and any other financial assets it manages together with them (a) the total principal amount outstanding, the portion that has been derecognized, and the portion that continues to be recognized in each category reported in the statement of financial position, at the end of the period; (b) delinquencies at the end of the period; and (c) credit losses during the period (Chen et al 2008).

In sum, under a sale accounting, the asset is removed from the balance sheet and a gain or loss is recognized; in a secured borrowing, the assets remain on the balance sheet and the firm recognizes a liability for the proceeds removed in the transfer (Adhikari and Betancourt 2008).
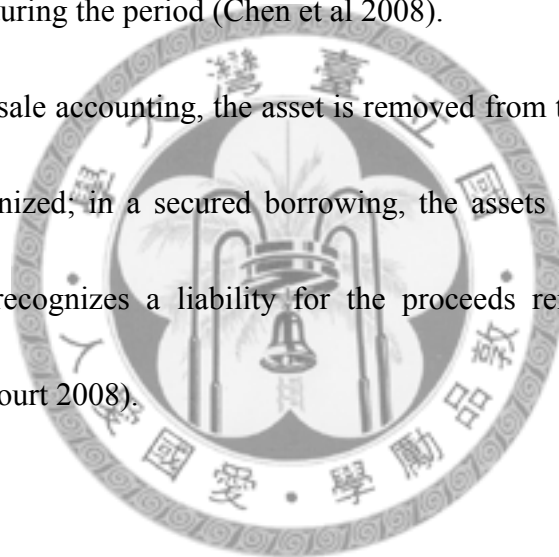
III. Related Literature and Hypothesis Development

Related Literature

This study builds upon two primary streams of literature. First, I build upon the literature examining the association between risks and the off-balance sheet securitizations. Second, I connect the literature investigating relation between the information quality/risk and liquidity risk to off-balance sheet securitizations. But in my study, I do not intend to measure the information quality and liquidity risk; I refer to their findings to develop my hypothesis instead.

Securitizations

Schipper and Yohn (2007) discuss the literature on transfers of financial assets, summarizing that research has addressed : (1) the magnitude of financial asset transfers and their impact on financial statements (e.g. Niu and Richardson 2006); (2) motives for financial asset transfers (e.g. Pavel and Phillis 1987; Minton et al. 2004; Dechow et al. 2005; Karaoglu 2005; Dechow and Shakespeare 2006); (3) motives for, and prevalence of, recourse in financial asset transfers (e.g. Calomiris and Mason 2004; Higgins and Mason 2004); (4) investor treatment of financial asset transfers (e.g. Niu and Richardson 2006; Landsman et al. 2006; Chen et al. 2008); and (5) transferor responses to changes in accounting standards for financial asset transfers (e.g. Bens and Monahan 2005).

Of those research just described, Chen et al. (2008) is one of the most related prior research, hypothesizing that the certain general characteristics as mentioned in Section II of banks' loan securitizations accounted for as sales determine the extent to which banks retain the risks of the securitized loans. They show that banks retain more risk when: (1) the types of loans have higher and/or less externally verifiable credit risk, (2) the loans are closed-ended and banks retain larger contractual interests in the loans, and (3) the loans are closed-ended and banks retain types of contractual interests that more strongly concentrate the risk of the securitized loans. In addition to Chen et al. (2008), several prior studies investigate the association between firms' equity risk or value and the off-balance sheet securitizations (Dionne and Harchaoui 2003; Niu and Richardson 2006; Hänsel and Krahnen 2007; Landsman et al. 2006). The implications of these studies are consistent, which encourages me to consider if off-balance sheet securitization is associated with stock prices.

The Association between Information Quality and Liquidity Risk

Jeffrey Ng (2008) examines whether information quality could affect cost of capital through liquidity risk and empirically indicates that: higher information quality is associated with lower liquidity risk and a firm's cost of capital is lower due to the effect of higher information quality in lowering liquidity risk.

Fair Value Accounting

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Fair value accounting, especially SFAS No. 157, is frequently blamed for having

resulted in and aggravated the recent financial crisis. Thus several recent studies

evaluated the usefulness of fair value accounting (e.g. Song, Thomas, and Yi 2008;

Kolev 2009; Goh, Ng, and Yong 2009; Lev and Zhou 2009, and Riedl and Serafeim

2009).

Lev and Zhou (2009) is also one of the most related prior literature and my

research design is based on this study. They investigate the relation between investors'

firm-specific reaction to 44 important events during last four months of the 2008

financial crisis, conditioned on the reported values of three liquidity levels[8] of assets

and liabilities classified by the availability of the inputs of the measurements, mandated

by SFAS No. 157 to examine whether this three-level liquidity disclosures are useful to

investors. Their empirical results show that the separation of fair-valued assets/liabilities

is indeed relevant to investors; such separation provides vital liquidity risk information

to investors. Riedl and Serafeim (2009) also examine the effect of the separation

mandated by SFAS No. 157. Since finance theory suggests that information risk—that

is, the uncertainty regarding valuation parameters for an underlying asset—is reflected

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[8] A hierarchy of three levels that ranks the inputs that should be used to develop the fair value estimates. Level 1 inputs are quoted securities prices in active markets for the valued assets or liabilities; examples are traded debt and equity securities. Level 2 inputs are either directly or indirectly observable market inputs, some are quoted market prices for similar items or prices in inactive markets for identical items, others are derived from internal models: mark-to-model. Level 3 values are based on unobservable inputs derived from the best information available to the firm, which may include its own internal data and proprietary valuation models.

in firms' equity betas and the information asymmetry component of bid-ask spreads, they assess whether three-level separation implying information risk are reflected in firms' equity betas and bid-ask spreads.

Hypothesis Development

Based on the discussion above, I assume that the three off-balance sheet securitized loans reflect the differences in the retention of risks (Chen et al. 2008) and estimation risks, which implies that the information qualities are different and thus the relations with the liquidity risks differ (Jeffrey Ng 2008, Lev and Zhou 2009, and Riedl and Serafeim 2009), so the disclosures of the three off-balance sheet banks' loan securitizations are relevant to investors during the financial crisis when many liquidity events occur. For example, in liquidity-constraining events, investors think that these events will impact the values of firms or securitizations, increase risks of the off-balance sheet banks' loan securitizations and further affect the information risks and the estimation risks of the retained interests of the originator. Consequently investors react negatively and the higher the risks are retained, the more negatively investors react. Hence, my hypothesis is as followed:

Hypothesis: In liquidity-constraining events, investors will react negatively to the three off-balance sheet securitized loans and investors' reaction is more negatively associated with their off-balance sheet securitized loans when the loans have higher and less

externally verifiable credit risk.

The reverse holds for liquidity-expanding events.

In testing the hypothesis, I expect the coefficients on securitized loans to be more negative for loan types with higher and/or less externally verifiable credit risk in the liquidity-constraining events such as the Distress and to be more positive in the liquidity-expanding events.

IV.   Research Design and Data

Events

In this study, I focus on the investors' reactions to the financial crisis events conditioned on three types of securitized loans reported by the bank holding companies. The crisis period of this study starts on February 27, 2007 and ends on December 28, 2009. To select the crisis events, I use "The Financial Crisis: A Timeline of Events and Policy Actions" compiled by the Federal Reserve of St. Louis. I classify them into seven groups by the nature of the events. Of the seven groups, five groups' definitions are basically based on Lev and Zhou (2009) and two new groups are added[9]. The first group —*Distress Events*, consists of episodes related to the revelations of severe problems and failures of major financial firms and investment fraud in capital market, signaling constrained liquidity across the economy; the second group—*Rescue Events* consists of the government actions taken to rescue firms in distress and to stabilize the banking system; the third group—*Fed Events*, consists of announcements of liquidity injections and interest rate cuts by the Federal Reserve; the fourth group—*Positive Policy Events*, consists of government policies and legislative actions to reverse the crisis and I expect investors react to the polices in this group positively. The fifth

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[9] Because this study period is relatively longer than Lev and Zhou's (2009) (their study period is from September 2008 to December 2008), the nature of some events in the Timeline slightly differs from Lev and Zhou's (2009). Therefore, I make some modifications of the Policy Events and add two new groups (the fourth and seventh group.

group—*Negative Policy Events*, consist of government policies that have been classified into the Policy group in Lev and Zhou's study (2009), indicating that the prior policies are failed so I expect investors react to the polices in this group negatively. The sixth group—*Capital Infusion Events* consists of bank capital purchases under the TARP Capital Purchase Program; the seventh—*Other Positive Events*, consists of the events that the nature of them does not meet the definitions of any other six groups and the events may affect the stock market positively.

When the following situations occur, I delete the event dates: (1) there are opposite predicted signs of any two events on the same event date; (2) the events are predicted to be neutral to the stock market; (3) the events do not occur in the U.S. There are 137 event dates left[10]. When there are multiple events with the same predicted sign on the same day, the basic method that I use to determine which group the event date is classified into is: (1) first, I consider which announcement affects more companies; (2) then I consider the amount of money of the announcement. The confounding events with the same predicted signs are presented in parentheses in the event column and described in the extended description column. There are 18 event dates with the same predicted sign and confounding events.

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[10]There are 44 event dates between September 2008 and December 2008 also covered by Lev and Zhou (2009) so I basically follow their classifications of the 44 event dates. But I delete 8 event dates since on the 8 event dates, there are opposite predicted signs of any two events on the same event date. Thus, of 137events, 36 events' classifications are followed to Lev and Zhou (2009).

Event Window

I basically use a three-day (-1, 0, 1) event window for the stock return computation,

with -1 indicating the last trading day before the event date, 0 indicating the day of the

event and 1 indicating the first trading day following the event day. For an event

occurring on either Saturday or Sunday, I use the following Monday (or first trading day)

as the event day (Lev and Zhou 2009). For event dates occurring on consecutive trading

days, there are several circumstances to decide the event window in this study: (1) for

two event dates occurring on two consecutive days, the event window of the first event

date is (-1, 0) and the event window of the second event date is (0, 1); (2) for three event

dates occurring on three consecutive days, the event window of the first event date is (-1,

0), the second event window is (0) and the third event window is (0, 1); (3) for the event

dates occurring on more than three consecutive days, the method to determine the event

window is the same as the event dates on three consecutive days. Overall, there are 38

events with a one-day event window, 68 events with two-day event window and 31

events with three-day event window.

Cumulative Returns (CR) and Mean Cumulative Returns (MCR)

Raw return

I use cumulative returns (CR) as the dependent variable to reflect the investors'

reaction to the events. Unlike Lev and Zhou using MCR[11] as the dependent variable,

for a given sample firm, the dependent variable of this study, CR, for an event date is:

CR (i) = $\{\prod_{Di=1}^{Ti}[1 + R(Di)]\}$-1,

where D_i denotes the trading days covered by event window i, Ti denotes the total

number of trading days covered by event window i, and R (D_i) denotes the raw daily

return for this given firm on the day D_i.

I also calculate the mean cumulative returns (MCRs) for each event date and each

event group to documenting investors' reactions to each crisis event and to the seven

groups. MCR for an event date is:

MCR=$\frac{\sum_{i=1}^{n} CRi}{n}$,

where CRi denotes the CR of given firm i and n denotes the total number of the firms

on an event date. The calculation of MCR for an event group is similar to the MCR for

an event date: I divide the total of CRs of the observations in an event group by the total

number of the observations in an event group.

Market-adjusted return and Risk-adjusted return

I use the market-adjusted return and risk-adjusted return to do the sensitivity

analyses, replicating all the analyses of raw return. The detailed calculations are as

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[11] Lev and Zhou calculate the total of raw returns covered by the event divided by the event window day

as the MCR. $MCR(i) = \frac{\sum_{t_i=1}^{T_i} R(t_i)}{T_i}$

followed.

Market-adjusted return is defined as raw return minus market return[12]. Then I use the

same method that computes CR to calculate the cumulative market-adjusted return

(CMAR) and the same way that computes MCR to calculate the mean cumulative

market-adjusted return (MCMAR)

Risk-adjusted return is the abnormal return[13]. I calculate cumulative abnormal return

(CAR) and mean cumulative abnormal return (MCAR) as the same way of CR and

MCR.

Equation

I use the following equation to test my hypothesis.

$$CR = \alpha + \beta_1\ MBS + \beta_2\ CONSBS + \beta_3\ COMMBS + \beta_4\ OANCFQ + \beta_5\ ROA + \beta_6 CAP + \beta_7$$

$$BIG4 + e \tag{1}$$

Table 2 summarizes the definitions and calculations of all variables.

The dependant variable, CR, is used to reflect the investors' reaction to the events.

The definitions of the three independent variables MBS, CONSBS and COMMBS are

based on Chen et al. (2008). MBS is defined as securitized 1–4 family residential

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[12] I use the CRSP value-weighted index with dividends as the market return.
[13] The abnormal return is calculated by using the CRSP value-weighted index with dividends as the market return, and estimate the market-model parameters using CRSP firm returns as followed: (1) I use the historical daily market return and raw return data in t-1 year to estimate the beta of t year for each observation in the same year. For example, for a given firm on all the event dates in 2007, I use daily market return and raw return data of the firm in 2006 to estimate the beta. (2) I use beta to calculate the expected return; then the abnormal return is calculated by the raw return minus the expected return.

mortgages ; CONSBS is securitized consumer loans (home equity lines of credit, credit card receivables, automobile loans, and other consumer loans); COMMBS is securitized commercial loans (commercial and industrial loans and all other loans, leases, and assets). The equation includes several control variables: OANCFQ, ROA, CAP, and BIG4, which are followed Lev and Zhou (2009) except CAP. Based on Lev and Zhou (2009), OANCFQ is operating activities - net cash flow at the end of quarter; ROA is return on assets; BIG4 is a dummy variable that equals 1 if a firm is the Big4 client at the end of quarter t, and 0 otherwise. CAP is tier1 risk-based capital ratio and I use this variable to replace Leverage (Total Liabilities divided by Total assets) in Lev and Zhou (2009) because CAP is more relevant for a bank holding company.
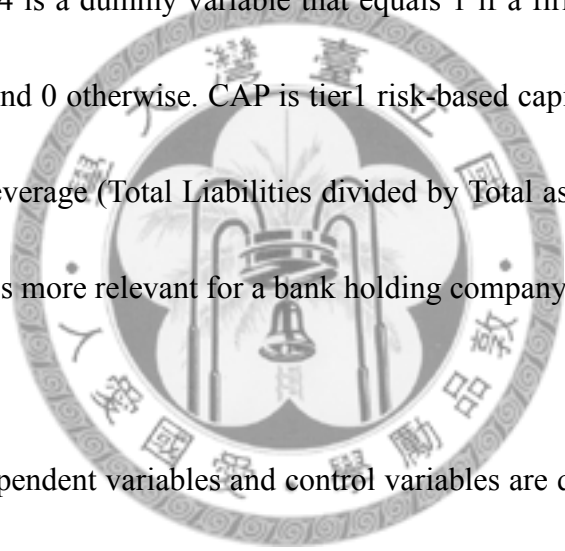
Data

The data of independent variables and control variables are quarterly data. And the data of independent variables and OANCFQ are deflated by the end-of-quarter market values of the sample firms. I winsorize the observations in the outside 1 percent of each tail of independent variable and control variable to mitigate the effect of outliers.

The data of this study come from four databases. First, I collect daily raw returns and market return during 2006 to 2009. Second, I collect the quarterly data of securitized loans and tier1 risk-based capital ratio from schedule HC-S, Servicing, Securitization and Asset Sale Activities of regulatory Y-9C reports that U.S. bank

holding companies with total consolidated assets of $150 million or more must file quarterly with the Federal Reserve. Third, I collect quarterly operating activities - net cash flow, end-of-quarter income before extraordinary items, quarterly total assets and end-of-quarter market values of the sample firms from COMPUTAT Quarterly. Fourth, I collect the information of the sample firms' audit firms from Audit Analytics.

Because this paper is an event study, the quarterly data matched to the event date is the latest filing data of financial statements (10Q or 10K) before the event announcement date. According to SEC, the filing deadlines are different by three categories of filers presented[14]. Thus I base on the rule to match the quarterly data to the event date for each observation and 13 quarters' data are collected, from the third quarter of 2006 to the third quarter of 2009.

I eliminate the observations without data in CRSP; then I drop the observations with any missing data of the control variables and market value in COMPUSTAT and without tier1 risk-based capital ratio of Y-9C reports. The total number of observations is 46047, of 385 bank holding companies. Of the 46047 observations, I do not eliminate those without data of securitized loans; I fill in 0 instead.

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[14] http://www.sec.gov/answers/form10q.htm

V.   Empirical Results

Descriptive Statistics

Table 3 presents the MCRs and medians for the 137 crisis events and the seven groups. According to the results of t-tests, the mean reactions across sample firms for 64 events are as expected and statistically significant. For example, on August 6, 2007, American Home Mortgage Investment Corporation files for Chapter 11 bankruptcy protection and the MCR on this day is significantly negative (t=-6.08). For the seven groups, the reactions of the Distress, Rescue, Fed and Other Positive Events groups are as expected and significant.

Because I test the hypothesis by group, the descriptive statistics are also group-level analyses. In addition to the seven groups mentioned above, I combine the Rescue, Fed, Positive Policy, Capital Infusion and Other Positive Events groups into the Positive Reaction group, and the Distress, Negative Policy groups into the Negative Reaction group.

Table 4, Panel A to I report means, quartiles and standard deviations for the winsorized variables in equations of this study of the nine groups. The sample banks are well-capitalized (e.g., the minimum of CAP is 6.07 percent, is above the 6 percent threshold for a bank to be well-capitalized).

75% of the observations don't have MBS, CONSBS and COMMBS. The means of

MBS are among 8.5% to 13% of the owners' equity. The means of CONSBS are among

1.4% to 1.8% of the owners' equity. The means of COMMBS are among 0.7% to 0.9%

of the owners' equity.

As to the control variable, taking Positive Reaction and Negative Reaction for

example, the means of OANCFQ are 4.6% and 3.9% of the owners' equity; the means

of ROA are 0.05% and 0.08%; the means of SIZE are 5.44 and 5.63.

Correlation

Table 5 reports Pearson correlations of the variables of the nine groups in all the

equations in this study. For example, in the Positive Reaction group, the raw return is

not significantly correlated with MBS, CONSBS and COMMBS, but is significantly

correlated with the control variables; in the Negative Reaction group, the raw return is

significantly correlated with MBS, CONSBS and the control variables.

Regression Analyses

Table 6 presents OLS estimates of the cumulative returns (CRs) run

cross-sectionally on the three loan types MBS, CONSBS and COMMSBS, along with

control variables of the seven groups and the two new combined groups.

Of the seven groups, except that the coefficient on CONSBS of the Distress is

significantly negative (t=-3.1), the coefficients of the other six event groups are not

consistent with the hypothesis and not significant.

On the control variables, the OANCFQ of the Distress, Rescue, Fed, Positive Policy and Negative Policy are significant (t=-2.29, 2.18, -2.03, -2.44 and 2.28, respectively). The coefficients on ROA of the Distress, Rescue, Fed and Positive Policy are significant (t=3.18, 2.03, 1.66 and -3.32, respectively). On CAP, except the coefficients of the Fed and Other Positive, the other groups' coefficients are significant (t=4.22, 1.68, 4.92, -1.41, 1.58, respectively). On BIG4, except the coefficient of Positive Policy is not significant, the coefficients of the other groups are significant (t=-5.01, 6.25, 1.45, 1.37, -3.24, 1.72).

The last two columns of Table 6 present the results of the Positive Reaction and Negative Reaction groups. On the independent variables, only the coefficient on CONSBS of the Negative Reaction is as expected and significantly negative (t=-1.74 at the 5 percent level). On the control variables, most of the estimates are significant except the coefficients on OANCFQ of the two groups.

The t-tests of difference of the coefficients for three loan type pairs are almost not as expected, except the estimates of coefficients on MBS and CONSBS of the Distress and Negative Reaction groups (t=2.88 and 1.57, respectively).

In sum, the empirical results don't support my hypothesis, which may imply that liquidity has limited or indirect effects on stock pricing or is due to the empirical design.

Sensitivity Analyses

I also collect the logarithm of samples' market values as another control variable

SIZE to run the regression of Equation 2 to test the hypothesis.

$$CR=\alpha+\beta_1 \text{ MBS}+\beta_2 \text{ CONSBS}+\beta_3 \text{ COMMBS}+\beta_4 \text{ OANCFQ }+\beta_5 \text{ ROA }+\beta_6\text{CAP }+\beta_7$$

$$\text{BIG4}+\beta_8\text{SIZE}+e \qquad\qquad (2)$$

Appendix I presents the results of the Equation (2). On the independent variables,

except that the coefficient on CONSBS of the Distress is significantly negative (t=-2.15),

the estimates of the other groups are not consistent with the hypothesis. On the control

variables, there are more differences from the results of the Equation (1) such as the

coefficients on BIG4, with only the coefficients of Distress, Rescue and Other Positive

significant. On SIZE, except the Positive Events, the coefficients of other 8 groups are

significant.

In addition, I use the market-adjusted and risk-adjusted returns to test the

hypothesis and also replicate all the analyses of raw return including the sensitivity

analysis with the control variable SIZE and the results are presented in Appendix II – I

to Appendix VI -II. The results are similar to the analyses of raw return. For example, as

Panel A of Appendix VI - I presented, only the coefficients on CONSBS of the Distress

and Negative Reaction are as expected and significant (t=-3.7 and -2.24, respectively).

As to the t-tests of difference of the coefficients for three loan type pairs, the

results are generally analogous to the test of Equation (1) that the estimates are almost

not as expected, except the estimates of the coefficients on MBS and CONSBS of the

Distress and Negative Reaction groups.

Finally, I also drop the observations that the data of the securitization are 0 and

then replicate the regression analyses of raw return. The results are similar to the

analyses just described, so the tables are not tabulated.

VI. Conclusion

In this study, I investigate the association between the investors' reactions to the financial crisis events and the liquidity risk by testing three types of off-balance sheet securitized loans reported by the bank holding companies. The empirical results don't support my hypothesis, which may be explained that the off-balance sheet securitized loans implying different information qualities and liquidity risks have limited or indirect effects on stock pricing. But there are two empirically obvious findings: (1) the estimates of the Distress and Negative Reaction groups are closer to my expectations, compared with the other 6 groups, which may indicate that the events of the two groups are generally have wider or more direct effect on the market and liquidity risk; (2) only the coefficients on CONSBS of the Distress and Negative Reaction groups are as expected and significantly negative, which may be explained that the financial crisis have impacted on the economics very seriously such as the unemployment, wage reduction and thus might increase the risk of the consumer loans. In addition, during the financial crisis, the U.S. government and Fed have many policies or announcements such as bailout or capital infusions and many policies are intended to stabilize or reverse the mortgage market and bank liquidity. Therefore when a Distress event occurs, investors might think that the government however would do something to stabilize bank system or mortgage market, which may lower investors' reaction and thus weaken

the explanations of MBS and COMMBS.

Several research design problems and limitations may be the reasons why the results don't support my hypothesis: (1) compared to the four-month research period of Lev and Zhou (2009), my three-year research period may be too long to capture the main effects or impacts of the financial crisis; (2) actually, some of the events of this study have limited or indirect influence on the market or just affect some specific firms, but I do not specifically distinguish those events; (3) the events of this study are almost from the Timeline by Fed, but in fact, there should have been other news or events that are also relevant to liquidity that are not included in this study.
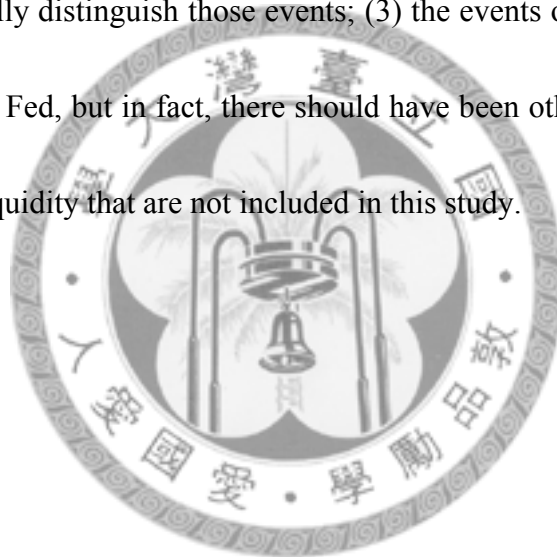
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Table 1 : Event Description

Group NO.	Group Name	Event Date	Event Window	Event Description
1	Distress	2007/2/27	070226-27-28	The Federal Home Loan Mortgage Corporation (Freddie Mac) announces that it will no longer buy the most risky subprime mortgages and mortgage-related securities.
1	Distress	2007/4/2	070330-0402-0403	New Century Financial Corporation, a leading subprime mortgage lender, files for Chapter 11 bankruptcy protection.
1	Distress	2007/6/1	070531-0601-0604	Standard and Poor's and Moody's Investor Services downgrade over 100 bonds backed by second-lien subprime mortgages.
1	Distress	2007/6/7	070606-07-0608	Bear Stearns informs investors that it is suspending redemptions from its High-Grade Structured Credit Strategies Enhanced Leverage Fund.
1	Distress	2007/7/11	070710-0711-0712	Standard and Poor's places 612 securities backed by subprime residential mortgages on a credit watch.
1	Distress	2007/7/24	070723-0724-0725	Countrywide Financial Corporation warns of "difficult conditions."
1	Distress	2007/7/31	070730-0731-0801	Bear Stearns liquidates two hedge funds that invested in various types of mortgage-backed securities.
1	Distress	2007/8/6	070803-0806	American Home Mortgage Investment Corporation files for Chapter 11 bankruptcy protection.
1	Distress	2007/8/9	070809	BNP Paribas, France's largest bank, halts redemptions on three investment funds.
3	Fed	2007/8/10	070810-0813	The Federal Reserve Board announces that it "will provide reserves as necessary…to promote trading in the federal funds market at rates close to the FOMC's target rate of 5.25 percent. In current circumstances, depository institutions may experience unusual funding needs because of dislocations in money and credit markets. As always, the discount window is available as a source of funding."
1	Distress	2007/8/16	070815-0816	Fitch Ratings downgrades Countrywide Financial Corporation to BBB+, its third lowest investment-grade rating, and Countrywide borrows the entire $11.5 billion available in its credit lines with other banks.
3	Fed	2007/8/17	070817-0820	The Federal Reserve Board votes to reduce the primary credit rate 50 basis points to 5.75 percent, bringing the rate to only 50 basis points above the FOMC's federal funds rate target. The Board also increases the maximum primary credit borrowing term to 30 days, renewable by the borrower.
3	Fed	2007/9/18	070917-0918-0919	The FOMC votes to reduce its target for the federal funds rate 50 basis points to 4.75 percent. The Federal Reserve Board votes to reduce the primary credit rate 50 basis points to 5.25 percent.

4	Positive Policy	2007/10/10	071009-1010-1011	U.S. Treasury Secretary Paulson announces the HOPE NOW initiative, an alliance of investors, servicers, mortgage market participants, and credit and homeowners' counselors encouraged by the Treasury Department and the Department of Housing and Urban Development.
1	Distress	2007/10/15	071012-1015-1016	Citigroup, Bank of America, and JPMorgan Chase announce plans for an $80 billion Master Liquidity Enhancement Conduit to purchase highly rated assets from existing special purpose vehicles.
3	Fed	2007/10/31	071030-1031	The FOMC votes to reduce its target for the federal funds rate 25 basis points to 4.50 percent. The Federal Reserve Board votes to reduce the primary credit rate 25 basis points to 5.00 percent.
1	Distress	2007/11/1	071101-1102	Financial market pressures intensify, reflected in diminished liquidity in interbank funding markets.
3	Fed	2007/12/11	071210-1211	The FOMC votes to reduce its target for the federal funds rate 25 basis points to 4.25 percent. The Federal Reserve Board votes to reduce the primary credit rate 25 basis points to 4.75 percent.
3	Fed	2007/12/12	071212-1213	The Federal Reserve Board announces the creation of a Term Auction Facility (TAF) in which fixed amounts of term funds will be auctioned to depository institutions against a wide variety of collateral. The FOMC authorizes temporary reciprocal currency arrangements (swap lines) with the European Central Bank (ECB) and the Swiss National Bank (SNB). The Fed states that it will provide up to $20 billion and $4 billion to the ECB and SNB, respectively, for up to 6 months.
1	Distress	2008/1/11	080110-0111-0114	Bank of America announces that it will purchase Countrywide Financial in an all-stock transaction worth approximately $4 billion.
1	Distress	2008/1/18	080117-0118	Fitch Ratings downgrades Ambac Financial Group's insurance financial strength rating to AA, Credit Watch Negative. Standard and Poor's place Ambac's AAA rating on CreditWatch Negative.
3	Fed	2008/1/22	080122-0123	In an intermeeting conference call, the FOMC votes to reduce its target for the federal funds rate 75 basis points to 3.5 percent. The Federal Reserve Board votes to reduce the primary credit rate 75 basis points to 4 percent.
3	Fed	2008/1/30	080129-0130-0131	The FOMC votes to reduce its target for the federal funds rate 50 basis points to 3 percent. The Federal Reserve Board votes to reduce the primary credit rate 50 basis points to 3.5 percent.
4	Positive Policy	2008/2/13	080212-0213-0214	President Bush signs the Economic Stimulus Act of 2008 (Public Law 110-185) into law.

1	Distress	2008/3/5	080304-0305-0306	Carlyle Capital Corporation receives a default notice after failing to meet margin calls on its mortgage bond fund.
3	Fed	2008/3/7	080307-0310	The Federal Reserve Board announces $50 billion TAF auctions on March 10 and March 24 and extends the TAF for at least 6 months. The Board also initiates a series of term repurchase transactions, expected to cumulate to $100 billion, conducted as 28-day term repurchase agreements with primary dealers.
3	Fed	2008/3/11	080311-0312	The Federal Reserve Board announces the creation of the Term Securities Lending Facility (TSLF), which will lend up to $200 billion of Treasury securities for 28-day terms against federal agency debt, federal agency residential mortgage-backed securities (MBS), non-agency AAA/Aaa private label residential MBS, and other securities. The FOMC increases its swap lines with the ECB by $10 billion and the Swiss National Bank by $2 billion and also extends these lines through September 30, 2008.
2	Rescue	2008/3/14	080313-0314	The Federal Reserve Board approves the financing arrangement announced by JPMorgan Chase and Bear Stearns [see note for March 24]. The Federal Reserve Board also announces they are "monitoring market developments closely and will continue to provide liquidity as necessary to promote the orderly function of the financial system."
3	Fed	2008/3/16	080317	The Federal Reserve Board establishes the Primary Dealer Credit Facility (PDCF), extending credit to primary dealers at the primary credit rate against a broad range of investment grade securities. The Federal Reserve Board votes to reduce the primary credit rate 25 basis points to 3.25 percent, lowering the spread between the primary credit rate and FOMC target for the federal funds rate to 25 basis points. The Board also votes to increase the maximum maturity of primary credit loans to 90 days.
3	Fed	2008/3/18	080318-0319	The FOMC votes to reduce its target for the federal funds rate 75 basis points to 2.25 percent. The Federal Reserve Board votes to reduce the primary credit rate 75 basis points to 2.50 percent.
2	Rescue	2008/3/24	080320-0324-0325	The Federal Reserve Bank of New York announces that it will provide term financing to facilitate JPMorgan Chase & Co.'s acquisition of The Bear Stearns Companies Inc. A limited liability company (Maiden Lane) is formed to control $30 billion of Bear Stearns assets that are pledged as security for $29 billion in term financing from the New York Fed at its primary credit rate. JPMorgan Chase will assume the first $1 billion of any losses on the portfolio.

3	Fed	2008/4/30	080429-0430-0501	The FOMC votes to reduce its target for the federal funds rate 25 basis points to 2 percent. The Federal Reserve Board votes to reduce the primary credit rate 25 basis points to 2.25 percent.
3	Fed	2008/5/2	080502-0505	The FOMC expands the list of eligible collateral for Schedule 2 TSLF auctions to include AAA/Aaa-rated asset-backed securities, in addition to already eligible residential and commercial MBS and agency collateralized mortgage obligations.
				The FOMC also increases existing swap lines with the ECB by $20 billion and with the Swiss National Bank by $6 billion. The Federal Reserve Board expands TAF auctions from $50 billion to $75 billion.
1	Distress	2008/7/11	080710-0711	The Office of Thrift Supervision closes IndyMac Bank, F.S.B. The Federal Deposit Insurance Corporation (FDIC) announces the transfer of the insured deposits and most assets of IndyMac Bank, F.S.B. to IndyMac Federal Bank, FSB.
2	Rescue	2008/7/13	080714	(1)The Federal Reserve Board authorizes the Federal Reserve Bank of New York to lend to the Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac), should such lending prove necessary. (2)The U.S. Treasury Department announces a temporary increase in the credit lines of Fannie Mae and Freddie Mac and a temporary authorization for the Treasury to purchase equity in either GSE if needed.
4	Positive Policy	2008/7/15	080715-0716	The Securities Exchange Commission (SEC) issues an emergency order temporarily prohibiting naked short selling in the securities of Fannie Mae, Freddie Mac, and primary dealers at commercial and investment banks.
3	Fed	2008/7/30	080729-0730-0731	(1)President Bush signs into law the Housing and Economic Recovery Act of 2008 (Public Law 110-289), which, among other provisions, authorizes the Treasury to purchase GSE obligations and reforms the regulatory supervision of the GSEs under a new Federal Housing Finance Agency. (2)The Federal Reserve Board extends the TSLF and PDCF through January 30, 2009, introduces auctions of options on $50 billion of draws on the TSLF, and introduces 84-day TAF loans. The FOMC increases its swap line with the ECB to $55 billion.
1	Distress	2008/9/7	080905-0908-0909	Federal Housing Finance Agency (FHFA) places Fannie Mae and Freddie Mac in government conservatorship.
1	Distress	2008/9/15	080912-0915	Bank of America announces its intent to purchase Merrill Lynch & Co. for $50 billion; Lehman Brothers Holdings Incorporated files for Chapter 11 bankruptcy protection.

1	Distress	2008/9/21	080922	The Federal Reserve Board approves applications of investment banking companies Goldman Sachs and Morgan Stanley to become bank holding companies.
1	Distress	2008/9/23	080923-0924	FBI looked into the possibility of fraud by 26 mortgage financing companies, including Fannie Mae and Freddie Mac, Lehman Brothers, and insurer American International Group
1	Distress	2008/9/25	080925-0926	The Office of Thrift Supervision closes Washington Mutual Bank (WAMU).
5	Negative Policy	2008/10/1	081001-1002	The U.S. Senate passes their version of the $700 billion bailout bill.
1	Distress	2008/10/3	081003	(1) Wells Fargo has stunned financial markets by announcing a competing proposal to purchase Wachovia that does not require assistance from FDIC. Wachovia was involved in a government-brokered deal with Citigroup earlier in the week. (2) Congress passes and President Bush signs into law the Emergency Economic Stabilization Act (EESA) of 2008, which establishes the $700 billion Troubled Asset Relief Program (TARP).
3	Fed	2008/10/7	081007	Fed makes emergency move to lend around $1.3 trillion directly to companies outside the financial sector through the creation of Commercial Paper Funding Facility (CPFF). (2) Fed increase in deposit insurance coverage to $250,000 per depositor.
2	Rescue	2008/10/12	081010-1013	The Federal Reserve Board announces its approval of an application by Wells Fargo & Co. (WFC) to acquire Wachovia Corporation.
5	Negative Policy	2008/10/14	081014-1015	On October 14, the Treasury announces the Capital Purchase Program (CPP) under the TARP. The form of the rescue will include the US government taking an equity position in banks that choose to participate in the program in exchange for certain restrictions such as executive compensation. The CPP will use the first tranche of available TARP funds to purchase up to $250 billion of senior preferred shares on standardized terms from bank and thrift institutions. The first $125 billion will be invested in nine large, systemically important bank holding companies. The remaining $125 billion will be available for other qualifying institutions. Nine banks agreed to participate in the program and will receive half of the total funds: 1) Bank of America, 2) JPMorgan Chase, 3) Wells Fargo, 4) Citigroup, 5) Merrill Lynch, 6) Goldman Sachs, 7) Morgan Stanley, 8) Bank of New York Mellon and 9) State Street. Other US financial institutions eligible for the plan have until November 14 to agree to the terms.

3	Fed	2008/10/21	081020-1021	The Federal Reserve Board announces creation of the Money Market Investor Funding Facility (MMIFF). Under the facility, the Federal Reserve Bank of New York will spend $540 billion to purchase short-term debt from money market mutual funds.
3	Fed	2008/10/22	081022	The Federal Reserve Board announces that it will alter the formula used to determine the interest rate paid to depository institutions on excess reserve balances. The new rate will be set equal to the lowest FOMC target rate in effect during the reserve maintenance period less 35 basis points.
5	Negative Policy	2008/10/23	081023	Greenspan testify before Congress, "We are in the midst of a once-in-a century credit tsunami."
1	Distress	2008/10/24	081024-1027	PNC Financial Services Group Inc. purchases National City Corporation (NCC), creating the fifth largest U.S. bank.
6	Capital Infusion	2008/10/28	081028	The U.S. Treasury Department purchases a total of $125 billion in preferred stock in nine U.S. banks under the Capital Purchase Program of TARP.
3	Fed	2008/10/29	081029	The FOMC votes to reduce its target for the federal funds rate 50 basis points to 1.00 percent. The Federal Reserve Board reduces the primary credit rate 50 basis points to 1.25 percent.
2	Rescue	2008/10/30	081030-1031	Fed adds $21 billion to loans for AIG
5	Negative Policy	2008/11/4	081103-1104	U.S. presidential election day
3	Fed	2008/11/5	081105-1106	The Federal Reserve Board announces that it will alter the formula used to determine the interest rate paid to depository institutions on required and excess reserve balances. The rate on required reserves will be set equal to the average target federal funds rate over the reserve maintenance period. The rate on excess balances will be set equal to the lowest FOMC target rate in effect during the reserve maintenance period.
5	Negative Policy	2008/11/12	081112-1113	Treasury Secretary Paulson abandons plan to buy toxic assets under the $700 billion Troubled Asset Relief Program (TARP). Mr. Paulson said the remaining $410 billion in the fund would be better spent on recapitalizing financial companies.
6	Capital Infusion	2008/11/14	081114-1117	The U.S. Treasury Department purchases a total of $33.5 billion in preferred stock in 21 U.S. banks under the Capital Purchase Program of TARP.
1	Distress	2008/11/18	081118-1119	Executives of Ford, General Motors, and Chrysler testify before Congress, requesting access to the TARP for federal loans.
1	Distress	2008/11/20	081120	Fannie Mae and Freddie Mac announce that they will suspend mortgage foreclosures until January 2009.
6	Capital Infusion	2008/11/21	081121	The U.S. Treasury Department purchases a total of $3 billion in preferred stock in 23 U.S. banks under the Capital Purchase

				Program.
2	Rescue	2008/11/23	081124	The U.S. Treasury Department, Federal Reserve Board, and FDIC jointly announce an agreement with Citigroup to provide a package of guarantees, liquidity access, and capital. Citigroup will issue preferred shares to the Treasury and FDIC in exchange for protection against losses on a $306 billion pool of commercial and residential securities held by Citigroup. The Federal Reserve will backstop residual risk in the asset pool through a non-recourse loan. In addition, the Treasury will invest an additional $20 billion in Citigroup from the TARP.
3	Fed	2008/11/25	081125-1126	The U.S. Federal Reserve pledges $800 billion more to help revive the financial system. $600 billion will be used to buy mortgage bonds issued or guaranteed by Fannie Mae, Freddie Mac, and Ginnie Mae, and the Federal Home Loan Banks.
3	Fed	2008/12/2	081201-1202	The Federal Reserve Board announces that it will extend three liquidity facilities, the Primary Dealer Credit Facility (PDCF), the Asset-Backed Commercial Paper Money Market Fund Liquidity Facility (AMLF), and the Term Securities Lending Facility (TSLF) through April 30, 2009.
5	Negative Policy	2008/12/3	081203-1204	The SEC approves measures to increase transparency and accountability at credit rating agencies and thereby ensure that firms provide more meaningful ratings and greater disclosure to investors.
6	Capital Infusion	2008/12/5	081205-1208	The U.S. Treasury Department purchases a total of $4 billion in preferred stock in 35 U.S. banks under the Capital Purchase Program.
2	Rescue	2008/12/9	081209-1210	Close to a deal to save automobile industry on Oct 9. The House voted on Oct 10 to approve a $14 billion government rescue of the American automobile industry, but the bailout plan, which would provide emergency loans to GM & Chrysler was in jeopardy because of strong Republican opposition in the Senate.
1	Distress	2008/12/11	081211	Bernard Madoff, who founded Bernard L. Madoff Investment Securities, was arrested by Federal Bureau of Investigation agents on alleged fraud, The Wall Street Journal reported late Thursday on its Web site.
3	Fed	2008/12/16	081216-1217	The FOMC votes to establish a target range for the effective federal funds rate of 0 to 0.25 percent. The Federal Reserve Board votes to reduce the primary credit rate 75 basis points to 0.50 percent.
6	Capital Infusion	2008/12/19	081218-1219-1222	(1) The U.S. Treasury Department purchases a total of $27.9 billion in preferred stock in 49 U.S. banks under the Capital Purchase Program. (2) The U.S. Treasury Department authorizes loans of up to $13.4 billion for General Motors and $4.0 billion for Chrysler

				from the TARP..
6	Capital Infusion	2008/12/23	081223-1224	The U.S. Treasury Department purchases a total of $15.1 billion in preferred stock from 43 U.S. banks under the Capital Purchase Program.
2	Rescue	2008/12/29	081226-1229-1230	The U.S. Treasury Department announces that it will purchase $5 billion in equity from GMAC as part of its program to assist the domestic automotive industry.
6	Capital Infusion	2008/12/31	081231-090102	The U.S. Treasury Department purchases a total of $1.91 billion in preferred stock from seven U.S. banks under the Capital Purchase Program.
3	Fed	2009/1/5	090105-0106	The Federal Reserve Bank of New York begins purchasing fixed-rate mortgage-backed securities guaranteed by Fannie Mae, Freddie Mac and Ginnie Mae under a program first announced on November 25, 2008.
3	Fed	2009/1/7	090107	The Federal Reserve Board announces two changes to the Money Market Investor Funding Facility (MMIFF) that 1) expand the set of institutions eligible to participate in the MMIFF and 2) reduce the minimum yield on assets eligible to be sold to the MMIFF.
1	Distress	2009/1/8	090108	Moody's Investor Services issues a report suggesting that the Federal Home Loan Banks are currently facing the potential for significant accounting write-downs on their $76.2 billion private-label MBS securities portfolio. According to Moody's, only four of 12 Banks' capital ratios would remain above regulatory minimums under a worst-case scenario.
6	Capital Infusion	2009/1/9	090109	The U.S. Treasury Department purchases a total of $4.8 billion in preferred stock from 43 U.S. banks under the Capital Purchase Program.
4	Positive Policy	2009/1/12	090112	(1)The FDIC issues a letter to FDIC-supervised institutions calling on them to implement a process to monitor their use of capital injections, liquidity support and/or financing guarantees obtained through Treasury, FDIC, and Federal Reserve financial stability programs. (2)At the request of President-Elect Obama, President Bush submits a request to Congress for the remaining $350 billion in TARP funding for use by the incoming administration.
1	Distress	2009/1/13	090113-0114	The Federal Home Loan Bank of Seattle reports that it will likely report a risk-based capital deficiency and suspend its dividend because of a decline in the market value of its mortgage-backed securities portfolio. The move follows a similar

				announcement on January 8 by the Federal Home Loan Bank of San Francisco.
6	Capital Infusion	2009/1/16	090115-0116-0120	(1)The U.S. Treasury Department purchases a total of $1.4 billion in preferred stock from 39 U.S. banks under the Capital Purchase Program. (2)The U.S. Treasury Department, Federal Reserve, and FDIC announce a package of guarantees, liquidity access, and capital for Bank of America. The U.S. Treasury and the FDIC will enter a loss-sharing arrangement with Bank of America on a $118 billion portfolio of loans, securities, and other assets in exchange for preferred shares. In addition, and if necessary, the Federal Reserve will provide a non-recourse loan to back-stop residual risk in the portfolio. Separately, the U.S. Treasury will invest $20 billion in Bank of America from the TARP in exchange for preferred stock. (3)The U.S. Treasury Department announces that it will lend $1.5 billion from the TARP to a special purpose entity created by Chrysler Financial to finance the extension of new consumer auto loans.
6	Capital Infusion	2009/1/23	090122-0123-0126	The U.S. Treasury Department purchases a total of $326 million in preferred stock from 23 U.S. banks under the Capital Purchase Program.
4	Positive Policy	2009/1/28	090127-0128-0129	The National Credit Union Administration (NCUA) Board announces that the NCUA will guarantee uninsured shares at all corporate credit unions through February 2009 and establish a voluntary guarantee program for uninsured shares of credit unions through December 2010. The Board also approves a $1 billion capital purchase in U.S. Central Corporate Federal Credit Union. Corporate credit unions provide financing, check clearing, and other services to retail credit unions.
6	Capital Infusion	2009/1/30	090130-0202	(1)The Board of Governors announces a policy to avoid preventable foreclosures on certain residential mortgage assets held, controlled or owned by a Federal Reserve Bank. The policy was developed pursuant to section 110 of the Emergency Economic Stabilization Act. (2)The U.S. Treasury Department purchases a total of $1.15 billion in preferred stock from 42 U.S. banks under the Capital Purchase Program.
3	Fed	2009/2/3	090203-0204	The Federal Reserve announces the extension, through October 30, 2009, of the existing liquidity programs scheduled to expire on April 30, 2009. The Board of Governors and the FOMC note "continuing substantial strains in many financial markets." In addition, the swap lines between the Federal Reserve and other central banks are also extended to October 30, 2009. The expiration date for the TALF remains December 31, 2009, and the TAF does not have an expiration date.

3	Fed	2009/2/6	090205-0206-0209	(1)The Federal Reserve Board releases additional terms and conditions of the Term Asset-Backed Securities Loan Facility (TALF). Under the TALF, the Federal Reserve Bank of New York will lend up to $200 billion to eligible owners of certain AAA-rated asset-backed securities backed by newly and recently originated auto loans, credit card loans, student loans and SBA-guaranteed small business loans. (2)The U.S. Treasury Department purchases a total of $238.5 million in preferred stock from 28 U.S. banks under the Capital Purchase Program.
4	Positive Policy	2009/2/10	090210-0211	(1)U.S. Treasury Secretary Timothy Geithner announces a Financial Stability Plan involving Treasury purchases of convertible preferred stock in eligible banks, the creation of a Public-Private Investment Fund to acquire troubled loans and other assets from financial institutions, expansion of the Federal Reserve's Term Asset-Backed Securities Loan Facility (TALF), and new initiatives to stem residential mortgage foreclosures and to support small business lending. (2)The Federal Reserve Board announces that is prepared to expand the Term Asset-Backed Securities Loan Facility (TALF) to as much as $1 trillion and broaden the eligible collateral to include AAA-rated commercial mortgage-backed securities, private-label residential mortgage-backed securities, and other asset-backed securities. An expansion of the TALF would be supported by $100 billion from the Troubled Asset Relief Program (TARP). The Federal Reserve Board will announce the date that the TALF will commence operations later this month.
6	Capital Infusion	2009/2/13	090212-0213	The U.S. Treasury Department purchases a total of $429 million in preferred stock from 29 U.S. banks under the Capital Purchase Program.
4	Positive Policy	2009/2/17	090217	President Obama signs into law the "American Recovery and Reinvestment Act of 2009", which includes a variety of spending measures and tax cuts intended to promote economic recovery.
4	Positive Policy	2009/2/18	090218-0219	President Obama announces The Homeowner Affordability and Stability Plan. The plan includes a program to permit the refinancing of conforming home mortgages owned or guaranteed by Fannie Mae or Freddie Mac that currently exceed 80 percent of the value of the underlying home. The plan also creates a $75 billion Homeowner Stability Initiative to modify the terms of eligible home loans to reduce monthly loan payments. In addition, the U.S. Treasury Department will increase its preferred stock purchase agreements with Fannie Mae and Freddie Mac to $200 billion, and increase the limits on the size of

				Fannie Mae and Freddie Mac's portfolios to $900 billion.
6	Capital Infusion	2009/2/24	090224	The U.S. Treasury Department purchases a total of $365.4 million in preferred stock from 23 U.S. banks under the Capital Purchase Program.
4	Positive Policy	2009/2/27	090227	(1)The Federal Deposit Insurance Corporation (FDIC) announces changes in its risk-based assessment system and a 20 basis point emergency special assessment on insured depository institutions to be collected on September 30, 2009. (2)The U.S. Treasury Department purchases a total of $394.9 million in preferred stock from 28 U.S. banks under the Capital Purchase Program.
2	Rescue	2009/3/2	090302	The U.S. Treasury Department and Federal Reserve Board announce a restructuring of the government's assistance to American International Group (AIG). Under the restructuring, AIG will receive as much as $30 billion of additional capital from the Troubled Asset Relief Program (TARP). In addition, the U.S. Treasury Department will exchange its existing $40 billion cumulative preferred shares in AIG for new preferred shares with revised terms that more closely resemble common equity. Finally, AIG's revolving credit facility with the Federal Reserve Bank of New York will be reduced from $60 billion to no less than $25 billion and the terms will be modified. In exchange, the Federal Reserve will receive preferred interests in two special purpose vehicles created to hold the outstanding common stock of two subsidiaries of AIG: American Life Insurance Company and American International Assurance Company Ltd. Separately, AIG reports a fourth quarter 2008 loss of $61.7 billion, and a loss of $99.3 billion for all of 2008.
3	Fed	2009/3/3	090303	The U.S. Treasury Department and the Federal Reserve Board announce the launch of the Term Asset-Backed Securities Loan Facility (TALF). Under the program, the Federal Reserve Bank of New York will lend up to $200 billion to eligible owners of certain AAA-rated asset-backed securities backed by newly and recently originated auto loans, credit card loans, student loans and small business loans that are guaranteed by the Small Business Administration. The Federal Reserve and Treasury expect to include asset-backed securities backed by other types of loans in future monthly fundings. Subscriptions for funding in March will be accepted on March 17, 2009. Securitizations will be funded by the program on March 25, 2009. The program will hold monthly fundings through December 2009 or longer if extended by the Federal Reserve Board.

6	Capital Infusion	2009/3/6	090306-0309	The U.S. Treasury Department purchases a total of $284.7 million in preferred stock from 22 U.S. banks under the Capital Purchase Program.
6	Capital Infusion	2009/3/13	090313-0316	The U.S. Treasury Department purchases a total of $1.45 billion in preferred stock from 19 U.S. banks under the Capital Purchase Program.
4	Positive Policy	2009/3/17	090317	The Federal Deposit Insurance Corporation (FDIC) decides to extend the debt guarantee portion of the Temporary Liquidity Guarantee Program (TLGP) from June 30, 2009 through October 31, 2009, and to impose a surcharge on debt issued with a maturity of one-year or more beginning in the second quarter of 2009 to gradually phase-out the program.
3	Fed	2009/3/18	090318	(1)The FOMC votes to maintain the target range for the effective federal funds at 0 to 0.25 percent. In addition, the FOMC decides to increase the size of the Federal Reserve's balance sheet by purchasing up to an additional $750 billion of agency mortgage-backed securities, bringing its total purchases of these securities to up to $1.25 trillion this year, and to increase its purchases of agency debt this year by up to $100 billion to a total of up to $200 billion. The FOMC also decides to purchase up to $300 billion of longer-term Treasury securities over the next six months to help improve conditions in private credit markets. Finally, the FOMC announces that it anticipates expanding the range of eligible collateral for the TALF (Term Asset-Backed Securities Loan Facility). (2)The Federal Reserve Bank of New York releases more information on the Federal Reserve's plan to purchase Treasury securities. The Desk will concentrate its purchases in nominal maturities ranging from 2 to 10 years. The purchases will be conducted with the Federal Reserve's primary dealers through a series of competitive auctions and will occur two to three times a week. The Desk plans to hold the first purchase operation late next week.
3	Fed	2009/3/19	090319	(1)The U.S. Department of the Treasury announces an Auto Supplier Support Program that will provide up to $5 billion in financing to the automotive industry. The Supplier Support Program will provide selected suppliers with financial protection on monies ("receivables") they are owed by domestic auto companies and the opportunity to access immediate liquidity against those obligations. Receivables created with respect to goods shipped after March 19, 2009, will be eligible for the program. Any domestic auto company is eligible to participate in the program. Any U.S.-based supplier that ships to a participating auto manufacturer on qualifying commercial terms may be eligible to participate in the program. (2)The Federal Reserve Board announces an expansion of the eligible collateral for loans extended by the Term

				Asset-Backed Securities Loan Facility (TALF) to include asset-backed securities backed by mortgage servicing advances, loans or leases related to business equipment, leases of vehicle fleets, and floorplan loans. The new categories of collateral will be eligible for the April TALF funding.
6	Capital Infusion	2009/3/20	090320	The U.S. Treasury Department purchases a total of $80.8 million in preferred stock from 10 U.S. banks under the Capital Purchase Program.
4	Positive Policy	2009/3/23	090323-0324	The U.S. Treasury Department announces details on the Public-Private Investment Program for Legacy Assets. The program will have two parts: a Legacy Loans Program and a Legacy Securities Program. The Legacy Loans Program will facilitate the creation of individual Public-Private Investment Funds which will purchase distressed loans that are currently held by banks. The U.S. Treasury intends to provide 50 percent of the equity capital for each fund. The FDIC will provide oversight for the formation, funding, and operation of these funds, and guarantee the debt issued by the funds. Under the Legacy Securities Program, the U.S. Treasury Department will approve up to five asset managers who will have the opportunity to raise private capital to acquire distressed securities currently held by banks. The U.S. Treasury will provide 50 percent of the equity capital for each investment fund and will consider requests for loans to each fund. In addition, the investment funds would also be eligible for non-recourse loans from the Term Asset-Backed Securities Facility (TALF).
6	Capital Infusion	2009/3/27	090327-0330	The U.S. Treasury Department purchases a total of $193 million in preferred stock from 14 U.S. banks under the Capital Purchase Program.
3	Fed	2009/3/31	090331	(1)The U.S. Treasury Department announces an extension of its temporary Money Market Funds Guarantee Program through September 18, 2009. This program will continue to provide coverage to shareholders up to the amount held in participating money market funds as of the close of business on September 19, 2008. The Program currently covers over $3 trillion of combined fund assets and was scheduled to end on April 30, 2009.(2)Four bank holding companies announced that they had redeemed all of the preferred shares that they had issued to the U.S. Treasury under the Capital Purchase Program of the Troubled Asset Relief Program (TARP). The four banks are Bank of Marin Bancorp (Novato, CA), Iberiabank Corporation (Lafayette, LA), Old National Bancorp (Evansville, IN), and Signature Bank (New York, NY).

4	Positive Policy	2009/4/2	090402	The Financial Accounting Standards Board approves new guidance to ease the accounting of troubled assets held by banks and other financial companies. In particular, the Board provides new guidance on how to determine the fair value of assets for which there is no active market.
6	Capital Infusion	2009/4/3	090403	The U.S. Treasury purchases a total of $54.8 million in preferred stock from 10 U.S. banks under the Capital Purchase Program.
3	Fed	2009/4/6	090406	The Federal Reserve announces new reciprocal currency agreements (swap lines) with the Bank of England, the European Central Bank, the Bank of Japan and the Swiss National Bank that would enable the provision of foreign currency liquidity by the Federal Reserve to U.S. financial institutions.
6	Capital Infusion	2009/4/10	090413-0414	The U.S. Treasury purchases a total of $22.8 million in preferred stock from 5 U.S. banks under the Capital Purchase Program.
6	Capital Infusion	2009/4/17	090416-0417-0420	The U.S. Treasury purchases a total of $40.9 million in preferred stock from 6 U.S. banks under the Capital Purchase Program.
6	Capital Infusion	2009/4/24	090424-0427	The U.S. Treasury purchases a total of $121.8 million in preferred stock from 12 U.S. banks under the Capital Purchase Program.
3	Fed	2009/5/1	090430-0501-0504	(1)The Federal Reserve Board announces that, starting in June, commercial mortgage-backed securities (CMBS) and securities backed by insurance premium finance loans will be eligible collateral under the Term Asset-Backed Securities Loan Facility (TALF). The Board also authorizes TALF loans with maturities of five years. Currently, all TALF loans have maturities of three years. TALF loans with five-year maturities will be available for the June funding to finance purchases of CMBS, ABS backed by student loans, and ABS backed by loans guaranteed by the Small Business Administration. (2)The U.S. Treasury purchases a total of $45.5 million in preferred stock from 7 U.S. banks under the Capital Purchase Program.
6	Capital Infusion	2009/5/8	090508-0511	(1)Fannie Mae reports a loss of $23.2 billion for the first quarter of 2009. The Director of the Federal Housing Finance Agency (FHFA), which has been conservator of Fannie Mae since September 6, 2008, requests $19 billion from the U.S. Treasury Department under the terms of the Senior Preferred Stock Purchase Agreement between Fannie Mae and the Treasury to eliminate the firm's net worth deficit. Separately, on May 6, 2009, the Treasury Department and the FHFA enter

				into an amendment to the Senior Preferred Stock Purchase Agreement to increase the Treasury's funding commitment to Fannie Mae to $200 billion from $100 billion, increase the allowed size of Fannie Mae's mortgage portfolio to $900 billion, and to increase the firm's allowable debt outstanding to $1,080 billion. (2)The U.S. Treasury purchases a total of $42 million in preferred stock from 7 U.S. banks under the Capital Purchase Program.
2	Rescue	2009/5/12	090512	Freddie Mac reports a first quarter 2009 loss of $9.9 billion, and a net worth deficit of $6.0 billion as of March 31, 2009. The Director of the Federal Housing Finance Agency (FHFA) submits a request to the U.S. Treasury .Department for funding in the amount of $6.1 billion in his capacity as conservator of Freddie Mac. Further, on May 6, 2009, the Treasury Department and FHFA, acting on Freddie Mac's behalf as its conservator, entered into an amendment to the Purchase Agreement between the company and Treasury that increases the Treasury's funding commitment to the firm to $200 billion from $100 billion, increases the allowed size of Freddie Mac's mortgage-related investments portfolio by $50 billion to $900 billion, and increases the firm's allowable debt outstanding to $1,080 billion until December 31, 2010.
6	Capital Infusion	2009/5/15	090515-0518	The U.S. Treasury purchases a total of $107.6 million in preferred stock from 14 U.S. banks under the Capital Purchase Program.
3	Fed	2009/5/19	090519	The Federal Reserve Board announces that, starting in July, certain high-quality commercial mortgage-backed securities issued before January 1, 2009 ("legacy CMBS") will become eligible collateral under the Term Asset-Backed Securities Loan Facility (TALF). The objective of the expansion is to restart the market for legacy securities and, by doing so, stimulate the extension of new credit by helping to ease balance sheet pressures on banks and other financial institutions. Eligible CMBS must have a triple-A rating from at least two major rating services.
4	Positive Policy	2009/5/20	090520	President Obama signs the Helping Families Save Their Homes Act of 2009, which temporarily raises FDIC deposit insurance coverage from $100,000 per depositor to $250,000 per depositor.　The new coverage at FDIC-insured institutions will expire on January 1, 2014, when the amount will return to its standard level of $100,000 per depositor for all account categories except IRAs and other certain retirement accounts.　This action supersedes the October 3, 2008 changes.

2	Rescue	2009/5/21	090521	The Federal Deposit Insurance Corporation (FDIC) announces the approval of GMAC Financial Services to participate in the Temporary Liquidity Guarantee Program (TLGP). GMAC will be allowed to issue up to $7.4 billion in new FDIC-guaranteed debt.
3	Fed	2009/5/22	090522-0526	(1)The Federal Reserve Board announces the adoption of a final rule that will allow bank holding companies to include in their Tier 1 capital without restriction senior perpetual preferred stock issued to the U.S. Treasury Department under the Troubled Asset Relief Program (TARP). (2)The U.S. Treasury purchases a total of $108 million in preferred stock from 12 U.S. banks under the Capital Purchase Program.
1	Distress	2009/5/27	090527-0528	The FDIC announces that the number of "problem banks" increased from 252 insured institutions with $159 billion in assets at the end of fourth quarter of 2008, to 305 institutions with $220 billion of assets at the end of the first quarter of 2009. The FDIC also announces that there were 21 bank failures in the first quarter of 2009, which is the largest number of failed institutions in a quarter since the first quarter of 1992.
6	Capital Infusion	2009/5/29	090529	The U.S. Treasury purchases a total of $89 million in preferred stock from 8 U.S. banks under the Capital Purchase Program.
1	Distress	2009/6/1	090601-0602	As part of a new restructuring agreement with the U.S. Treasury and the governments of Canada and Ontario, General Motors Corporation and three domestic subsidiaries announce that they have filed for relief under Chapter 11 of the U.S. Bankruptcy Code.
7	Other Positive Events	2009/6/3	090603-0604	The FDIC announces that the previously planned sale of impaired bank assets under the Legacy Loans Program (LLP) will be postponed. According to Chairman Bair: "Banks have been able to raise capital without having to sell bad assets through the LLP, which reflects renewed investor confidence in our banking system."
6	Capital Infusion	2009/6/5	090605-0608	The U.S. Treasury purchases a total of $40 million in preferred stock from 3 U.S. bank under the Capital Purchase Program.
6	Capital Infusion	2009/6/12	090612-0615	The U.S. Treasury purchases a total of $39 million in preferred stock from 7 U.S. Banks under the Capital Purchase Program.
6	Capital Infusion	2009/6/19	090619-0622	The U.S. Treasury purchases a total of $84.7 million in preferred stock from 10 U.S. banks under the Capital Purchase Program.

3	Fed	2009/6/24	090623-0624	(1)The Securities and Exchange Commission proposes rule amendments designed to strengthen the regulatory framework for money market funds. The proposed rules are intended to reduce the risk in money market funds by introducing liquidity requirements, shortening the average maturity limits, and increasing the requirements for credit quality. In addition, the proposals would require the monthly reporting of portfolio holdings and will allow suspension of redemptions if a fund "breaks the buck." (2)The Federal Reserve announces extensions of and modifications to a number of its liquidity programs. The expiration date of the Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility (AMLF), the Commercial Paper Funding Facility (CPFF), the Primary Dealer Credit Facility (PDCF), and the Term Securities Lending Facility (TSLF) is extended through February 1, 2010. The expiration date of the Term Asset-Backed Securities Loan Facility (TALF) remains set at December 31, 2009. In addition, the temporary reciprocal currency arrangements (swap lines) between the Federal Reserve and other central banks have been extended to February 1, 2010. The Federal Reserve also announces that the amounts auctioned at the biweekly auctions of Term Auction Facility (TAF) funds will be reduced from $150 billion to $125 billion, effective with the auction to be held on July 13, 2009.
2	Rescue	2009/6/25	090625	American International Group (AIG) announces that it has entered into an agreement with the Federal Reserve Bank of New York to reduce the debt AIG owes the Federal Reserve Bank of New York by $25 billion. The Federal Reserve Bank of New York will receive preferred interests of $16 billion and $9 billion, respectively, in two new special purpose vehicles holding the equity of AIG subsidiaries American International Assurance Company and American Life Insurance Company.
4	Positive Policy	2009/7/8	090707-0708-0709	The U.S. Treasury Department, Federal Reserve and the FDIC announce the details of the Legacy Securities Public-Private Investment Program (PPIP). Under this program, the U.S. Treasury will invest up to $30 billion with private sector fund managers and private investors for the purpose of purchasing legacy securities. The Legacy Securities PPIP will participate in the market for commercial mortgage-backed securities and non-agency residential mortgage-backed securities. To qualify for purchase, these securities must have been issued prior to 2009 and have originally been rated AAA (or an equivalent rating by two or more nationally recognized statistical rating organizations) without ratings enhancement and must be secured directly by the actual mortgage loans, leases, or other assets ("Eligible Assets"). The U.S. Treasury pre-qualified nine firms to participate as fund managers. The fund managers will be required to raise at least $500 million of capital from private

				investors; the equity capital will be matched by U.S. Treasury. In addition, the fund manager must also invest a minimum of $20 million of firm capital. Upon raising this private capital the fund managers can begin purchasing Eligible Asset
7	Other Positive Events	2009/7/21	090720-0721-0722	Chairman Ben Bernanke presents the second of the Federal Reserve's semi-annual Monetary Policy Report to the Congress. Chairman Bernanke testifies that "the extreme risk aversion of last fall has eased somewhat, and investors are returning to private credit markets."
3	Fed	2009/8/17	090814-0817-0818	The Federal Reserve Board and the Treasury Department announce an extension to the Term Asset-Backed Securities Loan Facility (TALF). Eligible loans against newly issued asset-backed securities (ABS) and legacy commercial mortgage-backed securities (CMBS) can now be made through March 31, 2010. Because new CMBS deals can take a significant amount of time to arrange, TALF lending against newly issued CMBS was approved through June 30, 2010. The previously-announced deadline for TALF loans was December 31, 2009. The Federal Reserve and the Treasury said they do not anticipate any further additions to the types of collateral that are eligible for the TALF.
1	Distress	2009/8/27	090827	The FDIC announces that the number of "problem banks" increased from 305 insured institutions with $220 billion in assets at the end of first quarter of 2009, to 416 institutions with $299.8 billion of assets at the end of the second quarter of 2009.
4	Positive Policy	2009/9/16	090916-0917	The Federal Deposit Insurance Corporation (FDIC) announces the signing of a bid confirmation letter with Residential Credit Solutions in a pilot sale of receivership assets under the Legacy Loans Program of the Public-Private Investment Program. The Public-Private Investment Program is being developed to help banks remove troubled assets from their balance sheets. The pilot sale was conducted to test the funding mechanism for the Legacy Loans Program.
1	Distress	2009/11/1	091030-1102-1103	CIT Group, Inc., files for bankruptcy protection under Chapter 11 of the bankruptcy code. The U.S. Government purchased $2.3 billion of CIT preferred stock in December 2008 under the Troubled Asset Relief Program (TARP). The firm's prepackaged bankruptcy is expected to wipe out the equity stakes of CIT's current shareholders, including the U.S. Government.
7	Other Positive Events	2009/11/17	091116-1117-1118	Citing continued improvement in financial market conditions, the Federal Reserve Board approves a reduction in the maximum maturity of primary credit loans at the discount window for depository institutions to 28 days from 90 days effective January 14, 2010. The Federal Reserve had lengthened the maximum maturity of primary credit loans first to 30 days on August 17, 2007, and then to 90 days on March 16, 2008.

2	Rescue	2009/12/1	091130-1201	AIG announces that it has closed two transactions with the Federal Reserve Bank of New York. This agreement reduces the debt AIG owes the Federal Reserve Bank of New York by $25 billion in exchange for preferred equity interests in newly formed subsidiaries.
7	Other Positive Events	2009/12/2	091202-1203	Bank of America announces that it will repurchase the entire $45 billion of cumulative preferred stock issued to the U.S. Treasury under the Troubled Asset Relief Program (TARP) after the completion of a securities offering.
7	Other Positive Events	2009/12/14	091214-1215	Wells Fargo and Company announces that it will redeem the $25 billion of preferred stock issued to the U.S. Treasury under the TARP, upon successful completion of a $10.4 billion common stock offering
7	Other Positive Events	2009/12/24	091223-1224	The U.S. Treasury Department announces the removal of caps on the amount of preferred stock that the Treasury may purchase in Fannie Mae and Freddie Mac to ensure that each firm maintains a positive net worth. Previously, such purchases had been capped at $200 billion for each firm. The Treasury Department announces that the removal of these caps "should leave no uncertainty about the Treasury's commitment to support these firms."
3	Fed	2009/12/28	091228-1229	The Federal Reserve Board proposes amendments to Regulation D (Reserve Requirements of Depository Institutions) that would enable the establishment of a term deposit facility. Under the proposal, the Federal Reserve Banks would offer interest-bearing term deposits to eligible institutions through an auction mechanism.

*To select the crisis events, I use "The Financial Crisis: A Timeline of Events and Policy Actions" compiled by the Federal Reserve of St. Louis.
* When the following situations occur, I delete the event dates: (1) there are opposite predicted signs of any two events on the same event date; (2) the events are predicted to be neutral to the stock market; (3) the events do not occur in the U.S. There are 137 event dates left, starting on February 27, 2007 and ending on December 28, 2009.
*Three events do not occur in the U.S.: the Chancellor of the Exchequer authorizes the Bank of England to provide liquidity support for Northern Rock, the United Kingdom's fifth-largest mortgage lender; Northern Rock is taken into state ownership by the Treasury of the United Kingdom; Standard and Poor's Ratings Services lowers its outlook on the United Kingdom government debt from stable to negative because of the estimated fiscal cost of supporting the nation's banking system. S&P estimates that this cost could double the government's debt burden to about 100 percent of GDP by 2013.
*There are 44 event dates between September 2008 and December 2008 also covered by Lev and Zhou (2009) so I basically follow their classifications of the 44 event dates. But I delete 8 event dates since on the 8 event dates, here are opposite predicted signs of any two events on the same event date. Thus, of 137events, 36 events' classifications are followed to Lev and Zhou (2009). There are 18 event dates with the same predicted sign and confounding events.

Table 2 : Variable Definition

Variables	Definition	Database
CR	Cumulative raw return; CR=$\{\prod_{Di=1}^{Ti}[1+R(Di)]\}$-1	CRSP →Daily stock file
MCR$_t$	Mean cumulative return $MCR=\frac{\sum_{i=1}^{n}CRi}{n}$	CRSP →Daily stock file
CMAR	Cumulative market-adjusted return: Raw return minus market return. The calculation is the same as CR.	CRSP →Daily stock file
MCMAR	Mean cumulative market-adjusted return. The calculation is the same as MCR.	CRSP →Daily stock file
CAR	Cumulative risk-adjusted return: abnormal return=raw return minus expected return calculated by market model.　The calculation is the same as CR.	CRSP →Daily stock file
MCAR$_t$	Mean cumulative abnormal return. The calculation is the same as MCR.	CRSP →Daily stock file
MBS	Securitized 1–4 family residential mortgages at the end of quarter t divided by market value of equity at the end of quarter t. →Codes of data items: BHCK B705 / MKVALTQ	Bank Regulatory (From wrds) →Bank holding companies (FR Y-9C reports) COMPUSTAT →Fundamental quarterly
CONSBS	Securitized consumer loans (home equity lines of credit, credit card receivables, automobile loans, and other consumer loans) at the end of quarter t divided by market value of equity at the end of quarter t →Codes of data items:(BHCK B706＋BHCK B707＋BHCK B708＋BHCK B709)/ MKVALTQ	Bank Regulatory (From　wrds) →Bank holding companies (FR Y-9C reports) COMPUSTAT →Fundamental quarterly
COMMBS	Securitized commercial loans(commercial and industrial loans and all other loans, leases, and assets) at the end of quarter t　divided by market value of equity at the end of quarter t →Codes of data items:(BHCK B710＋BHCK B711) / MKVALTQ	Bank Regulatory (From　wrds) →Bank holding companies (FR Y-9C reports) COMPUSTAT →Fundamental quarterly
OANCFQ	Operating Activities - Net Cash Flow at the	COMPUSTAT

	end of quarter t divided by market value of equity at the end of quarter t. OANCFQ / MKVALTQ	→Fundamental quarterly
ROA $_t$	Return on assets ; the ratio of income before extraordinary items during quarter t to total assets at the end of quarter t. →IBQ/ATQ	COMPUSTAT →Fundamental quarterly
CAP $_t$	Tier1 risk-based capital ratio	FR Y-9C reports
SIZE	Logarithm of sample firms' market values.	COMPUSTAT →Fundamental quarterly
BIG4	Dummy variable that equals 1 if a firm is the Big4 client at the end of quarter t, and 0 otherwise.	Audit Analytics

Table 3 Mean Cumulative returns to the 137 events

Panel A (predicted sign: -)

Group NO.	Event Date	observations	Mean	Median	t stat	sig<0	sig>0
1	2007/2/27	373	-0.0234	-0.0239	-17.37	***	
1	2007/4/2	375	0.0047	0.0016	4.26		***
1	2007/6/1	374	0.0054	0.0043	5.02		***
1	2007/6/7	374	-0.0033	-0.0036	-3.84	***	
1	2007/7/11	370	-0.0057	-0.0036	-5.43	***	
1	2007/7/24	370	-0.0197	-0.0180	-12.08	***	
1	2007/7/31	369	-0.0030	-0.0010	-1.79	**	
1	2007/8/6	369	-0.0113	-0.0077	-6.08	***	
1	2007/8/9	369	-0.0090	-0.0073	-6.06	***	
1	2007/8/16	369	0.0329	0.0242	11.56		***
1	2007/10/15	365	-0.0242	-0.0233	-12.77	***	
1	2007/11/1	364	-0.0461	-0.0486	-20.95	***	
1	2008/1/11	359	0.0021	-0.0019	0.88		
1	2008/1/18	359	-0.0325	-0.0338	-15.07	***	
1	2008/3/5	350	-0.0315	-0.0286	-15.81	***	
1	2008/7/11	339	0.0031	0.0042	0.88		
1	2008/9/7	338	0.0162	0.0181	4.60		***
1	2008/9/15	338	-0.0258	-0.0211	-9.91	***	
1	2008/9/21	338	-0.0528	-0.0442	-13.22	***	
1	2008/9/23	338	-0.0160	-0.0165	-4.65	***	
1	2008/9/25	338	0.0105	0.0078	3.04		***
1	2008/10/3	338	-0.0081	-0.0096	-2.56	***	
1	2008/10/24	338	-0.0427	-0.0395	-13.37	***	
1	2008/11/18	336	-0.0655	-0.0637	-17.78	***	
1	2008/11/20	336	-0.0518	-0.0470	-15.76	***	
1	2008/12/11	336	-0.0432	-0.0497	-14.53	***	
1	2009/1/8	331	0.0061	0.0020	2.29		**
1	2009/1/13	331	-0.0274	-0.0267	-7.53	***	
1	2009/5/27	320	-0.0255	-0.0290	-8.07	***	
1	2009/6/1	320	0.0100	0.0064	2.57		***
1	2009/8/27	315	-0.0007	-0.0006	-0.40		
1	2009/11/1	309	-0.0328	-0.0315	-8.53	***	
Distress Events		**11148**	**-0.0157**	**-0.0108**	**-30.61**	***	

Panel B (predicted sign: +)

Group NO.	Event Date	observations	Mean	Median	t stat	sig<0	sig>0
2	2008/3/14	350	-0.0074	-0.0068	-4.34	***	
2	2008/3/24	348	0.0413	0.0424	13.47		***
2	2008/7/13	338	-0.0454	-0.0419	-15.03	***	
2	2008/10/12	338	0.1039	0.1199	16.18		***
2	2008/10/30	338	0.0521	0.0491	12.81		***
2	2008/11/23	336	0.0549	0.0511	10.92		***
2	2008/12/9	336	-0.0220	-0.0264	-6.26	***	
2	2008/12/29	335	0.0009	0.0088	0.24		
2	2009/3/2	328	-0.0543	-0.0474	-14.92	***	
2	2009/5/12	322	-0.0117	-0.0133	-3.83	***	
2	2009/5/21	321	-0.0191	-0.0119	-7.34	***	
2	2009/6/25	319	0.0226	0.0265	7.64		***
2	2009/12/1	309	0.0083	0.0121	2.47		***
Rescue Events		**4318**	**0.0099**	**0.0011**	**8.06**		***

Panel C (predicted sign: +)

Group NO.	Event Date	observations	Mean	Median	t stat	sig<0	sig>0
3	2007/8/10	370	-0.0043	-0.0051	-1.89	**	
3	2007/8/17	369	0.0168	0.0155	10.68		***
3	2007/9/18	367	0.0398	0.0349	17.24		***
3	2007/10/31	364	-0.0024	0.0000	-1.52	*	
3	2007/12/11	361	-0.0180	-0.0193	-10.55	***	
3	2007/12/12	362	-0.0100	-0.0066	-6.17	***	
3	2008/1/22	359	0.0605	0.0607	14.59		***
3	2008/1/30	358	0.0361	0.0307	13.01		***
3	2008/3/7	349	-0.0012	0.0000	-0.63		
3	2008/3/11	350	0.0399	0.0406	15.93		***
3	2008/3/16	349	-0.0057	0.0000	-2.95	***	
3	2008/3/18	348	0.0188	0.0198	7.98		***
3	2008/4/30	344	0.0077	0.0130	3.41		***
3	2008/5/2	342	-0.0133	-0.0132	-6.92	***	
3	2008/7/30	339	0.0366	0.0411	9.08		***
3	2008/10/7	338	-0.0523	-0.0533	-15.05	***	
3	2008/10/21	338	-0.0058	-0.0070	-1.62	*	
3	2008/10/22	338	-0.0353	-0.0366	-12.41	***	
3	2008/10/29	338	0.0052	0.0000	1.88		**
3	2008/11/5	336	-0.0590	-0.0691	-14.54	***	

3	2008/11/25	336	0.0419	0.0343	9.86		***
3	2008/12/2	336	-0.0566	-0.0648	-13.78	***	
3	2008/12/16	336	0.0443	0.0495	11.37		***
3	2009/1/5	331	0.0044	-0.0050	1.11		
3	2009/1/7	331	-0.0261	-0.0307	-10.44	***	
3	2009/2/3	330	-0.0248	-0.0203	-6.21	***	
3	2009/2/6	329	0.0485	0.0423	9.82		***
3	2009/3/3	328	-0.0216	-0.0249	-6.22	***	
3	2009/3/18	325	0.0495	0.0452	11.60		***
3	2009/3/19	325	-0.0106	-0.0148	-2.66	***	
3	2009/3/31	324	0.0261	0.0277	8.02		***
3	2009/4/6	324	-0.0221	-0.0255	-7.52	***	
3	2009/5/1	322	0.0220	0.0103	5.12		***
3	2009/5/19	321	-0.0162	-0.0215	-5.74	***	
3	2009/5/22	320	0.0256	0.0322	7.46		***
3	2009/6/24	319	-0.0209	-0.0141	-6.98	***	
3	2009/8/17	315	-0.0273	-0.0280	-8.73	***	
3	2009/12/28	308	-0.0004	-0.0022	-0.17		
Fed Events		**12879**	**0.0026**	**0.0000**	**4.56**		***

Panel D (predicted sign: +)

Group NO.	Event Date	observations	Mean	Median	t stat	sig<0	sig>0
4	2007/10/10	366	-0.0094	-0.0086	-8.22	***	
4	2008/2/13	355	-0.0003	-0.0026	-0.16		
4	2008/7/15	338	0.0533	0.0544	11.14		***
4	2009/1/12	331	-0.0242	-0.0240	-10.89	***	
4	2009/1/28	331	0.0016	0.0000	0.32		
4	2009/2/10	328	-0.0472	-0.0502	-11.04	***	
4	2009/2/17	328	-0.0502	-0.0467	-14.77	***	
4	2009/2/18	328	-0.0489	-0.0485	-12.56	***	
4	2009/2/27	328	-0.0244	-0.0217	-6.03	***	
4	2009/3/17	325	0.0387	0.0435	10.97		***
4	2009/3/23	325	0.0491	0.0442	10.77		***
4	2009/4/2	324	0.0369	0.0339	10.59		***
4	2009/5/20	321	-0.0131	-0.0151	-5.23	***	
4	2009/7/8	319	-0.0307	-0.0230	-9.50	***	
4	2009/9/16	313	0.0192	0.0181	8.89		***
Positive Policy Events		**4960**	**-0.0033**	**-0.0047**	**-3.25**	***	

Panel E (predicted sign: -)

Group NO.	Event Date	observations	Mean	Median	t stat	sig<0	sig>0
5	2008/10/1	338	0.0076	-0.0002	1.82		**
5	2008/10/14	338	-0.0181	-0.0250	-3.33	***	
5	2008/10/23	338	-0.0216	-0.0190	-7.19	***	
5	2008/11/4	336	0.0208	0.0198	5.88		***
5	2008/11/12	336	0.0033	0.0111	0.86		
5	2008/12/3	336	0.0079	0.0087	1.91		**
Negative Policy Events		**2022**	**0.0000**	**0.0000**	**-0.02**		

Panel F (predicted sign: +)

Group NO.	Event Date	observations	Mean	Median	t stat	sig<0	sig>0
6	2008/10/28	338	0.0554	0.0518	13.28		***
6	2008/11/14	336	-0.0513	-0.0600	-12.80	***	
6	2008/11/21	336	0.0141	0.0137	2.80		***
6	2008/12/5	336	0.0547	0.0499	11.73		***
6	2008/12/19	336	-0.0205	-0.0189	-5.28	***	
6	2008/12/23	336	-0.0036	-0.0007	-1.22		
6	2008/12/31	331	0.0490	0.0354	12.79		***
6	2009/1/9	331	-0.0327	-0.0388	-11.78	***	
6	2009/1/16	331	-0.0837	-0.0907	-18.23	***	
6	2009/1/23	331	-0.0468	-0.0453	-10.90	***	
6	2009/1/30	330	-0.0204	-0.0126	-4.72	***	
6	2009/2/13	328	-0.0285	-0.0285	-7.91	***	
6	2009/2/24	328	0.0548	0.0584	12.36		***
6	2009/3/6	328	-0.0147	-0.0154	-3.02	***	
6	2009/3/13	328	0.0188	0.0000	3.99		***
6	2009/3/20	325	-0.0200	-0.0147	-5.50	***	
6	2009/3/27	324	-0.0726	-0.0789	-16.11	***	
6	2009/4/3	324	0.0147	0.0147	5.57		***
6	2009/4/10	323	-0.0174	-0.0256	-4.18	***	
6	2009/4/17	322	-0.0313	-0.0368	-7.03	***	
6	2009/4/24	322	-0.0055	-0.0065	-1.44	*	
6	2009/5/8	322	0.0396	0.0241	9.39		***
6	2009/5/15	322	0.0236	0.0264	7.69		***
6	2009/5/29	320	0.0126	0.0179	3.72		***
6	2009/6/5	320	-0.0135	-0.0149	-5.22	***	
6	2009/6/12	320	-0.0195	-0.0224	-6.25	***	

6	2009/6/19	319	-0.0265	-0.0251	-9.25	***	
Capital Infusion Events		**8847**	**-0.0063**	**-0.0059**	**-7.32**	***	

Panel G (predicted sign: +)

Group NO.	Event Date	observations	Mean	Median	t stat	sig<0	sig>0
7	2009/6/3	320	0.0198	0.0169	6.53		***
7	2009/7/21	318	-0.0119	-0.0106	-3.23	***	
7	2009/11/17	309	0.0302	0.0277	8.32		***
7	2009/12/2	309	-0.0056	-0.0077	-1.90	**	
7	2009/12/14	309	-0.0030	-0.0046	-1.04		
7	2009/12/24	308	0.0094	0.0058	3.45		***
Other positive Events		**1873**	**0.0065**	**0.0027**	**4.81**		***

This table presents the mean MCRs over the event windows for 137 events identified and explained in table 1. MCRs for an event are the mean cumulative raw returns. I use t-test for the mean event MCR and *, **, and *** to denote one-tailed significance at the 10, 5, and 1 percent levels.

Table 4: Descriptive Statistics (All variables)

Panel A:Distress Events (11148 observations)

Variable	Min	25%	50%	75%	Max	Mean	Std. Dev.
CR	-0.2033	-0.0419	-0.0108	0.0093	0.2400	-0.0157	0.0542
MBS	0.0000	0.0000	0.0000	0.0000	4.9245	0.0849	0.5421
CONSBS	0.0000	0.0000	0.0000	0.0000	0.8208	0.0139	0.0904
COMMBS	0.0000	0.0000	0.0000	0.0000	0.3276	0.0070	0.0409
OANCFQ	-0.4046	0.0101	0.0239	0.0447	0.6480	0.0366	0.1047
ROA	-0.0374	0.0009	0.0019	0.0027	0.0055	0.0010	0.0047
CAP	6.0700	9.6100	10.6800	12.2600	24.3600	11.2831	2.7669
BIG4	0.0000	0.0000	0.0000	1.0000	1.0000	0.4114	0.4921
SIZE	2.3238	4.5088	5.3051	6.4844	11.4215	5.6574	1.6961

Panel B:Rescue Events (4318 observations)

Variable	Min	25%	50%	75%	Max	Mean	Std. ev.
CR	-0.2033	-0.0347	0.0011	0.0456	0.2400	0.0099	0.0805
MBS	0.0000	0.0000	0.0000	0.0000	4.9245	0.1048	0.6215
CONSBS	0.0000	0.0000	0.0000	0.0000	0.8208	0.0174	0.1060
COMMBS	0.0000	0.0000	0.0000	0.0000	0.3276	0.0076	0.0443
OANCFQ	-0.4046	0.0139	0.0318	0.0641	0.6480	0.0484	0.1307
ROA	-0.0374	0.0000	0.0013	0.0023	0.0055	-0.0002	0.0060
CAP	6.0700	9.4700	10.6200	12.2400	24.3600	11.1627	2.7335
BIG4	0.0000	0.0000	0.0000	1.0000	1.0000	0.4009	0.4901
SIZE	2.3238	4.2078	5.0456	6.3277	11.4215	5.4127	1.7405

Panel C:Fed Events(12879 observations)

Variable	Min	25%	50%	75%	Max	Mean	Std. Dev.
CR	-0.2033	-0.0326	0.0000	0.0338	0.2400	0.0026	0.0656
MBS	0.0000	0.0000	0.0000	0.0000	4.9245	0.0924	0.5758
CONSBS	0.0000	0.0000	0.0000	0.0000	0.8208	0.0150	0.0964
COMMBS	0.0000	0.0000	0.0000	0.0000	0.3276	0.0072	0.0423
OANCFQ	-0.4046	0.0121	0.0276	0.0539	0.6480	0.0405	0.1129
ROA	-0.0374	0.0004	0.0016	0.0025	0.0055	0.0001	0.0058
CAP	6.0700	9.5500	10.6200	12.2300	24.3600	11.2031	2.7520
BIG4	0.0000	0.0000	0.0000	1.0000	1.0000	0.4052	0.4910
SIZE	2.3238	4.3647	5.2190	6.4475	11.4215	5.5529	1.7184

Panel D:Positive Policy Events (4960 observations)

Variable	Min	25%	50%	75%	Max	Mean	Std. Dev.
CR	-0.2033	-0.0407	-0.0047	0.0315	0.2400	-0.0033	0.0720
MBS	0.0000	0.0000	0.0000	0.0000	4.9245	0.1053	0.6285
CONSBS	0.0000	0.0000	0.0000	0.0000	0.8208	0.0156	0.1003
COMMBS	0.0000	0.0000	0.0000	0.0000	0.3276	0.0071	0.0423
OANCFQ	-0.4046	0.0129	0.0299	0.0625	0.6480	0.0445	0.1224
ROA	-0.0374	-0.0004	0.0012	0.0022	0.0055	-0.0006	0.0066
CAP	6.0700	9.5050	10.6900	12.2800	24.3600	11.1723	2.6884
BIG4	0.0000	0.0000	0.0000	1.0000	1.0000	0.4008	0.4901
SIZE	2.3238	4.1892	5.1466	6.4299	11.4215	5.4462	1.7563

Panel E:Negative Policy Events (2022 observations)

Variable	Min	25%	50%	75%	Max	Mean	Std. Dev.
CR	-0.2033	-0.0398	0.0000	0.0378	0.2400	0.0000	0.0766
MBS	0.0000	0.0000	0.0000	0.0000	4.9245	0.0970	0.5971
CONSBS	0.0000	0.0000	0.0000	0.0000	0.8208	0.0184	0.1106
COMMBS	0.0000	0.0000	0.0000	0.0000	0.3276	0.0085	0.0472
OANCFQ	-0.4046	0.0130	0.0305	0.0610	0.6480	0.0536	0.1184
ROA	-0.0374	0.0001	0.0014	0.0023	0.0055	0.0000	0.0055
CAP	6.0700	9.3200	10.1700	11.6400	24.3600	10.8029	2.6256
BIG4	0.0000	0.0000	0.0000	1.0000	1.0000	0.4021	0.4904
SIZE	2.3238	4.2880	4.9582	6.2825	11.4215	5.4527	1.6899

Panel F:Capital Infusion Events (8847 observations)

Variable	Min	25%	50%	75%	Max	Mean	Std. Dev.
CR	-0.2033	-0.0510	-0.0059	0.0338	0.2400	-0.0063	0.0803
MBS	0.0000	0.0000	0.0000	0.0000	4.9245	0.1130	0.6582
CONSBS	0.0000	0.0000	0.0000	0.0000	0.8208	0.0175	0.1090
COMMBS	0.0000	0.0000	0.0000	0.0000	0.3276	0.0075	0.0443
OANCFQ	-0.4046	0.0154	0.0330	0.0726	0.6480	0.0494	0.1297
ROA	-0.0374	-0.0013	0.0009	0.0019	0.0055	-0.0014	0.0072
CAP	6.0700	9.4300	10.7000	12.2400	24.3600	11.1299	2.6542
BIG4	0.0000	0.0000	0.0000	1.0000	1.0000	0.3978	0.4895
SIZE	2.3238	4.0707	4.9904	6.3889	11.4215	5.3510	1.7692

Panel G:Other Positive Events (1873 observations)

Variable	Min	25%	50%	75%	Max	Mean	Std. Dev.
CR	-0.2033	-0.0199	0.0027	0.0299	0.2400	0.0065	0.0581
MBS	0.0000	0.0000	0.0000	0.0000	4.9245	0.1315	0.6971
CONSBS	0.0000	0.0000	0.0000	0.0000	0.8208	0.0177	0.1066
COMMBS	0.0000	0.0000	0.0000	0.0000	0.3276	0.0069	0.0424
OANCFQ	-0.4046	0.0205	0.0521	0.1140	0.6480	0.0702	0.1699
ROA	-0.0374	-0.0017	0.0007	0.0018	0.0055	-0.0017	0.0076
CAP	6.0700	10.4400	11.8300	13.4300	24.3600	11.9856	2.8363
BIG4	0.0000	0.0000	0.0000	1.0000	1.0000	0.3940	0.4888
SIZE	2.3238	3.7513	4.7482	6.1381	11.4215	5.0842	1.8468

Panel H:Positive Reaction Events (32877 observations)

Variable	Min	25%	50%	75%	Max	Mean	Std. Dev.
CR	-0.2033	-0.0378	-0.0008	0.0345	0.2400	0.0005	0.0726
MBS	0.0000	0.0000	0.0000	0.0000	4.9245	0.1037	0.6201
CONSBS	0.0000	0.0000	0.0000	0.0000	0.8208	0.0162	0.1024
COMMBS	0.0000	0.0000	0.0000	0.0000	0.3276	0.0073	0.0431
OANCFQ	-0.4046	0.0131	0.0304	0.0628	0.6480	0.0462	0.1254
ROA	-0.0374	-0.0003	0.0013	0.0023	0.0055	-0.0005	0.0065
CAP	6.0700	9.5200	10.7200	12.3200	24.3600	11.2180	2.7255
BIG4	0.0000	0.0000	0.0000	1.0000	1.0000	0.4013	0.4902
SIZE	2.3238	4.1970	5.1134	6.3922	11.4215	5.4373	1.7523

Panel I:Negative Reaction Events (13170 observations)

Variable	Min	25%	50%	75%	Max	Mean	Std. Dev.
CR	-0.2033	-0.0417	-0.0094	0.0124	0.2400	-0.0133	0.0584
MBS	0.0000	0.0000	0.0000	0.0000	4.9245	0.0868	0.5509
CONSBS	0.0000	0.0000	0.0000	0.0000	0.8208	0.0146	0.0938
COMMBS	0.0000	0.0000	0.0000	0.0000	0.3276	0.0072	0.0419
OANCFQ	-0.4046	0.0105	0.0248	0.0466	0.6480	0.0392	0.1071
ROA	-0.0374	0.0007	0.0018	0.0027	0.0055	0.0008	0.0048
CAP	6.0700	9.5200	10.5700	12.2000	24.3600	11.2094	2.7510
BIG4	0.0000	0.0000	0.0000	1.0000	1.0000	0.4099	0.4918
SIZE	2.3238	4.4584	5.2620	6.4561	11.4215	5.6259	1.6967

* Table 2 defines the variables used in this study.

* The data of independent and control variables are winsorized.

Table 5: Correlation Table

Panel A:Distress Events (11148 observations)

	CR	MBS	CONSBS	COMMBS	OANCFQ	ROA	CAP	BIG4	SIZE
CR	1								
MBS	-0.0393*	1							
CONSBS	-0.0658*	0.3426*	1						
COMMBS	-0.0306*	0.2751*	0.3941*	1					
OANCFQ	-0.0596*	0.1305*	0.1734*	0.0398*	1				
ROA	0.0700*	-0.0379*	-0.0875*	-0.0031	-0.2180*	1			
CAP	0.0570*	-0.0891*	-0.0993*	-0.1388*	-0.0971*	0.1767*	1		
BIG4	-0.0593*	0.1536*	0.1796*	0.1509*	0.0584*	0.0306*	-0.0767*	1	
SIZE	-0.0650*	0.2712*	0.3533*	0.3164*	-0.0253*	0.2235*	-0.0917*	0.5810*	1

Panel B:Rescue Events (4318 observations)

	CR	MBS	CONSBS	COMMBS	OANCFQ	ROA	CAP	BIG4	SIZE
CR	1								
MBS	0.0097	1							
CONSBS	0.0174	0.4154*	1						
COMMBS	0.0248	0.3515*	0.4067*	1					
OANCFQ	0.0329*	0.1475*	0.2143*	0.0721*	1				
ROA	0.0394*	-0.0205	-0.1125*	-0.0175	-0.2025*	1			
CAP	0.023	-0.0681*	-0.0919*	-0.1175*	-0.1087*	0.2367*	1		
BIG4	0.0987*	0.1720*	0.1963*	0.1518*	0.0507*	0.0248	-0.0439*	1	
SIZE	0.1173*	0.3199*	0.3630*	0.3083*	-0.0081	0.1942*	-0.0114	0.5836*	1

Panel C:Fed Events(12879 observations)

	CR	MBS	CONSBS	COMMBS	OANCFQ	ROA	CAP	BIG4	SIZE
CR	1								
MBS	0.0116	1							
CONSBS	0.0054	0.4088*	1						
COMMBS	0.0031	0.3132*	0.3964*	1					
OANCFQ	-0.0257*	0.1117*	0.1016*	-0.0082	1				
ROA	0.0264*	-0.0528*	-0.0912*	-0.0161	-0.1587*	1			
CAP	0.0072	-0.0807*	-0.0923*	-0.1252*	-0.0807*	0.1975*	1		
BIG4	0.015	0.1626*	0.1843*	0.1502*	0.0383*	0.0296*	-0.0535*	1	
SIZE	0.0377*	0.2983*	0.3529*	0.3116*	-0.0431*	0.1837*	-0.0487*	0.5835*	1

Panel D:Positive Policy Events (4960 observations)									
	CR	MBS	CONSBS	COMMBS	OANCFQ	ROA	CAP	BIG4	SIZE
CR	1								
MBS	-0.0082	1							
CONSBS	-0.0028	0.4767*	1						
COMMBS	0.0064	0.3720*	0.4017*	1					
OANCFQ	-0.0396*	0.1128*	0.0716*	-0.0460*	1				
ROA	-0.0425*	-0.0425*	-0.0651*	0.0036	-0.1482*	1			
CAP	0.0533*	-0.0710*	-0.0784*	-0.1017*	-0.1065*	0.2239*	1		
BIG4	0.0065	0.1747*	0.1857*	0.1401*	0.0395*	0.0545*	-0.027	1	
SIZE	0.0057	0.3140*	0.3396*	0.2911*	-0.0833*	0.2062*	0.0206	0.5847*	1

Panel E:Negative Policy Events (2022 observations)									
	CR	MBS	CONSBS	COMMBS	OANCFQ	ROA	CAP	BIG4	SIZE
CR	1								
MBS	0.0375	1							
CONSBS	0.0571*	0.3750*	1						
COMMBS	0.0456*	0.2864*	0.3693*	1					
OANCFQ	0.0844*	0.3015*	0.2998*	0.1349*	1				
ROA	0.001	-0.0147	-0.1506*	-0.0427	-0.2413*	1			
CAP	-0.0429	-0.0988*	-0.1028*	-0.1339*	-0.1838*	0.2182*	1		
BIG4	0.0464*	0.1698*	0.1995*	0.1695*	0.1187*	-0.0629*	-0.0614*	1	
SIZE	0.0762*	0.3325*	0.3849*	0.3269*	0.0876*	0.1104*	-0.0402	0.5838*	1

Panel F:Capital Infusion Events (8847 observations)									
	CR	MBS	CONSBS	COMMBS	OANCFQ	ROA	CAP	BIG4	SIZE
CR	1								
MBS	-0.0207	1							
CONSBS	-0.0045	0.4884*	1						
COMMBS	-0.0015	0.4026*	0.4211*	1					
OANCFQ	-0.0096	0.1214*	0.0875*	-0.0211*	1				
ROA	0.016	-0.0386*	-0.1004*	-0.0195	-0.1322*	1			
CAP	0.0191	-0.0602*	-0.0710*	-0.0911*	-0.1251*	0.2531*	1		
BIG4	-0.0348*	0.1841*	0.1941*	0.1417*	0.0432*	0.0399*	-0.002	1	
SIZE	-0.0432*	0.3366*	0.3466*	0.2873*	-0.0610*	0.1727*	0.0779*	0.5875*	1

Panel G:Other Positive Events (1873 observations)

	CR	MBS	CONSBS	COMMBS	OANCFQ	ROA	CAP	BIG4	SIZE
CR	1								
MBS	-0.0184	1							
CONSBS	-0.0247	0.4239*	1						
COMMBS	-0.016	0.3865*	0.4219*	1					
OANCFQ	-0.0019	0.0735*	0.0906*	0.0588*	1				
ROA	0.0292	0.0203	-0.0283	-0.0172	-0.1895*	1			
CAP	-0.0039	0.0147	-0.0242	-0.0705*	-0.0553*	0.3917*	1		
BIG4	0.0333	0.1778*	0.2016*	0.1183*	0.0062	0.0931*	0.0712*	1	
SIZE	0.0098	0.3313*	0.3756*	0.2750*	-0.0082	0.2527*	0.2720*	0.5995*	1

Panel H:Positive Reaction Events (32877 observations)

	CR	MBS	CONSBS	COMMBS	OANCFQ	ROA	CAP	BIG4	SIZE
CR	1								
MBS	-0.0039	1							
CONSBS	0.0012	0.4450*	1						
COMMBS	0.0045	0.3576*	0.4071*	1					
OANCFQ	-0.0119*	0.1168*	0.1082*	-0.0009	1				
ROA	0.0185*	-0.0387*	-0.0888*	-0.0144*	-0.1602*	1			
CAP	0.0210*	-0.0645*	-0.0795*	-0.1082*	-0.0946*	0.2310*	1		
BIG4	0.0120*	0.1723*	0.1896*	0.1447*	0.0384*	0.0405*	-0.0275*	1	
SIZE	0.0191*	0.3146*	0.3501*	0.2984*	-0.0499*	0.1942*	0.0174*	0.5847*	1

Panel I:Negative Reaction Events (13170 observations)

	CR	MBS	CONSBS	COMMBS	OANCFQ	ROA	CAP	BIG4	SIZE
CR	1								
MBS	-0.0214*	1							
CONSBS	-0.0346*	0.3487*	1						
COMMBS	-0.0118	0.2773*	0.3891*	1					
OANCFQ	-0.0214*	0.1622*	0.1993*	0.0587*	1				
ROA	0.0466*	-0.0339*	-0.1015*	-0.0118	-0.2256*	1			
CAP	0.0306*	-0.0908*	-0.1003*	-0.1381*	-0.1142*	0.1867*	1		
BIG4	-0.0379*	0.1561*	0.1825*	0.1538*	0.0680*	0.0146	-0.0738*	1	
SIZE	-0.0399*	0.2806*	0.3567*	0.3168*	-0.0086	0.2057*	-0.0811*	0.5811*	1

* Correlations significant at the 5 percent level in a two-tailed test are in boldface. Table 2 defines the variables..

Table 6: Regression Results

CR=α+β₁ MBS+β₂ CONSBS+β₃ COMMBS+β₄ OANCFQ +β₅ ROA +β₆CAP+β₇ BIG4+e

CR=α+β_1 MBS+β_2 CONSBS+β_3 COMMBS+β_4 OANCFQ +β_5 ROA +β_6CAP+β_7 BIG4+e

	Distress	Rescue	Fed	Positive Policy	Negative Policy	Capital Infusion	Other Positive	Positive Reaction	Negative Reaction
CR	Coef.	Coef.	Coef.	Coef.	Coef.	Coef.	Coef.	Coef.	Coef.
Intercept	-0.0210***	-0.0052	0.0017	-0.0227***	0.0043	-0.0089***	0.0104*	-0.0053***	-0.0162***
	(-9.77)	(-1.02)	(0.7)	(-5.22)	(0.58)	(-2.39)	(1.47)	(-3.15)	(-7.62)
MBS	-0.0009	-0.0019	0.0015	-0.0009	-0.0011	-0.0027*	-0.0011	-0.0008	-0.0007
	(-0.65)	(-0.75)	(1.07)	(-0.36)	(-0.29)	(-1.59)	(-0.57)	(-0.91)	(-0.54)
CONSBS	-0.0244***	-0.0037	0.0027	-0.0024	0.0179	0.0087	-0.0133	0.0021	-0.0139**
	(-3.1)	(-0.21)	(0.28)	(-0.15)	(0.87)	(0.75)	(-0.91)	(0.35)	(-1.74)
COMMBS	0.0021	0.0321	-0.0063	0.0231	0.0333	0.0162	-0.0088	0.0104	0.0098
	(0.11)	(0.84)	(-0.32)	(0.71)	(0.87)	(0.62)	(-0.29)	(0.8)	(0.57)
OANCFQ	-0.0173**	0.0248**	-0.0142**	-0.0242***	0.0486**	-0.0016	0.0023	-0.0047	-0.0015
	(-2.29)	(2.18)	(-2.03)	(-2.44)	(2.28)	(-0.19)	(0.21)	(-1.15)	(-0.21)
ROA	0.6257***	0.5290**	0.2546**	-0.7065***	0.4488	0.1521	0.2635	0.1413*	0.4929***
	(3.18)	(2.03)	(1.66)	(-3.32)	(1.18)	(0.94)	(0.94)	(1.61)	(2.82)
CAP	0.0007***	0.0007**	0.0001	0.0017***	-0.0009*	0.0005*	-0.0004	0.0005***	0.0004***
	(4.22)	(1.68)	(0.3)	(4.92)	(-1.41)	(1.58)	(-0.81)	(3.57)	(2.34)
BIG4	-0.0053***	0.0160***	0.0018*	0.0020	0.0048*	-0.0057***	0.0047**	0.0018**	-0.0039***
	(-5.01)	(6.25)	(1.45)	(0.93)	(1.37)	(-3.24)	(1.72)	(2.14)	(-3.74)
R-squared	0.0136	0.0132	0.0016	0.008	0.0112	0.0021	0.0033	0.0009	0.0046
Observations	11148	4318	12879	4960	2022	8847	1873	32877	13170
F-statistic	14.23	7.76	1.71	5.11	2.85	2.62	0.99	3.71	5.58

*, **, and *** denote one-tailed significance at the 10, 5, and 1 percent levels. Table 2 defines the variables used in this study.

Appendix I: Regression Results with Size variable

$CR=\alpha+\beta_1 MBS+\beta_2 CONSBS+\beta_3 COMMBS+\beta_4 OANCFQ +\beta_5 ROA +\beta_6 CAP+\beta_7 BIG4++\beta_8 SIZE+e$

	Distress	Rescue	Fed	Positive Policy	Negative Policy	Capital Infusion	Other Positive	Positive Reaction	Negative Reaction
CR	Coef.	Coef.	Coef.	Coef.	Coef.	Coef.	Coef.	Coef.	Coef.
Intercept	-0.0112***	-0.0277***	-0.0057*	-0.0248***	-0.0094	0.0003	0.0107*	-0.0083***	-0.0094***
	(-3.45	(-3.99)	(-1.59)	(-4.15)	(-0.95)	(0.06)	(1.29)	(-3.51)	(-2.97)
MBS	-0.0003	-0.0036*	0.0010	-0.0010	-0.0023	-0.0018	-0.0011	-0.0010	-0.0003
	(-0.2)	(-1.39)	(0.69)	(-0.43)	(-0.6)	(-1.07)	(-0.54)	(-1.15)	(-0.21)
CONSBS	-0.0171**	-0.0198	-0.0023	-0.0037	0.0078	0.0146	-0.0129	0.0001	-0.0089
	(-2.15)	(-1.12)	(-0.24)	(-0.23)	(0.38)	(1.23)	(-0.85)	(0.02)	(-1.09)
COMMBS	0.0123	0.0103	-0.0141	0.0211	0.0195	0.0246	-0.0083	0.0074	0.0168
	(0.66)	(0.27)	(-0.7)	(0.65)	(0.5)	(0.94)	(-0.27)	(0.57)	(0.97)
OANCFQ	-0.0193***	0.0290***	-0.0127**	-0.0235***	0.0511***	-0.0042	0.0023	-0.0041	-0.0029
	(-2.54)	(2.55)	(-1.81)	(-2.38)	(2.39)	(-0.49)	(0.21)	(-0.99)	(-0.39)
ROA	0.7817***	0.2500	0.1711	-0.7280***	0.2954	0.2335*	0.2670	0.1100	0.5959***
	(3.82)	(0.95)	(1.1)	(-3.37)	(0.77)	(1.43)	(0.95)	(1.23)	(3.3)
CAP	0.0006***	0.0007**	0.0001	0.0017***	-0.0009*	0.0006**	-0.0004	0.0005***	0.0004**
	(3.83)	(1.7)	(0.4)	(4.91)	(-1.4)	(1.87)	(-0.81)	(3.53)	(2.11)
BIG4	-0.002*	0.0073***	-0.0009	0.0011	-0.0004	-0.0016	0.0049*	0.0006	-0.0016
	(-1.5)	(2.34)	(-0.63)	(0.43)	(-0.1)	(-0.73)	(1.4)	(0.6)	(-1.23)
SIZE	-0.0019***	0.0049***	0.0015***	0.0005	0.0029**	-0.0022***	-0.0001	0.0006**	-0.0013***
	(-4.26)	(4.79)	(2.99)	(0.53)	(2.08)	(-3.09)	(-0.11)	(1.9)	(-3.06)
R-squared	0.0154	0.0189	0.0024	0.0081	0.0133	0.0034	0.0033	0.001	0.0054
Observations	11148	4318	12879	4960	2022	8847	1873	32877	13170
F-statistic	14.8	9.72	2.59	4.48	3.04	3.42	0.87	3.57	5.9

*, **, and *** denote one-tailed significance at the 10, 5, and 1 percent levels. Table 2 defines the variables used in this study.

Appendix II - I: Mean Cumulative Market-Adjusted Returns to the 137 Events

Panel A (predicted sign: -)

Group NO.	Event Date	observations	Mean	Median	t stat	sig<0	sig>0
1	2007/2/27	373	0.0072	0.0069	5.29		***
1	2007/4/2	375	-0.0068	-0.0099	-6.23	***	
1	2007/6/1	374	-0.0034	-0.0045	-3.22	***	
1	2007/6/7	374	0.0134	0.0131	15.33		***
1	2007/7/11	370	-0.0145	-0.0122	-13.79	***	
1	2007/7/24	370	-0.0054	-0.0037	-3.26	***	
1	2007/7/31	369	-0.0063	-0.0045	-3.70	***	
1	2007/8/6	369	-0.0031	0.0003	-1.65	*	
1	2007/8/9	369	0.0179	0.0196	12.07		***
1	2007/8/16	369	0.0471	0.0384	16.46		***
1	2007/10/15	365	-0.0141	-0.0129	-7.52	***	
1	2007/11/1	364	-0.0224	-0.0245	-10.11	***	
1	2008/1/11	359	-0.0030	-0.0069	-1.27		
1	2008/1/18	359	0.0008	-0.0009	0.35		
1	2008/3/5	350	-0.0120	-0.0091	-5.93	***	
1	2008/7/11	339	0.0038	0.0051	1.10		
1	2008/9/7	338	0.0333	0.0346	9.28		***
1	2008/9/15	338	0.0147	0.0202	5.44		***
1	2008/9/21	338	-0.0170	-0.0073	-4.21	***	
1	2008/9/23	338	0.0028	0.0021	0.79		
1	2008/9/25	338	-0.0037	-0.0066	-1.12		
1	2008/10/3	338	0.0060	0.0048	1.94		**
1	2008/10/24	338	0.0268	0.0306	7.90		***
1	2008/11/18	336	-0.0099	-0.0060	-2.57	***	
1	2008/11/20	336	0.0177	0.0238	5.18		***
1	2008/12/11	336	-0.0132	-0.0195	-4.52	***	
1	2009/1/8	331	-0.0003	-0.0043	-0.13		
1	2009/1/13	331	0.0037	0.0049	1.03		
1	2009/5/27	320	-0.0232	-0.0267	-7.45	***	
1	2009/6/1	320	-0.0200	-0.0237	-5.21	***	
1	2009/8/27	315	-0.0038	-0.0037	-2.16	**	
1	2009/11/1	309	-0.0161	-0.0148	-4.23	***	
Distress Events		**11148**	**0.0001**	**-0.0003**	**0.12**		

Panel B (predicted sign: +)

Group NO.	Event Date	observations	Mean	Median	t stat	sig<0	sig>0
2	2008/3/14	350	0.0054	0.0061	3.14		***
2	2008/3/24	348	-0.0035	-0.0026	-1.19		
2	2008/7/13	338	-0.0371	-0.0337	-12.32	***	
2	2008/10/12	338	0.0102	0.0074	1.54		*
2	2008/10/30	338	0.0022	-0.0015	0.54		
2	2008/11/23	336	-0.0084	-0.0157	-1.66	**	
2	2008/12/9	336	-0.0144	-0.0178	-4.19	***	
2	2008/12/29	335	-0.0255	-0.0186	-6.89	***	
2	2009/3/2	328	-0.0052	0.0028	-1.41	*	
2	2009/5/12	322	-0.0091	-0.0105	-3.05	***	
2	2009/5/21	321	-0.0022	0.0050	-0.86		
2	2009/6/25	319	0.0012	0.0048	0.40		
2	2009/12/1	309	-0.0095	-0.0060	-2.90	***	
Rescue Events		**4318**	**-0.0074**	**-0.0058**	**-6.99**	***	

Panel C (predicted sign: +)

Group NO.	Event Date	observations	Mean	Median	t stat	sig<0	sig>0
3	2007/8/10	370	-0.0033	-0.0041	-1.46	*	
3	2007/8/17	369	-0.0090	-0.0104	-5.79	***	
3	2007/9/18	367	0.0104	0.0060	4.51		***
3	2007/10/31	364	-0.0086	-0.0064	-5.57	***	
3	2007/12/11	361	-0.0002	-0.0019	-0.10		
3	2007/12/12	362	-0.0148	-0.0115	-9.17	***	
3	2008/1/22	359	0.0498	0.0501	12.05		***
3	2008/1/30	358	0.0198	0.0145	7.22		***
3	2008/3/7	349	0.0259	0.0274	13.46		***
3	2008/3/11	350	0.0114	0.0121	4.56		***
3	2008/3/16	349	0.0093	0.0150	4.84		***
3	2008/3/18	348	0.0052	0.0057	2.24		**
3	2008/4/30	344	0.0006	0.0059	0.28		
3	2008/5/2	342	-0.0138	-0.0138	-7.26	***	
3	2008/7/30	339	0.0107	0.0150	2.72		***
3	2008/10/7	338	0.0052	0.0049	1.53		*
3	2008/10/21	338	-0.0208	-0.0227	-5.94	***	
3	2008/10/22	338	0.0234	0.0226	8.57		***

Group NO.	Event Date	observations	Mean	Median	t stat	sig<0	sig>0
3	2008/10/29	338	0.0037	-0.0015	1.34		*
3	2008/11/5	336	0.0384	0.0299	9.27		***
3	2008/11/25	336	-0.0055	-0.0142	-1.31	*	
3	2008/12/2	336	-0.0017	-0.0058	-0.42		
3	2008/12/16	336	-0.0031	0.0013	-0.82		
3	2009/1/5	331	-0.0065	-0.0157	-1.66	**	
3	2009/1/7	331	0.0044	-0.0002	1.77		**
3	2009/2/3	330	-0.0342	-0.0303	-8.84	***	
3	2009/2/6	329	0.0052	-0.0038	1.05		
3	2009/3/3	328	-0.0153	-0.0185	-4.50	***	
3	2009/3/18	325	0.0273	0.0229	6.43		***
3	2009/3/19	325	-0.0030	-0.0067	-0.78		
3	2009/3/31	324	0.0119	0.0134	3.69		***
3	2009/4/6	324	-0.0127	-0.0157	-4.40	***	
3	2009/5/1	322	-0.0180	-0.0299	-4.26	***	
3	2009/5/19	321	-0.0166	-0.0219	-5.94	***	
3	2009/5/22	320	-0.0023	0.0046	-0.70		
3	2009/6/24	319	-0.0318	-0.0255	-10.85	***	
3	2009/8/17	315	-0.0033	-0.0041	-1.03		
3	2009/12/28	308	-0.0006	-0.0023	-0.26		
Fed Events		**12879**	**0.0012**	**-0.0020**	**2.25**		****

Panel D (predicted sign: +)

Group NO.	Event Date	observations	Mean	Median	t stat	sig<0	sig>0
4	2007/10/10	366	-0.0120	-0.0112	-10.55	***	
4	2008/2/13	355	-0.0074	-0.0096	-4.04	***	
4	2008/7/15	338	0.0417	0.0439	8.79		***
4	2009/1/12	331	0.0012	0.0014	0.56		
4	2009/1/28	331	-0.0081	-0.0104	-1.69	**	
4	2009/2/10	328	-0.0092	-0.0103	-2.16	**	
4	2009/2/17	328	-0.0053	-0.0010	-1.54	*	
4	2009/2/18	328	-0.0342	-0.0334	-8.75	***	
4	2009/2/27	328	-0.0057	-0.0024	-1.44	*	
4	2009/3/17	325	0.0076	0.0121	2.19		**
4	2009/3/23	325	0.0045	-0.0019	0.95		
4	2009/4/2	324	0.0052	0.0019	1.48		*

Group NO.	Event Date	observations	Mean	Median	t stat	sig<0	sig>0
4	2009/5/20	321	-0.0112	-0.0132	-4.48	***	
4	2009/7/8	319	-0.0127	-0.0046	-3.86	***	
4	2009/9/16	313	0.0068	0.0052	3.20		***
Positive Policy Events		**4960**	**-0.0026**	**-0.0039**	**-2.82**	***	

Panel E (predicted sign: -)

Group NO.	Event Date	observations	Mean	Median	t stat	sig<0	sig>0
5	2008/10/1	338	0.0578	0.0512	14.47		***
5	2008/10/14	338	0.0747	0.0775	14.90		***
5	2008/10/23	338	-0.0223	-0.0199	-7.50	***	
5	2008/11/4	336	-0.0169	-0.0191	-4.98	***	
5	2008/11/12	336	-0.0087	-0.0034	-2.27	**	
5	2008/12/3	336	0.0135	0.0140	3.36		***
Negative Policy Events		**2022**	**0.0164**	**0.0097**	**9.09**		***

Panel F (predicted sign: +)

Group NO.	Event Date	observations	Mean	Median	t stat	sig<0	sig>0
6	2008/10/28	338	-0.0386	-0.0436	-9.52	***	
6	2008/11/14	336	0.0150	0.0071	3.57		***
6	2008/11/21	336	-0.0425	-0.0479	-9.00	***	
6	2008/12/5	336	-0.0208	-0.0277	-4.56	***	
6	2008/12/19	336	0.0136	0.0165	3.55		***
6	2008/12/23	336	-0.0002	0.0025	-0.09		
6	2008/12/31	331	0.0008	-0.0135	0.21		
6	2009/1/9	331	-0.0103	-0.0163	-3.68	***	
6	2009/1/16	331	-0.0454	-0.0477	-9.45	***	
6	2009/1/23	331	-0.0411	-0.0397	-9.72	***	
6	2009/1/30	330	0.0010	0.0097	0.23		
6	2009/2/13	328	-0.0225	-0.0221	-6.31	***	
6	2009/2/24	328	0.0147	0.0176	3.30		***
6	2009/3/6	328	-0.0058	-0.0059	-1.22		
6	2009/3/13	328	0.0167	-0.0011	3.65		***
6	2009/3/20	325	0.0001	0.0058	0.03		
6	2009/3/27	324	-0.0181	-0.0222	-3.87	***	
6	2009/4/3	324	0.0029	0.0029	1.09		
6	2009/4/10	323	-0.0020	-0.0088	-0.49		

Group NO.	Event Date	observations	Mean	Median	t stat	sig<0	sig>0
6	2009/4/17	322	-0.0075	-0.0123	-1.72	**	
6	2009/4/24	322	-0.0127	-0.0133	-3.41	***	
6	2009/5/8	322	0.0333	0.0191	8.12		***
6	2009/5/15	322	0.0023	0.0053	0.76		
6	2009/5/29	320	-0.0020	0.0032	-0.59		
6	2009/6/5	320	-0.0080	-0.0093	-3.09	***	
6	2009/6/12	320	0.0065	0.0045	2.20		**
6	2009/6/19	319	0.0031	0.0049	1.07		
Capital Infusion Events		**8847**	**-0.0063**	**-0.0051**	**-8.11**	***	

Panel G (predicted sign: +)

Group NO.	Event Date	observations	Mean	Median	t stat	sig<0	sig>0
7	2009/6/3	320	0.0234	0.0207	7.82		***
7	2009/7/21	318	-0.0279	-0.0270	-7.77	***	
7	2009/11/17	309	0.0142	0.0118	3.98		***
7	2009/12/2	309	0.0010	-0.0010	0.33		
7	2009/12/14	309	-0.0069	-0.0086	-2.41	***	
7	2009/12/24	308	-0.0006	-0.0041	-0.23		
Other Positive Events		**1873**	**0.0005**	**-0.0028**	**0.38**		

*, **, and *** denote one-tailed significance at the 10, 5, and 1 percent levels.

Appendix II - II: Mean Cumulative Risk-Adjusted Returns to the 137 Events

Panel A (predicted sign: -)

Group NO.	Event Date	observations	Mean	Median	t stat	sig<0	sig>0
1	2007/2/27	373	0.0009	0.0009	0.84		
1	2007/4/2	375	-0.0044	-0.0068	-4.13	***	
1	2007/6/1	374	-0.0015	-0.0020	-1.37	*	
1	2007/6/7	374	0.0099	0.0088	8.91		***
1	2007/7/11	370	-0.0124	-0.0110	-11.24	***	
1	2007/7/24	370	-0.0084	-0.0092	-5.16	***	
1	2007/7/31	369	-0.0055	-0.0034	-3.29	***	
1	2007/8/6	369	-0.0044	-0.0017	-2.33	**	
1	2007/8/9	369	0.0121	0.0079	6.89		***
1	2007/8/16	369	0.0444	0.0325	13.87		***
1	2007/10/15	365	-0.0163	-0.0160	-9.18	***	
1	2007/11/1	364	-0.0275	-0.0265	-14.27	***	
1	2008/1/11	359	-0.0019	-0.0056	-0.82		
1	2008/1/18	359	-0.0056	-0.0039	-2.97	***	
1	2008/3/5	350	-0.0157	-0.0117	-8.55	***	
1	2008/7/11	339	0.0037	0.0049	1.07		
1	2008/9/7	338	0.0311	0.0334	8.19		***
1	2008/9/15	338	0.0080	0.0103	2.84		***
1	2008/9/21	338	-0.0232	-0.0235	-6.24	***	
1	2008/9/23	338	-0.0003	0.0008	-0.09		
1	2008/9/25	338	-0.0012	-0.0030	-0.35		
1	2008/10/3	338	0.0036	0.0014	1.17		
1	2008/10/24	338	0.0146	0.0127	3.85		***
1	2008/11/18	336	-0.0190	-0.0112	-5.11	***	
1	2008/11/20	336	0.0061	0.0092	1.60		*
1	2008/12/11	336	-0.0183	-0.0195	-6.87	***	
1	2009/1/8	331	0.0009	-0.0023	0.36		
1	2009/1/13	331	-0.0021	0.0039	-0.60		
1	2009/5/27	320	-0.0235	-0.0268	-7.59	***	
1	2009/6/1	320	-0.0140	-0.0112	-3.70	***	
1	2009/8/27	315	-0.0032	-0.0040	-1.81	**	
1	2009/11/1	309	-0.0194	-0.0147	-5.22	***	
Distress Events		**11148**	**-0.0027**	**-0.0028**	**-5.57**	***	

Panel B (predicted sign: +)

Group NO.	Event Date	observations	Mean	Median	t stat	sig<0	sig>0
2	2008/3/14	350	0.0031	0.0023	1.80		**
2	2008/3/24	348	0.0044	0.0013	1.74		**
2	2008/7/13	338	-0.0385	-0.0347	-13.32	***	
2	2008/10/12	338	0.0226	0.0172	4.10		***
2	2008/10/30	338	0.0106	0.0031	2.73		***
2	2008/11/23	336	0.0021	-0.0030	0.45		
2	2008/12/9	336	-0.0155	-0.0178	-4.56	***	
2	2008/12/29	335	-0.0211	-0.0168	-6.01	***	
2	2009/3/2	328	-0.0148	-0.0015	-3.92	***	
2	2009/5/12	322	-0.0096	-0.0100	-3.26	***	
2	2009/5/21	321	-0.0056	0.0010	-2.16	**	
2	2009/6/25	319	0.0055	0.0059	1.90		**
2	2009/12/1	309	-0.0060	-0.0048	-1.87	**	
Rescue Events		**4318**	**-0.0048**	**-0.0043**	**-4.80**	***	

Panel C (predicted sign: +)

Group NO.	Event Date	observations	Mean	Median	t stat	sig<0	sig>0
3	2007/8/10	370	-0.0036	-0.0045	-1.56	*	
3	2007/8/17	369	-0.0034	-0.0049	-1.98	**	
3	2007/9/18	367	0.0166	0.0125	9.06		***
3	2007/10/31	364	-0.0072	-0.0056	-4.68	***	
3	2007/12/11	361	-0.0040	-0.0048	-2.56	***	
3	2007/12/12	362	-0.0138	-0.0109	-8.61	***	
3	2008/1/22	359	0.0518	0.0510	13.33		***
3	2008/1/30	358	0.0230	0.0159	8.57		***
3	2008/3/7	349	0.0211	0.0220	8.98		***
3	2008/3/11	350	0.0170	0.0133	8.28		***
3	2008/3/16	349	0.0065	0.0083	3.19		***
3	2008/3/18	348	0.0081	0.0064	3.66		***
3	2008/4/30	344	0.0021	0.0063	0.96		
3	2008/5/2	342	-0.0137	-0.0139	-7.20	***	
3	2008/7/30	339	0.0151	0.0152	4.04		***
3	2008/10/7	338	-0.0046	-0.0014	-1.50	*	
3	2008/10/21	338	-0.0180	-0.0188	-5.01	***	
3	2008/10/22	338	0.0134	0.0144	4.50		***

Group NO.	Event Date	observations	Mean	Median	t stat	sig<0	sig>0
3	2008/10/29	338	0.0039	-0.0011	1.42		*
3	2008/11/5	336	0.0215	0.0232	5.79		***
3	2008/11/25	336	0.0024	-0.0080	0.56		
3	2008/12/2	336	-0.0088	-0.0092	-2.32	**	
3	2008/12/16	336	0.0050	0.0050	1.41		*
3	2009/1/5	331	-0.0043	-0.0132	-1.09		
3	2009/1/7	331	-0.0017	-0.0038	-0.79		
3	2009/2/3	330	-0.0321	-0.0303	-8.17	***	
3	2009/2/6	329	0.0149	0.0014	3.18		***
3	2009/3/3	328	-0.0166	-0.0193	-4.93	***	
3	2009/3/18	325	0.0322	0.0282	8.05		***
3	2009/3/19	325	-0.0046	-0.0084	-1.22		
3	2009/3/31	324	0.0147	0.0161	4.72		***
3	2009/4/6	324	-0.0145	-0.0165	-5.17	***	
3	2009/5/1	322	-0.0094	-0.0135	-2.19	**	
3	2009/5/19	321	-0.0165	-0.0219	-5.90	***	
3	2009/5/22	320	0.0035	0.0069	1.09		
3	2009/6/24	319	-0.0296	-0.0254	-10.23	***	
3	2009/8/17	315	-0.0081	-0.0113	-2.66	***	
3	2009/12/28	308	-0.0006	-0.0023	-0.25		
Fed Events		**12879**	**0.0017**	**-0.0007**	**3.38**		***

Panel D (predicted sign: -)

Group NO.	Event Date	observations	Mean	Median	t stat	sig<0	sig>0
4	2007/10/10	366	-0.0114	-0.0105	-9.88	***	
4	2008/2/13	355	-0.0059	-0.0080	-3.20	***	
4	2008/7/15	338	0.0439	0.0442	9.68		***
4	2009/1/12	331	-0.0039	0.0012	-1.88	**	
4	2009/1/28	331	-0.0052	-0.0028	-1.10		
4	2009/2/10	328	-0.0167	-0.0133	-4.47	***	
4	2009/2/17	328	-0.0143	-0.0072	-4.65	***	
4	2009/2/18	328	-0.0371	-0.0340	-9.78	***	
4	2009/2/27	328	-0.0094	-0.0049	-2.46	***	
4	2009/3/17	325	0.0138	0.0167	4.35		***
4	2009/3/23	325	0.0158	0.0053	3.61		***
4	2009/4/2	324	0.0115	0.0051	3.52		***

Group NO.	Event Date	observations	Mean	Median	t stat	sig<0	sig>0
4	2009/5/20	321	-0.0116	-0.0133	-4.66	***	
4	2009/7/8	319	-0.0161	-0.0080	-4.96	***	
4	2009/9/16	313	0.0094	0.0069	4.51		***
Positive Policy Events		**4960**	**-0.0025**	**-0.0034**	**-2.80**	***	

Panel E (predicted sign: +)

Group NO.	Event Date	observations	Mean	Median	t stat	sig<0	sig>0
5	2008/10/1	338	0.0484	0.0393	11.22		***
5	2008/10/14	338	0.0566	0.0463	10.50		***
5	2008/10/23	338	-0.0221	-0.0197	-7.44	***	
5	2008/11/4	336	-0.0103	-0.0122	-2.96	***	
5	2008/11/12	336	-0.0053	0.0011	-1.41	*	
5	2008/12/3	336	0.0129	0.0151	3.17		***
Negative Policy Events		**2022**	**0.0134**	**0.0058**	**7.49**		***

Panel F (predicted sign: +)

Group NO.	Event Date	observations	Mean	Median	t stat	sig<0	sig>0
6	2008/10/28	338	-0.0223	-0.0183	-5.88	***	
6	2008/11/14	336	0.0032	0.0069	0.85		
6	2008/11/21	336	-0.0339	-0.0312	-7.46	***	
6	2008/12/5	336	-0.0088	-0.0174	-2.03	**	
6	2008/12/19	336	0.0077	0.0096	1.94		**
6	2008/12/23	336	-0.0008	0.0020	-0.26		
6	2008/12/31	331	0.0099	-0.0061	2.37		***
6	2009/1/9	331	-0.0147	-0.0161	-6.01	***	
6	2009/1/16	331	-0.0538	-0.0565	-12.88	***	
6	2009/1/23	331	-0.0418	-0.0400	-10.03	***	
6	2009/1/30	330	-0.0032	0.0041	-0.74		
6	2009/2/13	328	-0.0236	-0.0226	-6.70	***	
6	2009/2/24	328	0.0228	0.0177	6.00		***
6	2009/3/6	328	-0.0074	-0.0097	-1.54	*	
6	2009/3/13	328	0.0169	-0.0002	3.70		***
6	2009/3/20	325	-0.0042	0.0002	-1.20		
6	2009/3/27	324	-0.0299	-0.0309	-7.71	***	
6	2009/4/3	324	0.0052	0.0028	1.98		**
6	2009/4/10	323	-0.0048	-0.0120	-1.21		
6	2009/4/17	322	-0.0113	-0.0134	-2.70	***	

Group NO.	Event Date	observations	Mean	Median	t stat	sig<0	sig>0
6	2009/4/24	322	-0.0109	-0.0131	-2.92	***	
6	2009/5/8	322	0.0352	0.0212	8.64		***
6	2009/5/15	322	0.0068	0.0072	2.34		***
6	2009/5/29	320	0.0009	0.0026	0.26		
6	2009/6/5	320	-0.0091	-0.0090	-3.59	***	
6	2009/6/12	320	0.0016	-0.0007	0.52		
6	2009/6/19	319	-0.0028	0.0020	-1.05		
Capital infusion events		**8847**	**-0.0065**	**-0.0056**	**-8.66**	***	

Panel G (predicted sign: +)

Group NO.	Event Date	obs	Mean	Median	t value	sig<0	sig>0
7	2009/6/3	320	0.0228	0.0206	7.56		***
7	2009/7/21	318	-0.0248	-0.0259	-6.75	***	
7	2009/11/17	309	0.0173	0.0138	5.00		***
7	2009/12/2	309	-0.0003	-0.0023	-0.10		
7	2009/12/14	309	-0.0061	-0.0080	-2.14	**	
7	2009/12/24	308	0.0013	-0.0016	0.48		
other positive events		**1873**	**0.0017**	**-0.0013**	**1.28**		

*, **, and *** denote one-tailed significance at the 10, 5, and 1 percent levels.
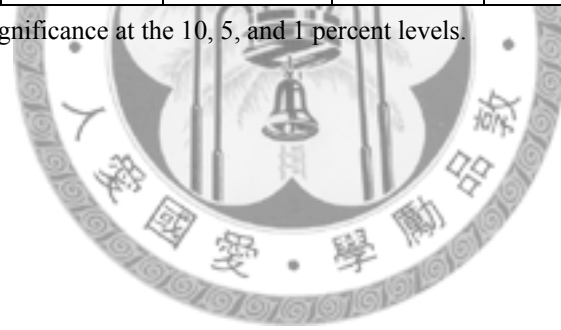
Appendix III- I: Descriptive Statistics (CMAR)

Panel A:Distress Events (11148 observations)

Variable	Min	25%	50%	75%	Max	Mean	Std. Dev.
CMAR	-0.1915	-0.0247	-0.0003	0.0246	0.2199	0.0001	0.0520
MBS	0.0000	0.0000	0.0000	0.0000	4.9245	0.0849	0.5421
CONSBS	0.0000	0.0000	0.0000	0.0000	0.8208	0.0139	0.0904
COMMBS	0.0000	0.0000	0.0000	0.0000	0.3276	0.0070	0.0409
OANCFQ	-0.4046	0.0101	0.0239	0.0447	0.6480	0.0366	0.1047
ROA	-0.0374	0.0009	0.0019	0.0027	0.0055	0.0010	0.0047
CAP	6.0700	9.6100	10.6800	12.2600	24.3600	11.2831	2.7669
BIG4	0.0000	0.0000	0.0000	1.0000	1.0000	0.4114	0.4921
SIZE	2.3238	4.5088	5.3051	6.4844	11.4215	5.6574	1.6961

Panel B:Rescue Events (4318 observations)

Variable	Min	25%	50%	75%	Max	Mean	Std. ev.
CMAR	-0.1915	-0.0437	-0.0058	0.0245	0.2199	-0.0074	0.0693
MBS	0.0000	0.0000	0.0000	0.0000	4.9245	0.1048	0.6215
CONSBS	0.0000	0.0000	0.0000	0.0000	0.8208	0.0174	0.1060
COMMBS	0.0000	0.0000	0.0000	0.0000	0.3276	0.0076	0.0443
OANCFQ	-0.4046	0.0139	0.0318	0.0641	0.6480	0.0484	0.1307
ROA	-0.0374	0.0000	0.0013	0.0023	0.0055	-0.0002	0.0060
CAP	6.0700	9.4700	10.6200	12.2400	24.3600	11.1627	2.7335
SIZE	2.3238	4.2078	5.0456	6.3277	11.4215	5.4127	1.7405
BIG4	0.0000	0.0000	0.0000	1.0000	1.0000	0.4009	0.4901

Panel C:Fed Events (12879 observations)

Variable	Min	25%	50%	75%	Max	Mean	Std. Dev.
CMAR	-0.1915	-0.0308	-0.0020	0.0289	0.2199	0.0012	0.0600
MBS	0.0000	0.0000	0.0000	0.0000	4.9245	0.0924	0.5758
CONSBS	0.0000	0.0000	0.0000	0.0000	0.8208	0.0150	0.0964
COMMBS	0.0000	0.0000	0.0000	0.0000	0.3276	0.0072	0.0423
OANCFQ	-0.4046	0.0121	0.0276	0.0539	0.6480	0.0405	0.1129
ROA	-0.0374	0.0004	0.0016	0.0025	0.0055	0.0001	0.0058
CAP	6.0700	9.5500	10.6200	12.2300	24.3600	11.2031	2.7520
BIG4	0.0000	0.0000	0.0000	1.0000	1.0000	0.4052	0.4910
SIZE	2.3238	4.3647	5.2190	6.4475	11.4215	5.5529	1.7184

Panel D:Positive Policy Events (4960 observations)

Variable	Min	25%	50%	75%	Max	Mean	Std. Dev.
CMAR	-0.1915	-0.0324	-0.0039	0.0261	0.2199	-0.0026	0.0652
MBS	0.0000	0.0000	0.0000	0.0000	4.9245	0.1053	0.6285
CONSBS	0.0000	0.0000	0.0000	0.0000	0.8208	0.0156	0.1003
COMMBS	0.0000	0.0000	0.0000	0.0000	0.3276	0.0071	0.0423
OANCFQ	-0.4046	0.0129	0.0299	0.0625	0.6480	0.0445	0.1224
ROA	-0.0374	-0.0004	0.0012	0.0022	0.0055	-0.0006	0.0066
CAP	6.0700	9.5050	10.6900	12.2800	24.3600	11.1723	2.6884
BIG4	0.0000	0.0000	0.0000	1.0000	1.0000	0.4008	0.4901
SIZE	2.3238	4.1892	5.1466	6.4299	11.4215	5.4462	1.7563

Panel E:Negative Policy Events (2022 observations)

Variable	Min	25%	50%	75%	Max	Mean	Std. Dev.
CMAR	-0.1915	-0.0317	0.0097	0.0557	0.2199	0.0164	0.0811
MBS	0.0000	0.0000	0.0000	0.0000	4.9245	0.0970	0.5971
CONSBS	0.0000	0.0000	0.0000	0.0000	0.8208	0.0184	0.1106
COMMBS	0.0000	0.0000	0.0000	0.0000	0.3276	0.0085	0.0472
OANCFQ	-0.4046	0.0130	0.0305	0.0610	0.6480	0.0536	0.1184
ROA	-0.0374	0.0001	0.0014	0.0023	0.0055	0.0000	0.0055
CAP	6.0700	9.3200	10.1700	11.6400	24.3600	10.8029	2.6256
BIG4	0.0000	0.0000	0.0000	1.0000	1.0000	0.4021	0.4904
SIZE	2.3238	4.2880	4.9582	6.2825	11.4215	5.4527	1.6899

Panel F:Capital Infusion Events (8847 observations)

Variable	Min	25%	50%	75%	Max	Mean	Std. Dev.
CMAR	-0.1915	-0.0457	-0.0051	0.0298	0.2199	-0.0063	0.0733
MBS	0.0000	0.0000	0.0000	0.0000	4.9245	0.1130	0.6582
CONSBS	0.0000	0.0000	0.0000	0.0000	0.8208	0.0175	0.1090
COMMBS	0.0000	0.0000	0.0000	0.0000	0.3276	0.0075	0.0443
OANCFQ	-0.4046	0.0154	0.0330	0.0726	0.6480	0.0494	0.1297
ROA	-0.0374	-0.0013	0.0009	0.0019	0.0055	-0.0014	0.0072
CAP	6.0700	9.4300	10.7000	12.2400	24.3600	11.1299	2.6542
BIG4	0.0000	0.0000	0.0000	1.0000	1.0000	0.3978	0.4895
SIZE	2.3238	4.0707	4.9904	6.3889	11.4215	5.3510	1.7692

Panel G:Other Positive Events (1873 observations)

Variable	Min	25%	50%	75%	Max	Mean	Std. Dev.
CMAR	-0.1915	-0.0248	-0.0028	0.0253	0.2199	0.0005	0.0575
MBS	0.0000	0.0000	0.0000	0.0000	4.9245	0.1315	0.6971
CONSBS	0.0000	0.0000	0.0000	0.0000	0.8208	0.0177	0.1066
COMMBS	0.0000	0.0000	0.0000	0.0000	0.3276	0.0069	0.0424
OANCFQ	-0.4046	0.0205	0.0521	0.1140	0.6480	0.0702	0.1699
ROA	-0.0374	-0.0017	0.0007	0.0018	0.0055	-0.0017	0.0076
CAP	6.0700	10.4400	11.8300	13.4300	24.3600	11.9856	2.8363
BIG4	0.0000	0.0000	0.0000	1.0000	1.0000	0.3940	0.4888
SIZE	2.3238	3.7513	4.7482	6.1381	11.4215	5.0842	1.8468

Panel H:Positive Reaction Events (32877 observations)

Variable	Min	25%	50%	75%	Max	Mean	Std. Dev.
CMAR	-0.1915	-0.0355	-0.0035	0.0279	0.2199	-0.0026	0.0658
MBS	0.0000	0.0000	0.0000	0.0000	4.9245	0.1037	0.6201
CONSBS	0.0000	0.0000	0.0000	0.0000	0.8208	0.0162	0.1024
COMMBS	0.0000	0.0000	0.0000	0.0000	0.3276	0.0073	0.0431
OANCFQ	-0.4046	0.0131	0.0304	0.0628	0.6480	0.0462	0.1254
ROA	-0.0374	-0.0003	0.0013	0.0023	0.0055	-0.0005	0.0065
CAP	6.0700	9.5200	10.7200	12.3200	24.3600	11.2180	2.7255
BIG4	0.0000	0.0000	0.0000	1.0000	1.0000	0.4013	0.4902
SIZE	2.3238	4.1970	5.1134	6.3922	11.4215	5.4373	1.7523

Panel I:Negative Reaction Events (13170 observations)

Variable	Min	25%	50%	75%	Max	Mean	Std. Dev.
CMAR	-0.1915	-0.0255	0.0004	0.0283	0.2199	0.0026	0.0578
MBS	0.0000	0.0000	0.0000	0.0000	4.9245	0.0868	0.5509
CONSBS	0.0000	0.0000	0.0000	0.0000	0.8208	0.0146	0.0938
COMMBS	0.0000	0.0000	0.0000	0.0000	0.3276	0.0072	0.0419
OANCFQ	-0.4046	0.0105	0.0248	0.0466	0.6480	0.0392	0.1071
ROA	-0.0374	0.0007	0.0018	0.0027	0.0055	0.0008	0.0048
CAP	6.0700	9.5200	10.5700	12.2000	24.3600	11.2094	2.7510
BIG4	0.0000	0.0000	0.0000	1.0000	1.0000	0.4099	0.4918
SIZE	2.3238	4.4584	5.2620	6.4561	11.4215	5.6259	1.6967

* Table 2 defines the variables used in this study.

Appendix III- II: Descriptive Statistics (CAR)

Panel A:Distress Events (11148 observations)

Variable	Min	25%	50%	75%	Max	Mean	Std. Dev.
CAR	-0.1876	-0.0263	-0.0028	0.0189	0.2201	-0.0027	0.0517
MBS	0.0000	0.0000	0.0000	0.0000	4.9245	0.0849	0.5421
CONSBS	0.0000	0.0000	0.0000	0.0000	0.8208	0.0139	0.0904
COMMBS	0.0000	0.0000	0.0000	0.0000	0.3276	0.0070	0.0409
OANCFQ	-0.4046	0.0101	0.0239	0.0447	0.6480	0.0366	0.1047
ROA	-0.0374	0.0009	0.0019	0.0027	0.0055	0.0010	0.0047
CAP	6.0700	9.6100	10.6800	12.2600	24.3600	11.2831	2.7669
BIG4	0.0000	0.0000	0.0000	1.0000	1.0000	0.4114	0.4921
SIZE	2.3238	4.5088	5.3051	6.4844	11.4215	5.6574	1.6961

Panel B:Rescue Events (4318 observations)

Variable	Min	25%	50%	75%	Max	Mean	Std. ev.
CAR	-0.1876	-0.0363	-0.0043	0.0228	0.2201	-0.0048	0.0652
MBS	0.0000	0.0000	0.0000	0.0000	4.9245	0.1048	0.6215
CONSBS	0.0000	0.0000	0.0000	0.0000	0.8208	0.0174	0.1060
COMMBS	0.0000	0.0000	0.0000	0.0000	0.3276	0.0076	0.0443
OANCFQ	-0.4046	0.0139	0.0318	0.0641	0.6480	0.0484	0.1307
ROA	-0.0374	0.0000	0.0013	0.0023	0.0055	-0.0002	0.0060
CAP	6.0700	9.4700	10.6200	12.2400	24.3600	11.1627	2.7335
BIG4	0.0000	0.0000	0.0000	1.0000	1.0000	0.4009	0.4901
SIZE	2.3238	4.2078	5.0456	6.3277	11.4215	5.4127	1.7405

Panel C:Fed Events (12879 observations)

Variable	Min	25%	50%	75%	Max	Mean	Std. Dev.
CAR	-0.1876	-0.0280	-0.0007	0.0278	0.2201	0.0017	0.0581
MBS	0.0000	0.0000	0.0000	0.0000	4.9245	0.0924	0.5758
CONSBS	0.0000	0.0000	0.0000	0.0000	0.8208	0.0150	0.0964
COMMBS	0.0000	0.0000	0.0000	0.0000	0.3276	0.0072	0.0423
OANCFQ	-0.4046	0.0121	0.0276	0.0539	0.6480	0.0405	0.1129
ROA	-0.0374	0.0004	0.0016	0.0025	0.0055	0.0001	0.0058
CAP	6.0700	9.5500	10.6200	12.2300	24.3600	11.2031	2.7520
BIG4	0.0000	0.0000	0.0000	1.0000	1.0000	0.4052	0.4910
SIZE	2.3238	4.3647	5.2190	6.4475	11.4215	5.5529	1.7184

Panel D:Positive Policy Events (4960 observations)

Variable	Min	25%	50%	75%	Max	Mean	Std. Dev.
CAR	-0.1876	-0.0311	-0.0034	0.0239	0.2201	-0.0025	0.0627
MBS	0.0000	0.0000	0.0000	0.0000	4.9245	0.1053	0.6285
CONSBS	0.0000	0.0000	0.0000	0.0000	0.8208	0.0156	0.1003
COMMBS	0.0000	0.0000	0.0000	0.0000	0.3276	0.0071	0.0423
OANCFQ	-0.4046	0.0129	0.0299	0.0625	0.6480	0.0445	0.1224
ROA	-0.0374	-0.0004	0.0012	0.0022	0.0055	-0.0006	0.0066
CAP	6.0700	9.5050	10.6900	12.2800	24.3600	11.1723	2.6884
BIG4	0.0000	0.0000	0.0000	1.0000	1.0000	0.4008	0.4901
SIZE	2.3238	4.1892	5.1466	6.4299	11.4215	5.4462	1.7563

Panel E:Negative Policy Events (2022 observations)

Variable	Min	25%	50%	75%	Max	Mean	Std. Dev.
CAR	-0.1876	-0.0326	0.0058	0.0512	0.2201	0.0134	0.0802
MBS	0.0000	0.0000	0.0000	0.0000	4.9245	0.0970	0.5971
CONSBS	0.0000	0.0000	0.0000	0.0000	0.8208	0.0184	0.1106
COMMBS	0.0000	0.0000	0.0000	0.0000	0.3276	0.0085	0.0472
OANCFQ	-0.4046	0.0130	0.0305	0.0610	0.6480	0.0536	0.1184
ROA	-0.0374	0.0001	0.0014	0.0023	0.0055	0.0000	0.0055
CAP	6.0700	9.3200	10.1700	11.6400	24.3600	10.8029	2.6256
BIG4	0.0000	0.0000	0.0000	1.0000	1.0000	0.4021	0.4904
SIZE	2.3238	4.2880	4.9582	6.2825	11.4215	5.4527	1.6899

Panel F:Capital Infusion Events (8847 observations)

Variable	Min	25%	50%	75%	Max	Mean	Std. Dev.
CAR	-0.1876	-0.0429	-0.0056	0.0260	0.2201	-0.0065	0.0706
MBS	0.0000	0.0000	0.0000	0.0000	4.9245	0.1130	0.6582
CONSBS	0.0000	0.0000	0.0000	0.0000	0.8208	0.0175	0.1090
COMMBS	0.0000	0.0000	0.0000	0.0000	0.3276	0.0075	0.0443
OANCFQ	-0.4046	0.0154	0.0330	0.0726	0.6480	0.0494	0.1297
ROA	-0.0374	-0.0013	0.0009	0.0019	0.0055	-0.0014	0.0072
CAP	6.0700	9.4300	10.7000	12.2400	24.3600	11.1299	2.6542
BIG4	0.0000	0.0000	0.0000	1.0000	1.0000	0.3978	0.4895
SIZE	2.3238	4.0707	4.9904	6.3889	11.4215	5.3510	1.7692

Panel G:Other Positive Events (1873 observations)

Variable	Min	25%	50%	75%	Max	Mean	Std. Dev.
CAR	-0.1876	-0.0240	-0.0013	0.0262	0.2201	0.0017	0.0573
MBS	0.0000	0.0000	0.0000	0.0000	4.9245	0.1315	0.6971
CONSBS	0.0000	0.0000	0.0000	0.0000	0.8208	0.0177	0.1066
COMMBS	0.0000	0.0000	0.0000	0.0000	0.3276	0.0069	0.0424
OANCFQ	-0.4046	0.0205	0.0521	0.1140	0.6480	0.0702	0.1699
ROA	-0.0374	-0.0017	0.0007	0.0018	0.0055	-0.0017	0.0076
CAP	6.0700	10.4400	11.8300	13.4300	24.3600	11.9856	2.8363
BIG4	0.0000	0.0000	0.0000	1.0000	1.0000	0.3940	0.4888
SIZE	2.3238	3.7513	4.7482	6.1381	11.4215	5.0842	1.8468

Panel H:Positive Reaction Events (32877 observations)

Variable	Min	25%	50%	75%	Max	Mean	Std. Dev.
CAR	-0.1876	-0.0327	-0.0026	0.0261	0.2201	-0.0020	0.0633
MBS	0.0000	0.0000	0.0000	0.0000	4.9245	0.1037	0.6201
CONSBS	0.0000	0.0000	0.0000	0.0000	0.8208	0.0162	0.1024
COMMBS	0.0000	0.0000	0.0000	0.0000	0.3276	0.0073	0.0431
OANCFQ	-0.4046	0.0131	0.0304	0.0628	0.6480	0.0462	0.1254
ROA	-0.0374	-0.0003	0.0013	0.0023	0.0055	-0.0005	0.0065
CAP	6.0700	9.5200	10.7200	12.3200	24.3600	11.2180	2.7255
BIG4	0.0000	0.0000	0.0000	1.0000	1.0000	0.4013	0.4902
SIZE	2.3238	4.1970	5.1134	6.3922	11.4215	5.4373	1.7523

Panel I:Negative Reaction Events (13170 observations)

Variable	Min	25%	50%	75%	Max	Mean	Std. Dev.
CAR	-0.1876	-0.0268	-0.0019	0.0223	0.2201	-0.0003	0.0573
MBS	0.0000	0.0000	0.0000	0.0000	4.9245	0.0868	0.5509
CONSBS	0.0000	0.0000	0.0000	0.0000	0.8208	0.0146	0.0938
COMMBS	0.0000	0.0000	0.0000	0.0000	0.3276	0.0072	0.0419
OANCFQ	-0.4046	0.0105	0.0248	0.0466	0.6480	0.0392	0.1071
ROA	-0.0374	0.0007	0.0018	0.0027	0.0055	0.0008	0.0048
CAP	6.0700	9.5200	10.5700	12.2000	24.3600	11.2094	2.7510
BIG4	0.0000	0.0000	0.0000	1.0000	1.0000	0.4099	0.4918
SIZE	2.3238	4.4584	5.2620	6.4561	11.4215	5.6259	1.6967

* Table 2 defines the variables used in this study.

Appendix IV - I: Correlation Table (CMAR)

Panel A:Distress Events (11148 observations)

	CMAR	MBS	CONSBS	COMMBS	OANCFQ	ROA	CAP	BIG4	SIZE
CMAR	1								
MBS	-0.0415*	1							
CONSBS	-0.0655*	0.3426*	1						
COMMBS	-0.0291*	0.2751*	0.3941*	1					
OANCFQ	-0.0340*	0.1305*	0.1734*	0.0398*	1				
ROA	0.0514*	-0.0379*	-0.0875*	-0.0031	-0.2180*	1			
CAP	0.0277*	-0.0891*	-0.0993*	-0.1388*	-0.0971*	0.1767*	1		
BIG4	-0.0603*	0.1536*	0.1796*	0.1509*	0.0584*	0.0306*	-0.0767*	1	
SIZE	-0.0670*	0.2712*	0.3533*	0.3164*	-0.0253*	0.2235*	-0.0917*	0.5810*	1

Panel B:Rescue Events (4318 observations)

	CMAR	MBS	CONSBS	COMMBS	OANCFQ	ROA	CAP	BIG4	SIZE
CMAR	1								
MBS	0.0153	1							
CONSBS	0.0216	0.4154*	1						
COMMBS	0.0228	0.3515*	0.4067*	1					
OANCFQ	0.0276	0.1475*	0.2143*	0.0721*	1				
ROA	0.0321*	-0.0205	-0.1125*	-0.0175	-0.2025*	1			
CAP	0.0432*	-0.0681*	-0.0919*	-0.1175*	-0.1087*	0.2367*	1		
BIG4	0.1080*	0.1720*	0.1963*	0.1518*	0.0507*	0.0248	-0.0439*	1	
SIZE	0.1237*	0.3199*	0.3630*	0.3083*	-0.0081	0.1942*	-0.0114	0.5836*	1

Panel C:Fed Events (12879 observations)

	CMAR	MBS	CONSBS	COMMBS	OANCFQ	ROA	CAP	BIG4	SIZE
CMAR	1								
MBS	0.0141	1							
CONSBS	0.0103	0.4088*	1						
COMMBS	0.0068	0.3132*	0.3964*	1					
OANCFQ	-0.0127	0.1117*	0.1016*	-0.0082	1				
ROA	0.0307*	-0.0528*	-0.0912*	-0.0161	-0.1587*	1			
CAP	-0.0047	-0.0807*	-0.0923*	-0.1252*	-0.0807*	0.1975*	1		
BIG4	0.0169	0.1626*	0.1843*	0.1502*	0.0383*	0.0296*	-0.0535*	1	
SIZE	0.0350*	0.2983*	0.3529*	0.3116*	-0.0431*	0.1837*	-0.0487*	0.5835*	1

Panel D:Positive Policy Events (4960 observations)

	CMAR	MBS	CONSBS	COMMBS	OANCFQ	ROA	CAP	BIG4	SIZE
CMAR	1								
MBS	-0.0078	1							
CONSBS	-0.0033	0.4767*	1						
COMMBS	0.004	0.3720*	0.4017*	1					
OANCFQ	-0.0292*	0.1128*	0.0716*	-0.0460*	1				
ROA	-0.0198	-0.0425*	-0.0651*	0.0036	-0.1482*	1			
CAP	0.0273	-0.0710*	-0.0784*	-0.1017*	-0.1065*	0.2239*	1		
BIG4	0.0111	0.1747*	0.1857*	0.1401*	0.0395*	0.0545*	-0.027	1	
SIZE	0.0179	0.3140*	0.3396*	0.2911*	-0.0833*	0.2062*	0.0206	0.5847*	1

Panel E:Negative Policy Events (2022 observations)

	CMAR	MBS	CONSBS	COMMBS	OANCFQ	ROA	CAP	BIG4	SIZE
CMAR	1								
MBS	0.0297	1							
CONSBS	0.0477*	0.3750*	1						
COMMBS	0.0524*	0.2864*	0.3693*	1					
OANCFQ	0.0649*	0.3015*	0.2998*	0.1349*	1				
ROA	0.0162	-0.0147	-0.1506*	-0.0427	-0.2413*	1			
CAP	-0.0377	-0.0988*	-0.1028*	-0.1339*	-0.1838*	0.2182*	1		
BIG4	0.0464*	0.1698*	0.1995*	0.1695*	0.1187*	-0.0629*	-0.0614*	1	
SIZE	0.0696*	0.3325*	0.3849*	0.3269*	0.0876*	0.1104*	-0.0402	0.5838*	1

Panel F:Capital Infusion Events (8847 observations)

	CMAR	MBS	CONSBS	COMMBS	OANCFQ	ROA	CAP	BIG4	SIZE
CMAR	1								
MBS	-0.0222*	1							
CONSBS	-0.0076	0.4884*	1						
COMMBS	-0.0045	0.4026*	0.4211*	1					
OANCFQ	-0.0196	0.1214*	0.0875*	-0.0211*	1				
ROA	0.0042	-0.0386*	-0.1004*	-0.0195	-0.1322*	1			
CAP	0.0398*	-0.0602*	-0.0710*	-0.0911*	-0.1251*	0.2531*	1		
BIG4	-0.0396*	0.1841*	0.1941*	0.1417*	0.0432*	0.0399*	-0.002	1	
SIZE	-0.0542*	0.3366*	0.3466*	0.2873*	-0.0610*	0.1727*	0.0779*	0.5875*	1

Panel G:Other Positive Events (1873 observations)								
	CMAR	MBS	CONSBS	COMMBS	OANCFQ	ROA	CAP	BIG4	SIZE
CMAR	1								
MBS	-0.0181	1							
CONSBS	-0.0241	0.4239*	1						
COMMBS	-0.0163	0.3865*	0.4219*	1					
OANCFQ	0.0007	0.0735*	0.0906*	0.0588*	1				
ROA	0.0287	0.0203	-0.0283	-0.0172	-0.1895*	1			
CAP	-0.003	0.0147	-0.0242	-0.0705*	-0.0553*	0.3917*	1		
BIG4	0.0333	0.1778*	0.2016*	0.1183*	0.0062	0.0931*	0.0712*	1	
SIZE	0.011	0.3313*	0.3756*	0.2750*	-0.0082	0.2527*	0.2720*	0.5995*	1

Panel H:Positive Reaction Events (32877observations)								
	CMAR	MBS	CONSBS	COMMBS	OANCFQ	ROA	CAP	BIG4	SIZE
CMAR	1								
MBS	-0.003	1							
CONSBS	0.0019	0.4450*	1						
COMMBS	0.0038	0.3576*	0.4071*	1					
OANCFQ	-0.0114*	0.1168*	0.1082*	-0.0009	1				
ROA	0.0174*	-0.0387*	-0.0888*	-0.0144*	-0.1602*	1			
CAP	0.0211*	-0.0645*	-0.0795*	-0.1082*	-0.0946*	0.2310*	1		
BIG4	0.0127*	0.1723*	0.1896*	0.1447*	0.0384*	0.0405*	-0.0275*	1	
SIZE	0.0179*	0.3146*	0.3501*	0.2984*	-0.0499*	0.1942*	0.0174*	0.5847*	1

Panel I:Negative Reaction Events (13170observations)								
	CMAR	MBS	CONSBS	COMMBS	OANCFQ	ROA	CAP	BIG4	SIZE
CMAR	1								
MBS	-0.0234*	1							
CONSBS	-0.0343*	0.3487*	1						
COMMBS	-0.0076	0.2773*	0.3891*	1					
OANCFQ	-0.0041	0.1622*	0.1993*	0.0587*	1				
ROA	0.0348*	-0.0339*	-0.1015*	-0.0118	-0.2256*	1			
CAP	0.0071	-0.0908*	-0.1003*	-0.1381*	-0.1142*	0.1867*	1		
BIG4	-0.0367*	0.1561*	0.1825*	0.1538*	0.0680*	0.0146	-0.0738*	1	
SIZE	-0.0406*	0.2806*	0.3567*	0.3168*	-0.0086	0.2057*	-0.0811*	0.5811*	1

* Correlations significant at the 5 percent level in a two-tailed test are in boldface. Table 2 defines the variables used in this study.

Appendix IV - II: Correlation Table (CMAR)

Panel A:Distress Events (11148 observations)

	CAR	MBS	CONSBS	COMMBS	OANCFQ	ROA	CAP	BIG4	SIZE
CAR	1								
MBS	-0.0213*	1							
CONSBS	-0.0420*	0.3426*	1						
COMMBS	-0.0175	0.2751*	0.3941*	1					
OANCFQ	-0.0250*	0.1305*	0.1734*	0.0398*	1				
ROA	0.0531*	-0.0379*	-0.0875*	-0.0031	-0.2180*	1			
CAP	0.0159	-0.0891*	-0.0993*	-0.1388*	-0.0971*	0.1767*	1		
BIG4	0.0257*	0.1536*	0.1796*	0.1509*	0.0584*	0.0306*	-0.0767*	1	
SIZE	0.0424*	0.2712*	0.3533*	0.3164*	-0.0253*	0.2235*	-0.0917*	0.5810*	1

Panel B:Rescue Events (4318 observations)

	CAR	MBS	CONSBS	COMMBS	OANCFQ	ROA	CAP	BIG4	SIZE
CAR	1								
MBS	-0.0013	1							
CONSBS	0.003	0.4154*	1						
COMMBS	0.0141	0.3515*	0.4067*	1					
OANCFQ	0.0151	0.1475*	0.2143*	0.0721*	1				
ROA	0.0420*	-0.0205	-0.1125*	-0.0175	-0.2025*	1			
CAP	0.0564*	-0.0681*	-0.0919*	-0.1175*	-0.1087*	0.2367*	1		
BIG4	0.0335*	0.1720*	0.1963*	0.1518*	0.0507*	0.0248	-0.0439*	1	
SIZE	0.0357*	0.3199*	0.3630*	0.3083*	-0.0081	0.1942*	-0.0114	0.5836*	1

Panel C:Fed Events (12879 observations)

	CAR	MBS	CONSBS	COMMBS	OANCFQ	ROA	CAP	BIG4	SIZE
CAR	1								
MBS	0.0117	1							
CONSBS	0.0085	0.4088*	1						
COMMBS	0.0068	0.3132*	0.3964*	1					
OANCFQ	-0.0079	0.1117*	0.1016*	-0.0082	1				
ROA	0.0271*	-0.0528*	-0.0912*	-0.0161	-0.1587*	1			
CAP	-0.0039	-0.0807*	-0.0923*	-0.1252*	-0.0807*	0.1975*	1		
BIG4	0.0127	0.1626*	0.1843*	0.1502*	0.0383*	0.0296*	-0.0535*	1	
SIZE	0.0258*	0.2983*	0.3529*	0.3116*	-0.0431*	0.1837*	-0.0487*	0.5835*	1

Panel D:Positive Policy Events (4960 observations)

	CAR	MBS	CONSBS	COMMBS	OANCFQ	ROA	CAP	BIG4	SIZE
CAR	1								
MBS	-0.0065	1							
CONSBS	-0.0017	0.4767*	1						
COMMBS	0.0062	0.3720*	0.4017*	1					
OANCFQ	-0.0261	0.1128*	0.0716*	-0.0460*	1				
ROA	-0.0212	-0.0425*	-0.0651*	0.0036	-0.1482*	1			
CAP	0.0256	-0.0710*	-0.0784*	-0.1017*	-0.1065*	0.2239*	1		
BIG4	0.0125	0.1747*	0.1857*	0.1401*	0.0395*	0.0545*	-0.027	1	
SIZE	0.0217	0.3140*	0.3396*	0.2911*	-0.0833*	0.2062*	0.0206	0.5847*	1

Panel E:Negative Policy Events (2022 observations)

	CAR	MBS	CONSBS	COMMBS	OANCFQ	ROA	CAP	BIG4	SIZE
CAR	1								
MBS	0.0418	1							
CONSBS	0.0643*	0.3750*	1						
COMMBS	0.0628*	0.2864*	0.3693*	1					
OANCFQ	0.0824*	0.3015*	0.2998*	0.1349*	1				
ROA	0.0087	-0.0147	-0.1506*	-0.0427	-0.2413*	1			
CAP	-0.0471*	-0.0988*	-0.1028*	-0.1339*	-0.1838*	0.2182*	1		
BIG4	0.1049*	0.1698*	0.1995*	0.1695*	0.1187*	-0.0629*	-0.0614*	1	
SIZE	0.1391*	0.3325*	0.3849*	0.3269*	0.0876*	0.1104*	-0.0402	0.5838*	1

Panel F:Capital Infusion Events (8847 observations)

	CAR	MBS	CONSBS	COMMBS	OANCFQ	ROA	CAP	BIG4	SIZE
CAR	1								
MBS	-0.02	1							
CONSBS	-0.0049	0.4884*	1						
COMMBS	-0.0029	0.4026*	0.4211*	1					
OANCFQ	-0.0222*	0.1214*	0.0875*	-0.0211*	1				
ROA	0.0023	-0.0386*	-0.1004*	-0.0195	-0.1322*	1			
CAP	0.0425*	-0.0602*	-0.0710*	-0.0911*	-0.1251*	0.2531*	1		
BIG4	-0.0416*	0.1841*	0.1941*	0.1417*	0.0432*	0.0399*	-0.002	1	
SIZE	-0.0530*	0.3366*	0.3466*	0.2873*	-0.0610*	0.1727*	0.0779*	0.5875*	1

Panel G:Other Positive Events (1873 observations)

	CAR	MBS	CONSBS	COMMBS	OANCFQ	ROA	CAP	BIG4	SIZE
CAR	1								
MBS	-0.031	1							
CONSBS	-0.0392	0.4239*	1						
COMMBS	-0.0225	0.3865*	0.4219*	1					
OANCFQ	-0.0032	0.0735*	0.0906*	0.0588*	1				
ROA	0.0315	0.0203	-0.0283	-0.0172	-0.1895*	1			
CAP	-0.0046	0.0147	-0.0242	-0.0705*	-0.0553*	0.3917*	1		
BIG4	0.0058	0.1778*	0.2016*	0.1183*	0.0062	0.0931*	0.0712*	1	
SIZE	-0.0255	0.3313*	0.3756*	0.2750*	-0.0082	0.2527*	0.2720*	0.5995*	1

Panel H:Positive Reaction Events(32877 observations)

	CAR	MBS	CONSBS	COMMBS	OANCFQ	ROA	CAP	BIG4	SIZE
CAR	1								
MBS	-0.006	1							
CONSBS	-0.0011	0.4450*	1						
COMMBS	0.003	0.3576*	0.4071*	1					
OANCFQ	-0.0123*	0.1168*	0.1082*	-0.0009	1				
ROA	0.0174*	-0.0387*	-0.0888*	-0.0144*	-0.1602*	1			
CAP	0.0237*	-0.0645*	-0.0795*	-0.1082*	-0.0946*	0.2310*	1		
BIG4	-0.0009	0.1723*	0.1896*	0.1447*	0.0384*	0.0405*	-0.0275*	1	
SIZE	0.0016	0.3146*	0.3501*	0.2984*	-0.0499*	0.1942*	0.0174*	0.5847*	1

Panel I:Negative Reaction Events(13170 observations)

	CAR	MBS	CONSBS	COMMBS	OANCFQ	ROA	CAP	BIG4	SIZE
CAR	1								
MBS	-0.0055	1							
CONSBS	-0.0129	0.3487*	1						
COMMBS	0.0035	0.2773*	0.3891*	1					
OANCFQ	0.0067	0.1622*	0.1993*	0.0587*	1				
ROA	0.0342*	-0.0339*	-0.1015*	-0.0118	-0.2256*	1			
CAP	-0.0038	-0.0908*	-0.1003*	-0.1381*	-0.1142*	0.1867*	1		
BIG4	0.0414*	0.1561*	0.1825*	0.1538*	0.0680*	0.0146	-0.0738*	1	
SIZE	0.0577*	0.2806*	0.3567*	0.3168*	-0.0086	0.2057*	-0.0811*	0.5811*	1

* Correlations significant at the 5 percent level in a two-tailed test are in boldface. Table 2 defines the variables used in this study.

Appendix VI – I Panel A: Regression Results of CMAR

CMAR=α+β_1 MBS+β_2 CONSBS+β_3 COMMBS+β_4 OANCFQ +β_5 ROA +β_6CAP +β_7 BIG4+e

	Distress	Rescue	Fed	Positive policy	Negative policy	Capital Infusion	Other positive	Positive Reaction	Negative Reaction
CMAR	Coef.	Coef.	Coef.	Coef.	Coef.	Coef.	Coef.	Coef.	Coef.
Intercept	0.0004	-0.0274***	0.0030*	-0.0116***	0.0211***	-0.0160***	0.0041	-0.0080***	0.0045**
	(0.2)	(-6.26)	(1.35)	(-2.95)	(2.76)	(-4.7)	(0.59)	(-5.21)	(2.14)
MBS	-0.0014	-0.0010	0.0012	-0.0008	-0.0018	-0.0021*	-0.0011	-0.0006	-0.0014
	(-1.16)	(-0.5)	(1.07)	(-0.4)	(-0.43)	(-1.6)	(-0.56)	(-0.87)	(-1.06)
CONSBS	-0.0262***	-0.0010	0.0044	-0.0021	0.0141	0.0061	-0.0128	0.0022	-0.0167**
	(-3.7)	(-0.07)	(0.6)	(-0.15)	(0.69)	(0.65)	(-0.9)	(0.46)	(-2.24)
COMMBS	0.0030	0.0213	-0.0036	0.0122	0.0573	0.0133	-0.0096	0.0073	0.0150
	(0.17)	(0.71)	(-0.22)	(0.42)	(1.22)	(0.6)	(-0.31)	(0.68)	(0.85)
OANCFQ	-0.0053	0.0174**	-0.0059	-0.0159**	0.0409**	-0.0068	0.0032	-0.0042	0.0069
	(-0.73)	(1.65)	(-0.9)	(-1.72)	(1.85)	(-0.86)	(0.3)	(-1.09)	(0.95)
ROA	0.4955***	0.2914	0.3261**	-0.3258**	0.6362**	-0.0568	0.2577	0.1162*	0.4276***
	(2.68)	(1.25)	(2.3)	(-1.65)	(1.67)	(-0.38)	(0.94)	(1.43)	(2.56)
CAP	0.0002	0.0012***	-0.0002	0.0008***	-0.0009*	0.0011***	-0.0004	0.0004***	-0.0001
	(1.11)	(3.41)	(-1.23)	(2.49)	(-1.41)	(4.06)	(-0.78)	(3.68)	(-0.38)
BIG4	-0.0053***	0.0152***	0.0016*	0.0021	0.0054*	-0.0057***	0.0047**	0.0017***	-0.0039***
	(-5.29)	(7.19)	(1.47)	(1.11)	(1.5)	(-3.66)	(1.71)	(2.33)	(-3.79)
R-squared	0.0095	0.0155	0.0016	0.0027	0.0095	0.0036	0.0033	0.0009	0.0035
Observations	11148	4318	12879	4960	2022	8847	1873	32877	13170
F-statistic	10.63	10.3	1.87	1.66	2.45	5.16	0.96	3.77	4.45

*, **, and *** denote one-tailed significance at the 10, 5, and 1 percent levels. Table 2 defines the variables used in this study.

Appendix VI – I Panel B: Regression Results of CMAR with SIZE

CMAR=α+β$_1$ MBS+β$_2$ CONSBS+β$_3$ COMMBS+β$_4$ OANCFQ +β$_5$ ROA +β$_6$CAP +β$_7$ BIG4+β$_8$SIZE+e

	Distress	Rescue	Fed	Positive Policy	Negative Policy	Capital Infusion	Other Positive	Positive Reaction	Negative Reaction
CMAR	Coef.	Coef.	Coef.	Coef.	Coef.	Coef.	Coef.	Coef.	Coef.
Intercept	0.0090***	-0.0473***	-0.0020	-0.0159***	0.0101	-0.0051	0.0042	-0.0102***	0.0109***
	(2.83)	(-7.72)	(-0.6)	(-2.9)	(0.98)	(-1.13)	(0.51)	(-4.69)	(3.45)
MBS	-0.0009	-0.0024	0.0009	-0.0011	-0.0027	-0.0011	-0.0011	-0.0008	-0.0009
	(-0.72)	(-1.26)	(0.75)	(-0.56)	(-0.66)	(-0.83)	(-0.54)	(-1.09)	(-0.72)
CONSBS	-0.0199***	-0.0152	0.0011	-0.0047	0.0060	0.0131*	-0.0127	0.0008	-0.0120*
	(-2.76)	(-1.12)	(0.15)	(-0.35)	(0.29)	(1.36)	(-0.86)	(0.16)	(-1.58)
COMMBS	0.0119	0.0020	-0.0088	0.0081	0.0462	0.0232	-0.0094	0.0051	0.0215
	(0.67)	(0.07)	(-0.54)	(0.28)	(0.97)	(1.05)	(-0.31)	(0.47)	(1.22)
OANCFQ	-0.0070	0.0211**	-0.0049	-0.0146*	0.0429**	-0.0098	0.0032	-0.0037	0.0056
	(-0.96)	(1.99)	(-0.74)	(-1.57)	(1.93)	(-1.24)	(0.29)	(-0.96)	(0.76)
ROA	0.6320***	0.0445	0.2700**	-0.3704**	0.5129*	0.0399	0.2588	0.0928	0.5243***
	(3.28)	(0.19)	(1.87)	(-1.86)	(1.33)	(0.26)	(0.94)	(1.12)	(3.04)
CAP	0.0001	0.0012***	-0.0002	0.0008***	-0.0009*	0.0012***	-0.0004	0.0004***	-0.0001
	(0.77)	(3.43)	(-1.15)	(2.46)	(-1.41)	(4.46)	(-0.79)	(3.65)	(-0.58)
BIG4	-0.0024**	0.0075***	-0.0002	0.0004	0.0013	-0.0008	0.0047*	0.0008	-0.0017*
	(-1.93)	(2.89)	(-0.17)	(0.15)	(0.3)	(-0.43)	(1.36)	(0.92)	(-1.35)
SIZE	-0.0017***	0.0043***	0.0010**	0.0009	0.0024**	-0.0026***	0.0000	0.0005*	-0.0013***
	(-3.9)	(5.1)	(2.26)	(1.23)	(1.65)	(-4.18)	(-0.04)	(1.61)	(-2.95)
R-squared	0.011	0.0215	0.002	0.003	0.0107	0.0058	0.0033	0.001	0.0042
Observations	11148	4318	12879	4960	2022	8847	1873	32877	13170
F-statistic	11.24	12.13	2.41	1.57	2.4	6.83	0.85	3.47	4.79

*, **, and *** denote one-tailed significance at the 10, 5, and 1 percent levels. Table 2 defines the variables used in this study.

Appendix VI – II Panel A: Regression Results of CAR

$CAR=\alpha+\beta_1 MBS+\beta_2 CONSBS+\beta_3 COMMBS+\beta_4 OANCFQ +\beta_5 ROA +\beta_6 CAP +\beta_7 BIG4+e$

	Distress	Rescue	Fed	Positive Policy	Negative Policy	Capital Infusion	Other Positive	Positive Reaction	Negative Reaction
CAR	Coef.	Coef.	Coef.	Coef.	Coef.	Coef.	Coef.	Coef.	Coef.
Intercept	-0.0051***	-0.0216***	0.0032*	-0.0110***	0.0153**	-0.0167***	0.0071	-0.0071***	-0.0010
	(-2.49)	(-5.32)	(1.52)	(-2.94)	(2.06)	(-5.16)	(1.03)	(-4.89)	(-0.51)
MBS	-0.0009	-0.0013	0.0010	-0.0008	-0.0019	-0.0019*	-0.0016	-0.0007	-0.0009
	(-0.72)	(-0.72)	(0.86)	(-0.41)	(-0.45)	(-1.48)	(-0.78)	(-1.02)	(-0.71)
CONSBS	-0.0213***	-0.0023	0.0033	-0.0018	0.0163	0.0075	-0.0172	0.0017	-0.0123*
	(-2.97)	(-0.19)	(0.47)	(-0.15)	(0.76)	(0.84)	(-1.21)	(0.39)	(-1.62)
COMMBS	-0.0053	0.0291	-0.0005	0.0148	0.0534	0.0137	-0.0062	0.0101	0.0076
	(-0.3)	(1.04)	(-0.03)	(0.57)	(1.1)	(0.66)	(-0.2)	(0.99)	(0.43)
OANCFQ	-0.0043	0.0136*	-0.0031	-0.0138*	0.047**	-0.0081	0.0026	-0.0040	0.0087
	(-0.59)	(1.3)	(-0.48)	(-1.53)	(2.07)	(-1.04)	(0.24)	(-1.06)	(1.18)
ROA	0.5061***	0.3681*	0.2844**	-0.3213**	0.6251*	-0.0818	0.2980	0.1118*	0.4331***
	(2.74)	(1.61)	(2.03)	(-1.69)	(1.64)	(-0.55)	(1.09)	(1.39)	(2.6)
CAP	0.0001	0.0013***	-0.0002	0.0007***	-0.001*	0.0011***	-0.0004	0.0005***	-0.0002
	(0.54)	(4.09)	(-1.06)	(2.43)	(-1.64)	(4.49)	(-0.85)	(4.23)	(-0.99)
BIG4	0.0036***	0.0045**	0.0011	0.0021	0.0147***	-0.0059***	0.0016	-0.0001	0.0051***
	(3.55)	(2.25)	(1.03)	(1.19)	(4.03)	(-3.9)	(0.6)	(-0.15)	(4.93)
R-squared	0.0054	0.0063	0.0011	0.0025	0.0199	0.0041	0.0033	0.0009	0.0035
Observations	11148	4318	12879	4960	2022	8847	1873	32877	13170
F-statistic	5.35	4.12	1.25	1.6	5.02	5.97	0.87	3.6	5.32

*, **, and *** denote one-tailed significance at the 10, 5, and 1 percent levels. Table 2 defines the variables used in this study.

Appendix VI – II Panel B: Regression Results of CAR with SIZE

$CAR=\alpha+\beta_1 MBS+\beta_2 CONSBS+\beta_3 COMMBS+\beta_4 OANCFQ +\beta_5 ROA +\beta_6 CAP +\beta_7 BIG4+\beta_8 SIZE+e$

	Distress	Rescue	Fed	Positive Policy	Negative Policy	Capital Infusion	Other Positive	Positive Reaction	Negative Reaction
CAR	Coef.	Coef.	Coef.	Coef.	Coef.	Coef.	Coef.	Coef.	Coef.
Intercept	-0.0142***	-0.0248***	0.0001	-0.0161***	-0.0108	-0.0065*	0.0104*	-0.0066***	-0.0119***
	(-4.59)	(-4.3)	(0.03)	(-3.06)	(-1.09)	(-1.52)	(1.29)	(-3.17)	(-3.89)
MBS	-0.0014	-0.0015	0.0008	-0.0012	-0.0042	-0.0009	-0.0012	-0.0007	-0.0016
	(-1.16)	(-0.85)	(0.65)	(-0.62)	(-0.99)	(-0.73)	(-0.59)	(-0.94)	(-1.24)
CONSBS	-0.0281***	-0.0046	0.0012	-0.0049	-0.0029	0.0139*	-0.0133	0.0021	-0.0204***
	(-3.84)	(-0.36)	(0.17)	(-0.4)	(-0.13)	(1.54)	(-0.88)	(0.46)	(-2.63)
COMMBS	-0.0148	0.0260	-0.0038	0.0100	0.0270	0.0229	-0.0005	0.0106	-0.0036
	(-0.82)	(0.93)	(-0.24)	(0.39)	(0.55)	(1.1)	(-0.02)	(1.05)	(-0.2)
OANCFQ	-0.0025	0.0142*	-0.0025	-0.0122*	0.0519**	-0.0109*	0.0025	-0.0042	0.0109*
	(-0.34)	(1.36)	(-0.38)	(-1.36)	(2.28)	(-1.4)	(0.23)	(-1.09)	(1.48)
ROA	0.3609**	0.3284*	0.2494**	-0.3736**	0.3327	0.0079	0.3371	0.1178*	0.2687*
	(1.9)	(1.41)	(1.75)	(-1.95)	(0.87)	(0.05)	(1.22)	(1.45)	(1.57)
CAP	0.0001	0.0013***	-0.0002	0.0007***	-0.0010*	0.0012***	-0.0003	0.0005***	-0.0001
	(0.89)	(4.09)	(-1.01)	(2.39)	(-1.64)	(4.89)	(-0.57)	(4.25)	(-0.63)
BIG4	0.0005	0.0032*	0.0000	0.0001	0.0049	-0.0014	0.0039	0.0001	0.0013
	(0.39)	(1.31)	(-0.04)	(0.05)	(1.12)	(-0.73)	(1.13)	(0.13)	(1.07)
SIZE	0.0018***	0.0007	0.0006*	0.0011*	0.0056***	-0.0024***	-0.0012	-0.0001	0.0021***
	(4.22)	(0.87)	(1.46)	(1.5)	(3.9)	(-4.03)	(-1.22)	(-0.43)	(5.09)
R-squared	0.0072	0.0065	0.0013	0.003	0.027	0.0061	0.0041	0.0009	0.0056
Observations	11148	4318	12879	4960	2022	8847	1873	32877	13170
F-statistic	7.27	3.64	1.44	1.6	6.05	7.59	0.96	3.26	8.19

*, **, and *** denote one-tailed significance at the 10, 5, and 1 percent levels. Table 2 defines the variables used in this study.