Ownership and Changes in Performance and Risk: International Study on Banking Acquisitions

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Abstract

Banks extend their business activities and earnings diversity through mergers and acquisitions, and major shareholders play a crucial role in acquisition decisions. This paper explores the effects of different types of acquirer bank ownership on post-acquisition banking performance and risk. Using global banking acquisitions data from 2000 to 2007 that includes 560 cases from 30 countries, we examine the changes in performance and risk from pre-acquisition to post-acquisition year, further looking specifically at the subsample made up of acquisition deals completed between 2005 and 2007 and its changes in performance and risk during credit crunch years. We find that financial intermediary and capital investor ownership is beneficial to changes in acquirer bank post-acquisition performance and risk; however, this superior performance and lower risk disappear in the crisis period. In addition, we find that although nonfinancial firm and state ownership is detrimental to the acquirer bank's performance and risk in the post-acquisition years, the change in performance is higher and risk is lower in crisis years. This paper contributes to the research by providing multi-country evidence of the role of different types of major ownerships of acquirer banks in post-acquisition outcome changes.

1. Introduction

As a result of the enactment of the Gramm–Leach–Bliley Act in 1999, which created a more competitive banking industry, mergers and acquisitions (M&A) provide an efficient way for financial institutions to develop higher growth in business activities. Ownership control is influential to banking M&A outcomes. Current research shows that different types of ownership are critical to banking business and its performance and risk.[1] However, little is known about whether different types of acquirer ownership and their concentration affect post-acquisition performance and risk. Crespí, García-Cestona, and Salas (2004) and Chen, Harford, and Li (2007) indicate that monitoring and governance mechanisms provided by different types of ownership have different effects on merger performance. Bhaumik and Selarka (2012) show that ownership concentration may not necessarily improve post-acquisition performance. These findings shed light on our limited understanding of the cost and benefit of M&A from banking ownerships. Due to large shareholders have differing interests when making M&A decisions, this paper attempts to investigate whether different types of acquirer bank ownership lead to different changes in post-acquisition performance and risk.

M&A activity provides a natural experiment for exploring the efficacy of different types of ownerships. Most large shareholders of financial institutions are institutional investors, and institutional ownership has substantial power over the board and can be beneficial to corporate decisions and profitable strategies[2]. However, in contrast, some studies note that some types of institutional ownerships are self-dealing investors[3]. Especially, Laeven and Levine (2009) address moral hazard in financial intermediaries that bank shareholders are more motivated than executives to take higher risks, and such risk taking are more pronounced in banks with highly-concentrated ownerships, compared to ownership-diversified banks. These arguments contrast predictions that some types of institutional ownerships may not be effective monitors to reduce value-destroying M&A activities. Thus, these conflicting

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[1] Such as Iannotta, Nocera, and Sironi (2007), Caprio, Laeven, and Levine (2007), Laeven and Levine (2009), Haw, Ho, Hu, and Wu (2010), Shehzad, de Haan, and Scholtens (2010), Azofra and Santamaría (2011), Barry, Lepetit, and Tarazi (2011), Forssbæck (2011).

[2] Such as Lang, Stulz and Walkling (1989), Agrawal and Mandelker (1990), Admati, Pfleiderer and Zechner (1994), Wright, Ferris, Sarin and Awasthi (1996), Smith (1996), David, Hitt and Gimeno (2001), Hansen and Hill (2006), Chen et al. (2007).

[3] Such as Gaspar, Massa and Matos (2005), Matvos and Ostrovsky (2008).

arguments raise several questions. Which institutions are beneficial to banking operations? What types of ownership influence banks toward suboptimal acquisition decisions?

For answering these research questions, we first differentiate acquirer banking control among financial intermediary, capital investor, nonfinancial firm, and state ownerships. Then, we extend the lines of literature to assess changes in acquirer bank post-acquisition performance and risk with different types of ownership in order to capture long-term influences on M&A decisions and reduce endogeneity problems. In addition, Erkens, Hung, and Matos (2012) find that banks with higher proportion of institutional ownerships are more likely to take higher risk, thereby being burdened with larger losses during the years of credit crisis. Therefore, we observe the subsample in which acquisition deals are completed from 2005 to 2007 and its differences in performance and risk between the pre-crisis year of 2006 and post-crisis year of 2008.

Using data on listed commercial banks from 30 countries from 2000 to 2007, we first find that acquirer banks with higher proportion of shares owned by financial intermediaries experienced higher changes in operating performances and higher risk during the post-acquisition years. After replacing the regressor with the 5% concentration level of financial intermediary ownership as acquirer bank blockholders, we similarly find that the financial intermediary ownership increases the acquirer bank post-acquisition performance and risks. When looking at the changes in performance and risk from 2006 (ordinary year) to 2008 (credit crunch) for the subsample in which acquisition deals are completed between 2005 and 2007, the outperformance of acquirer banks with higher financial intermediary ownerships disappears and the risks are even higher. These findings extend prior literature (Park and Peristiani, 2007; Laeven and Levine, 2009; Erkens, Hung, and Matos, 2012) by arguing that financial corporation ownership is more likely to pursuit of riskier investments to acquire profits and further leads to lower performance and risk during crises.

Second, capital investor ownerships (including mutual and pension funds, foundation or research institutes, and private equity firms) are long-term shareholding activists and have greater incentives to monitor management and more experience in identifying investment targets. We find that the higher changes in acquirer bank post-acquisition performance and lower risks are attributed to capital investors.

However, their preferences of profits from risky investment cause higher potential risks during the acquisition decisions, and the acquirer bank potential risks are reflected during the credit crunch, instead of the post-acquisition years. Therefore, our evidence on crisis years shows contrasting results in that performance changes are lower and risk changes are higher from 2006 to 2008.

Third, for nonfinancial firm ownership, our findings support the finance–commerce separation theory (Saunders, 1994; González, 2006) that acquirer banks with a higher proportion of shares owned by nonfinancial firms experience lower performance changes during the post-acquisition years. However, in contrast, the changes in performance of acquirer banks with higher nonfinancial firm ownership are higher during the credit crunch years, supporting the argument of Haubrich and Santos (2005) that the internal market formed in banking–commerce conglomerates can help banks more easily acquire resources to dispose of nonperforming assets and financial liquidity supports from their nonfinancial commerce firm ownership.

Fourth, consistent with the argument that state-owned banks are burdened with lower profitability efficiency (Berger, Clarke, Cull, Klapper, and Udell, 2005; Micco, Panizza, and Yanez, 2007; Lin and Zhang, 2009) and subjected to regulatory intervention (Elyasiani and Jia, 2008), we find that the changes in post-acquisition performance of acquirer banks with a higher proportion of state ownerships are lower and that the post-acquisition risks are lower as regulators may even intervene in M&A deals (Koetter et al., 2007). However, the changes in acquirer bank performance and risk in crisis years are outperformed because during these years state banks benefit from government bailouts for liquidity to maximize public wealth to serve politicians' interests (Boycko, Shleifer, and Vishny 1996), further facilitating financing and lending activity of which other banks are unwilling or incapable (Stiglitz, 1993; Agarwal and Jayasuriya, 2014).

This paper contributes to the line of research that extends the relation between acquirer bank ownership and acquisition performance (Crespí et al., 2004; Iannotta et al., 2007; Chen, Harford, and Li, 2007) to a global perspective. First, we adopt detailed data on different types of ownership, performance, and risk of acquirer banks that covers 560 banking acquisitions across 30 countries. We provide the first examination of the effect of acquirer bank ownership on post-acquisition performance using a multi-country sample.

Second, greater differentiation of ownership types provides a deeper insight into

the effect of acquirer bank ownership on performance. Although the influence of ownership on banking performance has been explored, in this context, the ownership classifications are limited to different types of banks only, such as mutual versus commercial or private versus state banks (La Porta, Lopez-de-Silanes, and Shleifer, 2002; Boubakri, Cosset, and Guedhami, 2009) and dummy variables or indices of controlling rights (Barth, Caprio, and Levine, 2004; Caprio et al., 2007; Haw et al., 2010; Erkens et al., 2012). To the best of our knowledge, our study is the first to use comprehensive ownership data, including financial intermediaries, nonfinancial firms, capital investors, and government authorities, to explore the effect of acquirer bank ownership on the post-acquisition performance risk-taking. Our empirical results provide more convincing evidence regarding the role of different ownership types in banking acquisition activities.

Third, several studies have examined the effects of the ownership structure and its concentration on M&A performance. However, these studies (Chen et al., 2007; Bhaumik and Selarka, 2012) focus on nonfinancial firms. As opposed to short-run equity market reactions, we engage in a much more insightful exploration of the long-term post-acquisition effect of acquirer bank ownership in relation to M&As on performance and risk to banks. Thus, we contribute to this line of research by providing novel results on the role of ownership in banking M&As. Prior literature suggests that institutional investors provide better governance mechanisms and expertise in management. However, we further argue that institutional investors are not necessarily beneficial to acquisition business and that acquirer bank long-term post-acquisition performance and risk are dependent on different types of ownership.

The remainder of the paper proceeds as follows. Section 2 introduces the lines of research. Section 3 describes our research methodologies, and Section 4 contains our empirical analyses. Section 5 concludes.

2. Theory and Literature

This paper differentiate banking control among financial intermediary, capital investor, nonfinancial firm, and state ownerships, therefore we discuss the possible influence of different types of banking acquirer ownership on performance and risk.

2.1 Financial Intermediary Ownership

Because financial intermediary ownership is a major equity holder of banks, whether financial intermediaries are beneficial to post-acquisition performance is of interest. Research findings are mixed on the association between controlling ownership, governance practices, and bank risk-taking.[4] Using data from European banks, Auvray and Brossard (2012) find that large bank shareowners increase the accuracy efficacy and predictive power of the distance to default model for predicting bank distress and recovery, suggesting that banking shareholders are capable of using resources and information to monitor the bank and correcting business strategy immediately. However, Park and Peristiani (2007), Laeven and Levine (2009), and Pathan (2009) analyze moral hazard in banks and argue that bank major shareholders have incentives to increase risk-taking and transfer wealth from the deposit insurer by pursuing riskier investments. Regarding banking risk in M&As, several studies indicate that bank M&As lower default risk for several reasons, such as oversight of lending practices and risk management (Unite and Sullivan, 2003), asset portfolio diversification (Emmons, Gilbert, and Yeager 2004), and business activity (Estrella, 2001; Van Lelyveld and Knot, 2009). However, another line of research finds that financial institutional investors have higher firm risk-taking (Kroll, Wright, Toombs, and Leavell, 1997; Wright, Kroll, Lado, and Van Ness, 2002). From this perspective, bank mergers do not reduce market risk (Amihud, Mendelson, and Uno, 2002) or accounting-based risk (Craig and dos Santos, 1997). Also, Vallascas and Hagendorff (2011) find that bank mergers generate a significant increase in default risk. In addition, Craig and dos Santos (1997) provide evidence against risk diversification as a motive for mergers and show that acquired banks tend to be transformed in the post-M&A period to resemble the strategically featured business of the acquiring institution. Bank shareholders may also collude with managers against deposit holders to extend high-risk loans, which may result in a high level of impaired loans and inadequate bank capital (Boyd and Smith, 1999). Therefore, financial intermediary ownership may not necessarily be beneficial to post-acquisition risk.

2.2 Capital Investor Ownership

Capital investors, such as mutual and pension funds, are active shareholders that

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[4] Laeven and Levine (2009), Shehzad et al. (2010), Forssbæck (2011), Barry et al. (2011), Beltratti and Stulz (2012), Ellul and Yerramilli (2013).

monitor management and thereby mitigate agency problems (Smith, 1996; Cremers and Nair, 2005; Dittmar and Mahrt-Smith 2007), and such governance practices can influence firm performance (Karpoff, 2001; Gillan and Starks, 2003). Brickley, Lease, and Smith (1988) find that firms with greater holdings by pressure-insensitive shareholders, such as pension funds, have more proxy votes against management's recommendations. In addition, activist moves by pension funds, such as creating shareholder advisory committees that change the composition of the board of directors or reduce executive compensation are positively associated with stock prices (Smith, 1996). Almazan, Hartzell, and Starks (2003) indicates that monitoring power is associated with pension funds as their managers are less sensitive to pressure from corporate management. Mutual fund advisors are also involved in the corporate governance of investment targets (Yuan, Xiao, and Zou, 2008). Because mutual funds are not significantly related to their portfolio companies, their monitoring and control activities are free from conflicts of interest (Cornett, Marcus, Saunders, and Tehranian, 2007).

Capital investors usually perform high-quality research to identify value-enhancing firms in which to invest. Therefore, large institutional stakes provide strong economic incentives for capital investors to monitor managements. Faccio and Lasfer (2000) argue that because of their objectives, structure, and overall shareholding pension funds are likely to have more incentives to monitor companies in which they hold large stakes. Bonin, Hasan, and Wachtel (2005) also indicate that during the early stages of banking privatizations the participation in ownership of investment funds confers a quality signal that enables banks to attract better clients, to hire more highly trained personnel, and to access cheaper sources of funding. Yuan et al. (2008) find that equity ownership by mutual funds has a positive effect on firm performance. Smith (1996) and Duggal and Millar (1999) indicate that the target firms with higher proportion of shares owned by pension funds may have higher stock returns performance from the takeover activities.

Capital investors such as pension endowment, mutual funds, and hedge funds have greater expertise in the area of investment. Hence, these investors may direct and encourage institutions to adopt more risky investments (Cheng, Elyasiani, and Jia, 2011). In addition, institutional investors with concentrated wealth, including mutual, hedge, and pension funds, take large stakes and can thus influence firm strategy and investment advisors effectively (Del Guercio and Hawkins, 1999). Laeven and Levine

(2009) find that banks with more powerful owners tend to take higher risks as these large owners with substantial cash flows have the ability and the incentives to induce the bank to increase risk-taking.

2.3 Nonfinancial Firm Ownership

Nonfinancial firm ownership provides different drawbacks and benefits to banks. Regulations for separation between banking and commerce create internal dichotomies to preserve managerial self-dealing behaviors and limit the ability of superior management skills (Saunders, 1994). Therefore, the agency problems from such banking–commerce restrictions may lead to incompetent or inefficient management. Prowse (1990) argues that the economic growth of German and Japanese which are characterized of highly connected banking-commerce relationship can partly be attributable to the direct equity links and indirect lending relationships between banks and commerce firms. In addition, nonfinancial firms as bank owners make it easier for the banks to dispose of nonperforming loans and assets in default, and such conglomerates improve banks' financial liquidity as it allows them to design different loan contracts and thus further increases their lending business (Haubrich and Santos, 2005).

Although the banking–commerce affiliation provides several benefits, potential drawbacks also exist. The separation of banking from commerce promotes soundness in the banking system and prevents economic power from being concentrated in the banking industry (Kaufman, Mote, and Rosenblum, 1984). The banking industry is highly regulated, and policy deregulation in several countries caused the erosion of banking–commerce separation (Eisenbeis, 1984). Saunders (1994) introduces several potential problems of this banking–commerce combination. For example, bad news about the commercial firm affiliate has contagious effects on the bank itself as they share similar names and management. Therefore, negative information signals may induce customers to seek more stable credit lines elsewhere and lead to run-on-bank or liquidity problems. In addition, bank may make loans to a failing commercial firm affiliate to preserve its reputation or attempt to save a failing investment; such practices might ultimately threaten the bank itself.

Nonfinancial firms may not be helpful for reducing risk. If the banking–commerce separation becomes unclear, uncovered creditors of a failed commercial firm could make legal claims against the bank because the assets of the bank are

inseparable from the failed commercial firm (Eisenbeis, 1984). In addition, Santos (1999) indicates that the restriction on the banking–commerce association is to limit banks' incentives and abilities to choose risky assets. Recently, Barry et al. (2011) suggest that banks with a higher proportion of shares owned by nonfinancial firms are more likely to increase the riskiness of loans granted to owners. In addition, the management of the business group, which is the ultimate owner of a bank, has incentives to manipulate the bank to encourage riskier strategies and to maximize the wealth of its group owner. However, Barry et al. do not find significant changes in performance and risk when equity is shifted from institutional investors to nonfinancial firms.

2.4 State Ownership

Based on prior literature, state-owned banks have lower long-term performance and profitability efficiency (Berger et al., 2005; Micco et al., 2007; Lin and Zhang, 2009). The political view of state-owned enterprises posits that public enterprises are inefficient because this inefficiency serves politicians' interests (Boycko et al., 1996); namely, their objectives are not to maximize profits or market values but rather to promote public wealth and common interests. In addition, state-owned financial intermediaries have high nonperforming loans, and the large market shares for state-owned banks are associated with reduced access to credit, diminished financial system development, and slow economic growth (La Porta Lopez-de-Silanes, and Shleifer, 2002; Barth et al., 2004; Beck, Demirguc–Kunt, and Maksimovic, 2004; Berger, Demirgüç–Kunt, Levine, and Haubrich, 2004; Lin and Zhang, 2009).

Considering the conservative risk preference and public interests, in contrast, state-owned banks are restricted by more severe regulations and thus have lower risk-taking in acquisitions. Because banks with a high default risk face increased scrutiny by regulators and are more likely to be subjected to regulatory intervention (Elyasiani and Jia, 2008), in cases where institutional failure appears imminent, regulators may even intervene in M&A deals (Koetter et al., 2007). In addition, Buch and DeLong (2008) show that merger deals reduce return variability if the regulations are severe. Moreover, Boubakri, Cosset, and Saffar (2013) find evidence that state ownership is negatively related to corporate risk-taking.

Although several studies have explored short-run stock market reaction to the announcement of M&A activities, little evidence exists on the long-term changes in

post-acquisition performance (Gillan and Starks, 2000; Ma, Whidbee, and Zhang, 2011). Because not all acquisition decisions are beneficial to bidder shareholders (Agrawal, Jaffe, and Mandelker, 1992; Loughran and Vijh, 1997; Mitchell and Stafford, 2000), we use global data on commercial banking acquisitions and examine the effect of different types of banking ownership on changes in long-term post-acquisition performance and risk.

3. Sample Selection and Method

3.1 Data

To explore the effect of different acquirer bank ownership on post-acquisition performance, we adopt a regression model that uses different ownership stakes of banks at the year of the acquisition announcement as the regressors. Legal restrictions can prevent banks, insurance companies, and mutual funds from owning large blocks of shares, thereby reducing their incentives to monitor. We therefore adopt multi-country data as detailed in the appendix to explore the effect of different acquirer bank ownership.

We obtain the acquisition sample from the ZEPHYR database; 560 acquisition deals made by commercial banks and completed from January 1, 2000 to December 31, 2007 meet the following criteria: (a) The manner of takeover is acquisition; (b) the acquisition is completed; (c) the acquirer is listed commercial banks; (d) the deal value is above zero; (e) the acquirer has available data on stock return and annual financial statement information from the OSIRIS database; and (f) no data are missing for the ownership, acquisition deals, or financial information.

Table 1 provides the number of acquisition in each country from 2000 to 2007. The time-series values indicate that acquisition activities increase from 12 deals in 2000 to 128 deals in 2006 and 48 deals in 2007. In addition, from the cross-sectional perspective, most commercial bank acquisitions—more than half of the M&A activities in the world—took place in the United States. The data are quite unique as the banking acquisition data are worldwide, thereby providing more convincible evidence on post-acquisition risk and performance. The credit crunch provides a natural experiment for exploring the risk-taking outcomes when the financial market is in distress. To understand more about the effect of different acquirer bank

ownership during credit crunch, we also include data on post-acquisition performance and risk from 2007 to 2008.

<Table 1 is inserted about here>

3.2 Variable Measurement

To explore the effects of different acquirer bank ownership on post-acquisition performance, we use a regression model in which the regressors include different shareholdings from the BvDEP ownership database. Institutional ownerships of acquirer bank are classified into four categories: financial intermediaries, capital investors, nonfinancial firms, and state authorities. A similar classification is also used in other studies (Abarbanell, Bushee, and Raedy, 2003; Caprio et al., 2007). Financial intermediary ownership (FIO) is measured by the acquirer bank's proportion of share ownership held by banks, financial companies, and insurance companies. NFO is nonfinancial firm ownership, measured by the acquirer bank's proportion of share ownership held by industrial and public companies. CIO is capital investor ownership, measured by the acquirer bank's proportion of share ownership held by mutual and pension funds, foundation or research institutes, and private equity firms. SO is state ownership, measured by the acquirer bank's proportion of share ownership held by the state or authorities. We expect different acquirer bank shareholding ownership to indicate varied levels of monitoring and private interests and thus to cause different performance. Table 2 provides definitions of the variables.

<Table 2 is inserted about here>

Besides acquirer bank ownership proportions, the effect of large shareholders, particularly only blockholders, is of interest. Therefore, we measure dummy variables to identify which acquirer banks are dominated by a specific blockholder with more than 5% ownership (Chen et al., 2007). OCF is a dummy variable that equals 1 if acquirer bank's financial intermediary ownership is larger than 5% and the ownership of others is less than 5%, and zero otherwise. OCN is a dummy variable that equals 1 if acquirer bank's nonfinancial firm ownership is larger than 5% and the ownership of others is less than 5%, and zero otherwise. OCC is a dummy variable that equals 1 if the acquirer bank's capital investor ownership is larger than 5% and the ownership of

others is less than 5%, and zero otherwise. OCS is a dummy variable that equals 1 if the acquirer bank's state ownership is larger than 5% and the ownership of others is less than 5%, and zero otherwise.

Because stock market restrictions, practices, and limits to arbitrage such as regulation on price limits are varied in different economies, buy-and-hold stock returns are seldom used to proxy for performance in multinational studies. In this study, the performance proxies of acquirer bank are decomposed into two criteria: operating and profitability performance. Operating performance includes return on assets (ROA), measured by acquirer bank's ratio of net income to total assets, and return on equity (ROE), measured by acquirer bank's ratio of net income to total equity. Profitability performance includes net interest revenue (NIR), measured by the acquirer bank's ratio of the difference between interest income and interest expenses to total assets, and net trading revenue (NTR), measured by acquirer bank's ratio of investment revenue to total assets.

The suffix of post-acquisition performance indicates the year during the acquisition years and is specified as following. $_{(-1)}$ is the year before the acquisition was completed; $_{(0)}$ is the year in which the acquisition was completed; $_{(1)}$ is the first year after acquisition. The main observation periods in this paper—say, ROA—are the years from the one before the acquisition announcement, $ROA_{(-1)}$, to the first year after announcement year, $ROA_{(1)}$; and $_{(-1,1)}$ is the acquirer bank's change in post-acquisition performance from the previous year before acquisition to the first year after acquisition. For example, $ROA_{(-1)}$ is the return on assets in the previous year before the acquisition is completed, whereas $ROA_{(1)}$ is the first year after the acquisition is completed. $ROA_{(-1,1)}$ is the change between $ROA_{(-1)}$ and $ROA_{(1)}$. This variable indicates the growth of return on assets and suggests the recovery speed from the acquisition activity. Similarly, $ROA_{(06)}$ is the acquirer bank's ROA in 2006, the first year of credit crunch, and $ROA_{(08)}$ is the acquirer bank's ROA in 2008, the third year of credit crunch. $ROA_{(06,08)}$ is the changes in acquirer bank's ROA from 2006, the beginning year of credit crunch, to 2008, the third year of credit crunch. These suffixes apply in a similar manner to the other performance measures.

Risk proxies of the acquirer bank include performance volatility and other proxies. $\sigma(ROA)_{(-1,1)}$ is the standard deviation of acquirer bank's yearly return on assets from the previous year before acquisition to the first year after acquisition. $\sigma(ROE)_{(-1,1)}$, $\sigma(NIR)_{(-1,1)}$, and $\sigma(NTR)_{(-1,1)}$ are the standard deviations of acquirer bank's yearly

return on equity, net interest revenue, and net trading revenue for the acquisition years, respectively. Similarly, $\sigma(ROA)_{(06,08)}$ is the standard deviation of acquirer bank's yearly return on assets from 2006, the beginning year of credit crunch, to 2008, the third year of credit crunch. These definitions apply in a similar manner to the other measures of performance volatility. $\sigma(ROE)_{(06,08)}$, $\sigma(NIR)_{(06,08)}$, and $\sigma(NTR)_{(06,08)}$ are the standard deviations of acquirer bank's yearly return on equity, net interest revenue, and net trading revenue for the credit crunch years, respectively.

Systematic risk is measured by the beta coefficient (BETA) which is the regression coefficient of the market model in which the daily stock returns of the acquirer bank in one calendar year (R_i) is regressed by the daily returns of its underlying stock market index of that year (R_m). E.g. $R_i = \alpha + \beta R_m + \varepsilon_i$. $BETA_{(-1,1)}$ is the changes in acquirer bank's yearly beta coefficient from the previous year before acquisition to the first year after acquisition, and $BETA_{(06,08)}$ is the changes in the acquirer bank's yearly beta coefficient from 2006, the beginning year of credit crunch, to 2008, the third year of credit crunch. Information asymmetry is measured by the average of stock price spread (SPD), which is the average of the acquirer bank's daily ratio of the difference between the daily highest stock price and the daily lowest stock price to the average of the two prices. $SPD_{(-1,1)}$ is the changes in the acquirer bank's yearly SPD from the previous year before acquisition to the first year after acquisition, and $SPD_{(06,08)}$ is the changes in acquirer bank's yearly SPD from 2006, the beginning year of credit crunch, to 2008, the third year of credit crunch. Credit risk is measured by the changes in credit rating. $SPCR_{(-1,1)}$ is a dummy variable that equals 1 if the acquirer bank's Standard and Poor's credit rating improved from the previous year before acquisition to the first year after acquisition, and zero otherwise. $SPCR_{(06,08)}$ is a dummy variable that equals 1 if the acquirer bank's Standard and Poor's credit rating improved from 2006, the beginning year of credit crunch, to 2008, the third year of credit crunch, and zero otherwise. $NPL_{(-1,1)}$ is the changes in the acquirer bank's yearly nonperforming loan ratio measured by ratio of impaired loan to gross loan from the previous year before acquisition to the first year after acquisition, and $NPL_{(06,08)}$ is the acquirer bank's changes in yearly nonperforming loan ratio from 2006, the beginning year of credit crunch, to 2008, the third year of credit crunch. Table 3 provides the descriptive summaries and correlation coefficients.

\<Table 3 is inserted about here\>

Panel A of Table 3 shows the descriptive summaries of regression variables. Most of the mean of changes in the acquirer bank's post-acquisition performance are negative (mean of $ROA_{(-1,1)}$ = –0.08; $ROE_{(-1,1)}$ = –1.47; $NIR_{(-1,1)}$ = 0.66; $NTR_{(-1,1)}$ = 0.00). When looking at the subsample in which acquisition deals are completed from 2005 to 2007 and its differences in performance and risk between the pre-crisis year of 2006 and post-crisis year of 2008, the performance changes are worse (mean of $ROA_{(06,08)}$ = –1.68; $ROE_{(06,08)}$ = –19.98; $NIR_{(06,08)}$ = –0.61; $NTR_{(06,08)}$ = –0.01). Similarly, the post-acquisition stock return volatility of acquirer banks is lower in the non-crisis years and increases during the credit crunch years (mean of $\sigma(ROA)_{(-1,1)}$ = 0.32 < $\sigma(ROA)_{(06,08)}$ = 0.91; $\sigma(ROE)_{(-1,1)}$ = 4.13 < $\sigma(ROE)_{(06,08)}$ = 10.78; $\sigma(NIR)_{(-1,1)}$ = 1.83 < $\sigma(NIR)_{(06,08)}$ = 4.48; $\sigma(NTR)_{(-1,1)}$ = 0.11 < $\sigma(NTR)_{(06,08)}$ = 0.26). The results are similar for other risk proxies. Systematic risk (BETA), information asymmetry (SPD), and non-performing loan ratios (NPL) are higher during the credit crunch years (mean of $BETA_{(-1,1)}$ = 0.25 < $BETA_{(06,08)}$ = 0.38; $SPD_{(-1,1)}$ = –0.19 < $SPD_{(06,08)}$ = 5.36; $NPL_{(-1,1)}$ = –0.08 < $NPL_{(06,08)}$ = 1.67), whereas the credit rating is worse (mean of $SPCR_{(-1,1)}$ = 0.22 > $SPCR_{(06,08)}$ = 0.03). These findings are consistent with the notion that the poorly executed acquisition of financial institutions is due to illiquidity problems and risk contagion among banks although the government provides a bailout to financial system (Wagner, 2010; Allen, Babus, and Carletti 2012). In addition, when looking at the acquirer banks ownership structure, the average of shares of acquirer banks owned by financial intermediaries is 10.97%, larger than other types of acquirer bank ownership (e.g. capital investor ownership = 7.46%; non-financial firm ownership = 3.19%; state ownership = 0.30%). An acquirer bank's ownership shows similar concentration levels (mean of OCF = 0.10%; OCC = 0.06%; OCN = 0.01%; OCS = 0.08%).

3.3 Discrepancy

To understand the effects of different acquirer bank ownership on corporate post-acquisition performance, we first look at the discrepancies in different timelines during the acquisition periods. We decompose the sample into two subsamples: FIOH (FIOL) is the highest (lowest) 50% FIO subsample. Similarly, NFOH (NFOL) is the highest (lowest) 50% NFO subsample; CIOH (CIOL) is the highest (lowest) 50% CIO

subsample; and SOH (SOL) is the highest (lowest) 50% SO subsample. Table 4 introduces the timeline of post-acquisition performance in different ownership subsamples.

<Insert Table 4 around Here>

The post-acquisition changes in ROA is particularly lower for acquirer banks with higher nonfinancial firm and state ownerships compared to banks with lower nonfinancial firm and state ownerships (ROA $_{(-1,1)}$: −0.13 < 0.07 and −0.10 < 0.32, respectively). However, in contrast, post-acquisition changes in ROA are higher for acquirer banks with higher shareholding owned by financial intermediaries (ROA $_{(-1,1)}$: −0.04 > −0.11). ROE and NIR provide similar findings. For example, the post-acquisition changes in ROE and NIR are higher for acquirer banks with higher shares owned by financial intermediaries and capital investors (ROE $_{(-1,1)}$: −1.40 > −1.55 and −0.11 > −2.87; NIR $_{(-1,1)}$: 1.47 > −0.13 and 1.39 > −0.04). Also, the changes in ROE, NIR and NTR in acquisition years are lower for acquirer banks with higher nonfinancial firm and state ownerships (ROE $_{(-1,1)}$: −2.34 < 0.71 and −1.75 < 3.50; NIR $_{(-1,1)}$: 0.46 < 1.18 and −0.22<0.71; NTR $_{(-1,1)}$: −0.10 < −0.03 and −0.16 < −0.01). Most of the above results support our conjecture that the capital investors are beneficial to long-term post-acquisition performances of acquirer bank whereas nonfinancial firm and state ownership provide poorer results. However, the findings that financial intermediaries are beneficial to acquirer bank performance during the long-term post-acquisition years are inconsistent with the notion that acquirer banks with a higher proportion of shares owned by financial intermediaries are burdened with weakness of governance and further lead to lower post-acquisition changes in performance (Caprio et al., 2007).

When looking at the subsample in which acquisition deals are completed from 2005 to 2007, the performances results on the differences in performance and risk between the pre-crisis year of 2006 and post-crisis year of 2008 are contrary. In Table 4, the outperforming ROA, ROE, and NIR disappear for acquirer banks with higher financial intermediary and capital investor ownerships (ROA(06,08): −2.07 < −1.52; ROE(06,08): −25.52 < −17.74 and −20.08 < −19.76; NIR(06,08): −0.70 < −0.57 and −2.30 < 0.08; NTR(06,08): −0.02 < 0.00, respectively). However, the ill-performed acquirer banks with higher nonfinancial and state ownerships have higher changes in

performance during the crisis years (ROA(06,08): −1.10 > −1.76 and −1.02 > −1.71; ROE(06,08): −14.07 > −20.87 and −14.40 > −20.27; NIR(06,08): 1.80 > −1.02 and 3.16 > −0.84; NTR(06,08): 0.09 > −0.02 and 0.01 > −0.33, respectively). Such phenomenon may be due to the properties of business activities, and the profits from interest income are more stable and less risky. Therefore, the acquirer bank's non-financial firm and state ownerships are ill-performed from 2000 to 2007, improved in the crisis years during which the financial markets are uncertain and unsecured. However, the financial intermediary and capital investor ownerships of acquirer banks, which profits mostly from trading securitized instruments, provide contrast results as their decision making is risky and highly profitable, leading to lower performance in the crisis years.

In addition, post-acquisition changes in risk are higher for acquirer banks with a higher proportion of shares owned by financial intermediaries and capital investors. For example, the changes in systematic risk (BETA) is higher for acquirer banks with higher capital investor ownerships ($\text{BETA}_{(-1,1)} = 0.37$ for CIOH > 0.32 for CIOL). The results are similar for information asymmetry (SPD) and non-performing loan ratios (NPL). Also, the changes in SPD and NPL are higher for both financial intermediary and capital investor ownerships;[5] the volatility of stock returns provides similar results. The post-acquisition volatility risk is higher for acquirer banks with higher financial intermediary and capital investor ownership.[6] However, in contrast, the post-acquisition risks are lower for the acquirer banks with higher non-financial and state ownerships.

During the credit crunch years, the systematic risks ($\text{BETA}_{(06,08)}$), information asymmetry ($\text{SPD}_{(06,08)}$), and non-performing loan ratios ($\text{NPL}_{(06,08)}$) increased from 2006 to 2008 regardless of different types of ownerships as the contagion risk propagated from other institutions is prevalent in the crisis years. However, the risks are different based on a cross-sectional comparison. Acquirer banks with a higher proportion of financial intermediary and capital investor ownerships are burdened with increased greater changes in systematic risk and information asymmetry, higher volatility risks, and lower changes in credit rating. However, non-financial and

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[5] $\text{SPD}_{(-1,1)} = 0.59$ for FIOH > 0.04 for FIOL; $\text{SPD}_{(-1,1)} = 1.08$ for CIOH > −0.16 for CIOL; $\text{NPL}_{(-1,1)} = 0.38$ for FIOH > 0.21 for FIOL; $\text{NPL}_{(-1,1)} = 0.02$ for CIOH > −0.16 for CIOL, respectively.
[6] $\sigma(\text{ROA})_{(-1,1)} = 0.34$ for FIOH > 0.31 for FIOL; $\sigma(\text{ROE})_{(-1,1)} = 4.21$ for CIOH > 4.05 for CIOL; $\sigma(\text{NIR})_{(-1,1)} = 2.08$ for FIOH > 1.60 for FIOL; $\sigma(\text{NIR})_{(-1,1)} = 2.14$ for CIOH > 1.53 for CIOL; $\sigma(\text{NTR})_{(-1,1)} = 0.17$ for FIOH > 0.05 for FIOL; $\sigma(\text{NTR})_{(-1,1)} = 0.16$ for CIOH > 0.06 for CIOL, respectively.

state-owned firms provide contrary results; in these firms, volatility risks and changes in information asymmetry, non-performing loan ratio, and credit rating are lower, supporting the notion that the state banks are more secure and less risky. Overall, acquirer bank changes in performance and risk brought about by financial intermediary and capital investor ownership seem to improve in the post-acquisition years. However, performance and risk are worse during the crisis years. These findings suggest that financial intermediaries and capital investors are more likely to take potential risks to profit through acquisition activities but that these profitable-but-risky businesses ill performed.

4. Empirical Analyses

The discrepancies in the timelines of acquisition years provide several findings on the different roles of stake ownership in acquisition activities. In the following discussion, we further examine the effects of different acquirer bank ownerships on the changes in corporate performance during the acquisition years. Following Bhaumik and Selarka (2012) to adopt the fixed effect regression model for controlling unobserved time invariant firm-specific effects in M&A events, we regress changes in acquirer bank's post-acquisition performance by different stake ownerships as:

$$\Delta PFM_{(-1,1)\,i} = \alpha + \gamma_1\,FIO_i + \beta_1\,EAR_i + \beta_2\,LDR_i + \beta_3\,LLRR_i + \beta_4\,CIR_i$$
$$+ \beta_5\,VALUE_i + \beta_6\,PBLC_i + \beta_7\,CROSS_i + \beta_8\,CASH_i + \beta_9\,OFFCL_i$$
$$+ \beta_{10}\,INDPD_i + \beta_{10}\,RIGHT_i + \beta_{10}\,CAPTL_i + \beta_{10}\,RSTRT_i + \varepsilon_i \qquad (1)$$
$$\text{where } i = 1, 2, ..., 560,$$

where $\Delta PFM_{(-1,1)\,i}$ is the changes in acquirer bank i's post-acquisition performance. Here, we use the changes in acquirer bank return on assets from the previous year before acquisition to the first post-acquisition year ($ROA_{(-1,1)}$) as the first proxy. One benefit of using the timeline difference as changes in performance in the M&A event is that such measures can capture long-term post-acquisition performance. It is also helpful for reducing endogeneity problems. FIO is the proportion of shares owned by financial intermediary group.

Following prior research,[7] control variables are decomposed into three criteria, acquirer, deal, and country characteristics. Acquirer characteristics include EAR(equity ratio), measured by the acquirer bank's ratio of total equity to total assets at the acquisition year; LDR (loan to deposit ratio), measured by the acquirer bank's ratio of net loans to total deposit at the acquisition year; LLRR (loan loss reserve ratio), measured by the acquirer bank's ratio of loan loss reserve to gross loan at the acquisition year; CIR (cost to income ratio), measured by the acquirer bank's ratio of overhead to the sum of net interest income and net operating income at the acquisition year. Deal characteristics include VALUE, measured by the ratio of deal value to acquirer total assets at the acquisition year; PBLC, a dummy variable that that equals 1 if the deal is public takeover and zero otherwise; CROSS, a dummy variable that equals 1 if target is foreign companies and zero otherwise; CASH, a dummy variable that equals 1 if the M&A payment is in form of all cash and zero otherwise. Country Characteristics include OFFCL (Official), measured by an index of the power of the commercial bank supervisory agency for the country; INDPD (Independence) measured by an index of the degree to which the supervisory authority of the country is independent from the government and legally protected from the banking system; RIGHT(Rights) measured by an index of anti-director rights for the country; CAPTL(Capital stringency) measured by an index of regulatory oversight of bank capital for the country; RSTRT(Restrict) measured by an index of regulatory restrictions of the country on banks activity and ability to engage in securities market activities, the insurance business, conduct real estate activities, or own non-financial firms.

Panel A, Table 5 shows that there is a significantly positive relation between financial intermediary ownership of acquirer bank and the changes in performance during the post-acquisition years (from t–1 to t+1) (the coefficient of *FIO* for $ROA_{(-1,1)}$ = 0.004; $ROE_{(-1,1)}$ = 0.006; $NIR_{(-1,1)}$ = 0.091; $NTR_{(-1,1)}$ = 0.226). The results show that financial intermediaries' shareholdings are helpful to acquirer banks in making acquisition decisions and have post-acquisition performance consequences. This finding is contrary to the notion that financial intermediaries as shareholders leads to poor governance.

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[7] La Porta et al. (2002); Barth et al. (2004); Caprio et al. (2007); Laeven and Levine (2009); Haw et al. (2010); Shehzad et al. (2010); Vallascas and Hagendorff (2011); Azofra and Santamaría (2011); Barry et al. (2011); Forssbæck (2011); Chalermchatvichien et al. (2014).

The next question is whether the effect of financial intermediary group ownership is more pronounced if this ownership type is the only major shareholder for the acquirer bank. Following Iannotta et al. (2007) and Bhaumik and Selarka (2012), we adopt ownership concentration to reexamine whether the level of concentration from different types of shareholders contribute more to post-acquisition performance and risk. We replace financial intermediaries ownership (FIO) in Model (1) by ownership concentration of financial intermediaries (OCF), which is a dummy variable that equals 1that equals 1 if the financial intermediaries share ownership is larger than 5% and the ownership of others is less than 5%, and zero otherwise. Furthermore, we adopt an ownership concentration dummy (OCF) in Model (2) and the cross term of FIO and OCG in Model (3) to explore whether the effects of financial intermediaries are particularly significant when they are the only blockholding shareholders. We use the following models:

$$
\begin{aligned}
\Delta PFM_{(-1,1)\,i} = {} & \alpha + \gamma_1\,OCF_i + \beta_1\,EAR_i + \beta_2\,LDR_i + \beta_3\,LLRR_i + \beta_4\,CIR_i \\
& + \beta_5\,VALUE_i + \beta_6\,PBLC_i + \beta_7\,CROSS_i + \beta_8\,CASH_i + \beta_9\,OFFCL_i \\
& + \beta_{10}\,INDPD_i + \beta_{10}\,RIGHT_i + \beta_{10}\,CAPTL_i + \beta_{10}\,RSTRT_i + \varepsilon_i \qquad (2) \\
& \text{where } i = 1, 2, \ldots, 560
\end{aligned}
$$

$$
\begin{aligned}
\Delta PFM_{(-1,1)\,i} = {} & \alpha + \gamma_1\,FIO_i + \gamma_2\,OCF_i + \gamma_3\,FIO{\times}OCF_i + \beta_1\,EAR_i + \beta_2\,LDR_i \\
& + \beta_3\,LLRR_i + \beta_4\,CIR_i + \beta_5\,VALUE_i + \beta_6\,PBLC_i + \beta_7\,CROSS_i \\
& + \beta_8\,CASH_i + \beta_9\,OFFCL_i + \beta_{10}\,INDPD_i + \beta_{10}\,RIGHT_i \qquad (3) \\
& + \beta_{10}\,CAPTL_i + \beta_{10}\,RSTRT_i + \varepsilon_i \\
& \text{where } i = 1, 2, \ldots, 560.
\end{aligned}
$$

Panel A, Table 5 shows that most of the effects of financial intermediary ownership and its concentration on the changes in acquirer bank post-acquisition performance are significantly positive (the coefficient of *OCF* and *FIO×OCF* for ROA$_{(-1,1)}$ = 0.037 and 0.002; ROE$_{(-1,1)}$ = 2.334 and 0.023; NIR$_{(-1,1)}$ = 1.259; NTR$_{(-1,1)}$ = 2.910 and 0.265). The results therefore suggest that financial intermediaries can benefit from banking acquisition decisions.

Using the credit crisis years as subsample can help explain the potential effects of a global financial credit crunch during which banks and their relationships with firms may be different (Pennathur and Vishwasrao, 2014). However, when we use the subsample in which acquisition deals are completed from 2005 to 2007 to examine the effects of financial intermediary ownership, the differences in performance between the pre-crisis year of 2006 and post-crisis year of 2008 are no longer significant. The changes in acquirer bank performance in the non-crisis period is higher while the changes in performance worsens in crisis years (the coefficient of *FIO*, *OCF*, and *FIO×OCF* for ROA$_{(06,08)}$ = –0.039, –0.732, –0.034 and –0.070; ROE$_{(06,08)}$ = –0.573 and –0.535; NIR$_{(06,08)}$ = –0.052 and –0.051). This result suggests that if the financial intermediaries hold larger shares of acquirer bank or are the only block shareholder such ownership focuses on increasing the size of the bank through acquisition as a means to secure their competitiveness.

Next, we look at the effect of different types of ownership on post-acquisition risk. Panel B, Table 5 shows that the volatility of ROA, ROE, and NIR during the post-acquisition years (from t–1 to t+1) are higher for acquirer banks with higher proportion of shares owned by financial intermediaries (the coefficient of *FIO*, *OCF*, and *FIO×OCF* for σ(ROA)$_{(-1,1)}$ = 0.003, 0.016, and 0.002; σ(ROE)$_{(-1,1)}$ = 0.022, 0.407, and 0.009; σ(NIR)$_{(-1,1)}$ = 0.03 and 0.117). Similarly, the volatilities are consistent for the crisis years (the coefficient of *FIO*, *OCF*, and *FIO×OCF* for σ(ROA)$_{(06,08)}$ = 0.005; σ(ROE)$_{(06,08)}$ = 0.087 and 0.107; σ(NTR)$_{(06,08)}$ = 0.005 and 0.004).

We further explore the effect on other risk proxies with Model (1) to (3). Panel C, Table 5 shows that the information asymmetry is higher for acquirer banks with higher financial intermediary ownership (the coefficient of *FIO* and *FIO×OCF* for SPD$_{(-1,1)}$ = 0.042 and 0.082). It provides similar results for the non-performing loans (the coefficient of *FIO* for NPL$_{(-1,1)}$ = 0.009 and 0.359). Using a logistic regression, we replace the dependent variables in the same regression model with the changes in Standard and Poor's credit rating (SPCR) to explore the effect of financial intermediary ownership on risk. The results show that acquirer banks with a higher proportion of shares owned by financial intermediaries have higher post-acquisition changes in credit rating (the coefficient of *FIO* and *FIO×OCF* for SPD$_{(-1,1)}$ = 0.042 and 0.082). Also, we use a fixed effect model to examine the effect on changes in risk

during the crisis years. The results are similar in that the risks are higher in credit crisis years for banks with a higher proportion of shares owned by financial intermediaries (the coefficient of *FIO* for $\text{BETA}_{(06,08)}$ = 0.010 and 0.010; $\text{SPD}_{(06,08)}$ = 0.252 and 0.002, $\text{NPL}_{(06,08)}$ = 0.022, 0.163, 0.020, and 0.022; $\text{SPCR}_{(06,08)}$ = −0.011). We suggest that, although the potential problems of acquirer bank governance are not reflected on the risk during the non-crisis period, the potential governance weakness leads to higher losses and is no longer capable of reducing risk performances during the crisis years. The findings support the argument of Park and Peristiani (2007), Laeven and Levine (2009), and Pathan (2009) that banking ownerships as major shareholders have incentives to increase risk-taking to pursue riskier investments.

To examine the effects of capital investor ownership on post-acquisition changes in performance, we replace FIO and OCF in Model (1) to (3) with the capital investor ownership (CIO) and its concentration (OCC). Panel A, Table 6 shows the regression results. Most of the relations between acquirer bank CIO and performance are significantly positive (the coefficient of *CIO* for $\text{ROA}_{(-1,1)}$ = 0.002 $\text{ROE}_{(-1,1)}$ = 0.028; $\text{NIR}_{(-1,1)}$ = 0.033; $\text{NTR}_{(-1,1)}$ = 0.027). The effects of acquirer bank CIO ownership concentration show similar results (the coefficient of *OCC* and *CIO×OCC* for $\text{ROA}_{(-1,1)}$ = 0.328 and 0.016; $\text{ROE}_{(-1,1)}$ = 4.136 and 0.257; $\text{NIR}_{(-1,1)}$ = 1.222 and 0.012; $\text{NTR}_{(-1,1)}$ = 9.748 and 0.58). The evidence suggests that the monitoring and value-enhancing investment strategy provided by capital investors can benefit acquirer banks' post-acquisition operating performance. Using the subsample in which the acquisition deals are completed between 2005 and 2007, we find that the positive effects of CIO on performance disappear and are even worse (the coefficient of *CIO* for $\text{ROA}_{(06,08)}$ = −0.018 and −0.018; $\text{ROE}_{(06,08)}$ = −0.258, −0.607, −0.255, and −0.045; $\text{NTR}_{(06,08)}$ = −0.009, −0.400, −0.007, and −0.029).

<center>**<Insert Table 6 around Here>**</center>

To examine the effects of CIO and OCC of acquirer banks on risk, we replace the dependent variables in Model (1) to (3) with volatility and other risk proxies. Panel B, Table 6 shows that capital investor ownership leads to higher acquirer bank post-acquisition volatilities (the coefficient of *CIO, OCC,* and *CIO×OCC* for $\sigma(\text{ROA})_{(-1,1)}$ = 0.001, 0.101, and 0.005; $\sigma(\text{ROE})_{(-1,1)}$ = 0.009, 1.139, and 0.048;

<center>20</center>

$\sigma(\text{NIR})_{(-1,1)}$ = 5.645 and 1.394; $\sigma(\text{NTR})_{(-1,1)}$ = 4.664 and 0.310). However, the volatilities in the credit crunch years are significant only for the ROE and NTR (the coefficient of *CIO, OCC* and *CIO×OCC* for $\sigma(\text{ROE})_{(06,08)}$ = 0.090, 1.058, and 0.063; $\sigma(\text{NTR})_{(06,08)}$ = 0.005 and 0.005).

Similarly, Panel B, Table 6 shows that the effects on other acquirer bank risk proxies in the post-acquisition years are positive (the coefficient of *CIO, OCC,* and *CIO×OCC* for $\text{BETA}_{(-1,1)}$ = 0.007 and 0.006; $\text{BETA}_{(06,08)}$ = 0.028 and 0.035; $\text{SPD}_{(-1,1)}$ = 0.025 and 0.025; $\text{SPD}_{(06,08)}$ = 0.004 and 0.004; $\text{NPL}_{(-1,1)}$ = 0.303 and 0.026). The logistic regression results also show that the acquirer bank's ownership concentration of capital investors is positively related to post-acquisition risk (the coefficient of *OCC* and *CIO×OCC* for $\text{BETA}_{(06,08)}$ = 0.022 and 0.020; $\text{SPD}_{(06,08)}$ = 1.255 and 1.213).

Thus, these findings suggest that block shareholders from capital investors are not helpful for reducing acquirer bank risks after the acquisitions and is consistent to the conjecture that capital investors prefer profitable but excessively risky investment projects. The overall effects of capital investor ownership are consistent with the argument of Laeven and Levine (2009) and Cheng, Elyasiani, and Jia (2011) and suggest that, although capital investors can perform high-quality research on value-enhancing investment, the incentives and preferences of profits from risky investment induce the bank to increase risk-taking during the acquisition decisions, and the potential risks are reflected in the performance during the credit crunch, instead of the post-acquisition years.

Using the nonfinancial firm ownership (NFO) and its concentration (OCN) as regressors, we also look at the effect of acquirer banks' nonfinancial firm ownership on the changes in post-acquisition banking operating and risk performances. Panel A, Table 7 shows that the effects of NFO and OCN on $\text{ROA}_{(-1,1)}$, $\text{ROE}_{(-1,1)}$, and $\text{NTR}_{(-1,1)}$ are significantly negative, suggesting that acquirer banks with a higher proportion of shares owned by nonfinancial firms are poorly executed during the post-acquisition years. When looking at the subsample in which the acquisition deals are completed between 2005 and 2007, the changes in acquirer bank performance ($\text{ROE}_{(06,08)}$ and $\text{NIR}_{(06,08)}$) are higher for banks with higher nonfinancial firm ownership.

<Insert Table 7 around Here>

Panel B, C in Table 7 shows that the effects of nonfinancial firm ownership on

acquirer bank volatility and risk are insignificant in post-acquisition years. However, the volatilities and risks ($\sigma(\text{ROE})_{(06,08)}$, $\sigma(\text{NIR})_{(06,08)}$, and $\text{NPL}_{(06,08)}$) are significantly lower in credit crunch years. These results suggest that, during a credit crisis, acquirer banks rely more on institutional investors for liquidity funding from nonfinancial firms. Such findings explain why the performances are higher for acquirer banks with a higher proportion of shares owned by nonfinancial firms in credit crisis years.

These findings are similar to related literature. Haubrich and Santos (2005) indicate that nonfinancial firms as bank owners make it easier for the banks to dispose of nonperforming loans and assets in default to improve banks' financial liquidity. Also, Oliveira, Schiozer, and Barros (2014) find a higher increase in growth rate of CDs issued by big banks to their institutional ownerships, particularly to nonfinancial firms. Therefore, our results suggest that although non-financial firms cannot improve the post-acquisition performance and risk, such ownership is helpful for reducing acquirer bank illiquidity problems in crisis years.

Regarding state ownership, we use SO and OCS as regressor. Panel A, Table 8 shows that the effects of state ownership and its concentration on changes in acquirer bank post-acquisition performances are significantly negative (the coefficient of *SO*, and *OCS* for $\text{ROA}_{(-1,1)}$ = –0.073, –0.499, and –0.073; $\text{ROE}_{(-1,1)}$ = –1.203, –4.755, and –1.204; $\text{NTR}_{(-1,1)}$ = –3.198 and –3.198). These results suggest that the profitability efficiency of state-owned banks is lower as their main goal is to maximize public wealth instead of their own interests.

<center>**<Insert Table 8 around Here>**</center>

However, the changes in performance with the subsample in which the acquisition deals are completed between 2005 and 2007 are significantly positive for acquirer banks with highly concentrated state ownership (the coefficient of *OCS* and *SO×OCS* for $\text{ROA}_{(06,08)}$ = 1.680 and 1.570; $\text{NIR}_{(06,08)}$ = 1.533, 1.191, 0.999, and 1.527). The role of government guarantees in the stability of banks with different ownership types was crucial in the recent credit crisis. The long-term and large-scale government bailouts carried out by many central banks provided liquidity particularly for state-owned banks as they facilitate the financing of projects that private banks are unwilling to finance and further provide high-lending-quality credit supply (Stiglitz, 1993) and lending activity during crisis periods (Agarwal and Jayasuriya, 2014).

Therefore, the changes in performance of acquirer banks with higher proportion of state ownership are positive during credit crisis years.

Similarly, from Panel B and C of Table 8, acquirer banks with a higher proportion of shares owned by the state became less volatile and less risky in post-acquisition and crisis years. These results are consistent with the argument of Koetter et al. (2007), Elyasiani and Jia (2008), Buch and DeLong (2008), and Boubakri, Cosset, and Saffar (2013) that state ownerships are more conservative in risk preference and such banks face scrutiny and regulatory intervention particularly when making M&A decisions.

The results on control variables from Table 5 to 8 provide other insights from a different perspective. The post-acquisition performance change is higher for acquirer banks with lower loan-deposit ratio (LDR), higher loan loss reserve ratio (LLRR), and cash payment for acquisition, suggesting that acquirer banks with conservative operation performed well in post-acquisition periods as they have steady profitability efficiency, higher cost for capital reserve, and less free cash flow on the books, respectively. Also, the consistent results on the control variables for the credit crunch years indicate that acquirer banks with higher deal value of acquired banks (VALUE) performed well during crisis years. Regarding control variables determining volatilities, the loan loss reserve ratio (LLRR), the cost to income ratio (CIR), and the value of acquisition deals (VALUE) are positively related to the volatilities during the post-acquisition years. The effect of deal value (VALUE) in the credit crunch years shows similar results that the size of acquired banks causes larger stock return volatilities and risks. When we use 5% as the threshold as the ownership concentration level, the empirical evidence is consistent for the financial intermediary, capital investor, and non-financial firm ownerships, whereas state ownership concentration provides an insignificant result.

5. Conclusion

Although several studies have found that acquirers underperform and take on excessive risk in takeover activities, whether the ownership structure affects post-acquisition performance and risk remains unexplored. We argue that state and different institutional ownerships have varied risk preference and different mechanisms that influence acquisition decisions and post-acquisition performance.

The issue is particularly interesting as the increasingly competitive financial industry profits from taking risk. Therefore, specifically, we examine the effect of different types of acquirer bank ownership on post-acquisition performance and risk.

Using data on listed commercial banks from 30 countries from 2000 to 2007, our empirical results show that acquirer banks with a higher proportion of shares owned by financial intermediaries and capital investors experience larger changes in operating performances and higher risk during the post-acquisition years. However, when looking at the changes in performance and risk from the non-crisis year of 2006 to the credit crunch year of 2008, the outperformances of acquirer banks with higher financial intermediary and capital investor ownerships disappear or even worsen, and the risks also increase. In addition, we find that nonfinancial firm and state ownership do not contribute to post-acquisition performance, and the underperformance turns into higher performance and lower risks during crisis years. The empirical results contribute to the lines of research on bank ownership by exploring the effect of different types of shareholdings on acquirer bank post-acquisition performance and risk, such as financial intermediary, nonfinancial commerce firm, capital investment, and state ownerships.

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Table 1: Data Sample, 2000-2006

Area	Country	Number of Observation	Proportion (%)	Area	Country	Number of Observation	Proportion (%)
Total		560	100.0%	Europe	Austria	2	0.4%
America	Argentina	1	0.2%		Denmark	3	0.5%
	Brazil	7	1.3%		France	3	0.5%
	Canada	9	1.6%		German	3	0.5%
	Chile	1	0.2%		Greece	4	0.7%
	Peru	1	0.2%		Holland	3	0.5%
	United States	368	65.7%		Italy	58	10.4%
	Venezuela	1	0.2%		Portugal	3	0.5%
Africa	Egypt	2	0.4%		Spain	32	5.7%
	South Africa	2	0.4%		Sweden	8	1.4%
Asia	India	3	0.5%		Switzerland	1	0.2%
	Israel	10	1.8%		United Kingdom	13	2.3%
	Japan	3	0.5%	Year	2000	12	2.14%
	Malaysia	1	0.2%		2001	37	6.61%
	Philippine	1	0.2%		2002	59	10.54%
	Singapore	4	0.7%		2003	82	14.64%
	Thailand	2	0.4%		2004	94	16.79%
	Taiwan	8	1.4%		2005	100	17.86%
Pacific	Australia	3	0.5%		2006	128	22.86%
					2007	48	8.57%

Table 2: Variable Definition

Performance

ROA$_{(-1,1)}$ ROA$_{(06,08)}$	Return on assets (ROA) is the acquirer bank's ratio of net income to total assets. ROA$_{(-1,1)}$ is the change in acquirer bank's ROA from the previous year before acquisition to the first year after acquisition. ROA$_{(06,08)}$ is the change in acquirer bank's ROA from 2006, the beginning year of credit crunch, to 2008, the third year of credit crunch.
ROE$_{(-1,1)}$ ROE$_{(06,08)}$	Return on equity (ROE) is the acquirer bank's ratio of net income to total equity. ROE$_{(-1,1)}$ is the change in acquirer bank's ROE from the previous year before acquisition to the first year after acquisition. ROE$_{(06,08)}$ is the change in acquirer bank's ROE from 2006, the beginning year of credit crunch, to 2008, the third year of credit crunch.
NIR$_{(-1,1)}$ NIR$_{(06,08)}$	Net interest revenue (NIR) is the acquirer bank's ratio of the difference between interest income and interest expenses to total assets. NIR$_{(-1,1)}$ is the change in acquirer bank's NIR from the previous year before acquisition to the first year after acquisition. NIR(06,08) is the change in acquirer bank's NIR from 2006, the beginning year of credit crunch, to 2008, the third year of credit crunch.
NTR$_{(-1,1)}$ NTR$_{(06,08)}$	Net trading revenue (NTR) is the acquirer bank's ratio of investment revenue to total assets. NTR$_{(-1,1)}$ is the change in acquirer bank's NTR from the previous year before acquisition to the first year after acquisition. NTR(06,08) is the change in acquirer bank's NTR from 2006, the beginning year of credit crunch, to 2008, the third year of credit crunch.

Risk

σ(ROA)$_{(-1,1)}$	Standard deviation of acquirer bank's yearly return on assets from the previous year before acquisition to the first year after acquisition.
σ(ROA)$_{(06,08)}$	Standard deviation of acquirer bank's yearly return on assets from 2006, the beginning year of credit crunch, to 2008, the third year of credit crunch.
σ(ROE)$_{(-1,1)}$	Standard deviation of acquirer bank's yearly return on equity from the previous year before acquisition to the first year after acquisition.
σ(ROE)$_{(06,08)}$	Standard deviation of acquirer bank's yearly equity from 2006, the beginning year of credit crunch, to 2008, the third year of credit crunch.
σ(NIR)$_{(-1,1)}$	Standard deviation of acquirer bank's yearly net interest revenue from the previous year before acquisition to the first year after acquisition.
σ(NIR)$_{(06,08)}$	Standard deviation of acquirer bank's yearly net interest revenue from 2006, the beginning year of credit crunch, to 2008, the third year of credit crunch.
σ(NTR)$_{(-1,1)}$	Standard deviation of acquirer bank's yearly net trading revenue from the previous year before acquisition to the first year after acquisition.
σ(NTR)$_{(06,08)}$	Standard deviation of acquirer bank's yearly net trading revenue from 2006, the beginning year of credit crunch, to 2008, the third year of credit crunch.
BETA$_{(-1,1)}$ BETA$_{(06,08)}$	Systematic risk is measured by the beta coefficient (BETA) which is the regression coefficient of market model in which the daily stock returns of acquirer bank in one calendar year (R_i) is regressed by the daily returns of its underlying stock market index of that year (R_m). E.g. $R_i = \alpha + \beta R_m + \varepsilon_i$. BETA$_{(-1,1)}$ is the changes in acquirer bank's yearly beta coefficient from the previous year before acquisition to the first year after acquisition, while BETA$_{(06,08)}$ is the changes in acquirer bank's yearly beta coefficient from 2006, the beginning year of credit crunch, to 2008, the third year of credit crunch.
SPD$_{(-1,1)}$ SPD$_{(06,08)}$	Stock price spread is the average of acquirer bank's daily ratio of the difference between the daily highest stock price (*HIGH*) and the daily lowest stock price (*LOW*) to the average of the two prices. E.g. SPD = average of (*HIGH–LOW*)÷((*HIGH+LOW*)÷2). SPD$_{(-1,1)}$ is the changes in acquirer bank's yearly SPD from the previous year before acquisition to the first year after acquisition, while SPD$_{(06,08)}$ is the changes in acquirer bank's yearly SPD from 2006, the beginning year of credit crunch, to 2008, the third year of credit crunch.
SPCR$_{(-1,1)}$	A dummy variable equaling 1 if the acquirer bank's Standard and Poor's credit rating improved from the previous year before acquisition to the first year after acquisition, and zero otherwise.
SPCR$_{(06,08)}$	A dummy variable equaling 1 if the acquirer bank's Standard and Poor's credit rating improved from 2006, the beginning year of credit crunch, to 2008, the third year of credit crunch, and zero otherwise.
NPL$_{(-1,1)}$	The changes in acquirer bank's yearly nonperforming loan ratio measured by ratio of impaired loan to gross loan from the previous year before acquisition to the first year after acquisition
NPL$_{(06,08)}$	The changes in acquirer bank's yearly nonperforming loan ratio measured by ratio of impaired loan to gross loan from 2006, the beginning year of credit crunch, to 2008, the third year of credit crunch.

Types of Ownership

FIO	Financial intermediary ownership is the acquirer bank's proportion of share ownership held by banks, financial company, and insurance company at the acquisition year
CIO	Capital investor ownership is the acquirer bank's proportion of share ownership held by mutual and pension funds, foundation or research institutes, and private equity firms at the acquisition year
NFO	Non-financial firm ownership is the acquirer bank's proportion of share ownership held by industrial and public companies at the acquisition year
SO	State ownership is the acquirer bank's proportion of share ownership held by state or authorities at the acquisition year

Table 2 continues

Table 2 (*continued*)

	Types of Ownership
OCF	A dummy variable that equals 1 if the acquirer bank's financial intermediary ownership at the acquisition year is larger than 5% and the ownership of others is less than 5%, and zero otherwise
OCC	A dummy variable that equals 1 if the acquirer bank's capital investor ownership at the acquisition year is larger than 5% and the ownership of others is less than 5%, and zero otherwise
OCN	A dummy variable that equals 1 if the acquirer bank's non-financial firm ownership at the acquisition year is larger than 5% and the ownership of others is less than 5%, and zero otherwise
OCS	A dummy variable that equals 1 if the acquirer bank's state ownership at the acquisition year is larger than 5% and the ownership of others is less than 5%, and zero otherwise
	Acquirer Characteristics
EAR	Equity ratio is the acquirer bank's ratio of total equity to total assets at the acquisition year
LDR	Loan to deposit ratio is the acquirer bank's ratio of net loans to total deposit at the acquisition year
LLRR	Loan loss reserve ratio is the acquirer bank's ratio of loan loss reserve to gross loan at the acquisition year
CIR	Cost to income ratio is the acquirer bank's ratio of overhead to the sum of net interest income and net operating income at the acquisition year
	Deal Characteristics
VALUE	The ratio of deal value to acquirer total assets at the acquisition year
PBLC	A dummy variable that equals 1 if the deal is public takeover and zero otherwise
CROSS	A dummy variable that equals 1 if target is foreign companies and zero otherwise
CASH	A dummy variable that equals 1 if the M&A payment is in form of all cash and zero otherwise
	Country Characteristics
OFFCL	Official is an index of the power of the commercial bank supervisory agency for the country (Barth et al., 2004; Caprio et al., 2007). The index is ranged from 0 for the country with the weakest agency power to 14 the most powerful agency. The index score is valued by answering the following 14 questions and is added one point for an affirmative response to each question. 1. Does the supervisory agency have the right to meet with external auditors to discuss their report without the approval of the bank? 2. Are auditors required by law to communicate directly to the supervisory agency any presumed involvement of bank directors or senior managers in illicit activities, fraud, or insider abuse? 3. Can supervisors take legal action against external auditors for negligence? 4. Can the supervisory authority force a bank to change its internal organizational structure? 5. Are off-balance sheet items disclosed to supervisors? 6. Can the supervisory agency order the bank's directors or management to constitute provisions to cover actual or potential losses? 7. Can the supervisory agency suspend the directors' decision to distribute: (a) Dividends? (b) Bonuses? (c) Management fees? 8. Can the supervisory agency legally declare-such that this declaration supersedes the rights of bank shareholders-that a bank is insolvent? 9. Does the Banking Law give authority to the supervisory agency to intervene that is, suspend some or all ownership rights-a problem bank? 10. Regarding bank restructuring and reorganization, can the supervisory agency or any other government agency do the following: (a) Supersede shareholder rights? (b) Remove and replace management? (c) Remove and replace directors?
INDPD	Independence is an index of the degree to which the supervisory authority of the country is independent from the government and legally protected from the banking system (Barth et al., 2004; Caprio et al., 2007). The index is ranged from 1 for agency worst independent authority to 4 for the highest independence.
RIGHT	Rights is an index of anti-director rights for the country (La Porta et al., 2002; Barth et al., 2004; Caprio et al., 2007; Laeven and Levine, 2009). The index is ranged from 0 for the country with the greatest shareholder right to 6 for the poorest right. The index is added one point when (a) the country allows shareholders to mail their proxy vote; (b) shareholders are not required to deposit their shares prior to the General Shareholders' Meeting; (c) cumulative voting or proportional representation of minorities on the board of directors is allowed; (d) an oppressed minorities mechanism is in place; (e) the minimum percentage of share capital that entitles a shareholder to call for an extraordinary shareholders' meeting is less than or equal to 10 percent (the sample median); or (f) when shareholders have preemptive rights that can only be waived by a shareholders meeting.
CAPTL	Capital stringency is an index of regulatory oversight of bank capital for the country (Barth et al., 2004; Caprio et al., 2007; Laeven and Levine, 2009). The index is ranged from zero for the country with the poorest regulatory capital oversight to 9 for the most stringent regulations. The index score is valued by answering the following nine questions and one point is added for an affirmative response to each question: (a) Is the minimum capital–asset ratio requirement risk weighted in line with the Basel guidelines; (b) does the minimum ratio vary as a function of market risk; (c) are market values of loan losses not realized in accounting books deducted from capital; (d) are unrealized losses in securities portfolios deducted; (e) are unrealized foreign exchange losses deducted; (f) what fraction of revaluation gains is allowed as part of capital; (g) are the sources of funds to be used as capital verified by the regulatory/supervisory authorities; (h) can the initial disbursement or subsequent injections of capital be done with assets other than cash or government securities; and (i) can initial disbursement of capital be done with borrowed funds?
RSTRT	Restrict is an index of regulatory restrictions of the country on banks activity and ability to engage in securities market activities, the insurance business, conduct real estate activities, or own non-financial firms (Barth et al., 2004; Caprio et al., 2007; Laeven and Levine, 2009). The index is ranged from 4 for the country with the fewer restrictions to 16 for the tightest restrictions.

Table 3: Descriptive Summaries and Correlation Coefficients
Panel A: Descriptive Summaries

	Mean	Standard Deviation	Minimum	Maximum
$ROA_{(-1,1)}$	−0.08	0.78	−6.34	4.81
$ROE_{(-1,1)}$	−1.47	10.12	−96.23	66.46
$NIR_{(-1,1)}$	0.66	11.13	−48.64	65.09
$NTR_{(-1,1)}$	0.00	0.30	−2.52	1.62
$\sigma(ROA)_{(-1,1)}$	0.32	0.38	0.01	3.79
$\sigma(ROE)_{(-1,1)}$	4.13	5.76	0.09	71.54
$\sigma(NIR)_{(-1,1)}$	1.83	7.88	0.00	95.35
$\sigma(NTR)_{(-1,1)}$	0.11	0.87	0.00	17.20
$BETA_{(-1,1)}$	0.25	0.36	−0.69	1.22
$SPD_{(-1,1)}$	−0.19	3.36	−6.52	2.96
$NPL_{(-1,1)}$	−0.08	1.01	−6.54	3.97
$SPCR_{(-1,1)}$	0.22	0.41	0.00	1.00
$ROA_{(06,08)}$	−2.13	2.55	−10.67	3.47
$ROE_{(06,08)}$	−28.22	35.93	−159.26	3.54
$NIR_{(06,08)}$	−1.60	9.47	−50.85	13.73
$NTR_{(06,08)}$	−0.11	0.59	−3.17	1.48
$\sigma(ROA)_{(06,08)}$	1.26	2.21	0.01	17.47
$\sigma(ROE)_{(06,08)}$	14.32	19.84	0.26	90.94
$\sigma(NIR)_{(06,08)}$	3.48	5.86	0.03	33.17
$\sigma(NTR)_{(06,08)}$	0.48	1.44	0.00	6.54
$BETA_{(06,08)}$	0.37	0.44	−0.87	1.06
$SPD_{(06,08)}$	2.76	4.49	−7.39	21.13
$NPL_{(06,08)}$	1.84	1.83	−3.64	5.60
$SPCR_{(06,08)}$	0.01	0.47	0.00	1.00
FIO	10.97	15.87	0.00	100.00
CIO	7.46	10.46	0.00	86.98
NFO	3.19	10.72	0.00	79.30
SO	0.30	3.42	0.00	49.84
OCF	0.10	0.30	0.00	1.00
OCC	0.06	0.24	0.00	1.00
OCN	0.01	0.08	0.00	1.00
OCS	0.08	0.27	0.00	1.00
EAR	9.15	3.14	2.34	27.56
LDR	1.18	0.55	0.08	8.98
LLRR	1.87	1.54	0.02	13.39
CIR	60.72	11.60	16.96	121.39
VALUE	11.40	1.74	7.24	17.87
PBLC	0.58	0.49	0.00	1.00
CROSS	0.18	0.39	0.00	1.00
CASH	0.59	0.49	0.00	1.00
OFFCL	11.34	2.73	3.00	14.00
INDPD	3.51	0.86	1.00	4.00
RIGHT	4.24	1.36	1.00	5.00
CAPTL	3.83	0.56	1.00	5.00
RSTRT	10.91	1.98	5.00	13.00

Table 3 (*continued*)

<div align="center">Panel B: Correlation Coefficient</div>

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
FIO	(1)	1.00																			
CIO	(2)	0.09	1.00																		
NFO	(3)	0.06	0.07	1.00																	
SO	(4)	−0.02	−0.05	0.13	1.00																
OCF	(5)	0.41	−0.20	−0.09	−0.03	1.00															
OCC	(6)	−0.16	0.07	−0.07	−0.02	−0.09	1.00														
OCN	(7)	−0.06	−0.05	0.14	−0.01	−0.03	−0.02	1.00													
OCS	(8)	−0.18	−0.18	−0.08	−0.02	−0.10	−0.07	−0.02	1.00												
EAR	(9)	−0.05	0.03	−0.04	−0.07	−0.06	0.06	0.02	0.00	1.00											
LDR	(10)	−0.01	0.03	−0.04	−0.01	−0.01	0.09	0.01	0.01	0.14	1.00										
LLRR	(11)	0.07	−0.13	0.30	0.27	0.04	−0.10	−0.05	−0.06	−0.16	0.00	1.00									
CIR	(12)	0.06	−0.12	−0.04	−0.02	0.07	0.07	−0.06	0.02	−0.08	0.10	0.03	1.00								
VALUE	(13)	0.09	0.03	−0.01	0.01	0.05	−0.10	−0.04	−0.18	−0.08	−0.10	0.04	−0.10	1.00							
PBLC	(14)	−0.10	−0.08	0.11	0.07	−0.10	0.22	0.04	0.05	−0.05	−0.02	0.05	−0.07	−0.13	1.00						
CROSS	(15)	0.05	0.02	0.10	0.04	0.01	−0.06	−0.04	−0.07	−0.35	−0.01	0.20	−0.12	0.21	−0.04	1.00					
CASH	(16)	0.02	0.03	0.04	−0.05	0.02	0.11	−0.02	−0.01	−0.16	0.09	0.04	0.01	−0.16	0.37	0.23	1.00				
OFFCL	(17)	−0.05	0.04	−0.24	−0.06	−0.05	0.10	0.05	0.12	0.45	0.08	−0.39	−0.06	−0.19	−0.01	−0.50	−0.14	1.00			
INDPD	(18)	−0.12	0.08	−0.34	−0.14	−0.04	0.12	0.05	0.10	0.28	0.08	−0.66	−0.05	−0.14	−0.01	−0.38	−0.06	0.71	1.00		
RIGHT	(19)	−0.09	0.10	−0.26	−0.12	−0.01	0.12	0.05	0.10	0.34	0.09	−0.58	−0.11	−0.14	−0.09	−0.36	−0.09	0.77	0.83	1.00	
CAPTL	(20)	−0.10	−0.12	−0.25	−0.03	−0.06	0.04	0.03	0.08	0.21	−0.10	−0.13	−0.05	−0.12	0.04	−0.30	−0.10	0.39	0.20	0.25	1.00
RSTRT	(21)	−0.05	−0.01	0.02	−0.03	−0.16	0.08	0.05	0.12	0.40	−0.09	−0.26	0.07	−0.22	0.04	−0.62	−0.20	0.57	0.38	0.41	0.37

Notes: FIO is the acquirer bank's proportion of share ownership held by financial intermediaries at the acquisition year, including banks, financial company, and insurance company. FIOH (FIOL) is the top (bottom) 50% FIO subsample. CIO is the acquirer bank's proportion of share ownership held by capital investors at the acquisition year, including mutual and pension funds, foundation or research institutes, and private equity firms. CIOH (CIOL) is the top (bottom) 50% CIO subsample. NFO is the acquirer bank's proportion of share ownership held by non-financial firms at the acquisition year, including industrial and public companies. NFOH (NFOL) is the top (bottom) 50% NFO subsample. SO is the acquirer bank's proportion of share ownership held by state or authorities at the acquisition year. SOH (SOL) is the top (bottom) 50% SO subsample. OCF is a dummy variable that equals 1 if the acquirer bank's financial intermediary ownership at the acquisition year is larger than 5% and the ownership of others is less than 5%, and zero otherwise. OCC is a dummy variable that equals 1 if the acquirer bank's capital investor ownership at the acquisition year is larger than 5% and the ownership of others is less than 5%, and zero otherwise. OCN is a dummy variable that equals 1 if the acquirer bank's non-financial firm ownership at the acquisition year is larger than 5% and the ownership of others is less than 5%, and zero otherwise. OCS is a dummy variable that equals 1 if the acquirer bank's state ownership at the acquisition year is larger than 5% and the ownership of others is less than 5%, and zero otherwise. EAR is the acquirer bank's ratio of total equity to total assets at the acquisition year. LDR is the acquirer bank's ratio of net loans to total deposit at the acquisition year. LLRR is the acquirer bank's ratio of loan loss reserve to gross loan at the acquisition year. CIR is the acquirer bank's ratio of overhead to the sum of net interest income and net operating income at the acquisition year. VALUE is the ratio of deal value to acquirer total assets at the acquisition year. PBLC is a dummy variable that equals 1 if the deal is public takeover, and zero otherwise. CROSS is a dummy variable that equals 1 if target is foreign companies, and zero otherwise. CASH is a dummy variable that equals 1 if the M&A payment is in form of all cash and zero otherwise. OFFC is an index of the power of the commercial bank supervisory agency for the country. INDPD is an index of the degree to which the supervisory authority of the country is independent from the government and legally protected from the banking system. RIGHT is an index of anti-director rights for the country. CAPTL is an index of regulatory oversight of bank capital for the country. RSTRT is an index of regulatory restrictions of the country on banks activity and ability to engage in securities market activities, the insurance business, conduct real estate activities, or own non-financial firms.

Table 4: Performance and Risk Discrepancies

	Post-Acquisition Years									Credit Crunch Years							
	FIOH	FIOL	CIOH	CIOL	NFOH	NFOL	SOH	SOL		FIOH	FIOL	CIOH	CIOL	NFOH	NFOL	SOH	SOL
$ROA_{(-1)}$	1.50	1.44	1.58	1.36	1.60	1.16	1.50	0.98	$ROA_{(06)}$	1.41	1.49	1.44	1.48	0.90	1.57	1.35	1.47
$ROA_{(0)}$	1.49	1.36	1.51	1.34	1.50	1.23	1.43	1.34	$ROA_{(07)}$	1.24	1.22	1.30	1.20	0.96	1.27	0.79	1.25
$ROA_{(1)}$	1.49	1.37	1.44	1.42	1.49	1.26	1.44	1.30	$ROA_{(08)}$	-0.45	0.00	-0.10	-0.14	0.07	-0.16	0.23	-0.15
$ROA_{(-1,1)}$	-0.04	-0.11	-0.16	0.00	-0.13	0.07	-0.10	0.32	$ROA_{(06,08)}$	-2.07	-1.52	-1.67	-1.68	-1.10	-1.76	-1.02	-1.71
$ROE_{(-1)}$	17.98	16.34	17.69	16.62	17.73	15.70	17.41	12.44	$ROE_{(06)}$	16.82	16.22	16.07	16.54	13.89	16.85	17.27	16.36
$ROE_{(0)}$	17.79	15.75	16.98	16.51	16.68	16.91	16.43	22.50	$ROE_{(07)}$	14.16	13.37	13.51	13.65	11.92	13.90	9.37	13.86
$ROE_{(1)}$	16.72	15.59	17.07	15.20	15.72	17.28	16.14	16.25	$ROE_{(08)}$	-7.20	-0.76	-2.67	-2.58	1.46	-3.22	0.73	-2.78
$ROE_{(-1,1)}$	-1.40	-1.55	-0.11	-2.87	-2.34	0.71	-1.75	3.50	$ROE_{(06,08)}$	-25.52	-17.74	-19.76	-20.08	-14.07	-20.87	-14.40	-20.27
$NIR_{(-1)}$	1.51	2.41	1.65	2.28	2.37	0.96	2.58	1.94	$NIR_{(06)}$	3.29	3.12	2.14	3.59	2.24	3.33	1.32	3.27
$NIR_{(0)}$	3.32	2.82	3.24	2.91	3.17	2.82	5.22	2.96	$NIR_{(07)}$	3.44	2.32	2.50	2.73	2.02	2.78	2.51	2.67
$NIR_{(1)}$	2.98	2.36	3.00	2.34	2.85	2.16	2.36	2.68	$NIR_{(08)}$	1.48	1.61	-0.20	2.29	3.77	1.19	4.47	1.40
$NIR_{(-1,1)}$	1.47	-0.13	1.39	-0.04	0.46	1.18	-0.22	0.71	$NIR_{(06,08)}$	-0.70	-0.57	-2.30	0.08	1.80	-1.02	3.16	-0.84
$NTR_{(-1)}$	0.04	0.07	0.05	0.07	0.05	0.06	0.25	0.04	$NTR_{(06)}$	0.15	0.07	0.09	0.09	0.12	0.09	0.09	0.14
$NTR_{(0)}$	0.03	0.24	0.20	0.07	0.35	0.06	1.44	0.06	$NTR_{(07)}$	-0.24	0.01	-0.09	0.02	0.01	-0.07	-0.05	-0.21
$NTR_{(1)}$	0.04	0.06	0.06	0.08	-0.05	0.01	-0.28	0.01	$NTR_{(08)}$	0.09	0.07	0.13	-0.07	0.14	0.07	0.09	-0.13
$NTR_{(-1,1)}$	-0.01	0.01	0.00	0.01	-0.10	-0.03	-0.16	-0.01	$NTR_{(06,08)}$	-0.02	0.00	0.05	-0.15	0.09	-0.02	0.01	-0.33
$BETA_{(-1)}$	0.57	0.73	0.70	0.61	0.81	0.59	0.77	0.65	$BETA_{(06)}$	0.94	0.88	0.92	0.90	1.00	0.88	0.99	0.89
$BETA_{(0)}$	0.69	0.79	0.74	0.75	0.89	0.67	0.95	0.73	$BETA_{(07)}$	1.10	1.00	1.06	1.03	1.00	1.05	0.92	1.05
$BETA_{(1)}$	0.74	0.87	0.84	0.78	0.94	0.73	0.91	0.80	$BETA_{(08)}$	1.12	1.05	1.10	1.07	1.00	1.10	1.00	1.08
$BETA_{(-1,1)}$	0.33	0.35	0.37	0.32	0.15	0.48	0.26	0.35	$BETA_{(06,08)}$	0.20	0.17	0.17	0.18	0.00	0.23	0.01	0.20
$SPD_{(-1)}$	0.48	0.46	0.47	0.86	1.13	0.43	0.66	0.48	$SPD_{(06)}$	0.40	0.33	0.37	0.32	0.34	0.44	0.37	0.35
$SPD_{(0)}$	0.47	0.46	0.42	0.52	0.52	0.44	0.46	0.50	$SPD_{(07)}$	0.60	0.60	0.59	0.63	0.61	0.54	0.47	0.61
$SPD_{(1)}$	0.81	0.49	0.50	0.47	0.55	0.46	0.48	0.50	$SPD_{(08)}$	13.04	2.65	6.97	2.47	2.73	22.24	1.97	5.89
$SPD_{(-1,1)}$	0.59	0.04	1.08	-0.16	0.30	0.06	-0.09	0.05	$SPD_{(06,08)}$	12.81	2.33	6.67	2.15	2.41	21.81	1.60	5.59
$NPL_{(-1)}$	1.35	1.80	1.09	2.28	2.77	1.35	1.62	3.43	$NPL_{(06)}$	1.46	1.30	1.47	1.03	3.22	1.07	3.24	1.24
$NPL_{(0)}$	1.48	1.80	1.06	2.21	2.55	1.33	1.56	3.41	$NPL_{(07)}$	1.59	1.51	1.61	1.34	2.89	1.32	3.21	1.44
$NPL_{(1)}$	1.61	1.82	1.10	2.05	2.33	1.34	1.49	3.46	$NPL_{(08)}$	2.85	2.61	2.81	2.36	3.33	2.59	3.84	2.62
$NPL_{(-1,1)}$	0.38	0.21	0.02	-0.16	-0.20	0.00	-0.31	0.17	$NPL_{(06,08)}$	1.90	1.59	1.76	1.45	1.04	1.74	1.05	1.69
$SPCR_{(-1)}$	21.40	21.53	22.19	22.03	22.03	20.94	21.57	21.45	$SPCR_{(06)}$	22.61	22.66	22.19	22.80	21.96	22.83	22.59	22.65
$SPCR_{(0)}$	22.45	21.90	22.32	20.59	22.48	20.95	21.89	22.23	$SPCR_{(07)}$	22.87	23.09	22.88	23.05	22.36	23.20	23.00	23.01
$SPCR_{(1)}$	22.03	22.65	22.37	22.36	22.83	20.98	22.41	22.36	$SPCR_{(08)}$	22.55	23.18	22.51	23.10	22.53	23.07	22.91	22.96
$SPCR_{(-1,1)}$	0.27	0.18	0.23	0.22	0.37	0.17	0.38	0.21	$SPCR_{(06,08)}$	0.32	0.32	0.32	0.32	0.47	0.29	0.62	0.30
$\sigma(ROA)_{(-1,1)}$	0.34	0.31	0.32	0.33	0.32	0.33	0.31	0.50	$\sigma(ROA)_{(06,08)}$	1.07	0.84	1.00	0.87	0.90	0.91	0.77	0.92
$\sigma(ROE)_{(-1,1)}$	4.12	4.14	4.21	4.05	4.57	3.96	3.79	10.35	$\sigma(ROE)_{(06,08)}$	12.19	10.16	10.81	10.71	9.76	10.96	10.88	10.78
$\sigma(NIR)_{(-1,1)}$	2.08	1.60	2.14	1.53	2.26	1.67	1.73	3.72	$\sigma(NIR)_{(06,08)}$	4.41	4.51	5.02	3.16	3.41	4.66	3.54	4.54
$\sigma(NTR)_{(-1,1)}$	0.17	0.05	0.16	0.06	0.27	0.05	0.06	0.90	$\sigma(NTR)_{(06,08)}$	0.56	0.13	0.30	0.14	0.24	0.40	0.24	0.49

Table 4 continues

Table 4 (*continued*)

Notes: $ROA_{(-1)}$ ($ROE_{(-1)}$, $NIR_{(-1)}$, or $NTR_{(-1)}$) is the acquirer bank's return on assets (return on equity, net interest revenue, or net trading revenue, respectively) at the previous year before acquisition. $ROA_{(0)}$ ($ROE_{(0)}$, $NIR_{(0)}$, or $NTR_{(0)}$) is the acquirer bank's return on assets (return on equity, net interest revenue, or net trading revenue, respectively) at the year of completing acquisition. $ROA_{(1)}$ ($ROE_{(1)}$, $NIR_{(1)}$, or $NTR_{(1)}$) is the acquirer bank's return on assets (return on equity, net interest revenue, or net trading revenue respectively) at the first year after acquisition. $ROA_{(-1,1)}$ ($ROE_{(-1,1)}$, $NIR_{(-1,1)}$, or $NTR_{(-1,1)}$) is the change in acquirer bank's return on assets (return on equity, net interest revenue, or net trading revenue respectively) from the previous year before acquisition to the first year after acquisition. $ROA_{(06)}$ ($ROE_{(06)}$, $NIR_{(06)}$, or $NTR_{(06)}$) is the acquirer bank's return on assets (return on equity, net interest revenue, or net trading revenue, respectively) at 2006. $ROA_{(06)}$ ($ROE_{(07)}$, $NIR_{(07)}$, or $NTR_{(07)}$) is the acquirer bank's return on assets (return on equity, net interest revenue, or net trading revenue respectively) at 2007. $ROA_{(06)}$ ($ROE_{(08)}$, $NIR_{(08)}$, or $NTR_{(08)}$) is the acquirer bank's return on assets (return on equity, net interest revenue, or net trading revenue, respectively) at 2008. $ROA_{(06,08)}$ ($ROE_{(06,08)}$, $NIR(06,08)$, or $NTR(06,08)$) is the change in acquirer bank's return on assets (return on equity, net interest revenue, or net trading revenue, respectively) from 2006, the beginning year of credit crunch, to 2008, the third year of credit crunch. $BETA_{(-1)}$ ($BETA_{(0)}$ or $BETA_{(1)}$) is the acquirer bank's yearly beta coefficient at the previous (first or second) year before (after) acquisition. $BETA_{(06)}$ ($BETA_{(07)}$ or $BETA_{(08)}$) is the c acquirer bank's yearly beta coefficient at 2006 (2007 or 2008). $BETA_{(-1,1)}$ ($BETA_{(06,08)}$) is the changes in acquirer bank's yearly beta coefficient from the previous year before acquisition (2006, the beginning year of credit crunch) to the first year after acquisition (2008, the third year of credit crunch). $SPD_{(-1)}$ ($SPD_{(0)}$ or $SPD_{(1)}$) is the acquirer bank's yearly stock price spread at the previous (first or second) year before (after) acquisition. $SPD_{(06)}$ ($SPD_{(07)}$ or $SPD_{(08)}$) is the c acquirer bank's yearly stock price spread at 2006 (2007 or 2008). $SPD_{(-1,1)}$ ($SPD_{(06,08)}$) is the changes in acquirer bank's yearly stock price spread from the previous year before acquisition (2006, the beginning year of credit crunch) to the first year after acquisition (2008, the third year of credit crunch). $SPCR_{(-1)}$ ($SPCR_{(0)}$ or $SPCR_{(1)}$) is the acquirer bank's yearly Standard and Poor's credit rating, an ordinal scaled value of the acquirer bank's Standard and Poor's credit rating equaling from 1 for D to 27 for AAA, at the previous (first or second) year before (after) acquisition. $SPCR_{(06)}$ ($SPCR_{(07)}$ or $SPCR_{(08)}$) is the c acquirer bank's yearly Standard and Poor's credit rating at 2006 (2007 or 2008). $SPCR_{(-1,1)}$ ($SPCR_{(06,08)}$) is a dummy variable equaling 1 if the acquirer bank's Standard and Poor's credit rating improved from the previous year before acquisition (2006, the beginning year of credit crunch) to the first year after acquisition (2008, the third year of credit crunch), and zero otherwise. $NPL_{(-1)}$ ($NPL_{(0)}$ or $NPL_{(1)}$) is the acquirer bank's yearly nonperforming loan ratio at the previous (first or second) year before (after) acquisition. $NPL_{(06)}$ ($NPL_{(07)}$ or $NPL_{(08)}$) is the c acquirer bank's yearly nonperforming loan ratio at 2006 (2007 or 2008). $NPL_{(-1,1)}$ ($NPL_{(06,08)}$) is the changes in acquirer bank's yearly nonperforming loan ratio from the previous year before acquisition (2006, the beginning year of credit crunch) to the first year after acquisition (2008, the third year of credit crunch). $\sigma(ROA)_{(-1,1)}$ ($\sigma(ROE)_{(-1,1)}$, $\sigma(NIR)_{(-1,1)}$, or $\sigma(NTR)_{(-1,1)}$) is the standard deviation of acquirer bank's yearly return on assets (return on equity, net interest revenue, or net trading revenue, respectively) from the previous year before acquisition to the first year after acquisition. $\sigma(ROA)_{(06,08)}$ ($\sigma(ROE)_{(06,08)}$, $\sigma(NIR)_{(06,08)}$, or $\sigma(NTR)_{(06,08)}$) is the standard deviation of acquirer bank's yearly return on assets (return on equity, net interest revenue, or net trading revenue respectively) from 2006, the beginning year of credit crunch, to 2008, the third year of credit crunch. FIO is the acquirer bank's proportion of share ownership held by financial intermediaries at the acquisition year, including banks, financial company, and insurance company. FIOH (FIOL) is the top (bottom) 50% FIO subsample. CIO is the acquirer bank's proportion of share ownership held by capital investors at the acquisition year, including mutual and pension funds, foundation or research institutes, and private equity firms. CIOH (CIOL) is the top (bottom) 50% CIO subsample. NFO is the acquirer bank's proportion of share ownership held by non-financial firms at the acquisition year, including industrial and public companies. NFOH (NFOL) is the top (bottom) 50% NFO subsample. SO is the acquirer bank's proportion of share ownership held by state or authorities at the acquisition year. SOH (SOL) is the top (bottom) 50% SO subsample.

Table 5: Effect of Financial Intermediary Ownership
Panel A Post-Acquisition Performance

	ROA$_{(-1,1)}$			ROE$_{(-1,1)}$			NIR$_{(-1,1)}$			NTR$_{(-1,1)}$		
FIO	0.004**		0.003*	0.006**		0.005**	0.091*		0.226**	0.025*		0.151
OCF		0.037*			2.334**			1.259**			2.910*	
FIO*OCF			0.002*			0.023**			0.216			0.265*
EAR	−0.034	−0.039*	−0.035	−0.143	−0.154	−0.139	−0.193	−0.244	−0.192	−0.298	−0.356	−0.188
LDR	−0.696**	−0.635**	−0.700**	−6.948**	−6.858**	−6.877**	2.358	2.901	2.657	−8.551**	−8.352**	−8.265**
LLRR	0.148**	0.155***	0.148**	1.957***	1.889***	1.957***	−0.535	−0.326	−0.690	5.281***	5.323***	5.326***
CIR	0.004	0.003	0.004	−0.009	−0.020	−0.007	−0.018	−0.018	−0.015	−0.112	−0.098	−0.069
VALUE	0.044	0.045	0.044	0.602*	0.596*	0.602*	0.777	0.775	0.581	1.649**	1.636**	1.652**
PBLC	−0.203**	−0.165	−0.203**	−2.324*	−1.940	−2.316*	−0.525	−1.203	−0.721	−5.684**	−5.546**	−5.793**
CROSS	−0.290	−0.272	−0.272	−2.388	−1.737	−2.600	0.327	−0.854	−2.364	−5.514	−6.058	−7.230
CASH	0.211*	0.163	0.211*	3.572***	3.243**	3.558***	1.408	1.910	1.516	6.020**	5.553**	6.226**
OFFCL	0.066	0.067	0.069	0.709	0.786	0.680	0.297	0.177	0.050	0.866	0.830	0.520
INDPD	−0.369**	−0.391**	−0.367**	−3.885*	−4.229**	−3.917*	0.477	0.697	0.369	−5.985	−5.650	−6.105
RIGHT	0.054	0.074	0.049	1.088	1.197	1.149	−1.322	−1.213	−0.992	1.902	1.809	2.530
CAPTL	0.202	0.206	0.193	1.315	1.230	1.413	0.734	0.792	1.704	3.132	3.290	4.052
RSTRT	−0.127**	−0.126**	−0.122**	−1.226*	−1.121	−1.286*	0.356	0.349	−0.250	−1.441	−1.614	−1.975
Constant	1.047	1.048	1.030	7.354	6.932	7.577	−4.651	−3.591	−8.114	9.269	10.824	8.811
Obs.	554	554	554	537	537	537	528	528	528	503	503	503
Adj. R^2	0.21	0.136	0.207	0.171	0.177	0.171	0.043	0.029	0.071	0.175	0.178	0.159
	ROA$_{(06,08)}$			ROE$_{(06,08)}$			NIR$_{(06,08)}$			NTR$_{(06,08)}$		
FIO	-0.039**		-0.034**	-0.573***		-0.535***	-0.052*		-0.051*	-0.014		-0.015
OCF		-0.732**			-9.415			-0.235			0.082	
FIO*OCF			-0.070*			-0.591			-0.042			0.004
EAR	0.058	0.038	0.053	0.796	0.505	0.748	-0.060	-0.066	-0.064	-0.123	-0.121	-0.123
LDR	0.909	0.794	0.770	6.758	5.703	5.570	-2.708	-3.062	-2.772	1.289	1.121	1.286
LLRR	-0.531	-0.326	-0.483	-6.949	-4.058	-6.539	-3.175**	-3.407**	-3.190**	-0.277	-0.251	-0.279
CIR	0.006	-0.003	0.004	-0.002	-0.129	-0.016	-0.129	-0.139	-0.130	-0.030	-0.029	-0.030
VALUE	0.265	0.292**	0.277	-2.113	-2.440	-2.213	2.439***	2.347**	2.435**	0.280**	0.291***	0.280**
PBLC	-0.267	-0.367	-0.406	-5.255	-6.319	-6.430	-2.713	-2.863	-2.791	-0.358	-0.301	-0.372
CROSS	2.293	1.763	2.148	1.325	1.150	2.083	1.827	1.465	1.765	-0.302	0.141	-0.319
CASH	-0.344	-0.316	-0.343	0.449	0.575	0.472	-0.040	0.243	-0.047	0.007	-0.040	0.010
OFFCL	0.064	0.178	0.146	2.594	4.420	3.280	0.614	0.382	0.651	0.117	0.224	0.117
INDPD	-1.326	-1.226	-1.132	-1.968	-1.946	-1.323	-2.315	-1.859	-2.219	-0.219	-0.234	-0.206
RIGHT	0.336	0.194	0.171	3.231	1.657	1.836	0.478	0.380	0.395	-0.018	-0.154	-0.024
CAPTL	-0.080	-0.080	-0.151	-2.825	-2.945	-3.426	3.372	3.720	3.337	-0.211	-0.544	-0.204
RSTRT	-0.015	-0.221	-0.141	-1.162	-4.271	-2.224	2.707	3.000	2.648	0.210	0.300	0.203
Constant	4.030	6.065	5.326	5.039	7.433	6.981	-5.715	-5.074	-5.015	-3.121	-3.510	-3.063
Obs.	274	274	274	261	261	261	247	247	247	239	239	239
Adj. R^2	0.19	0.16	0.21	0.25	0.16	0.26	0.33	0.32	0.33	0.42	0.41	0.42

Table 5 continues

Table 5 (*continued*)

Panel B Post-Acquisition Volatility

	σ(ROA)$_{(-1,1)}$			σ(ROE)$_{(-1,1)}$			σ(NIR)$_{(-1,1)}$			σ(NTR)$_{(-1,1)}$		
FIO	0.003 **		0.003 *	0.022 ***		0.026 **	0.030 *		0.102 *	0.123		0.114
OCF		0.016 *			0.407 *			0.732			0.929	
FIO*OCF			0.002 *			0.009 *			0.117 *			0.023
EAR	0.017 *	0.019 **	0.018 *	−0.060	−0.037	−0.062	−0.152	−0.168	−0.153	0.260	0.307	0.263
LDR	0.024	0.009	0.030	−0.365	−0.632	−0.390	2.107	2.282	2.277	−0.639	−1.235	−0.583
LLRR	0.112 ***	0.103 ***	0.112 ***	1.363 ***	1.339 ***	1.360 ***	1.259 **	1.329 **	1.184 **	3.398 ***	3.092 ***	3.402 ***
CIR	0.004	0.004 *	0.004 *	0.079 **	0.084 **	0.078 **	0.073	0.072	0.075	0.235 ***	0.247 ***	0.238 ***
VALUE	0.034 ***	0.034 ***	0.034 ***	0.398 **	0.378 **	0.398 **	1.094 ***	1.088 ***	0.993 ***	1.415 ***	1.401 ***	1.415 ***
PBLC	0.057	0.058	0.058	0.777	0.619	0.771	1.606	1.312	1.506	1.365	1.323	1.379
CROSS	0.023	0.013	0.011	0.388	0.160	0.430	0.070	−0.477	−1.257	−0.021	−0.481	−0.175
CASH	−0.021	−0.021	−0.022	−0.825	−0.650	−0.819	0.981	1.221	1.057	0.211	0.239	0.197
OFFCL	−0.005	−0.001	−0.007	−0.382	−0.366	−0.372	−0.055	−0.104	−0.172	−0.559	−0.426	−0.582
INDPD	−0.050	−0.048	−0.052	−1.954	−1.839	−1.948	2.260	2.372	2.176	−0.181	−0.059	−0.201
RIGHT	0.005	0.001	0.010	1.202 *	1.131	1.181	−0.368	−0.348	−0.149	0.577	0.397	0.636
CAPTL	0.050	0.046	0.055	1.051	1.008	1.029	−0.794	−0.754	−0.343	0.468	0.284	0.532
RSTRT	0.033	0.026	0.028	0.343	0.286	0.360	0.917	0.894	0.598	0.994	0.748	0.942
Constant	−0.990 **	−0.976 **	−0.978 **	−7.393	−7.078	−7.394	−3.267 ***	−3.612 ***	−2.948 **	−3.562 **	−3.409 **	−3.440 **
Obs.	554	554	554	537	537	537	528	528	528	503	503	503
Adj. R^2	0.23	0.23	0.227	0.165	0.171	0.165	0.092	0.090	0.105	0.241	0.229	0.240
	σ(ROA)$_{(06,08)}$			σ(ROE)$_{(06,08)}$			σ(NIR)$_{(06,08)}$			σ(NTR)$_{(06,08)}$		
FIO	0.005 *		0.006	0.087 **		0.107 **	0.152		0.197	0.005 *		0.004 *
OCF		0.187			0.268			1.101			0.060	
FIO*OCF			-0.004			-0.094			0.202			0.002
EAR	0.002	0.004	0.001	-0.257	-0.219	-0.273	-0.260	-0.244	-0.292	-0.065	-0.063	-0.065
LDR	-0.628	-0.587	-0.632	-5.518	-4.919	-5.610	5.402	6.020	5.276	0.521	0.479	0.524
LLRR	0.067	0.076	0.063	0.711	0.863	0.619	0.416	0.659	0.193	-0.087	-0.081	-0.086
CIR	0.003	0.004	0.003	0.064	0.079	0.062	0.077	0.089	0.071	-0.017	-0.017	-0.017
VALUE	0.067	0.073	0.064	0.529	0.618	0.461	3.490 ***	3.595 ***	3.345 ***	0.163 ***	0.167 ***	0.163 ***
PBLC	0.063	0.074	0.060	1.543	1.563	1.472	3.450	2.973	3.298	-0.142	-0.139	-0.137
CROSS	-0.899	-0.799	-0.921	-8.320	-6.700	-8.840	0.210	2.121	-0.696	0.359	0.448	0.361
CASH	0.156	0.160	0.158	0.976	1.131	1.026	2.689	2.963	2.806	-0.055	-0.054	-0.055
OFFCL	0.018	0.020	0.018	0.024	0.123	0.027	1.108	1.722	1.137	0.059	0.085	0.058
INDPD	0.180	0.167	0.185	0.863	0.859	0.991	4.111	4.632	4.467	-0.054	-0.052	-0.059
RIGHT	-0.060	-0.063	-0.063	0.136	-0.135	0.060	-1.110	-2.214	-1.350	-0.104	-0.156	-0.101
CAPTL	-0.026	-0.067	-0.021	-0.524	-1.363	-0.392	-5.061	-6.736	-4.792	-0.068	-0.162	-0.068
RSTRT	-0.075	-0.035	-0.082	-0.664	-0.050	-0.828	2.345	2.553	2.029	0.250	0.282 **	0.252
Constant	0.646	0.202	0.756	9.539	3.108	2.054	-8.809	-8.387	-7.023	-3.192	-3.306	-3.213
Obs.	274	274	274	261	261	261	247	247	247	239	239	239
Adj. R^2	0.10	0.10	0.10	0.08	0.08	0.09	0.18	0.16	0.18	0.30	0.30	0.44

Table 5 (*continued*)

Panel C Post-Acquisition Risk

	BETA$_{(-1,1)}$			SPD$_{(-1,1)}$			NPL$_{(-1,1)}$			SPCR$_{(-1,1)}$		
FIO	0.001		0.001	0.042***		0.025**	0.009**		0.009**	−0.020*		−0.018
OCF		0.157			0.275			0.359*			−0.218	
FIO*OCF			0.001			0.082***			0.000			−0.003
EAR	0.035*	0.030	0.034*	0.114	0.153*	0.084	−0.003	−0.002	−0.003	−0.088	−0.081	−0.088
LDR	−0.266	−0.293	−0.258	−2.664**	−2.102*	−2.893**	−0.615**	−0.620**	−0.617**	−2.795***	−2.919***	−2.788***
LLRR	−0.008	−0.018	−0.009	−1.857***	−1.952***	−1.717***	−0.120	−0.142*	−0.120	−0.273	−0.295	−0.276
CIR	0.003	0.003	0.003	−0.017	0.000	−0.001	−0.001	−0.003	−0.001	−0.018	−0.014	−0.018
VALUE	0.002	0.000	0.001	−0.071	−0.025	−0.061	−0.041	−0.042	−0.042	0.437***	0.416***	0.440***
PBLC	0.076	0.038	0.073	−0.555**	−0.450	−0.558*	0.055	0.097	0.055	−0.051	−0.339	−0.049
CROSS	0.265	0.212	0.250	7.465***	7.090***	6.368***	−0.103	0.039	−0.103	0.707	0.315	0.729
CASH	−0.124	−0.087	−0.122	0.215	0.061	0.150	−0.098	−0.127	−0.099	−0.187	0.106	−0.186
OFFCL	−0.072	−0.054	−0.073	−0.591	−0.722*	−0.520	0.002	0.018	0.003	0.037	−0.002	0.042
INDPD	0.228	0.280*	0.239	−1.354	−1.549	−0.870	0.094	0.056	0.093	0.638	0.443	0.634
RIGHT	0.032	−0.026	0.028	1.298**	1.664***	0.947*	−0.107	−0.111	−0.106	−0.134	−0.019	−0.141
CAPTL	−0.024	−0.041	−0.024	1.181	1.330	0.906	0.182	0.168	0.182	−0.338	−0.263	−0.349
RSTRT	0.084*	0.074*	0.082*	0.977***	0.812**	0.857**	0.079	0.099	0.078	−0.227	−0.213	−0.221
Constant	−0.911	−0.745	−0.892	−3.703	−4.689	−2.897	0.033	−0.148	0.043	0.326	0.973	0.274
Obs.	534	534	534	519	519	519	528	528	528	436	436	436
Adj. R2	0.28	0.303	0.281	0.382	0.302	0.472	0.171	0.172	0.171			

	BETA$_{(06,08)}$			SPD$_{(06,08)}$			NPL$_{(06,08)}$			SPCR$_{(06,08)}$		
FIO	0.010*		0.010*	0.252*		0.125	0.022**		0.020**	−0.011		−0.009
OCF		0.079			0.514			0.163**			0.063	
FIO*OCF			-0.007			0.116			0.022*			-0.060
EAR	0.017	0.024	0.016	-4.821	-3.760	-4.420	-0.141	-0.133	-0.139	-0.092	-0.090	-0.093
LDR	0.084	0.047	0.084	1.184**	1.541**	1.009**	-2.967	-2.832	-2.917	-2.122	-2.143	-2.093
LLRR	-0.053	-0.077	-0.055	-1.690	-1.586	-1.431	0.299	0.261	0.283	0.827**	0.810**	0.807**
CIR	0.003	0.002	0.003	0.968	1.279	1.056	-0.022	-0.017	-0.022	-0.022	-0.021	-0.022
VALUE	0.052	0.057	0.049	2.198***	2.409***	2.570***	-0.140	-0.126	-0.138	0.562***	0.552***	0.549***
PBLC	0.128	0.118	0.113	8.254**	9.495**	9.918**	0.605	0.646	0.652	0.305	0.318	0.241
CROSS	-0.064	0.004	-0.073	4.364	1.395	1.921	-3.458	-3.493	-3.440	1.443	1.383	1.379
CASH	-0.136	-0.110	-0.147	-5.562	-4.914	-5.809	0.431	0.358	0.428	0.131	0.132	0.114
OFFCL	-0.029	-0.008	-0.024	5.189	-1.479	1.721	-0.203	-0.194	-0.230	-0.754	-0.793	-0.725
INDPD	-0.016	-0.117	0.004	-6.488	-7.860	-7.343	1.183	0.934	1.111	0.013	-0.013	0.082
RIGHT	0.105	0.091	0.092	2.101	0.830	2.710	-0.056	0.043	-0.001	1.464	1.568	1.409
CAPTL	0.041	-0.028	0.039	-3.917	-3.388	-2.622	0.827	0.817	0.852	2.534	2.689	2.541
RSTRT	-0.001	0.028	-0.010	4.159	5.568**	4.154	-0.438	-0.487	-0.403	-0.031	-0.082	-0.107
Constant	-1.081	-0.871	-0.956	-8.867	-9.559**	-8.238	8.317	8.869	8.006	1.123***	1.036***	1.354***
Obs.	243	243	243	238	238	238	235	235	235	219	219	219
Adj. R2	0.24	0.19	0.25	0.27	0.27	0.27	0.17	0.16	0.17			

Table 5 (*continued*)

Notes: These are fixed effects regressions that control for unobserved and time-invariant firm characteristics. $ROA_{(-1,1)}$ ($ROE_{(-1,1)}$, $NIR_{(-1,1)}$, or $NTR_{(-1,1)}$) is the change in acquirer bank's return on assets (return on equity, net interest revenue, or net trading revenue, respectively) from the previous year before acquisition to the first year after acquisition. $ROA_{(06,08)}$ ($ROE_{(06,08)}$, $NIR_{(06,08)}$, or $NTR_{(06,08)}$) is the change in acquirer bank's return on assets (return on equity, net interest revenue, or net trading revenue, respectively) from 2006, the beginning year of credit crunch, to 2008, the third year of credit crunch. $\sigma(ROA)_{(-1,1)}$ ($\sigma(ROE)_{(-1,1)}$, $\sigma(NIR)_{(-1,1)}$, or $\sigma(NTR)_{(-1,1)}$) is the standard deviation of acquirer bank's yearly return on assets (return on equity, net interest revenue, or net trading revenue, respectively) from the previous year before acquisition to the first year after acquisition. $\sigma(ROA)_{(06,08)}$ ($\sigma(ROE)_{(06,08)}$, $\sigma(NIR)_{(06,08)}$, or $\sigma(NTR)_{(06,08)}$) is the standard deviation of acquirer bank's yearly return on assets (return on equity, net interest revenue, or net trading revenue, respectively) from 2006, the beginning year of credit crunch, to 2008, the third year of credit crunch. $BETA_{(-1,1)}$ ($BETA_{(06,08)}$) is the changes in acquirer bank's yearly beta coefficient from the previous year before acquisition (2006, the beginning year of credit crunch) to the first year after acquisition (2008, the third year of credit crunch). $SPD_{(-1,1)}$ ($SPD_{(06,08)}$) is the changes in acquirer bank's yearly stock price spread from the previous year before acquisition (2006, the beginning year of credit crunch) to the first year after acquisition (2008, the third year of credit crunch). $SPCR_{(-1,1)}$ ($SPCR_{(06,08)}$) is a dummy variable equaling 1 if the acquirer bank's Standard and Poor's credit rating improved from the previous year before acquisition (2006, the beginning year of credit crunch) to the first year after acquisition (2008, the third year of credit crunch), and zero otherwise. $NPL_{(-1,1)}$ ($NPL_{(06,08)}$) is the changes in acquirer bank's yearly nonperforming loan ratio from the previous year before acquisition (2006, the beginning year of credit crunch) to the first year after acquisition (2008, the third year of credit crunch). FIO is the acquirer bank's proportion of share ownership held by financial intermediaries at the acquisition year, including banks, financial company, and insurance company. CIO is the acquirer bank's proportion of share ownership held by capital investors at the acquisition year, including mutual and pension funds, foundation or research institutes, and private equity firms. NFO is the acquirer bank's proportion of share ownership held by non-financial firms at the acquisition year, including industrial and public companies. SO is the acquirer bank's proportion of share ownership held by state or authorities at the acquisition year. OCF is a dummy variable that equals 1 if the acquirer bank's financial intermediary ownership at the acquisition year is larger than 5% and the ownership of others is less than 5%, and zero otherwise. OCC is a dummy variable that equals 1 if the acquirer bank's capital investor ownership at the acquisition year is larger than 5% and the ownership of others is less than 5%, and zero otherwise. OCN is a dummy variable that equals 1 if the acquirer bank's non-financial firm ownership at the acquisition year is larger than 5% and the ownership of others is less than 5%, and zero otherwise. OCS is a dummy variable that equals 1 if the acquirer bank's state ownership at the acquisition year is larger than 5% and the ownership of others is less than 5%, and zero otherwise. EAR is the acquirer bank's ratio of total equity to total assets at the acquisition year. LDR is the acquirer bank's ratio of net loans to total deposit at the acquisition year. LLRR is the acquirer bank's ratio of loan loss reserve to gross loan at the acquisition year. CIR is the acquirer bank's ratio of overhead to the sum of net interest income and net operating income at the acquisition year. VALUE is the ratio of deal value to acquirer total assets at the acquisition year. PBLC is a dummy variable that equals 1 if the deal is public takeover, and zero otherwise. CROSS is a dummy variable that equals 1 if target is foreign companies and zero otherwise. CASH is a dummy variable that equals 1 if the M&A payment is in form of all cash and zero otherwise. OFFC is an index of the power of the commercial bank supervisory agency for the country. INDPD is an index of the degree to which the supervisory authority of the country is independent from the government and legally protected from the banking system. RIGHT is an index of anti-director rights for the country. CAPTL is an index of regulatory oversight of bank capital for the country. RSTRT is an index of regulatory restrictions of the country on banks activity and ability to engage in securities market activities, the insurance business, conduct real estate activities, or own non-financial firms. ***,**, and * indicate significance at 1%, 5%, and 10% levels (two-tailed).

Table 6: Effect of Capital Investor Ownership
Panel A Post-Acquisition Performance

	ROA$_{(-1,1)}$			ROE$_{(-1,1)}$			NIR$_{(-1,1)}$			NTR$_{(-1,1)}$		
CIO	0.002 **		0.002 **	0.028 **		0.036 **	0.033 *		0.033 *	0.027 **		0.015 **
OCC		0.328 *			4.136 *			1.222 **			9.748 *	
FIO*OCC			0.016 *			0.257 *			0.012 **			0.580 *
EAR	–0.037 *	–0.038 *	–0.037 *	–0.148	–0.141	–0.144	–0.222	–0.228	–0.222	–0.303	–0.320	–0.297
LDR	–0.651 **	–0.658 **	–0.661 **	–6.810 **	–7.058 **	–6.931 **	2.872	2.809	2.869	–8.477 **	–8.807 **	–8.813 **
LLRR	0.159 ***	0.152 ***	0.158 ***	1.939 ***	1.879 ***	1.921 ***	–0.312	–0.323	–0.313	5.353 ***	5.179 ***	5.299 ***
CIR	0.003	0.005	0.004	–0.012	0.006	0.002	–0.019	–0.015	–0.019	–0.116	–0.061	–0.078
VALUE	0.044	0.039	0.040	0.609 *	0.520	0.545	0.803	0.786	0.801	1.644 **	1.453 *	1.481 *
PBLC	–0.194 *	–0.148	–0.181 *	–2.202 *	–1.804	–1.974	–1.077	–0.948	–1.064	–5.716 **	–4.448 *	–5.127 **
CROSS	–0.302	–0.256	–0.289	–2.528	–2.048	–2.322	–0.284	–0.329	–0.273	–5.409	–4.545	–4.866
CASH	0.200 *	0.178	0.200 *	3.452 **	3.407 ***	3.429 **	1.812	1.878	1.815	6.033 **	5.638 **	5.895 **
OFFCL	0.069	0.066	0.070	0.805	0.739	0.828	0.104	0.196	0.105	0.761	0.905	0.807
INDPD	–0.385 **	–0.386 **	–0.386 **	–4.068 *	–3.991 *	–4.104 *	0.688	0.600	0.685	–5.892	–6.187	–5.995
RIGHT	0.065	0.072	0.064	1.066	1.151	1.073	–1.081	–1.163	–1.078	1.984	2.064	2.013
CAPTL	0.204	0.210	0.204	1.346	1.372	1.346	0.662	0.659	0.663	3.181	3.201	3.174
RSTRT	–0.129 **	–0.127 **	–0.129 **	–1.306 *	–1.263 *	–1.321 *	0.483	0.454	0.483	–1.363	–1.468	–1.401
Constant	1.055	1.039	1.055	7.529	7.653	7.535	–4.770	–5.021	–4.796	9.384	9.314	9.541
Obs.	554	554	554	537	537	537	528	528	528	503	503	503
Adj. R^2	0.2	0.202	0.202	0.172	0.174	0.176	0.028	0.028	0.028	0.178	0.189	0.186
	ROA$_{(06,08)}$			ROE$_{(06,08)}$			NIR$_{(06,08)}$			NTR$_{(06,08)}$		
CIO	-0.018 ***		-0.018 ***	-0.258 **		-0.255 **	-0.158		-0.136	-0.009 ***		-0.007 **
OCC		-0.122			-0.607 **			1.783			-0.400 **	
FIO*OCC			-0.006			-0.045 *			0.379			-0.029 **
EAR	0.056	0.043	0.056	0.766	0.589	0.768	-0.181	-0.113	-0.197	-0.130 **	-0.128 **	-0.134 **
LDR	0.979	0.935	0.974	7.860	7.473	7.818	-2.948	-2.442	-2.687	1.156	1.196	1.249
LLRR	-0.390	-0.375	-0.392	-4.840	-4.652	-4.854	-3.320 **	-3.666 **	-3.363 **	-0.240	-0.274	-0.249
CIR	0.000	-0.001	0.001	-0.085	-0.096	-0.084	-0.151	-0.163	-0.155	-0.028	-0.030	-0.028
VALUE	0.280	0.281	0.280	2.325	2.294	2.326	2.386 ***	2.338 ***	2.383 **	0.299 ***	0.288 ***	0.299 ***
PBLC	-0.176	-0.248	-0.170	-3.926	-4.677	-3.886	-3.154	-3.680	-3.527	-0.315	-0.354	-0.333
CROSS	1.988	1.890	1.990	1.827	1.852	1.841	1.795	1.062	1.944	0.051	0.141	0.030
CASH	-0.369	-0.352	-0.368	0.016	0.173	0.031	0.163	-0.269	0.091	-0.051	-0.073	-0.054
OFFCL	0.054	0.100	0.058	2.484	3.444	2.509	0.950	0.412	0.873	0.252	0.235	0.243
INDPD	-1.357	-1.377	-1.372	-1.528	-2.066	-1.634	-2.520	-0.989	-2.216	-0.273	-0.176	-0.258
RIGHT	0.378	0.329	0.382	3.836	3.489	3.867	0.073	-0.401	-0.069	-0.149	-0.218	-0.155
CAPTL	-0.082	-0.031	-0.081	-2.817	-2.300	-2.813	4.042	3.324	3.955	-0.505	-0.578	-0.504
RSTRT	-0.058	-0.095	-0.061	-1.837	-2.694	-1.861	2.415	3.262	2.535	0.242	0.301	0.243
Constant	4.621	4.762	4.649	5.782	7.520	5.986	-5.119	-5.851	-5.429	-3.291	-3.294	-3.320
Obs.	274	274	274	261	261	261	247	247	247	239	239	239
Adj. R^2	0.15	0.15	0.15	0.14	0.14	0.14	0.33	0.34	0.34	0.42	0.42	0.42

Table 6 continues

Table 6 (*continued*)

Panel B Post-Acquisition Volatility

	σ(ROA)$_{(-1,1)}$			σ(ROE)$_{(-1,1)}$			σ(NIR)$_{(-1,1)}$			σ(NTR)$_{(-1,1)}$		
CIO	0.001 *		0.001 *	0.009 **		0.010 **	0.014		0.029	0.062		0.069
OCC		0.101 *			1.139 *			5.645 **			4.664 **	
FIO*OCC			0.005 *			0.048 *			0.394 *			0.310 *
EAR	0.018 *	0.018 *	0.018 *	−0.053	−0.040	−0.053	−0.159	−0.176	−0.169	0.317	0.307	0.321
LDR	0.013	0.015	0.016	−0.408	−0.537	−0.372	2.282	2.330	2.402	−1.074	−0.815	−0.821
LLRR	0.102 ***	0.104 ***	0.103 ***	1.300 ***	1.350 ***	1.306 ***	1.331 **	1.353 **	1.351 **	3.056 ***	3.132 ***	3.086 ***
CIR	0.004 *	0.004	0.004	0.081 **	0.074 **	0.077 **	0.072	0.056	0.059	0.241 ***	0.221 ***	0.222 ***
VALUE	0.034 ***	0.036 ***	0.036 ***	0.403 **	0.402 **	0.418 **	1.103 ***	1.150 ***	1.158 ***	1.427 ***	1.485 ***	1.512 ***
PBLC	0.062	0.050	0.057	0.798	0.557	0.754	1.432	0.828	1.012	1.512	0.980	1.221
CROSS	0.014	0.011	0.010	0.366	0.194	0.326	−0.114	−0.675	−0.429	0.158	−0.490	−0.058
CASH	−0.026	−0.023	−0.025	−0.868	−0.656	−0.851	1.110	0.914	1.021	0.026	0.170	0.104
OFFCL	0.001	−0.001	0.001	−0.380	−0.363	−0.385	−0.128	−0.077	−0.153	−0.593	−0.436	−0.626
INDPD	−0.053	−0.048	−0.052	−1.939	−1.893	−1.925	2.327	2.489	2.440	−0.060	−0.131	−0.007
RIGHT	0.000	0.001	0.000	1.207 *	1.156	1.207 *	−0.277	−0.536	−0.345	0.615	0.449	0.631
CAPTL	0.045	0.044	0.045	1.025	0.986	1.020	−0.809	−0.935	−0.840	0.321	0.201	0.297
RSTRT	0.025	0.028	0.026	0.319	0.316	0.324	0.962	0.907	0.943	0.921	0.827	0.952
Constant	−0.978 **	−0.974 **	−0.980 **	−7.380	−7.123	−7.427	−3.316 ***	−3.649 ***	−3.494 ***	−3.297 ***	−3.948 ***	−3.628 ***
Obs.	554	554	554	537	537	537	528	528	528	503	503	503
Adj. R^2	0.229	0.229	0.23	0.170	0.167	0.170	0.09	0.11	0.101	0.225	0.222	0.226
	σ(ROA)$_{(06,08)}$			σ(ROE)$_{(06,08)}$			σ(NIR)$_{(06,08)}$			σ(NTR)$_{(06,08)}$		
CIO	0.004		0.002	0.090 **		0.063 **	−0.054		−0.100	0.005 *		0.005 *
OCC		0.217			1.058 *			0.298			0.208	
FIO*OCC			0.030			0.463			0.812			0.013
EAR	0.000	0.001	−0.001	−0.293	−0.266	−0.312	−0.214	−0.287	−0.247	−0.068	−0.067	−0.070
LDR	−0.604	−0.592	−0.587	−5.072	−4.897	−4.810	6.145	7.003	6.651	0.492	0.514	0.532
LLRR	0.079	0.067	0.073	0.948	0.697	0.860	0.720	0.253	0.549	−0.075	−0.093	−0.079
CIR	0.003	0.002	0.002	0.071	0.056	0.060	0.095	0.049	0.076	−0.017	−0.018	−0.016
VALUE	0.072	0.068	0.068	0.610	0.533	0.562	3.627 ***	3.486 ***	3.544 ***	0.170 ***	0.165 ***	0.170 ***
PBLC	0.050	0.027	0.019	1.291	0.835	0.802	3.313	2.084	2.454	−0.143	−0.166	−0.149
CROSS	−0.860	−0.830	−0.851	−7.698	−7.058	−7.562	2.226	3.150	2.595	0.406	0.454	0.406
CASH	0.166	0.143	0.151	1.175	0.780	0.945	2.678	2.016	2.281	−0.061	−0.073	−0.064
OFFCL	0.046	0.032	0.039	0.568	0.261	0.466	1.506	1.625	1.342	0.104	0.093	0.101
INDPD	0.167	0.212	0.192	0.576	1.536	0.949	4.311	5.562	5.015	−0.076	−0.020	−0.069
RIGHT	−0.091	−0.110	−0.106	−0.446	−0.837	−0.674	−1.686	−3.167	−2.138	−0.156	−0.191	−0.157
CAPTL	−0.067	−0.087	−0.074	−1.236	−1.680	−1.345	−6.637	−7.142	−6.835	−0.143	−0.183	−0.146
RSTRT	−0.077	−0.055	−0.068	−0.742	−0.249	−0.609	2.586	3.095	2.840	0.249	0.281 **	0.251
Constant	0.605	0.641	0.684	8.912	9.176	10.130	−2.779	−1.525	−1.020	−3.152	−3.181	−3.186
Obs.	274	274	274	261	261	261	247	247	247	239	239	239
Adj. R^2	0.10	0.10	0.11	0.08	0.09	0.10	0.16	0.19	0.18	0.44	0.44	0.44

Table 6 (*continued*)

Panel C Post-Acquisition Risk

	BETA$_{(-1,1)}$			SPD$_{(-1,1)}$			NPL$_{(-1,1)}$			SPCR$_{(-1,1)}$		
CIO	0.007 *		0.006 *	0.025 **		0.025 **	0.003		0.005	−0.004		−0.002
OCC		0.128			0.016			0.303 *			−0.362 **	
FIO*OCC			0.016			−0.006			0.026 *			−0.084 *
EAR	0.038 **	0.036 *	0.039 **	0.174 *	0.159 *	0.173 *	0.000	−0.003	0.000	−0.090	−0.083	−0.096
LDR	−0.244	−0.280	−0.270	−2.118 *	−1.859	−2.154 *	−0.665 **	−0.626 **	−0.650 **	−2.887 ***	−2.920 ***	−2.861 ***
LLRR	−0.017	−0.012	−0.023	−1.882 ***	−1.949 ***	−1.889 ***	−0.124	−0.120	−0.119	−0.323	−0.285	−0.302
CIR	0.004	0.004	0.004	−0.005	−0.002	−0.004	−0.001	−0.002	−0.002	−0.014	−0.015	−0.017
VALUE	0.004	0.004	0.003	−0.047	−0.026	−0.048	−0.044	−0.040	−0.038	0.434 ***	0.425 ***	0.448 ***
PBLC	0.074	0.069	0.092	−0.457	−0.407	−0.454	0.061	0.049	0.040	−0.169	−0.357	−0.264
CROSS	0.278	0.239	0.280	7.346 ***	7.119 ***	7.339 ***	−0.056	−0.095	−0.086	0.581	0.314	0.492
CASH	−0.108	−0.087	−0.115	0.164	0.051	0.161	−0.107	−0.129	−0.104	−0.089	0.079	−0.100
OFFCL	−0.078	−0.066	−0.075	−0.878 **	−0.740 *	−0.875 **	−0.002	0.010	−0.004	0.039	−0.002	0.032
INDPD	0.246	0.241	0.223	−1.289	−1.662	−1.301	0.140	0.136	0.146	0.224	0.495	0.296
RIGHT	0.023	0.014	0.031	1.746 ***	1.760 ***	1.745 ***	−0.121	−0.135	−0.119	0.052	−0.044	0.027
CAPTL	−0.027	−0.028	−0.018	1.457	1.401	1.453	0.166	0.167	0.167	−0.207	−0.313	−0.229
RSTRT	0.090 **	0.081 *	0.086 *	0.939 **	0.802 **	0.936 **	0.086	0.079	0.087	−0.233	−0.202	−0.236
Constant	−1.003	−0.960	−0.955	−5.697	−4.835	−5.619	−0.064	−0.054	−0.069	0.841	0.888	0.903
Obs.	534	534	534	519	519	519	528	528	528	436	436	436
Adj. R^2	0.294	0.292	0.303	0.299	0.293	0.300	0.169	0.180	0.179			
	BETA$_{(06,08)}$			SPD$_{(06,08)}$			NPL$_{(06,08)}$			SPCR$_{(06,08)}$		
CIO	0.022 *		0.020 *	1.255 ***		1.213 ***	0.036		0.045	-0.041		-0.036
OCC		0.390			2.668			1.539			-0.366	
FIO*OCC			0.007			0.719			0.152			-0.093
EAR	0.001	0.015	0.001	-3.876	-4.536	-3.847	-0.152	-0.122	-0.143	-0.105	-0.094	-0.116
LDR	-0.166	0.080	-0.142	1.589 **	1.371 **	1.118 **	-2.834	-3.062	-2.995	-2.408	-2.131	-2.270
LLRR	-0.072	-0.064	-0.068	-1.812	-2.005	-1.738	0.358	0.345	0.274	0.850 **	0.800 **	0.863 **
CIR	0.002	0.000	0.002	1.080	1.026	1.086	-0.021	-0.011	-0.019	-0.023	-0.024	-0.027
VALUE	0.063	0.052	0.063	2.485 ***	2.736 ***	2.492 ***	-0.158	-0.122	-0.156	0.582 ***	0.546 ***	0.581 ***
PBLC	0.040	0.067	0.035	1.756 **	4.540 **	2.457 **	0.456	0.792	0.613	0.243	0.272	0.130
CROSS	-0.095	-0.034	-0.093	1.303	1.326	1.052	-3.673	-3.644	-3.627	1.400	1.356	1.401
CASH	-0.056	-0.138	-0.056	-3.128	-4.567	-3.007	0.473	0.509	0.507	0.187	0.081	0.142
OFFCL	0.089	0.003	0.085	2.654	4.576	2.810	-0.116	-0.139	-0.045	-0.643	-0.783	-0.668
INDPD	-0.158	-0.040	-0.145	-6.337	-5.899	-6.901	1.273	0.686	0.890	-0.046	-0.004	-0.024
RIGHT	-0.006	0.030	-0.006	2.565	2.114	2.813	-0.209	0.180	-0.103	1.391	1.532	1.417
CAPTL	-0.039	-0.070	-0.040	-3.199	-3.091	-3.038	1.036	0.824	1.033	2.747	2.663	2.857
RSTRT	-0.022	0.026	-0.019	4.240	4.854	3.012	-0.534	-0.604	-0.606	-0.134	-0.098	-0.182
Constant	-0.523	-0.598	-0.564	-3.373	-2.767	-2.836	7.996	9.486	8.895	1.733 ***	1.456 ***	1.299 ***
Obs.	243	243	243	238	238	238	235	235	235	219	219	219
Adj. R^2	0.26	0.24	0.27	0.27	0.26	0.27	0.17	0.19	0.20			

Table 6 continues

Table 6 (*continued*)

Notes: These are fixed effects regressions that control for unobserved and time-invariant firm characteristics. $ROA_{(-1,1)}$ ($ROE_{(-1,1)}$, $NIR_{(-1,1)}$, or $NTR_{(-1,1)}$) is the change in acquirer bank's return on assets (return on equity, net interest revenue, or net trading revenue respectively) from the previous year before acquisition to the first year after acquisition. $ROA_{(06,08)}$ ($ROE_{(06,08)}$, $NIR_{(06,08)}$, or $NTR_{(06,08)}$) is the change in acquirer bank's return on assets (return on equity, net interest revenue, or net trading revenue, respectively) from 2006, the beginning year of credit crunch, to 2008, the third year of credit crunch. $\sigma(ROA)_{(-1,1)}$ ($\sigma(ROE)_{(-1,1)}$, $\sigma(NIR)_{(-1,1)}$, or $\sigma(NTR)_{(-1,1)}$) is the standard deviation of acquirer bank's yearly return on assets (return on equity, net interest revenue, or net trading revenue, respectively) from the previous year before acquisition to the first year after acquisition. $\sigma(ROA)_{(06,08)}$ ($\sigma(ROE)_{(06,08)}$, $\sigma(NIR)_{(06,08)}$, or $\sigma(NTR)_{(06,08)}$) is the standard deviation of acquirer bank's yearly return on assets (return on equity, net interest revenue, or net trading revenue respectively) from 2006, the beginning year of credit crunch, to 2008, the third year of credit crunch. $BETA_{(-1,1)}$ ($BETA_{(06,08)}$) is the changes in acquirer bank's yearly beta coefficient from the previous year before acquisition (2006, the beginning year of credit crunch) to the first year after acquisition (2008, the third year of credit crunch). $SPD_{(-1,1)}$ ($SPD_{(06,08)}$) is the changes in acquirer bank's yearly stock price spread from the previous year before acquisition (2006, the beginning year of credit crunch) to the first year after acquisition (2008, the third year of credit crunch). $SPCR_{(-1,1)}$ ($SPCR_{(06,08)}$) is a dummy variable equaling 1 if the acquirer bank's Standard and Poor's credit rating improved from the previous year before acquisition (2006, the beginning year of credit crunch) to the first year after acquisition (2008, the third year of credit crunch), and zero otherwise. $NPL_{(-1,1)}$ ($NPL_{(06,08)}$) is the changes in acquirer bank's yearly nonperforming loan ratio from the previous year before acquisition (2006, the beginning year of credit crunch) to the first year after acquisition (2008, the third year of credit crunch). FIO is the acquirer bank's proportion of share ownership held by financial intermediaries at the acquisition year, including banks, financial company, and insurance company. CIO is the acquirer bank's proportion of share ownership held by capital investors at the acquisition year, including mutual and pension funds, foundation or research institutes, and private equity firms. NFO is the acquirer bank's proportion of share ownership held by non-financial firms at the acquisition year, including industrial and public companies. SO is the acquirer bank's proportion of share ownership held by state or authorities at the acquisition year. OCF is a dummy variable that equals 1 if the acquirer bank's financial intermediary ownership at the acquisition year is larger than 5% and the ownership of others is less than 5%, and zero otherwise. OCC is a dummy variable that equals 1 if the acquirer bank's capital investor ownership at the acquisition year is larger than 5% and the ownership of others is less than 5%, and zero otherwise. OCN is a dummy variable that equals 1 if the acquirer bank's non-financial firm ownership at the acquisition year is larger than 5% and the ownership of others is less than 5%, and zero otherwise. OCS is a dummy variable that equals 1 if the acquirer bank's state ownership at the acquisition year is larger than 5% and the ownership of others is less than 5%, and zero otherwise. EAR is the acquirer bank's ratio of total equity to total assets at the acquisition year. LDR is the acquirer bank's ratio of net loans to total deposit at the acquisition year. LLRR is the acquirer bank's ratio of loan loss reserve to gross loan at the acquisition year. CIR is the acquirer bank's ratio of overhead to the sum of net interest income and net operating income at the acquisition year. VALUE is the ratio of deal value to acquirer total assets at the acquisition year. PBLC is a dummy variable that equals 1 if the deal is public takeover, and zero otherwise. CROSS is a dummy variable that equals 1 if target is foreign companies and zero otherwise. CASH is a dummy variable that equals 1 if the M&A payment is in form of all cash and zero otherwise. OFFC is an index of the power of the commercial bank supervisory agency for the country. INDPD is an index of the degree to which the supervisory authority of the country is independent from the government and legally protected from the banking system. RIGHT is an index of anti-director rights for the country. CAPTL is an index of regulatory oversight of bank capital for the country. RSTRT is an index of regulatory restrictions of the country on banks activity and ability to engage in securities market activities, the insurance business, conduct real estate activities, or own non-financial firms. . ***,**, and * indicate significance at 1%, 5%, and 10% levels (two-tailed).

Table 7: Effect of Non-financial Firm Ownership
Panel A Post-Acquisition Performance

	ROA$_{(-1,1)}$			ROE$_{(-1,1)}$			NIR$_{(-1,1)}$			NTR$_{(-1,1)}$		
NFO	−0.011 **		−0.013 **	−0.189 **		−0.212 **	−0.054		−0.055	−0.241 **		−0.299 **
OCN		−0.178			−0.548 *			0.363			−7.279	
NFO*OCN			−0.013			−0.131 *			0.002			−0.334
EAR	−0.041 *	−0.039 *	−0.041 *	−0.156	−0.156	−0.152	−0.215	−0.232	−0.215	−0.482	−0.369	−0.470
LDR	−0.642 **	−0.628 **	−0.627 **	−6.068 *	−6.850 **	−5.918 *	3.459	2.789	3.456	−8.683 **	−7.920 **	−8.323 **
LLRR	0.146 **	0.153 ***	0.138 **	1.484 **	1.909 ***	1.408 **	−0.470	−0.317	−0.469	5.148 ***	5.213 ***	4.963 ***
CIR	0.004	0.003	0.003	−0.004	−0.012	−0.013	−0.034	−0.017	−0.033	−0.114	−0.127	−0.135
VALUE	0.048	0.045	0.048	0.603 *	0.589 *	0.604 *	0.813	0.797	0.813	1.709 **	1.634 **	1.714 **
PBLC	−0.183 *	−0.168 *	−0.182 *	−2.201 *	−2.095 *	−2.193 *	−0.677	−1.075	−0.677	−5.449 **	−5.261 **	−5.424 **
CROSS	−0.482	−0.281	−0.494	−4.930	−2.331	−5.052	−1.539	−0.429	−1.537	−9.915	−5.383	−10.183
CASH	0.151	0.165	0.152	2.969 **	3.284 **	2.973 **	1.742	1.833	1.742	4.955 *	5.419 *	4.961 *
OFFCL	0.070	0.066	0.075	1.181	0.739	1.231 *	0.249	0.200	0.248	0.730	0.900	0.857
INDPD	−0.338 *	−0.387 **	−0.333 *	−2.936	−3.968 *	−2.896	0.566	0.632	0.565	−5.066	−6.069	−4.983
RIGHT	0.040	0.071	0.030	−0.617	1.109	−0.710	−1.220	−1.205	−1.219	1.698	1.931	1.483
CAPTL	0.253	0.209	0.261	2.173	1.359	2.259	0.030	0.635	0.029	4.903	3.231	5.115
RSTRT	−0.170 ***	−0.128 **	−0.176 ***	−1.999 ***	−1.262 *	−2.058 ***	0.317	0.443	0.318	−2.335	−1.456	−2.478
Constant	1.278	1.077	1.325	1.249	1.950	1.733	−1.045	−1.727	−1.054	1.973	1.723	1.972
Obs.	554	554	554	537	537	537	528	528	528	503	503	503
Adj. R^2	0.236	0.201	0.239	0.226	0.170	0.229	0.029	0.028	0.029	0.219	0.180	0.222
	ROA$_{(06,08)}$			ROE$_{(06,08)}$			NIR$_{(06,08)}$			NTR$_{(06,08)}$		
NFO	0.041		0.067	0.352 **		0.424 **	0.163 ***		0.265 ***	0.049		0.048
OCN		2.057			1.815			1.789 *			0.007	
NFO*OCN			0.030			0.084			0.500			0.004
EAR	0.049	0.042	0.051	0.617	0.582	0.621	-0.060	-0.038	-0.020	-0.118	-0.121	-0.112
LDR	1.109	0.829	1.214	8.232	6.608	8.532	-3.063	-2.413	-1.738	1.301	1.114	1.353
LLRR	-0.332	-0.278	-0.337	-3.899	-3.830	-3.912	-3.555 **	-3.622 **	-3.611 **	-0.253	-0.252	-0.255
CIR	0.006	0.007	0.005	-0.029	-0.031	-0.031	-0.175	-0.188	-0.182	-0.026	-0.029	-0.037
VALUE	0.292 **	0.287	0.295 **	2.394	2.344	2.402	2.391 ***	2.350 **	2.280 **	0.273 **	0.291 ***	0.263 **
PBLC	-0.220	-0.213	-0.232	-4.526	-4.423	-4.558	-2.821	-2.931	-3.094	-0.352	-0.320	-0.373
CROSS	2.239	1.893	2.183	1.250	1.890	1.099	1.215	1.838	1.992	-0.042	0.121	-0.033
CASH	-0.410	-0.396	-0.412	-0.412	-0.261	-0.423	0.497	0.606	0.580	-0.038	-0.035	-0.045
OFFCL	0.166	0.081	0.199	3.770	3.266	3.864	0.228	0.456	0.796	0.287	0.229	0.253
INDPD	-1.053	-1.249	-1.042	-1.112	-1.885	-1.082	-1.436	-1.263	-1.297	-0.235	-0.216	-0.232
RIGHT	0.128	0.335	0.079	2.509	3.503	2.372	0.260	-0.143	-0.524	-0.230	-0.167	-0.233
CAPTL	0.196	0.010	0.288	-0.550	-1.949	-0.291	3.189	3.780	4.699	-0.363	-0.543	-0.354
RSTRT	-0.106	-0.110	-0.138	-3.109	-2.801	-3.199	3.345	3.121	2.669	0.201	0.288	0.215
Constant	2.221	4.067	1.948	5.313	4.490	5.532	-5.435	-5.361	-5.472	-3.621	-3.385	-3.036
Obs.	274	274	274	261	261	261	247	247	247	239	239	239
Adj. R^2	0.18	0.16	0.18	0.15	0.16	0.15	0.33	0.33	0.33	0.42	0.41	0.42

Table 7 continues

Table 7 (*continued*)

Panel B Post-Acquisition Volatility

	σ(ROA)(−1,1)			σ(ROE)(−1,1)			σ(NIR)(−1,1)			σ(NTR)(−1,1)		
NFO	−0.001		−0.002	−0.036		−0.046	−0.046		−0.055	0.002		−0.015
OCN		0.057			−0.059			−0.122			2.962	
NFO*OCN			0.003			0.060			0.048			0.092
EAR	0.019 *	0.019 **	0.019 *	−0.064	−0.037	−0.066	−0.146	−0.162	−0.146	0.319	0.311	0.317
LDR	0.045	0.008	0.044	−0.967	−0.599	−1.004	2.475	2.239	2.411	−0.308	−1.273	−0.362
LLRR	0.098 ***	0.103 ***	0.100 ***	1.454 ***	1.329 ***	1.483 ***	1.300 **	1.331 **	1.331 **	2.925 ***	3.097 ***	2.972 ***
CIR	0.004	0.004 *	0.004	0.075 **	0.081 **	0.077 **	0.067	0.073	0.070	0.235 ***	0.246 ***	0.240 ***
VALUE	0.033 ***	0.034 ***	0.033 ***	0.389 **	0.378 **	0.388 **	1.104 ***	1.098 ***	1.107 ***	1.395 ***	1.407 ***	1.394 ***
PBLC	0.067	0.058	0.067	0.705	0.653	0.703	1.557	1.387	1.556	1.533	1.369	1.525
CROSS	−0.021	0.017	−0.019	−0.734	0.270	−0.698	−0.906	−0.253	−0.840	−1.751	−0.247	−1.682
CASH	−0.029	−0.022	−0.029	−0.744	−0.656	−0.744	1.166	1.170	1.158	0.021	0.216	0.016
OFFCL	0.005	−0.001	0.003	−0.622	−0.359	−0.645	−0.111	−0.092	−0.130	−0.163	−0.418	−0.201
INDPD	−0.033	−0.050	−0.034	−1.761	−1.926	−1.774	2.373	2.341	2.341	0.309	−0.209	0.283
RIGHT	−0.033	0.002	−0.031	1.566 *	1.165	1.598 *	−0.434	−0.351	−0.382	−0.520	0.462	−0.462
CAPTL	0.048	0.045	0.047	1.022	1.006	0.994	−1.188	−0.834	−1.218	0.142	0.253	0.096
RSTRT	0.021	0.027	0.023	0.269	0.307	0.292	0.912	0.947	0.937	0.526	0.799	0.565
Constant	−0.887 *	−0.982 **	−0.894 **	−5.108	−7.111	−5.196	−3.917 **	−3.185 ***	−3.191 **	−3.614 ***	−3.900 ***	−3.870 ***
Obs.	554	554	554	537	537	537	528	528	528	503	503	503
Adj. R^2	0.240	0.229	0.240	0.187	0.168	0.187	0.091	0.090	0.091	0.242	0.228	0.242
	σ(ROA)(06,08)			σ(ROE)(06,08)			σ(NIR)(06,08)			σ(NTR)(06,08)		
NFO	-0.017		-0.039	-0.101 *		-0.362 *	-0.194 *		-0.277	-0.028		-0.022
OCN		-0.756			-3.193			-0.113			0.003	
NFO*OCN			-0.026			-0.306			-0.097			0.005
EAR	0.001	0.004	-0.001	-0.251	-0.232	-0.277	-0.219	-0.208	-0.228	-0.061	-0.063	-0.064
LDR	-0.695	-0.582	-0.762	-5.818	-5.057	-6.617	6.155	6.600	5.903	0.579	0.473	0.532
LLRR	0.091	0.067	0.094	0.989	0.808	1.025	0.501	0.523	0.513	-0.083	-0.082	-0.024
CIR	0.001	0.001	0.001	0.063	0.063	0.066	0.054	0.061	0.055	-0.016	-0.017	-0.016
VALUE	0.075	0.071	0.080	0.609	0.589	0.669	3.661 ***	3.615 ***	3.680 ***	0.157 ***	0.166 ***	0.154 ***
PBLC	0.058	0.052	0.069	1.322	1.288	1.449	3.217	3.119	3.257	-0.167	-0.150	-0.167
CROSS	-0.993	-0.846	-0.932	-8.432	-7.163	-7.705	3.267	2.624	3.496	0.354	0.440	0.353
CASH	0.179	0.182	0.173	1.258	1.262	1.189	3.172	3.154	3.151	-0.055	-0.051	-0.056
OFFCL	-0.013	0.033	-0.042	-0.017	0.295	-0.365	1.421	1.669	1.312	0.124	0.090	0.154
INDPD	0.138	0.209	0.131	0.714	1.246	0.630	4.894	4.839	4.868	-0.051	-0.040	-0.026
RIGHT	-0.005	-0.103	0.035	0.174	-0.520	0.650	-2.126	-2.375	-1.975	-0.201	-0.165	-0.285
CAPTL	-0.121	-0.073	-0.197	-1.721	-1.472	-2.624	-7.303	-6.641	-7.588	-0.061	-0.163	-0.073
RSTRT	-0.058	-0.058	-0.023	-0.405	-0.359	0.001	3.153	2.816	3.281	0.225	0.274 **	0.221
Constant	1.237	0.589	1.361	1.281	1.350	1.755	-3.957	-4.863	-3.492	-3.380	-3.219	-3.832
Obs.	274	274	274	261	261	261	247	247	247	239	239	239
Adj. R^2	0.11	0.11	0.12	0.08	0.07	0.08	0.17	0.17	0.17	0.44	0.43	0.44

Table 7 (*continued*)

Panel C Post-Acquisition Risk

	BETA$_{(-1,1)}$			SPD$_{(-1,1)}$			NPL$_{(-1,1)}$			SPCR$_{(-1,1)}$		
NFO	0.015		0.014	0.017		0.025	0.007		0.007	−0.043		−0.013
OCN		0.181			−0.020			0.488			0.000	
NFO*OCN			0.009			−0.057			−0.003			0.000
EAR	0.038 **	0.035 *	0.038 **	0.164 *	0.161 *	0.168 *	0.003	−0.002	0.003	−0.054	−0.080	−0.057
LDR	−0.251	−0.310	−0.268	−1.744	−1.820	−1.668	−0.645 **	−0.671 **	−0.641 **	−2.879 ***	−2.816 ***	−2.807 ***
LLRR	−0.023	−0.008	−0.022	−2.027 ***	−1.948 ***	−2.076 ***	−0.157 *	−0.121	−0.161 *	−0.439	−0.315	−0.478
CIR	0.005	0.004	0.005	−0.002	−0.002	−0.004	0.001	0.000	0.000	−0.014	−0.018	−0.015
VALUE	0.005	0.006	0.006	−0.027	−0.026	−0.027	−0.041	−0.043	−0.041	0.444 ***	0.417 ***	0.437 ***
PBLC	0.025	0.041	0.020	−0.405	−0.402	−0.399	0.057	0.067	0.057	−0.344	−0.320	−0.355
CROSS	0.230	0.231	0.227	7.343 ***	7.128 ***	7.305 ***	−0.072	−0.064	−0.076	1.138	0.309	1.113
CASH	−0.072	−0.073	−0.065	0.051	0.052	0.050	−0.105	−0.118	−0.105	0.224	0.102	0.216
OFFCL	−0.064	−0.063	−0.064	−0.644	−0.741 *	−0.620	0.044	0.009	0.045	0.039	−0.005	0.073
INDPD	0.231	0.255 *	0.230	−1.734 *	−1.664	−1.753 *	0.092	0.130	0.090	0.381	0.471	0.343
RIGHT	0.028	0.002	0.029	1.653 ***	1.764 ***	1.636 ***	−0.134	−0.130	−0.135	0.011	−0.044	−0.017
CAPTL	−0.003	−0.038	−0.003	1.536	1.404	1.575	0.132	0.163	0.135	−0.362	−0.279	−0.310
RSTRT	0.072	0.081 *	0.071	0.774 **	0.800 **	0.744 **	0.054	0.080	0.052	−0.115	−0.201	−0.138
Constant	−1.115	−0.923	−1.104	−5.582	−4.905	−5.491	−0.034	−0.094	−0.017	−0.730	1.086	−0.655
Obs.	534	534	534	519	519	519	528	528	528	436	436	436
Adj. R^2	0.304	0.289	0.304	0.298	0.292	0.301	0.174	0.176	0.174			

	BETA$_{(06,08)}$			SPD$_{(06,08)}$			NPL$_{(06,08)}$			SPCR$_{(06,08)}$		
NFO	-0.024		-0.022	-0.626		-7.498	-0.024 **		-0.036 **	-0.322 **		-0.370 **
OCN		-0.002 ***			-2.686			-1.516 *			-1.299	
NFO*OCN			-0.003 ***			-8.032			-0.066 *			-0.734
EAR	0.017	0.023	0.031	-4.388	-4.548	-3.758	-0.133	-0.132	-0.131	-0.103	-0.084	-0.104
LDR	-0.165	0.047	-0.168	1.846 **	1.850 **	1.089 **	-2.808	-2.777	-2.749	-4.090 **	-2.053	-4.093 **
LLRR	-0.059	-0.078	-0.059	-2.868	-2.506	-2.765	0.219	0.157	0.090	0.896 **	0.804 **	0.890 **
CIR	0.000	0.001	0.003	1.009	0.907	0.896	-0.023	-0.024	-0.023	-0.035	-0.026	-0.023
VALUE	0.060	0.054	0.062	2.674 ***	2.724 ***	2.876 **	0.127	0.121	0.113	0.719 ***	0.550 ***	0.816 ***
PBLC	0.118	0.103	0.127	8.604 **	8.459 **	7.228 **	0.607	0.605	0.605	0.549	0.323	0.577
CROSS	-0.044	-0.012	-0.046	9.199	7.921	9.559	-3.397	-3.299	-3.200	1.905	1.323	1.504
CASH	-0.121	-0.116	-0.121	-4.356	-4.487	-4.989	0.407	0.409	0.402	0.297	0.165	0.263
OFFCL	-0.037	-0.002	-0.031	7.913	4.463	7.024	-0.178	-0.147	-0.107	-1.171 **	-0.797	-1.372 **
INDPD	-0.123	-0.099	-0.123	-5.560	-5.439	-4.351	0.903	0.881	0.869	-0.037	0.001	-0.031
RIGHT	0.131	0.077	0.129	1.832	1.912	-1.740	0.024	-0.012	-0.063	1.699	1.563	1.640
CAPTL	-0.111	-0.028	-0.132	-3.957	-3.285	-1.716	0.719	0.759	0.830	1.410	2.733	1.422
RSTRT	0.048	0.017	0.040	4.154	4.259	3.299	-0.475	-0.475	-0.483	0.583	-0.107	0.548
Constant	-0.202	-0.692	-0.083	-0.861	-3.677	-1.623 **	9.562	9.250	8.750	-0.322 **	-1.299	-0.375 **
Obs.	243	243	243	238	238	238	235	235	235	219	219	219
Adj. R^2	0.22	0.19	0.22	0.26	0.26	0.27	0.17	0.17	0.17			

Table 7 (*continued*)

Notes: These are fixed effects regressions that control for unobserved and time-invariant firm characteristics. $ROA_{(-1,1)}$ ($ROE_{(-1,1)}$, $NIR_{(-1,1)}$, or $NTR_{(-1,1)}$) is the change in acquirer bank's return on assets (return on equity, net interest revenue, or net trading revenue, respectively) from the previous year before acquisition to the first year after acquisition. $ROA_{(06,08)}$ ($ROE_{(06,08)}$, $NIR_{(06,08)}$, or $NTR_{(06,08)}$) is the change in acquirer bank's return on assets (return on equity, net interest revenue, or net trading revenue respectively) from 2006, the beginning year of credit crunch, to 2008, the third year of credit crunch. $\sigma(ROA)_{(-1,1)}$ ($\sigma(ROE)_{(-1,1)}$, $\sigma(NIR)_{(-1,1)}$, or $\sigma(NTR)_{(-1,1)}$) is the standard deviation of acquirer bank's yearly return on assets (return on equity, net interest revenue, or net trading revenue, respectively) from the previous year before acquisition to the first year after acquisition. $\sigma(ROA)_{(06,08)}$ ($\sigma(ROE)_{(06,08)}$, $\sigma(NIR)_{(06,08)}$, or $\sigma(NTR)_{(06,08)}$) is the standard deviation of acquirer bank's yearly return on assets (return on equity, net interest revenue, or net trading revenue, respectively) from 2006, the beginning year of credit crunch, to 2008, the third year of credit crunch. $BETA_{(-1,1)}$ ($BETA_{(06,08)}$) is the changes in acquirer bank's yearly beta coefficient from the previous year before acquisition (2006, the beginning year of credit crunch) to the first year after acquisition (2008, the third year of credit crunch). $SPD_{(-1,1)}$ ($SPD_{(06,08)}$) is the changes in acquirer bank's yearly stock price spread from the previous year before acquisition (2006, the beginning year of credit crunch) to the first year after acquisition (2008, the third year of credit crunch). $SPCR_{(-1,1)}$ ($SPCR_{(06,08)}$) is a dummy variable equaling 1 if the acquirer bank's Standard and Poor's credit rating improved from the previous year before acquisition (2006, the beginning year of credit crunch) to the first year after acquisition (2008, the third year of credit crunch), and zero otherwise. $NPL_{(-1,1)}$ ($NPL_{(06,08)}$) is the changes in acquirer bank's yearly nonperforming loan ratio from the previous year before acquisition (2006, the beginning year of credit crunch) to the first year after acquisition (2008, the third year of credit crunch). FIO is the acquirer bank's proportion of share ownership held by financial intermediaries at the acquisition year, including banks, financial company, and insurance company. CIO is the acquirer bank's proportion of share ownership held by capital investors at the acquisition year, including mutual and pension funds, foundation or research institutes, and private equity firms. NFO is the acquirer bank's proportion of share ownership held by non-financial firms at the acquisition year, including industrial and public companies. SO is the acquirer bank's proportion of share ownership held by state or authorities at the acquisition year. OCF is a dummy variable that equals 1 if the acquirer bank's financial intermediary ownership at the acquisition year is larger than 5% and the ownership of others is less than 5%, and zero otherwise. OCC is a dummy variable that equals 1 if the acquirer bank's capital investor ownership at the acquisition year is larger than 5% and the ownership of others is less than 5%, and zero otherwise. OCN is a dummy variable that equals 1 if the acquirer bank's non-financial firm ownership at the acquisition year is larger than 5% and the ownership of others is less than 5%, and zero otherwise. OCS is a dummy variable that equals 1 if the acquirer bank's state ownership at the acquisition year is larger than 5% and the ownership of others is less than 5%, and zero otherwise. EAR is the acquirer bank's ratio of total equity to total assets at the acquisition year. LDR is the acquirer bank's ratio of net loans to total deposit at the acquisition year. LLRR is the acquirer bank's ratio of loan loss reserve to gross loan at the acquisition year. CIR is the acquirer bank's ratio of overhead to the sum of net interest income and net operating income at the acquisition year. VALUE is the ratio of deal value to acquirer total assets at the acquisition year. PBLC is a dummy variable that equals 1 if the deal is public takeover, and zero otherwise. CROSS is a dummy variable that equals 1 if target is foreign companies and zero otherwise. CASH is a dummy variable that equals 1 if the M&A payment is in form of all cash, and zero otherwise. OFFC is an index of the power of the commercial bank supervisory agency for the country. INDPD is an index of the degree to which the supervisory authority of the country is independent from the government and legally protected from the banking system. RIGHT is an index of anti-director rights for the country. CAPTL is an index of regulatory oversight of bank capital for the country. RSTRT is an index of regulatory restrictions of the country on banks activity and ability to engage in securities market activities, the insurance business, conduct real estate activities, or own non-financial firms. ***,**, and * indicate significance at 1%, 5%, and 10% levels (two-tailed).

Table 8: Effect of State Ownership
Panel A Post-Acquisition Performance

	ROA$_{(-1,1)}$			ROE$_{(-1,1)}$			NIR$_{(-1,1)}$			NTR$_{(-1,1)}$		
SO	-0.073 ***		-0.073 ***	-1.203 ***		-1.204 ***	-0.090		-0.090	-3.198 ***		-3.198 ***
OCS		-0.499 **			-4.755 *			-1.164			-2.712	
SO*OCS			-0.011			-6.473			-4.228			-2.184
EAR	-0.034 *	-0.037 *	-0.034 *	-0.074	-0.133	-0.068	-0.224	-0.234	-0.220	-0.323	-0.350	-0.318
LDR	-0.405	-0.548 *	-0.407	-2.883	-6.129 *	-2.776	3.164	2.990	3.237	-7.794	-7.815 **	-7.792
LLRR	0.081	0.150 ***	0.081	0.675	1.878 ***	0.684	-0.447	-0.333	-0.439	1.784	5.255 ***	1.792
CIR	0.003	0.002	0.003	-0.023	-0.019	-0.028	-0.018	-0.019	-0.021	-0.134	-0.120	-0.135
VALUE	0.039	0.041	0.039	0.453	0.569	0.462	0.782	0.777	0.789	1.221 *	1.630 **	1.227 *
PBLC	-0.178 *	-0.129	-0.179 *	-2.041 *	-1.787	-2.025 *	-1.121	-0.997	-1.106	-5.059 **	-5.103 **	-5.063 **
CROSS	-0.193	-0.242	-0.193	-0.465	-1.966	-0.472	-0.108	-0.323	-0.120	-1.990	-5.173	-1.994
CASH	0.192 *	0.116	0.193 *	3.529 ***	2.911 **	3.579 ***	1.876	1.747	1.924	5.447 **	5.202 *	5.488 **
OFFCL	0.049	0.064	0.049	0.489	0.715	0.480	0.172	0.199	0.163	0.280	0.879	0.276
INDPD	-0.376 **	-0.404 **	-0.376 **	-3.947 **	-4.091 *	-3.934 **	0.635	0.590	0.642	-5.706	-6.124	-5.692
RIGHT	0.096	0.090	0.096	1.607	1.267	1.630	-1.165	-1.172	-1.149	2.714	2.033	2.718
CAPTL	0.131	0.230	0.131	0.125	1.558	0.154	0.551	0.689	0.574	-0.029	3.306	-0.020
RSTRT	-0.098 *	-0.127 **	-0.098 *	-0.733	-1.241 *	-0.723	0.510	0.454	0.521	-0.383	-1.452	-0.377
Constant	0.903	0.998	0.904	5.269	6.944	4.998	-5.131	-4.776	-5.352	10.218	9.701	10.024
Obs.	554	554	554	537	537	537	528	528	528	503	503	503
Adj. R^2	0.336	0.219	0.336	0.410	0.172	0.411	0.028	0.028	0.029	0.482	0.183	0.482
	ROA$_{(06,08)}$			ROE$_{(06,08)}$			NIR$_{(06,08)}$			NTR$_{(06,08)}$		
SO	1.680 **		1.570 **	1.474		1.588	1.533 **		0.999 *	2.545		2.829
OCS		0.534			3.256			1.191 **			0.099	
SO*OCS			0.783			2.269			1.527 **			3.832
EAR	0.040	0.048	0.039	0.562	0.654	0.556	-0.074	-0.187	-0.078	-0.089	-0.120	-0.090
LDR	0.882	0.818	0.886	7.052	5.993	7.093	-3.006	-1.408	-3.054	1.168	1.099	1.164
LLRR	-0.427	-0.378	-0.432	-5.120	-4.733	-5.157	-3.433 **	-3.360 **	-3.433 **	-0.187	-0.252	-0.182
CIR	0.005	0.000	0.005	-0.048	-0.088	-0.049	-0.137	-0.149	-0.136	-0.028	-0.029	-0.027
VALUE	0.293 **	0.260	0.290	2.402	2.008	2.374 *	2.343 **	1.872 **	2.356 **	0.316 ***	0.295 ***	0.322 ***
PBLC	-0.190	-0.260	-0.197	-4.229	-4.965	-4.288	-2.859	-2.311	-2.894	-0.489	-0.329	-0.506
CROSS	2.180	1.912	2.176	1.343	1.142	1.313	1.729	9.548	1.653	-1.041	0.132	-1.162
CASH	-0.384	-0.278	-0.397	-0.151	1.060	-0.258	0.208	-1.187	0.146	0.122	-0.017	0.105
OFFCL	0.137	0.083	0.139	3.748	3.183	3.763	0.471	0.392	0.458	-0.007	0.231	-0.027
INDPD	-1.402	-1.313	-1.413	-2.209	-1.030	-2.301	-1.818	-3.392	-1.805	-0.224	-0.204	-0.230
RIGHT	0.410	0.323	0.405	4.151	3.316	4.109	0.335	1.245	0.322	-0.084	-0.177	-0.075
CAPTL	0.038	-0.041	0.021	-1.714	-2.457	-1.847	3.637	4.684	3.612	-0.173	-0.552	-0.157
RSTRT	-0.124	-0.062	-0.123	-2.919	-2.190	-2.910	2.966	2.055	2.960	0.201	0.295	0.187
Constant	3.945	4.113	4.024	3.505	1.719	4.127	-5.482	-4.171	-5.182	-1.850	-3.517	-1.628
Obs.	274	274	274	261	261	261	247	247	247	239	239	239
Adj. R^2	0.16	0.16	0.16	0.15	0.15	0.15	0.32	0.38	0.32	0.44	0.41	0.44

Table 8 continues

Table 8 (*continued*)

Panel B Post-Acquisition Volatility

	σ(ROA)(−1,1)			σ(ROE)(−1,1)			σ(NIR)(−1,1)			σ(NTR)(−1,1)		
SO	−0.036 ***		−0.036 ***	−0.513 ***		−0.513 ***	−0.016		−0.015	−1.561 ***		−1.563 ***
OCS		−0.280 ***			−2.620 *			3.091			−6.133 **	
SO*OCS			−0.011			−1.941			6.837			−9.551
EAR	0.019 **	0.017 *	0.019 **	−0.034	−0.064	−0.034	−0.164	−0.161	−0.157	0.310	0.256	0.319
LDR	0.094	−0.034	0.094	0.532	−0.996	0.516	2.181	1.857	2.274	1.874	−2.186	2.009
LLRR	0.068 ***	0.105 ***	0.068 ***	0.847 *	1.331 ***	0.845 *	1.352 **	1.356 **	1.366 **	1.581 **	3.107 ***	1.593 **
CIR	0.004 *	0.005 **	0.004 *	0.083 **	0.089 **	0.084 **	0.073	0.076	0.068	0.230 ***	0.257 ***	0.224 ***
VALUE	0.031 ***	0.035 ***	0.031 ***	0.333 **	0.376 **	0.331 **	1.099 ***	1.141 ***	1.111 ***	1.278 ***	1.418 ***	1.288 ***
PBLC	0.057	0.039	0.057	0.688	0.462	0.686	1.408	1.195	1.432	1.358	0.946	1.382
CROSS	0.041	−0.006	0.041	0.461	0.105	0.466	−0.283	−0.497	−0.315	0.577	−0.742	0.572
CASH	−0.012	0.003	−0.012	−0.613	−0.419	−0.620	1.145	1.360	1.221	0.628	0.762	0.678
OFFCL	−0.009	0.001	−0.009	−0.463	−0.334	−0.461	−0.085	−0.086	−0.101	−0.726	−0.364	−0.738
INDPD	−0.033	−0.041	−0.033	−1.723	−1.836	−1.732	2.330	2.424	2.348	0.581	0.002	0.602
RIGHT	0.002	−0.010	0.002	1.180 *	1.040	1.179 *	−0.351	−0.427	−0.330	0.355	0.184	0.382
CAPTL	0.016	0.034	0.016	0.653	0.870	0.647	−0.822	−0.950	−0.788	−1.083	−0.010	−1.041
RSTRT	0.040	0.027	0.040	0.433	0.318	0.432	0.938	0.928	0.953	1.328 **	0.795	1.337 **
Constant	−1.013 **	−0.938 **	−1.012 **	−7.087	−6.705	−7.048	−3.128 ***	−2.998 ***	−3.461 ***	−3.940 ***	−3.580 ***	−3.261 ***
Obs.	554	554	554	537	537	537	528	528	528	503	503	503
Adj. R^2	0.344	0.256	0.344	0.261	0.169	0.261	0.089	0.095	0.091	0.456	0.241	0.457
	σ(ROA)(06,08)			σ(ROE)(06,08)			σ(NIR)(06,08)			σ(NTR)(06,08)		
SO	-0.587 *		-0.531 *	-0.421 *		-0.781 *	-0.807		-0.425	-0.424 **		-0.490 **
OCS		-0.034			-1.651 *			-1.455			-0.044	
SO*OCS			-1.576			-1.058			-1.459			-1.261
EAR	0.006	0.002	0.006	-0.213	-0.250	-0.209	-0.191	-0.151	-0.189	-0.059	-0.063	-0.059
LDR	-0.624	-0.602	-0.622	-5.322	-4.948	-5.297	5.640	4.966	5.666	0.458	0.465	0.453
LLRR	0.078	0.074	0.079	0.876	0.840	0.884	0.812	0.552	0.812	-0.071	-0.082	-0.070
CIR	0.002	0.003	0.002	0.060	0.071	0.060	0.072	0.097	0.072	-0.017	-0.017	-0.017
VALUE	0.072	0.070	0.070	0.597	0.537	0.582	3.625 ***	3.967 ***	3.617 ***	0.171 ***	0.168 ***	0.172 ***
PBLC	0.039	0.053	0.041	1.169	1.373	1.199	2.891	2.511	2.909	-0.161	-0.154	-0.162
CROSS	-0.914	-0.835	-0.910	-7.854	-7.218	-7.811	0.414	3.899	0.472	0.372	0.448	0.358
CASH	0.179	0.161	0.184	1.318	1.021	1.382	3.150	4.129	3.187	-0.041	-0.044	-0.050
OFFCL	0.012	0.034	0.012	0.092	0.312	0.102	1.193	1.654	1.203	0.062	0.090	0.059
INDPD	0.204	0.189	0.201	1.278	1.016	1.247	4.445	5.919	4.439	-0.041	-0.035	-0.043
RIGHT	-0.100	-0.089	-0.097	-0.552	-0.383	-0.519	-1.998	-2.940	-1.990	-0.146	-0.169	-0.143
CAPTL	-0.055	-0.075	-0.052	-1.283	-1.374	-1.250	-6.266	-7.532	-6.249	-0.132	-0.168	-0.134
RSTRT	-0.057	-0.064	-0.057	-0.324	-0.473	-0.325	2.717	3.522	2.720	0.276 **	0.278 **	0.274 **
Constant	0.739	0.561	0.722	9.027	8.596	8.833	-79.305	-96.976	-79.506	-3.194	-3.282	-3.158
Obs.	274	274	274	261	261	261	247	247	247	239	239	239
Adj. R^2	0.10	0.10	0.11	0.08	0.08	0.08	0.17	0.19	0.17	0.44	0.44	0.44

Table 8 (*continued*)

Panel C Post-Acquisition Risk

	BETA$_{(-1,1)}$			SPD$_{(-1,1)}$			NPL$_{(-1,1)}$			SPCR$_{(-1,1)}$		
SO	0.006		0.007	–0.419 ***		–0.419 ***	–0.087 ***		–0.087 ***	0.283		0.249
OCS		–0.048			0.640			0.220			0.906	
SO*OCS			0.477			3.855			0.489			0.000
EAR	0.037 *	0.034 *	0.033 *	0.159 *	0.138	0.157 *	0.006	–0.003	0.005	–0.081	–0.082	–0.079
LDR	–0.284	–0.262	–0.332	–1.532	–2.013 *	–1.578	–0.440	–0.689 **	–0.449	–2.908 ***	–2.823 ***	–2.863 ***
LLRR	–0.033	–0.008	–0.046	–2.898 ***	–1.969 ***	–2.909 ***	–0.283 ***	–0.126	–0.284 ***	–0.258	–0.289	–0.247
CIR	0.003	0.004	0.005	0.000	0.003	0.001	–0.001	0.000	0.000	–0.015	–0.014	–0.016
VALUE	0.002	0.004	–0.001	–0.054	–0.033	–0.056	0.058 *	–0.042	0.058 *	0.418 ***	0.416 ***	0.418 ***
PBLC	0.045	0.058	0.036	–0.417	–0.480 *	–0.427	0.067	0.051	0.065	–0.302	–0.269	–0.291
CROSS	0.284	0.234	0.293	7.958 ***	7.128 ***	7.982 ***	0.047	–0.083	0.046	0.337	0.411	0.327
CASH	–0.092	–0.090	–0.106	0.168	0.141	0.162	–0.081	–0.097	–0.084	0.058	0.038	0.072
OFFCL	–0.073	–0.067	–0.061	–0.842 **	–0.719 *	–0.840 **	0.004	0.011	0.004	–0.003	0.000	–0.006
INDPD	0.244	0.261 *	0.216	–2.014 **	–1.559	–2.042 **	–0.025	0.129	–0.028	0.504	0.437	0.518
RIGHT	0.019	0.005	0.013	2.142 ***	1.667 ***	2.145 ***	–0.050	–0.137	–0.051	–0.046	–0.011	–0.045
CAPTL	–0.030	–0.038	–0.030	0.793	1.327	0.778	0.116	0.157	0.114	–0.303	–0.270	–0.299
RSTRT	0.089 **	0.083 *	0.084 *	0.982 ***	0.833 **	0.985 ***	0.083	0.078	0.082	–0.195	–0.198	–0.191
Constant	–0.929	–0.953	–0.798	–2.882	–4.952	–2.804	0.406	–0.007	0.428	0.822	0.722	0.701
Obs.	534	534	534	519	519	519	528	528	528	436	436	436
Adj. R^2	0.292	0.288	0.299	0.473	0.298	0.476	0.315	0.170	0.316			
	BETA$_{(06,08)}$			SPD$_{(06,08)}$			NPL$_{(06,08)}$			SPCR$_{(06,08)}$		
SO	-0.794 **		-0.730 **	-2.987 *		-2.644 *	-3.345 *		-2.845	0.190 **		0.711 *
OCS		-0.309 ***			-1.954			-0.851			0.766	
SO*OCS			0.048 ***			-1.450			-0.212			0.032
EAR	0.034	0.019	0.036	-4.482	-4.714	-4.507	-0.133	-0.142	-0.130	-0.122	-0.089	-0.118
LDR	0.087	0.098	0.082	1.090 **	1.110 **	1.804 **	-2.791	-2.665	-2.788	-1.956	-2.234	-1.917
LLRR	-0.055	-0.082	-0.055	-0.049	-0.325	-0.100	0.429	0.342	0.439	0.953 **	0.824 **	0.974 **
CIR	-0.003	0.001	-0.002	0.934	0.987	0.934	-0.028	-0.018	-0.027	0.000	-0.021	0.001
VALUE	0.065	0.054	0.065	2.756 ***	2.225 ***	2.874 ***	0.094	0.168	0.109	0.606 ***	0.577 ***	0.607 ***
PBLC	0.081	0.095	0.083	2.861 **	4.187 **	2.560 **	0.410	0.647	0.450	0.403	0.284	0.425
CROSS	-0.021	-0.013	-0.017	9.983	9.496	9.721	-3.114	-3.744	-3.216	2.347	1.426	2.427
CASH	-0.081	-0.124	-0.054	-4.560	-4.710	-4.088	0.552	0.263	0.571	0.055	0.183	0.092
OFFCL	-0.043	-0.001	-0.043	3.549	4.619	3.481	-0.160	-0.150	-0.172	-0.724	-0.803	-0.729
INDPD	-0.029	-0.109	-0.026	-5.566	-6.379	-5.306	1.011	0.845	1.048	-0.133	0.030	-0.161
RIGHT	0.069	0.090	0.069	1.985	1.998	1.721	-0.035	0.052	-0.030	1.842	1.569	1.890
CAPTL	0.011	-0.001	0.047	-3.487	-3.554	-3.738	0.524	0.856	0.609	3.720	2.694	3.865
RSTRT	0.043	0.000	0.043	4.359	4.316	4.367	-0.358	-0.609	-0.383	-0.276	-0.064	-0.296
Constant	-0.959	-0.683	-0.921	-1.829	-8.606	-0.342	8.332	10.411	8.322	6.190	0.766	6.711
Obs.	243	243	243	238	238	238	235	235	235	219	219	219
Adj. R^2	0.24	0.20	0.24	0.26	0.26	0.26	0.17	0.17	0.18			

Table 8 (*continued*)

Notes: These are fixed effects regressions that control for unobserved and time-invariant firm characteristics. $ROA_{(-1,1)}$ ($ROE_{(-1,1)}$, $NIR_{(-1,1)}$, or $NTR_{(-1,1)}$) is the change in acquirer bank's return on assets (return on equity, net interest revenue, or net trading revenue, respectively) from the previous year before acquisition to the first year after acquisition. $ROA_{(06,08)}$ ($ROE_{(06,08)}$, $NIR_{(06,08)}$, or $NTR_{(06,08)}$) is the change in acquirer bank's return on assets (return on equity, net interest revenue, or net trading revenue, respectively) from 2006, the beginning year of credit crunch, to 2008, the third year of credit crunch. $\sigma(ROA)_{(-1,1)}$ ($\sigma(ROE)_{(-1,1)}$, $\sigma(NIR)_{(-1,1)}$, or $\sigma(NTR)_{(-1,1)}$) is the standard deviation of acquirer bank's yearly return on assets (return on equity, net interest revenue, or net trading revenue respectively) from the previous year before acquisition to the first year after acquisition. $\sigma(ROA)_{(06,08)}$ ($\sigma(ROE)_{(06,08)}$, $\sigma(NIR)_{(06,08)}$, or $\sigma(NTR)_{(06,08)}$) is the standard deviation of acquirer bank's yearly return on assets (return on equity, net interest revenue, or net trading revenue, respectively) from 2006, the beginning year of credit crunch, to 2008, the third year of credit crunch. $BETA_{(-1,1)}$ ($BETA_{(06,08)}$) is the changes in acquirer bank's yearly beta coefficient from the previous year before acquisition (2006, the beginning year of credit crunch) to the first year after acquisition (2008, the third year of credit crunch). $SPD_{(-1,1)}$ ($SPD_{(06,08)}$) is the changes in acquirer bank's yearly stock price spread from the previous year before acquisition (2006, the beginning year of credit crunch) to the first year after acquisition (2008, the third year of credit crunch). $SPCR_{(-1,1)}$ ($SPCR_{(06,08)}$) is a dummy variable equaling 1 if the acquirer bank's Standard and Poor's credit rating improved from the previous year before acquisition (2006, the beginning year of credit crunch) to the first year after acquisition (2008, the third year of credit crunch), and zero otherwise. $NPL_{(-1,1)}$ ($NPL_{(06,08)}$) is the changes in acquirer bank's yearly nonperforming loan ratio from the previous year before acquisition (2006, the beginning year of credit crunch) to the first year after acquisition (2008, the third year of credit crunch). FIO is the acquirer bank's proportion of share ownership held by financial intermediaries at the acquisition year, including banks, financial company, and insurance company. CIO is the acquirer bank's proportion of share ownership held by capital investors at the acquisition year, including mutual and pension funds, foundation or research institutes, and private equity firms. NFO is the acquirer bank's proportion of share ownership held by non-financial firms at the acquisition year, including industrial and public companies. SO is the acquirer bank's proportion of share ownership held by state or authorities at the acquisition year. OCF is a dummy variable that equals 1 if the acquirer bank's financial intermediary ownership at the acquisition year is larger than 5% and the ownership of others is less than 5%, and zero otherwise. OCC is a dummy variable that equals 1 if the acquirer bank's capital investor ownership at the acquisition year is larger than 5% and the ownership of others is less than 5%, and zero otherwise. OCN is a dummy variable that equals 1 if the acquirer bank's non-financial firm ownership at the acquisition year is larger than 5% and the ownership of others is less than 5%, and zero otherwise. OCS is a dummy variable that equals 1 if the acquirer bank's state ownership at the acquisition year is larger than 5% and the ownership of others is less than 5%, and zero otherwise. EAR is the acquirer bank's ratio of total equity to total assets at the acquisition year. LDR is the acquirer bank's ratio of net loans to total deposit at the acquisition year. LLRR is the acquirer bank's ratio of loan loss reserve to gross loan at the acquisition year. CIR is the acquirer bank's ratio of overhead to the sum of net interest income and net operating income at the acquisition year. VALUE is the ratio of deal value to acquirer total assets at the acquisition year. PBLC is a dummy variable that equals 1 if the deal is public takeover, and zero otherwise. CROSS is a dummy variable that equals 1 if target is foreign companies, and zero otherwise. CASH is a dummy variable that equals 1 if the M&A payment is in form of all cash and zero otherwise. OFFC is an index of the power of the commercial bank supervisory agency for the country. INDPD is an index of the degree to which the supervisory authority of the country is independent from the government and legally protected from the banking system. RIGHT is an index of anti-director rights for the country. CAPTL is an index of regulatory oversight of bank capital for the country. RSTRT is an index of regulatory restrictions of the country on banks activity and ability to engage in securities market activities, the insurance business, conduct real estate activities, or own non-financial firms. ***,**, and * indicate significance at 1%, 5%, and 10% levels (two-tailed).