

Bargain Purchase Gains and the Acquisitions of Failed Banks

Kimberly Dunn

Florida Atlantic University

Mark Kohlbeck *

Florida Atlantic University

Thomas Smith

Florida Atlantic University

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* Corresponding author
School of Accounting
Florida Atlantic University
777 Glades Road
Boca Raton, FL 33431
(561) 297- 1363
mkohlbec@fau.edu

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Abstract

In December 2007, the FASB revised accounting for business combinations and permitted firms to record a bargain purchase gain (BPG) within current earnings. The FASB contends that the new treatment improves the representational faithfulness of the acquirers' current earnings. However, the ability to recognize a gain in current net income also creates a contemporaneous opportunity for earnings management. We use a sample of 2009 FDIC-assisted bank acquisitions to examine the unintended and intended consequences of the revised standard. Despite finding evidence consistent with firms recognizing the gain to avoid missing key earnings benchmarks, we also find that the market values the gain similar to other transitory items. Further investigation indicates that the market only prices BPGs that are less likely to be associated with earnings management. Overall, our findings provide support for the FASB's decision to recognize a gain associated with business combinations in current earnings.

Keywords: Goodwill, Bargain Purchase Gain, Earnings Management, Value Relevance

JEL Classification: G21, G34, M41

Data availability: The data used in this study is available from public sources indicated in the paper.

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I. Introduction

In December 2007, the Financial Accounting Standards Board (FASB) revised accounting for business combinations when they promulgated SFAS 141R (FASB 2007, now included in the Accounting Standard Codification [“ASC”] as Section 850). One aspect of the new standard involved the treatment of negative goodwill, which arises when an acquirer offers consideration that is less than the fair value of the identifiable net assets of the acquiree. Under the revised standard (effective for acquisitions beginning January 1, 2009), acquirers record net assets of the acquiree at their respective fair market values and recognize the negative goodwill as a bargain purchase gain (“BPG”) within income from continuing operations (FASB ASC 850-30-25-2).

The ability to recognize the BPG within income from continuing operations creates an opportunity for managers to manage earnings when making valuation estimates associated with accounting for acquisitions. Despite the opportunity for earnings management, the FASB contends the new treatment “improves the representational faithfulness and completeness of the information provided about the acquirers earnings during the period in which it makes a bargain purchase” (FASB 2007, page v). This study examines these two seemingly disjoint relationships. First, we examine whether BPGs are associated with earnings management, an association that would seem to undermine the intent of the FASB. Then, we examine whether the market prices the BPG, to provide empirical evidence related to the FASB’s decision to permit BPG recognition as a component of income from continuing operations.

Our sample is comprised of 74 banks which acquired 103 banks (the acquirees) closed by the Federal Deposit Insurance Corporation (FDIC) in 2009. We focus on these acquisitions because we feel the nature of the bank closure process creates an environment that is likely to produce BPG acquisitions. FASB (2007) states that “a bargain purchase might happen in a business combination that is a forced sale in which the seller is acting under compulsion” (para. 37). Acquisitions involving banks closed by the FDIC represent a forced sale in which the seller is acting under compulsion. Our data supports this intuition as over half of the acquiring banks recorded a BPG in 2009.

After identifying our sample, we first examine whether BPGs are associated with earnings management. The estimations necessary to value an acquiree’s net assets, along with the magnitude of a transaction that results in an acquisition, provides the potential for large BPGs. Because the revised standard allows firms to include the BPG within income from continuing operations, it is possible that some acquirer banks may use the acquisition as a vehicle to manage contemporaneous earnings. We find that firms with pre-acquisition losses and firms experiencing pre-acquisition earnings and ROA declines are more likely to report a BPG. These findings are consistent with banks using BPGs to manage contemporaneous earnings.

Next, we explore the market valuation of the BPGs. We find that despite the potential opportunistic use of the BPG, the market appears to value the BPG. The market valuation is consistent with a transitory shock to earnings, which provides support for the FASB’s placement of the BPG within current earnings. However, in supplemental analysis, we provide evidence that the market also discriminates between BPGs based on the likelihood that the BPGs are associated with earnings management, as only legitimate BPGs are value relevant.

Our study contributes to two streams of research. First, we contribute to the literature on earnings management (Bartov 1993; Bushee, 1998; Beatty, Ke, and Petroni 2002; Cohen, Dey, and Lys 2008; Roychowdhury 2006) by suggesting that firms are more likely to report a BPG to prevent earnings and ROA declines, as well as to prevent losses. In addition, we use a unique setting to document evidence consistent with firms managing contemporaneous earnings through the acquisition of an asset.

Second, our findings suggest that despite being associated with heightened earnings management environments, the market still perceives the BPG as a value-relevant transaction. Further, the market appears to be able to differentiate BPGs based on potential earnings management motivations. This is an important finding because it provides empirical support for the decision by FASB to position the BPG within income from continuing operations in the revised standard.

Further, our findings are important for banking regulators. Evidence of the unintended consequences of the accounting standard provides another issue that banking regulators must consider when organizing acquisitions of failed banks. Banking regulators may need to further investigate transactions that result in suspect BPGs to ensure that the deposit insurance fund is protected.

The remainder of this paper is as follows. Section II provides background on the accounting of negative goodwill and information about the bank closure process. Section III develops our hypotheses. Section IV explains the research methodology. Our sample and results are reported in Section V. Section VI offers our concluding remarks.

II. Background

To calculate the amount of goodwill (or negative goodwill) arising from a business combination, the acquiring firm compares the consideration transferred to the fair value of the net assets acquired. If the amount of consideration transferred is less than the fair value of the separable net assets acquired, the acquisition is said to have created *initial negative goodwill*. Previously, acquirers eliminated the initial negative goodwill by writing down on a pro-rata basis the amounts that otherwise would have been assigned to all assets except (a) financial assets other than those accounted for using the equity method, (b) assets to be disposed of by sale (c) deferred tax assets, (d) prepaid assets relating to pension or other post retirement benefits, and (e) other current assets. After writing these assets to zero, the remaining *residual negative goodwill* was recorded as an extraordinary gain by the acquirer.¹

Pursuant to the revised business combination standard (effective for reporting periods beginning after December 15, 2008), the acquirer is no longer permitted to reduce the value assigned to the net assets acquired. Rather, the entire amount of initial negative goodwill is recorded as a BPG, and is included in income from continuing operations rather than extraordinary.²

The revised business combination accounting rules therefore alter both the timing and the nature of bargain purchase gain recognition. Previously, the recognition of BPGs was deferred

¹ See Comiskey, Clarke, and Mulford (2010) for a review of previous standards related to accounting for negative goodwill.

² FASB ASC 805-20-25-4 does note that, “Before recognizing any gain on a bargain purchase, the acquirer shall reassess whether it has correctly identified all of the assets acquired and all of the liabilities assumed...and review the procedures used to measure the amounts this Statement requires to be recognized at the acquisition date.”

to future periods through lower depreciation on the adjusted assets, with any residual negative goodwill recognized as a current period extraordinary gain. Under the revised standard, the entire initial negative goodwill amount is recognized in the current period as a component of income from continuing operations. The impact of the financial statements is also an immediate boost in capital (retained earnings) by virtue of recognizing the BPG in income.

Comiskey, et al. (2010) provide an initial study of the potential effects of recognizing BPGs under the revised standards. They investigate 43 acquisitions during the period from 2000 to 2007 that involve negative goodwill. The negative goodwill for these observations was accounted for under the previous accounting standards. The authors investigate the investor valuation of the negative goodwill using returns and market values. Comiskey, et al. do not find compelling evidence that markets value negative goodwill. We extend Comiskey, et al. in two important contexts. First, we consider a period when the BPG is recognized under the revised accounting standards. Second, we focus our analysis on FDIC-assisted bank closures as we contend that this environment represents a powerful setting to observe BPGs.

The reason we expect the FDIC bank closure process to provide a rich setting to examine BPGs, is due to the relatively small number of potential acquirers involved as well as the speed with which these transactions take place. To be considered in the bidding process banks must first get approval from their regulator (i.e. The Office of the Comptroller of the Currency for national banks or the Federal Reserve for member banks and bank holding companies) and contacting the FDIC division of resolutions and receivership to participate in a failed bank acquisition.³

³ Regulatory approval requires that the acquirer is a bank and must have an adequate CAMELS rating (a composite rating used by the FDIC to assess overall bank solvency). These restrictions represent a barrier to entry

After gaining approval, the potential bidder identifies the type of institutions it would be interested in acquiring (i.e. geographical preference, size, etc.). Before the FDIC decides to close a bank it contacts the approved bidders whose interest appears to match the type of bank that they are about to close and provides them with very limited information about the troubled institution. Interested bidders are then required to sign confidentiality agreements to receive more information about the troubled institution, which is provided by the Division of Resolutions and Receivership. Potential bidders can also request an on-site visit to the troubled institution to perform their own due diligence before formalizing their bid. When conducting the on-site visit, potential bidders are only permitted to talk to bank employees with an FDIC officer present. Winning bidders are typically notified within a week of the bid window closing, with the troubled institution being closed on the next available Friday afternoon. The time period from the FDIC contacting potential bidders to the completion of the acquisition takes about eight-weeks.⁴

which reduces competition among bidders and increases the likelihood of achieving a legitimate BPG. In addition to the bidding process barrier to entry, the FDIC often offers loss share agreements where they guarantee 80% to 95% of the assets assumed. The extra layer of protection afforded by the loss share agreements increases the appeal of engaging in failed bank acquisitions and may lead to more and larger BPGs.

⁴ This narrative comes from conversations between one of the authors and an executive of a bank following the successful acquisition of a failed bank in 2010. Any errors in the details of the narrative reflect the author's misinterpretation of the discussion.

III. Hypothesis Development

In this section, we develop two sets of BPG hypotheses. First, we develop predictions regarding the likelihood of observing a BPG in various earnings management settings. Second, we consider the extent to which the market values BPGs.

Earnings Management and BPGs

We focus on earnings motivations to explore whether managers appear to use the BPG opportunistically. The ability to recognize the BPG within income from continuing operations creates an opportunity for managers to act opportunistically when making key decisions surrounding acquisitions. BPGs are a function of the negotiated consideration transferred and the fair value of the acquired assets and liabilities. To the extent that the bidding process is competitive in the bank closure environment, managers may be limited in the discretion that they have over the value of consideration transferred. However, managers are still able to exercise discretion when they estimate the fair value of net assets acquired, as some of the acquired loans and investments represent level 3 assets (See FASB ASC 820). Managers also have discretion over the valuation of the FDIC indemnification asset.

Bank accounting literature is replete with evidence indicating the managers engage in earnings management. Motivations for deliberate managerial intervention in the financial reporting process include managerial compensation, risk aversion, debt covenants, and signaling. In the banking industry, regulatory requirements provide added motivation for such behavior. Beatty, Chamberlain and Magliolo (1995), Collins, Shackelford and Wahlen (1995), Chen and Daley (1996), and Ahmed, Takeda, and Thomas (1999) all provide evidence consistent with bank managers' opportunistically modifying accounting. Further, Beatty and Harris (1999) find

that public banks consistently engage in more earnings management in the form of securities gains and losses compared to privately-held banks. Beatty, Ke, and Petroni (2002) also show that public banks engage in more earnings management activities than their private bank counterparts.

Collectively, prior research suggests that managers may use their discretion to manage the amount of the BPG. If managers exploit this opportunity, we expect the probability of observing a BPG will increase if the acquiring banks are currently missing key earnings benchmarks. Our earnings management hypothesis stated in alternative form is:

H1: Banks engaging in failed bank acquisitions are more likely to record a BPG when they are missing earnings benchmarks.

An alternative earnings management incentive considered in prior banking literature involves the desire to increase regulatory capital. We don't examine this incentive, because the FDIC's minimum CAMELS rating requirement for potential bidders likely screens banks with low capital ratios out of the bidding process. In our sample the mean (median) 2008 Total Risk-Based Capital Ratio among the acquiring banks is 13.61% (12.22%), with all banks exceeding the 10% *well capitalized* threshold. These statistics are consistent with the FDIC's strong CAMELS rating bidding requirement, and suggests that acquirers would likely not need to manage capital adequacy ratios through the use of the BPG.

Value Relevance of the BPG

The FASB maintains that the BPG treatment of negative goodwill improves the representational faithfulness and completeness of the information provided about the acquirer's earnings during the period in which it makes a bargain purchase. Despite this opinion, Comiskey, et al (2010) failed to provide convincing evidence that markets value negative goodwill in a sample of acquisitions occurring between 2000 and 2007, a period prior to the implementation of 141R.⁵

Ex-ante, it is reasonable to suspect that the market would view the BPG consistent with the findings of Comiskey, et al., and perceive the BPG as valuation irrelevant. U.S. GAAP generally does not permit gain recognition until the earnings process is complete, and the BPG could be viewed as an unjustified departure from this philosophy.⁶ If investors perceive the BPG as a premature recognition, rather than a true increase in current period economic wealth for the firm, investors may not price the gain at all. In addition, markets may discredit the value of the BPG due to the earnings management motivations previously discussed.

Conversely, if the market views the gain as a more faithful representation of the underlying economic event, consistent with the FASB's stance, the gain should be priced by the

⁵ Our study differs from Comiskey, et al. in that BPGs are included in current period income during our sample period (that is, the revised accounting standard is effective) and our sample focuses on acquisitions of failed banks, a sample selection choice that increases the likelihood of realization of negative goodwill at acquisition.

⁶ Permitting an acquirer to recognize a gain at acquisition may be akin to allowing a property investment firm to recognize a gain when they purchase distressed property below market, which is not permitted under U.S. GAAP.

market.⁷ Whether the BPG will be valued in the post 141R environment is therefore an empirical question, which leads us to our second hypothesis, stated in alternative form:

H2a: The BPG is positively associated with market value of common equity after controlling for book value of equity and other recognized income components.

If the market values the BPG, then an important follow-up question is to what extent is the BPG valued. The BPG appears to represent a transitory earnings shock, because it can only be recorded once for a given acquisition. Thus, we expect the BPG to be valued similar to other transitory income items such as special items. If the BPG is priced consistent with transitory gains and losses, it would provide additional support for the treatment of the BPG in the revised FASB standard. Consequently, our second value relevance hypothesis, also stated in alternative form, is:

H2b: The BPG is valued in a manner consistent with a transitory shock to earnings.

IV. Research Methodology

Our hypotheses explore earnings management and value relevance implications of BPGs from business combinations. To examine these important issues, we first develop a determinant model to explore whether earnings management motivations are associated with the existence of a BPG. Then, we present a valuation model to investigate the market pricing of a BPG.

⁷ A BPG could also be found to be value relevant if the market views it as value irrelevant but fails to exclude it from current period earnings in the valuation process.

Earnings Management Model

We hypothesize that banks which are currently missing key earnings benchmarks are more likely to record a BPG. Prior research provides limited guidance for a BPG determinant model. In the following paragraphs, we develop a model based on characteristics of the acquirer, acquiree, and FDIC assistance package as well as earnings management variables to explain the likelihood of recording a BPG.⁸

Consistent with prior research (Burgstahler and Dichev 1997; Beatty, Ke, and Petroni 2002), we define three key pre-BPG earnings benchmarks as a current period loss, a current period earnings decline, and current period ROA decline to test our first hypothesis. We start by adjusting the acquirer's reported 2009 net income by subtracting the BPG (after-tax) to arrive at pre-BPG 2009 income. We use the pre-BPG 2009 income to create three indicator variables. We identify banks with 2009 pre-BPG losses (LOSS). We then determine which banks have pre-BPG earnings declines by comparing pre-BPG 2009 income to 2008 net income (NI_DELCINE). Rather than just focusing on income, we also consider return on assets ("ROA") as a basis for our third benchmark. We compare pre-BPG 2009 ROA to 2008 ROA to determine ROA declines (ROA_DECLINES).

⁸ We use annual observations for our determinant test, because it is not possible to identify whether an acquisition by a private acquirer resulted in a BPG until the December 31, 2009 call report is filed. While all banks (public and private) are required to file quarterly call reports, the bargain purchase gain field was not added to the quarterly call reports until December of 2009.

BPG is regressed against these three metrics as proxies for earnings management in determinant Logit models. In addition, we control for a set of variables based on firm and acquisition characteristics that may influence the existence of the BPG. Specifically, we consider characteristics of the acquirer, the acquiree, and the FDIC assistance as discussed in the following paragraphs that are also likely to be associated with a BPG.

First, publicly-held banks and larger acquirer banks are both subject to more scrutiny which may reduce the likelihood of a BPG, consistent with positive accounting theory (Beatty, et al. 2002). Consequently, we include a public acquirer indicator variable (PUBLIC), and the log of acquirer assets (ACQUIRER_SIZE) to control for these possibilities. We also include the number of failed banks acquired (N_ACQ) because banks are more likely to record a BPG as they engage in more failed bank acquisitions. Finally, due to the increased incentive to manage fourth quarter earnings (Bartov 1993; Dhaliwal, Gleason, and Mills 2004), we include an indicator variable if the bank acquired at least one failed bank in the fourth quarter (Q4_ACQ).

We also include acquiree variables to control for additional factors that may be associated with a BPG. As previously mentioned, failed bank acquisitions involve an imperfect competitive bidding process among potential acquirers. Acquiree characteristics can foster a more (less) competitive bidding process, which can reduce (increase) the likelihood of a BPG. We include two variables to control for acquiree characteristics that are likely to affect the competitive bidding process. First, we include the ratio of deposits per branch acquired (DEP_PER_BRANCH), to capture the desirability of the acquiree. Banks depend on depositors to grow their loan portfolios and thus we expect that failed banks with more deposits per branch would be more desirable on average than banks with fewer deposits per branch. To the extent that this desirability increases the competitiveness of the bidding process, we expect this ratio to

be inversely related to the likelihood of a BPG. We also include the log of assets acquired (ACQUIREE_SIZE) to control for the size of the acquirer. Unlike our deposits per branch variable, it is ambiguous as to how this variable will ultimately be related to the likelihood of a BPG. It is possible that, similar to the deposit per branch argument, a larger failed bank would be more desirable than a smaller failed bank, and thus we might expect a negative relationship between ACQUIREE_SIZE and the likelihood of a BPG. However, it is also possible that if a failed bank gets too large, there are fewer banks able to absorb such an institution, which could ultimately reduce competition and increase the likelihood of observing a BPG.

Finally, we include a variable to capture the effect of the FDIC assistance packages on the likelihood of a BPG. In 90 of the 140 failures of 2009, the FDIC offered a loss share agreement on assets purchased by the acquirer. These loss share agreements represent an indemnification on the part of the FDIC to reimburse the acquirer for future losses realized on the assets acquired. The FDIC estimates the losses they will sustain in connection to these loss share agreements and reports this amount in their annual report. We include this estimate (FDICLOSS), and predict that a bigger FDICLOSS will be associated with more bid competition and a diminished likelihood of a BPG.

Our BPG determinant model to test our earnings management hypothesis is as follows (firm and time subscripts are omitted here and in later equations for brevity).

$$\begin{aligned} \text{Prob (DBPG =1)} = F [& \alpha_0 + \alpha_1 \text{ACQUIRER_SIZE} + \alpha_2 \text{PUBLIC} + \alpha_3 \text{N_ACQ} + \\ & \alpha_4 \text{Q4_ACQ} + \alpha_5 \text{DEP_PER_BRANCH} + \alpha_6 \text{ACQUIREE_SIZE} + \\ & \alpha_7 \text{FDICLOSS} + \alpha_8 \text{NI2008 (ROA2008)} + \alpha_9 \text{EM} + \varepsilon] \end{aligned} \quad (1)$$

where variables are defined as follows: F is the cumulative standard normal distribution function, $DBPG$ is an indicator variable equal to one if the bank reported a BPG and zero otherwise, $ACQUIRER_SIZE$ is the December 31, 2008 total assets of the acquirer, $PUBLIC$ is an indicator variable equal to one if the acquiring bank is public and zero otherwise, N_ACQ is the number of failed bank acquisitions performed by the acquirer bank during the year, $Q4_ACQ$ is an indicator variable equal to one if the acquisition occurred in the 4th quarter and zero otherwise, DEP_PER_BRANCH is the ratio of total deposits acquired to the number of branches acquired, $ACQUIREE_SIZE$ is December 31, 2008 total assets of the acquiree, $FDICLOSS$ is the ratio of estimated FDIC loss on the acquisition to the assets acquired in the acquisition, $NI2008$ is the acquirer's 2008 net income, $ROA2008$ is the ratio of 2008 net income to ending 2008 total assets, and EM takes the value of one of three indicator variables to test our first hypothesis. The earnings management indicator variables include $LOSS$, an indicator variable equal to one if the acquirer's 2009 net income less the BPG is negative and zero otherwise, $NI_DECLINE$ is an indicator equal to one if the acquirer's 2009 net income less the BPG is less than 2008 net income and zero otherwise, and $ROA_DECLINE$ is an indicator equal to one if the 2009 pre-BPG ROA is less than 2008 ROA and zero otherwise. When $ROA_DECLINE$ is our test variable, $ROA2008$ replaces $NI2008$ in the model.

Our earnings management hypothesis predicts a positive relationship for $LOSS$, $NI_DECLINE$, and $ROA_DECLINE$ ($\alpha_9 > 0$). A positive coefficient on $LOSS$ ($NI_DECLINE$) suggests that after controlling for 2008 net income, acquirer banks experiencing a pre-acquisition 2009 loss (net income decline) are more likely to record a BPG. In the third estimation of Equation 1, a positive coefficient on $ROA_DECLINE$ suggests that after controlling for 2008

ROA, acquirer banks experiencing a pre-acquisition ROA decline are more likely to record a BPG. Collectively, positive coefficients for α_9 support the first hypothesis.

Value Relevance Model

To assess the market pricing of the BPG, we examine quarterly observations. Quarterly observations are used to increase power of our tests as our sample of publicly-traded banks is fairly small. Further, we are able to isolate the BPG to specific quarters.⁹ We begin our analysis with a commonly-used valuation model based on recognized summary financial data.

Market value of common equity is modeled as a function of book value of common equity and income (see Collins, Maydew, and Weiss 1997 among others, as to the use of this general valuation model). Further, prior research has shown that valuation effects may differ from profit and loss firms (Hayn 1995). We therefore control for loss firms when estimating the valuation models. Our base valuation model is as follows.

$$MVE = \beta_0 + \beta_1 BV + \beta_2 NI + \beta_3 LOSS + \beta_4 BV * LOSS + \beta_5 NI * LOSS + \varepsilon \quad (2)$$

where MVE is the market value of equity as of quarter t+1, BV is the assets less liabilities at the end of quarter t, NI is pre-tax income for quarter t, and LOSS is an indicator variable equal to one if pre-tax net income is negative, and zero otherwise. All continuous variables are divided

⁹ We are able to use quarterly observations for our public companies because we examine the business combinations footnote of the 10-Q's to collect our market valuation data. The use of quarterly data also increases the power of our tests with the increased sample size.

by number of common shares outstanding at beginning of quarter t .¹⁰ Consistent with prior research, we expect positive coefficients for BV, NI, and the interaction of BV and LOSS (under the abandonment hypothesis) and negative coefficients are expected for LOSS and the interaction of NI and LOSS.

Our interest is in the valuation of the BPG. We therefore separate the BPG from pretax earnings to separately investigate the investor valuation of the BPG in our first specification. We are also interested in the valuation of the BPG relative to other special items and therefore separate special items from income in the second specification. While we provide for differential effects between profit and loss firms in the valuation of book value of equity and income, we do not allow for differential pricing of the BPG because we have no theoretical basis to expect differential pricing.

We use the following two equations to conduct our valuation hypotheses tests.

$$\begin{aligned} \text{MVE} = & \beta_0 + \beta_1\text{BV} + \beta_2\text{ADJNI} + \beta_3\text{ADJLOSS} + \beta_4\text{BV*ADJLOSS} + \\ & \beta_5\text{ADJNI*ADJLOSS} + \beta_6\text{BPG} + \varepsilon \end{aligned} \quad (3)$$

$$\begin{aligned} \text{MVE} = & \gamma_0 + \gamma_1\text{BV} + \gamma_2\text{ADJNI2} + \gamma_3\text{ADJLOSS2} + \gamma_4\text{BV*ADJLOSS2} + \\ & \gamma_5\text{ADJNI2*ADJLOSS2} + \gamma_6\text{BPG} + \gamma_7\text{ADJSI} + \varepsilon \end{aligned} \quad (4)$$

¹⁰ Barth and Clinch (2009) investigate inferences associated with potential scale-related effects within the context of a modified Ohlson (1995) model. They find the share-deflated specification generally performs the best. Accordingly, we deflate the valuation model variables by outstanding shares.

where MVE and BV are as previously defined and BPG is the amount of the bargain purchase gain for quarter t. In Equation 3, ADJNI is pre-tax income less the BPG for quarter t, and ADJLOSS is an indicator variable equal to one if ADJNI is negative, and zero otherwise. In Equation 4, ADJNI2 is pre-tax income less special items for quarter t (including BPGs), ADJLOSS2 is an indicator variable equal to one if ADJNI2 is negative, and zero otherwise, and ADJSI is the amount of special items reported in quarter t less the BPG. All continuous variables are scaled by beginning of period shares outstanding.

If investors price the BPG as predicted in H2a, then we expect the coefficient on BPG to be significantly positive ($\beta_6 > 0$ in Equation 3; $\gamma_6 > 0$ in Equation 4). However, it is possible that the BPG may not be priced or be found to have negative pricing implications. The BPG is a function of the FDIC loss share agreement and therefore represents potential future inflows into the bank. As previously discussed in connection with the first hypothesis, management may use the fair value estimation process to manage the magnitude of the BPG. Investor valuation of the BPG may therefore be negatively impacted if investors consider the opportunistic behavior could result in overstating the BPG. The result would be lower pricing of the BPG or the BPG not being valued.

We use three separate analyses to test H2b that considers how the valuation of the BPG compares to other components of income, specifically whether it is priced consistent with a transitory shock to earnings. First, we expect the coefficient estimate on the BPG to be not statistically different than 1 ($\beta_6 = 1$ in Equation 3; $\gamma_6 = 1$ in Equation 4). Second, we expect that the market will assign a lower valuation multiple on the BPG than it does on net income adjusted for BPG and net income adjusted for other special items ($\beta_2 > \beta_6$ in Equation 3; $\gamma_2 > \gamma_6$ in Equation 4). Finally, we expect that the coefficient estimate of the BPG will not be statistically

different than our proxy for other transitory items included in net income, specifically special items ($\gamma_6 = \gamma_7$ in Equation 4).

V. Analysis of Results

Sample

Our sample comes from the failed banks listed on the FDIC website. We analyze failed banks because the potential for BPG is more prevalent in forced sales. We start by collecting all acquisitions completed between January 1, 2009 and December 31, 2009 resulting from bank failures. This provides us with an initial sample of 140 failed banks and 90 acquirers, of which 103 failed banks and 74 acquirers make our final sample.¹¹ We determine the bargain purchase gain by examining the FRY-9C (Call Reports) for these 74 banks, and use these banks to perform our earnings management tests. The value relevance tests require the bank acquirers to be publicly-traded and have available market values for their common stock. Our valuation sample is therefore reduced to 38 banks (Table 1).

In the next section, we describe the determinant sample and results of our tests of the first hypothesis. This is followed by a discussion of the valuation sample and related tests.

¹¹ Nine of the bank failures were resolved with Insured Deposit Payoffs with no bank acquiring the failed institution, while another nine of failed banks separately identified by the FDIC were actually different subsidiaries of the same parent (eliminating another 8 banks). Also, five failed banks were acquired by thrifts. We exclude thrifts from our sample, because we were unable to collect the BPG information from their public filings. The remaining 15 bank closures were eliminated from our sample, because data limitations prohibited us from confirming the amount of the BPG. The final sample consists of 74 acquiring banks associated with the acquisition of 103 failed institutions.

Earnings Management Results

Descriptive statistics for our determinant sample of 74 banks segregated on whether or not the bank reported a BPG in 2009 are provided in Table 2. Just over 50 percent of the banks in the sample report BPGs, supporting our decision to focus on the failed bank setting to explore BPGs. Compared to the non-BPG acquisitions, the BPG acquirers are smaller while the BPG acquirees are larger suggesting that the BPG acquisitions are economically more significant to the acquirers. The estimated FDIC loss is similar between the two types of acquisitions. BPG acquirers experience larger incidences of loss, as well as more net income and ROA declines than non-BPG acquirers. Collectively, Table 2 reports univariate statistics consistent with H1.

Pearson (Spearman) correlations among our determinant variables are reported in Table 3. ACQUIREE_SIZE is positively correlated with DBPG, consistent with the notion that as failed banks get bigger, there are fewer acquirers with the resources to absorb these large institutions. Consequently, the bidding process can become less competitive, leading to a greater likelihood of achieving a BPG. In addition, our LOSS, NI_DECLINE, and ROA_DECLINE test variables are all positively correlated with DBPG, which is also consistent with H1.

Results from our earnings management tests are found in Table 4. Three versions of Equation 1 are estimated varying the earnings benchmark (our measures to capture earnings management). Across the three estimations, the explanatory power of the model ranges from 33 percent to 50 percent. The percent concordant is also high, ranging from 78 percent to 87 percent. Significant control variables are also consistent with our predictions. The BPG is more (less) likely as the number of acquisitions per acquirer increases and if the acquisition is in the 4th quarter (as the FDIC assistance increases). Other control variables are not significant.

Our first hypothesis is supported using each earnings benchmark. In the first estimation, we report a positive coefficient on LOSS (0.95; p-value < 0.10). The estimated coefficient for NI_DECLINE in the second estimation is also positive and significant (2.14; p-value < 0.01). Finally, ROA_DECLINE is our third variable of interest. We again report a positive coefficient on ROA_DECLINE (2.89; p-value < 0.01). In all three estimations, the coefficient on our variable of interest is consistent with the predictions for H1.

To test the robustness of our finding, we separately examine the firms who report a BPG to determine whether the BPG prevents a firm from reporting a loss, an income decline, or a ROA decline. In untabulated analysis, we find that 8 of the 18 BPG firms that would have reported a pre-BPG loss are able to report positive income due to the BPG. Further, we find that 14 of the 31 BPG firms that would have reported a decrease in income are able to avoid reporting the decline, because of the BPG. Finally, we find that 12 of the 31 BPG firms are able to avoid reporting an ROA decline, because of the BPG. This amounts to over 44%, 45%, and 39% of BPG firms turning a net loss into net income, turning an income decline into an increase in income, and an ROA decline into an ROA increase.

Our sample includes both public and private acquirers. Prior research indicates that public banks are involved in more earnings management activities than privately-held banks (Beatty and Harris, 1999; Beatty, et al. 2002). We therefore separately estimate Equation 1 on public (private) acquirers. Coefficient estimates for these separate regressions are qualitatively similar to the reported results for the full sample, although, the results for public banks are stronger consistent with the prior research.

Collectively, the results reported in Table 4, along with the additional untabulated analysis, suggest managers may use the current income treatment of the BPG, as allowed under

the revised business combination standard, to mitigate (and in a substantial percentage of the cases, avoid) losses, income declines, and ROA declines.

Value Relevance Results

Quarterly descriptive statistics for our valuation sample are reported in Table 5. This sample consists of 38 banks; 19 of which reported a BPG (50 percent). The BPG percentage is similar to that of the determinant sample. Consistent with our earnings management sample, the public banks are also experiencing a high incidence of loss (51% of the firms). Within the public banks, the banks recording BPGs record lower adjusted earnings per share. The mean (median) gross BPG [labeled BP] was \$91 million (\$33 million), which equates to a \$0.70 (\$0.28) impact on mean (median) quarterly EPS. This amount appears economically significant, when you consider the mean median pretax adjusted quarterly EPS was -\$0.38 (-\$0.04) per share for these firms.

Pearson (Spearman) correlations among our value relevance variables are reported in Table 6. As expected, BV and ADJEPS are both positively correlated with MVE, while ADJLOSS is negatively correlated with MVE. Consistent with H2a, BPG is also positively correlated with MVE.

The estimations of Equations (3) and (4) are reported in Table 7. We include all four quarters during 2009 for each bank as separate observations. As a result, the OLS standard errors are likely biased because of both cross-sectional (across bank) and time-series (across quarter) dependence. We therefore estimate standard errors that are clustered by bank and quarter for the analyses discussed in the following paragraphs (Peterson 2009).

The adjusted R^2 s for both equations are greater than 91 percent. The nature of bank operations and the financial instrument content of its balance sheet contribute to the high explanatory power and are consistent with prior banking research. As expected, book value and pre-tax earnings before the BPG (special items) are value relevant in both models (BV = 0.92; p-value < 0.01 ADJNI = 4.20; p-value < 0.10 in Equation 3, BV = 0.85; p-value < 0.01 ADJNI = 9.56; p-value < 0.10 in Equation 4). Although there is no differential book value effect for loss firms, we do find a negative coefficient estimate on our ADJNI*LOSS interaction, consistent with our expectations. Consistent with H2a, we find a significantly positive coefficient estimate on BPG in both models (BPG=1.39; p-value < 0.01 in Equation 3, BPG=0.66; p-value < 0.10 in Equation 4).

We further investigate the estimated BPG coefficient to test H2b and examine whether the market prices the BPG in a manner consistent with a transitory shock to earnings. The F-statistics for this analysis are reported at the bottom of Table 7. In Equation 3, we find that while the coefficient estimate for BPG is positive, it is significantly less than the estimated coefficient for ADJNI (F-statistic=4.64; p-value < 0.01) but is not statistically different that the theoretical prediction of 1 (F-statistic = 0.68; p-value > 0.10). In Equation 4, the estimated coefficient for BPG is again less than ADJNI (F-statistic = 15.70; p-value < 0.01) and not statistically different from 1 (F-statistic=0.49; p-value > 0.10). Further, we find that the coefficient estimate for BPG is not statistically different than the coefficient estimate on other special items (F-statistic=1.49; p-value > 0.10). The results from these additional tests provide evidence consistent with H2b, that the market prices the BPG consistent with a transitory shock to earnings.¹²

¹² In sensitivity, we estimate Equation 3 and Equation 4 on only acquisition quarter observations and obtain qualitatively similar results.

Collectively, the results reported in Table 7 suggest that despite the potentially opportunistic use of the BPG (found in our test of H1), the market does value the BPG (support for H2a). Further, the market appears to price it as a transitory gain (support for H2b), which supports the decision of the FASB to position the BPG as a component within income from continuing operations.

Supplemental Analysis

After documenting evidence consistent with investors valuing the BPG despite it potentially being used by some banks as an earnings management tool, we attempt to reconcile these findings. Not all BPGs are expected to be associated with earnings management. We therefore attempt to classify BPGs as to whether or not the BPG is considered suspicious, that is, more likely to being used as a earnings management tool.

We classify the BPGs into suspicious BPGs and legitimate BPGs. We perform this classification by examining pre-BPG income and identifying firms in our sample that benefit the most from BPG recognition. We develop two measures for suspicious and legitimate BPGs. Our first measure separates BPGs into firms based on pre-BPG profitability where we assume pre-BPG negative income is more suspicious than positive income. Our second measure separates observations into firms based on whether or not the BPG allows a bank to avoid reporting a loss. Segregating BPG banks based on suspicion of earnings management leads to the following model.

$$\begin{aligned} \text{MVE} &= \beta_0 + \beta_1 \text{BV} + \beta_2 \text{ADJNI} + \beta_3 \text{ADJLOSS} + \beta_4 \text{BV} * \text{ADJLOSS} + \\ &\beta_5 \text{ADJNI} * \text{ADJLOSS} + \beta_6 (\text{BPG} * [1 - \text{SUSPECT}]) + \end{aligned}$$

$$\beta_7(\text{BPG} * \text{SUSPECT}) + \varepsilon \quad (5)$$

where SUSPECT takes on the value of either an indicator variable equal to one if the pre-BPG income is negative and zero otherwise (referred to as PROFIT in our analysis), or an indicator variable equal to one if the BPG allows the bank to avoid reporting a loss, and zero otherwise (referred to as CHANGE in our analysis). All other variables are as previously defined.

We expect that if the market distinguishes between legitimate and suspect BPGs and if our measures of legitimate and suspect BPGs are effective, the coefficient estimate on the legitimate BPGs (represented by the interaction of BPG and 1 - SUSPECT) will be significantly positive ($\beta_6 > 0$) and the coefficient estimate on the potentially suspicious BPGs (represented by the interaction of BPG and SUSPECT) will be insignificant ($\beta_7 = 0$). Further, we expect the coefficient estimate on legitimate BPGs to exceed the coefficient estimates for the suspicious BPGs ($\beta_6 > \beta_7$).

In untabulated analysis of our full sample, we are unable to document a difference in valuation multiples between legitimate and suspicious BPGs. In an attempt to increase power, we focus on only acquisition observations (eliminate quarters that do not involve an acquisition), which eliminates the noise associated with equating non-acquisition quarters (BPG=0) with acquisition with no BPG quarters (BPG=0). In addition, we only permit one observation per firm to reduce the potential confounding effects which could arise from including multiple observations from a firm that engages in multiple quarterly acquisitions, and we eliminate

observations with multiple acquisitions in a quarter to eliminate the possibility that an observation could have both a legitimate and a suspect acquisition.¹³

The supplemental analyses are reported in Table 8. We are able to document evidence consistent with the market valuing the legitimate BPGs ($\beta_6 = 11.31$ for the PROFIT measure, p-value < 0.10 ; and $\beta_6 = 8.77$ for the CHANGE measure, p-value < 0.10), but not valuing the BPGs that we assume are less legitimate ($\beta_7 = 1.87$ for the PROFIT measure, p-value = 0.214; and $\beta_7 = 2.20$ for the CHANGE measure, p-value = 0.143). We are unable to document a significant difference between the estimated coefficients likely due to lack of power in the small sample. Collectively, the results reported in Table 8 provide support that the positive market valuations of the BPG documented in our tests of H2 are associated with legitimate BPGs rather than the BPGs which may be associated with earnings management, as documented in our tests of H1.

VI. Concluding Remarks

We use a unique sample of recent bank failures to examine the intended and unintended consequences of BPG treatment of negative goodwill promulgated by the revised business combination standard. We provide evidence consistent with bank managers using the current income treatment of the BPG to avoid reporting losses, income declines, and ROA declines. This finding suggests that bank managers are undermining the stated purpose of the FASBs

¹³ Our tabulated analysis only includes the final observation for a particular firm. In untabulated sensitivity we include only the first observation for a particular firm. In addition, three firms are eliminated from our sample because all of their acquisition quarters involved more than one failed institution. Results are qualitatively similar under both approaches. Our earlier earnings management results also hold in this reduced sample

treatment of the BPG to provide a more faithful representation of the underlying transaction. Despite the potentially opportunistic use of the BPG, the market appears to value the BPG as a transitory component of current income, which provides empirical support to the decision of the FASB to include the BPG within current income from continuing operations. In supplemental analysis, we find evidence consistent with the market discounting their valuation of potentially suspect BPGs, as only legitimate BPGs are valued.

Our findings contribute to our understanding of another tool that managers may use opportunistically within the banking industry. This finding is different from other earnings management studies, because it involves managing earnings through the acquisition of an asset. Additionally, this study contributes to our understanding of how the market prices gains that are arguably recognized before the earnings process is complete. Our inability to document a significant difference between the coefficient estimates on legitimate BPGs relative to suspect BPGs suggests that either our test is not powerful enough to detect the differential valuation, or that investors do not sufficiently discriminate between legitimate BPGs and suspect BPGs. Finally, this study will be of interest to the FASB as it supports their decision to include the BPG in current income.

A limitation of this study is that the results may not generalize beyond the failed bank business combination environment. Our inferences are thus limited to the extent that the unique characteristics present in the failed bank setting do not exist in other business combination settings. A second limitation of this study is that we are unable to determine whether our observed pricing of the BPG is due to the market not fully understanding the implications of the new accounting standard. Future research can address this concern by investigating whether the market continues to value the BPG as the standard matures.

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Table 1 – Sample Determination

Unique acquirers of failed banks in 2009	90
Less: Thrifts and FDIC	16
Determinant Sample ¹	<u>74</u>
Less: Private acquirers	36
Value Relevance Sample	<u>38</u>

¹ These 74 banks accounted for 103 of the 140 failed banks in 2009. Fifteen acquirer banks were involved in multiple acquisitions of failed institutions. A breakdown of the number of failed banks acquired by the acquirer's in our sample is presented below:

<u>Number of Failed Banks Acquired</u>	<u>Number of Acquirers</u>
1	59
2	7
3	4
4	3
8	1

Table 2 – Descriptive Statistics for Determinant Sample**Panel A: Non-Bargain Purchase Gain Banks (N=36)**

Variable ¹ (\$ in 000s)	Mean	Standard Deviation	25th Percentile	Median	75th Percentile
ACQUIRER_SIZE	20,402.725	49,097.797	328.559	689.114	6,459.374
PUBLIC	0.389	0.494	0.000	0.000	1.000
N_ACQ	1.083	0.280	1.000	1.000	1.000
Q4_ACQ	0.166	0.378	0.000	0.000	0.000
DEP_PER_BRANCH	2.097	1.185	1.261	1.784	2.455
ACQUIREE_SIZE	1,093.986	4,205.833	90.379	216.899	578.066
FDICLOSS	0.312	0.135	0.228	0.299	0.390
NI2008	-64.304	987.258	0.740	4.096	22.105
LOSS	0.306	0.467	0.000	0.000	1.000
NI_DECLINE	0.444	0.504	0.000	0.000	1.000
ROA2008	0.004	0.017	0.003	0.008	0.012
ROA_DECLINE	0.444	0.504	0.000	0.000	1.000

Panel B: Bargain Purchase Gain Banks (N=38)

Variable ¹ (\$ in 000s)	Mean	Standard Deviation	25th Percentile	Median	75th Percentile
ACQUIRER_SIZE	6,177.015*	14,123.310	438.020	1,418.036	4,490.363
PUBLIC	0.447	0.504	0.000	0.000	1.000
N_ACQ	1.684**	1.416	1.000	1.000**	2.000
Q4_ACQ	0.421**	0.500	0.000	0.000**	1.000
DEP_PER_BRANCH	2.438	1.473	1.601	2.039	2.814
ACQUIREE_SIZE	1,582.190	2,963.418	166.456	420.648*	1,595.657
FDICLOSS	0.263	0.109	0.203	0.268	0.321
NI2008	-1.175	171.228	0.572	6.439	24.906
LOSS	0.474*	0.506	0.000	0.000*	1.000
NI_DECLINE	0.816***	0.393	1.000	1.000***	1.000
ROA2008	0.002	0.028	0.002	0.007	0.011
ROA_DECLINE	0.816***	0.393	1.000	1.000***	1.000

* / ** / *** Difference between the non-bargain purchase gain banks and bargain purchase gain banks is significant at the 0.10 / 0.05 / 0.01 level for the t-test of means and the Wilcoxon test of medians.

¹ Variables are defined as follows: ACQUIRER_SIZE is the December 31, 2008 total assets of the acquirer, PUBLIC is an indicator variable equal to one if the acquiring bank is public, and zero otherwise, N_ACQ is the number of failed bank acquisitions performed by the acquirer bank during the year, Q4_ACQ is an indicator variable equal to one if the acquisition occurred in the 4th quarter and zero otherwise, DEP_PER_BRANCH is the ratio of total deposits acquired to the number of branches acquired, ACQUIREE_SIZE is December 31, 2008 total assets of the acquiree, FDICLOSS is the ratio of estimated FDIC loss on the acquisition to the assets acquired in the acquisition, NI2008 is the acquirer's 2008 net income, NI2009 is the acquirer's 2009 net income, LOSS is an indicator equal to one if the acquirer's 2009 net income less the bargain purchase gain is less than zero, and zero otherwise, NI_DECLINE is an indicator equal to one if the acquirer's 2009 net income less the bargain purchase gain is less than 2008 net income, and zero otherwise, ROA2008 is the ratio of 2008 net income to beginning 2008 total assets, and ROA_DECLINE is an indicator equal to one if the 2009 ROA is less than 2008 ROA and zero otherwise.

Table 3 – Correlation Matrix for Determinant Sample

<i>(n=74)</i>	1	2	3	4	5	6	7	8	9	10	11	12	13
1. DBPG	1.0	0.013 0.913	0.059 0.616	0.283 0.015	0.278 0.016	0.128 0.286	0.222 0.057	-0.200 0.088	0.046 0.699	0.172 0.143	0.386 0.001	-0.083 0.482	0.386 0.001
2. ACQUIRER_SIZE	0.092 0.434	1.0	0.568 <.001	-0.168 0.152	-0.034 0.776	0.264 0.026	0.375 0.001	-0.004 0.976	-0.093 0.430	0.255 0.029	0.227 0.051	-0.152 0.197	0.190 0.105
3. PUBLIC	0.059 0.616	0.617 <.001	1.0	-0.055 0.640	0.107 0.365	0.203 0.090	0.535 0.417	0.668 -0.314	-0.085 0.471	0.384 0.001	0.188 0.108	-0.259 0.026	0.131 0.264
4. N_ACQ	0.281 0.015	-0.027 0.818	0.057 0.628	1.0	0.344 0.003	0.216 0.071	0.335 0.004	-0.018 0.878	0.025 0.832	-0.036 0.764	0.015 0.897	0.038 0.747	0.015 0.897
5. Q4_ACQ	0.278 0.016	-0.022 0.851	0.107 0.365	0.314 0.006	1.0	0.113 0.348	0.061 0.604	0.051 0.668	0.046 0.698	0.205 0.080	0.309 0.007	0.117 0.323	0.370 0.001
6. DEP_PER_BRANCH	0.148 0.217	0.356 0.002	0.283 0.017	0.192 0.108	0.034 0.777	1.0	0.361 0.002	-0.221 0.064	0.065 0.588	0.057 0.636	-0.074 0.538	0.004 0.971	-0.075 0.534
7. ACQUIREE_SIZE	0.225 0.054	0.500 <.001	0.455 <.001	0.375 0.001	0.073 0.535	0.417 <.001	1.0	-0.411 0.000	0.050 0.672	0.107 0.365	0.180 0.126	-0.074 0.532	0.186 0.113
8. FDICLOSS	-0.166 0.158	-0.250 0.032	-0.279 0.016	-0.004 0.976	0.025 0.833	-0.314 0.008	-0.328 0.004	1.0	-0.066 0.579	-0.008 0.944	-0.045 0.701	0.004 0.971	-0.075 0.534
9. NI2008	0.000 1.000	0.405 <.001	0.081 0.490	0.077 0.516	0.037 0.752	0.095 0.431	0.247 0.034	-0.145 0.219	1.0	-0.201 0.086	0.179 0.126	0.185 0.114	0.196 0.093
10. LOSS	0.172 0.143	0.278 0.017	0.384 0.001	-0.028 0.816	0.205 0.080	0.011 0.926	0.102 0.388	0.051 0.665	-0.326 0.005	1.0	0.378 0.001	-0.360 0.002	0.263 0.023
11. NI_DECLINE	0.386 0.001	0.227 0.052	0.188 0.108	0.087 0.463	0.309 0.007	-0.086 0.478	0.148 0.209	-0.010 0.934	0.179 0.126	0.378 0.001	1.0	0.041 0.729	0.883 <.001
12. ROA2008	-0.063 0.592	-0.285 0.014	-0.366 0.001	-0.042 0.721	-0.066 0.574	-0.058 0.632	-0.212 0.070	-0.024 0.841	0.536 <.001	-0.567 <.001	0.037 0.751	1.0	0.289 0.012
13. ROA_DECLINE	0.386 0.001	0.186 0.113	0.131 0.264	0.087 0.463	0.370 0.001	-0.083 0.493	0.162 0.167	-0.047 0.693	0.311 0.007	0.263 0.023	0.883 <.001	0.166 0.157	1.0

The Pearson (Spearman) correlation coefficients are above (below) the diagonal.

¹ DBPG is an indicator variable if the bank reported a bargain purchase gain and zero otherwise. All other variables are defined in Table 2.

Table 4 – Logit Determinant Models

$$\text{Prob (DBPG} = 1) = F [\alpha_0 + \alpha_1\text{ACQUIRER_SIZE} + \alpha_2\text{PUBLIC} + \alpha_3\text{N_ACQ} + \alpha_4\text{Q4_ACQ} + \alpha_5\text{DEP_TO_BRANCH} + \alpha_6\text{ACQUIREE_SIZE} + \alpha_7\text{FDICLOSS} + \alpha_8\text{NI2008 (ROA2008)} + \alpha_9\text{EM} + \varepsilon]$$

Earnings Management Variable		LOSS	NI_DECLINE	ROA_DECLINE			
Variables ¹ (n=74)	Prediction	Estimated Coefficient	X ² -statistic	Estimated Coefficient	X ² -statistic	Estimated Coefficient	X ² -statistic
INTERCEPT		-2.65	0.76	-2.05	0.38	-1.88	0.29
ACQUIRER_SIZE	(+)	0.02	0.01	-0.11	0.21	-0.08	0.11
PUBLIC	(+)	-0.56	0.54	-0.30	0.15	-0.75	0.80
N_ACQ	(+)	1.12 *	2.60	1.04 *	2.00	1.35 **	2.56
Q4ACQ	(+)	1.15 *	2.91	0.90	1.57	0.75	0.95
DEP_PER_BRANCH	(-)	0.00	0.07	0.00	0.11	0.00	0.41
ACQUIREE_SIZE	(+)	0.16	0.34	0.17	0.33	0.06	0.04
FDICLOSS	(-)	-5.31 **	3.54	-6.12 **	4.12	-6.51 **	4.33
NI2008	(?)	0.00	0.03	0.00	0.90		
ROA2008	(?)					-25.24 **	4.01
LOSS	H1: (+)	0.95 *	2.07				
NI_DECLINE	H1: (+)			2.14 ***	8.20		
ROA_DECLINE	H1: (+)					2.89 ***	9.31
Pseudo R ²		0.338		0.437		0.507	
% Concordant		78.5		85.1		87.6	

*/ **/** indicate significance at the 0.10 / 0.05 / 0.01 level using two-tailed tests (one-tail for predicted directions).

¹ F is the cumulative standard normal distribution function and the variables are as defined in Tables 2 and 3.

Table 5 – Descriptive Statistics for Value Relevance Sample**Panel A: Full Sample (n=152)**

<u>Variable</u>	<u>Mean</u>	<u>Standard Deviation</u>	<u>25th Percentile</u>	<u>Median</u>	<u>75th Percentile</u>
MVE	20.342	25.441	7.186	12.052	22.238
BV	21.648	23.355	10.709	15.097	22.738
ADJNI	-0.217	1.457	-0.597	-0.020	0.367
ADJLOSS	0.513	0.501	0.000	1.000	1.000
ADJSI	-0.107	1.079	-0.026	0.000	0.000
BPG	1.519	3.019	0.000	0.052	1.565

Panel B: Non-bargain Purchase Gain Banks (N=76)

<u>Variable</u>	<u>Mean</u>	<u>Standard Deviation</u>	<u>25th Percentile</u>	<u>Median</u>	<u>75th Percentile</u>
MVE	14.958	13.148	5.593	10.878	20.553
BV	15.484	10.794	7.515	12.460	17.948
ADJNI	-0.058*	1.373	-0.517	0.021	0.367
ADJLOSS	0.487	0.503	0.000	0.000	1.000
ADJSI	-0.030	1.095	-0.026	0.000	0.000

Panel C: Bargain Purchase Gain Banks (N=76)

<u>Variable</u>	<u>Mean</u>	<u>Standard Deviation</u>	<u>25th Percentile</u>	<u>Median</u>	<u>75th Percentile</u>
MVE	25.726***	32.734	8.195	12.925**	31.893
BV	27.811***	30.079	13.725	16.533***	31.217
ADJNI	-0.376	1.530	-0.771	-0.038	0.359
ADJLOSS	0.539	0.502	0.000	1.000	1.000
ADJSI	-0.184	1.064	-0.045	0.000	0.000
BP	90.773	133.057	11.584	33.623	107.903

* / ** / *** Difference between the non-bargain purchase gain banks and bargain purchase gain banks is significant at the 0.10 / 0.05 / 0.01 level for the t-test of means and the Wilcoxon test of medians.

¹ Variables are defined as follows: MVE is the market value of equity measured as of end of the following quarter, BV is quarter-end assets less liabilities, ADJNI is pretax quarterly income less the bargain purchase gain, ADJLOSS is an indicator variable equal to one if ADJNI is negative, ADJSI is the amount of special items during the quarter after removing the bargain purchase gain, BPG is the gross bargain purchase gain (in millions). All continuous variables are divided by common shares outstanding at the beginning of the quarter, with the exception of BP which reports descriptive statistics for the gross amount of the BPG among the bargain purchase acquirers.

Table 6 – Correlation Matrix for Value Relevance Sample

Variables ¹ (n=152)	MVE	BV	ADJNI	ADJLOSS	ADJSI	BPG
MVE	1.0	0.924	0.416	-0.359	0.0823	0.476
		<0.001	<0.001	<0.001	0.313	<0.001
BV	0.762	1.0	0.252	-0.211	0.003	0.498
	<0.001		0.002	-0.009	0.967	<0.001
ADJNI	0.512	0.245	1.0	-0.591	0.751	0.069
	<0.001	0.002		<0.001	<0.001	0.397
ADJLOSS	-0.427	-0.142	-0.866	1.0	-0.227	-0.066
	<0.001	0.080	<0.001		0.005	0.422
ADJSI	-0.051	-0.120	0.200	-0.092	1.0	-0.045
	0.530	0.140	0.013	0.258		0.584
BPG	0.210	0.321	-0.042	0.029	-0.026	1.0
	0.009	<0.001	0.604	0.723	0.753	

The Pearson (Spearman) correlation coefficients are above (below) the diagonal.

¹ All variables are defined in Table 5.

Table 7 – Value Relevance Models

$$MVE = \beta_0 + \beta_1 BV + \beta_2 ADJNI + \beta_3 LOSS + \beta_4 BV*LOSS + \beta_5 ADJNI*LOSS + \beta_6 BPG + \varepsilon$$

$$MVE = \gamma_0 + \gamma_1 BV + \gamma_2 ADJNI2 + \gamma_3 ADJLOSS2 + \gamma_4 BV*ADJLOSS2 + \gamma_5 ADJNI2*ADJLOSS2 + \gamma_6 BPG + \gamma_7 ADJSI + \varepsilon$$

Variables ¹ (n=152)	Prediction	Equation 3		Equation 4	
		Estimated Coefficient	t-statistic	Estimated Coefficient	t-statistic
Intercept		-1.49	-7.68	-1.75	-3.96
BV	(+)	0.92 ***	43.16	0.85 ***	137.73
ADJNI	(+)	4.20***	4.54	9.56 ***	8.48
ADJLOSS	(-)	-2.40	-0.97	-0.51	-0.19
ADJLOSS*BV	(+)	-0.27	-1.71	-0.17	-1.08
ADJLOSS*ADJNI	(-)	-3.13 **	-2.70	-7.22 ***	-8.56
BPG	H2a: (+)	1.39 **	2.87	0.67*	1.42
ADJSI	(+)			1.48 **	2.97
Adjusted R ²		0.918		0.919	

Comparison of Coefficients (H2b)

	F-statistic	F-statistic
BPG=ADJNI ($\beta_6 = \beta_2; \gamma_6 = \gamma_2$)	4.64***	15.70***
BPG=1 ($\beta_6 = 1; \gamma_6 = 1$)	0.68	0.49
BPG=ADJSI ($\gamma_6 = \gamma_7$)		1.49

*/ **/** indicate significance at the 0.10 / 0.05 / 0.01 level using two-tailed tests (one-tail for predicted directions). The t-statistics are based on Rogers (1993) standard errors clustered on bank and quarter.

¹ ADJNI2 is equal to pretax quarterly income less special items (including BPGs), ADJLOSS2 is an indicator variable equal to 1 if ADJNI2 is less than 0. All other variables are defined in Table 5.

Table 8 – Supplemental Analysis

$$MVE = \beta_0 + \beta_1 BV + \beta_2 ADJNI + \beta_3 ADJLOSS + \beta_4 BV * ADJLOSS + \beta_5 ADJNI * ADJLOSS + \beta_6 BPG * (1 - SUSPECT) + \beta_7 BPG * SUSPECT + \varepsilon$$

Variables ¹ (n=35)	Prediction	PROFIT Proxy		CHANGE Proxy	
		Estimated Coefficient	t-statistic	Estimated Coefficient	t-statistic
Intercept		-2.01	-0.48	-1.48	-0.36
BV	(+)	0.97 ***	6.30	0.98 ***	6.35
ADJNI	(+)	5.64**	2.22	5.38 ***	2.16
ADJLOSS	(-)	5.65	0.93	5.87	0.95
ADJLOSS*BV	(+)	-0.32	-1.25	-0.36	-1.43
ADJLOSS*ADJNI	(-)	-1.95	-0.56	-1.04 ***	-0.30
BPG*(1-SUSPECT)	(+)	11.31 *	1.43	8.77*	1.48
BPG*SUSPECT	(N.S.)	1.87	1.27	2.20	1.51
Adjusted R ²		0.701		0.701	
Comparison of Coefficients					
		F-statistic		F-statistic	
BPG*(1-SUSPECT) = BPG*SUSPECT ($\beta_6 = \beta_7$)		1.39		1.33	

*/ **/** indicate significance at the 0.10 / 0.05 / 0.01 level using two-tailed tests (one-tail for predicted directions)..

¹ SUSPECT takes on the value of either an indicator variable equal to one if the pre-BPG income is negative and zero otherwise (PROFIT), or an indicator variable equal to one if the BPG allows the bank to avoid reporting a loss, and zero otherwise (CHANGE). All other variables are defined in Table 5.