

Volume 30, Issue 1**Evaluating the SEC Review of Commercial Banks: Evidence from Comment Letters**

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Abstract

This paper examines whether the oversight provided by the SEC over commercial banks was appropriate in the period immediately preceding the end of the recent real-estate boom. The approach followed here is to first identify the variables that are of interest to those who invest in banks, and then to present evidence from comment letters to identify the areas in which the SEC actually focuses on . These two results are then compared to determine if the SEC's review efforts are aligned with the interests of bank investors. The results are mixed: in some instances the SEC focuses on the same areas as investors, but in other cases it does not – either because the SEC does not focus on areas of interest to investors, or because the SEC focuses in areas that are of questionable or no interest to investors. Even in cases in which the SEC and investors' interests are aligned, however, investors would benefit from enhanced disclosures. Overall, the paper suggests specific improvements to the SEC review process by identifying areas in which the SEC should focus on, and by suggesting areas of improved disclosure. Finally, this paper also examines the attributes of banks that generated issues upon SEC review.

1. INTRODUCTION

In the aftermath of an unprecedented real-estate boom and bust, it is commonly asked if regulatory oversight was appropriate. To tackle this question, this paper examines the role played by one of our most important watchdogs, the U.S. Securities and Exchange Commission (SEC), in its oversight of national commercial banks in the period preceding the end of the boom.

Since the SEC's stated mission is to protect investors, this paper starts by identifying the areas of interest to bank investors.¹ The paper next examines the content of SEC comment letters – written by the SEC in response to a company's filings with the SEC – in order to find the areas in which the SEC actually focuses on to see if the SEC examines areas of investor interest. If the SEC focuses on the same topics as investors, then key investor information is disclosed and disseminated, and regulatory oversight would be appropriate – at least by this narrow measure. In addition, this paper examines the types of banks that the SEC examines most closely.

This study complements other studies on SEC surveillance. This includes Feroz et. al. (1991), which examines Accounting and Auditing Enforcement Releases (AAERs), and shows that the SEC focuses on inadequate disclosures of financial firms and that the size of the audit firm and the exchange in which the firm's shares trade play a role in SEC reviews. Another study is that of Pincus et. al. (1988), which finds that the SEC receives surveillance leads from the American Stock Exchange, New York Stock Exchange, and the National Association of Securities Dealers. Finally, Rothwell (2007) states that the SEC's review process focuses on larger firms. These results therefore provide evidence for examining the impact of exchanges and bank size on issues arising in comment letters. Another related study is that of Ertimur and Nondorf (2006), which examines comment letters for firms undergoing an initial public offering (IPO). In contrast, this paper looks at comment letters arising from filers' on-going review by the SEC – after their IPO.

2. AREAS OF INTEREST TO BANK INVESTORS

2.1 A Bank Model

This section identifies the topics of interest to bank investors by presenting a bank valuation model.² This model serves as a framework to identify and discuss the main variables of interest to bank investors. A key feature of this model is that it highlights the key accounting variables in financial statements that interest investors. It is assumed that the value of a bank is determined by equity cash flows (cash flows available to shareholders), ECF , which are given by $ECF_t = NI_t - \Delta E_t$, where NI_t is period-t net income and $\Delta E_t = E_t - E_{t-1}$ is the increase in equity, E , from the prior period.³ Therefore, increases in net income raise equity cash flows, whereas increases in equity (through, say, a decrease in dividends), reduce equity cash flows. The value of a bank in period-t is:

$$V_t = \sum_{j=t+1}^T \frac{ECF_j}{(1+k_e)^j} + PV(CV) \quad (1)$$

¹ The SEC's mission is therefore to ensure that such information is adequately disclosed.

² It is assumed that banks shares trade in capital markets, where a bank's value is determined.

³ Other comprehensive income (OCI) would be included in a more detailed model, as OCI impacts ECF. This impact of OCI is ignored in this note to simplify the model.

Thus, bank's value in period- t , V_t , depends on the sum of projected future equity cash flows from period $t+1$ to T discounted at the cost of capital (k_e), and on the present value of the continuing value, $PV(CV)$. The continuing value, CV , is the forecasted total value of equity cash flows for periods $T+1$, $T+2$, ..., and is given by:⁴

$$CV = \frac{NI_{T+1}(1 - g / ROE)}{(k_e - g)} \quad (2)$$

NI_{T+1} is net income in period $T+1$. ROE and g are the return on equity and the growth of net income in the period after T , respectively. To fully develop the model, the economics of a bank need to be considered. Essentially, a bank borrows from customers' deposits, and earns interest income from lending. However, banks suffer credit losses on their loans, so net income is:

$$NI_t = [I_t^i - E_t^i - PROVLOSS_t](1 - t) \quad (3)$$

Here, I_t^i is interest income earned in period- t on outstanding loans, E_t^i is interest expense incurred in period- t for interest due on customers' deposits, $PROVLOSS_t$ is the expense provision for loan losses in period- t , and t is the tax rate. Whenever the provision for loan losses account is debited, a corresponding credit is made to the Allowance for Loan Loss account, ALL_t . Therefore, net loans outstanding equals:

$$NETLOANS_t = LOANS_t - ALL_t \quad (4)$$

Banks earn interest income on net loans outstanding, $NETLOANS_t$, and on their investments, $INVSEC_t$. For simplicity, it is assumed that these earn the same rate of return, r^i . Therefore, $I_t^i = (INVSEC_t + NETLOANS_t) \cdot r^i$. Assuming that the bank pays interest of r^e on deposits, D_t , interest expense is $E_t^i = D_t \cdot r^e$. In this model, assets (A_t) consist of investment securities and net loans, whereas liabilities (L_t) are assumed to be proportional to assets. Therefore, $A_t = INVSEC_t + NETLOANS_t$ and $L_t = bA_t$. To further develop the model, the assumption is made that deposits, D_t , determine the model variables as follows:

$$\begin{aligned} INVSEC_t &= fD_t \\ NETLOANS_t &= ID_t \\ PROVLOSS_t &= rNETLOANS_t = rID_t \\ ALL_t &= ALL_{t-1} + PROVLOSS_t = ALL_{t-1} + rID_t \end{aligned} \quad (5)$$

In addition, it is assumed that deposits grow at the constant rate g_D , so $D_{t+1} = (1 + g_D)D_t$. With these assumptions, net income, assets and liabilities are given by:

$$\begin{aligned} NI_t &= [(f + I)r^i - r^e - rI](1 - t)D_t \\ A_t &= (f + I)D_t \\ L_t &= b(f + I)D_t \end{aligned} \quad (6)$$

Using these relations, one obtains equity cash flows:

$$ECF_t = [(f + I)r^i - r^e - rI](1 - t)D_t - (1 - b)(f + I)(D_t - D_{t-1}) \quad (7)$$

The first (second) term in equation (7) is the impact of net income (equity) on equity cash flows. Equations (2) and (6) can be used to obtain $PV(CV)$:

⁴ See Koller et al. (2005).

$$PV(CV) = \frac{[(f + I)r^i - r^e - rI](1 - t)D_{T+1}(1 - g / ROE)}{(1 + k_e)^T(k_e - g)} \quad (8)$$

To apply the model, an investor first decides on the number of periods to forecast explicitly (T). The choice of T does not depend on data provided in financial statements. The investor then estimates the parameters k_e , g , and ROE used to compute CV . The cost of equity, k_e , is usually estimated using market data, so it does not depend on information in financial statements.⁵ Parameters g and ROE reflect the long-term view of the investor and are usually independent of information in financial statements. Finally, the investor uses information from financial statements to estimate the parameters g_D , r^i , r^e , b , f , I and r .

Although the model presented above identifies some key areas of interest to investors, in practice investors consider additional variables as well. One such additional variable is loan impairment. A loan is impaired when the present value of the loan is below its book value, and occurs when it is probable that loan payments will not be received.⁶ When a loan is impaired, its value is written down to the present value of its expected cash flows or to its market value. Loan impairment lowers net income, which lowers equity cash flows and the continuing value, thereby lowering bank value. Other related variables of interest to investors are loan charge-offs and recoveries. There are additional variables of interest related to bank activities outside the basic model. For example, banks charge fees in addition to interest. Therefore, investors are likely to be interested in net fee income.⁷ Also, many banks grow by acquiring other banks, so merger and acquisition activity can be substantial and usually has a significant impact on valuation. Finally, banks often use off-balance sheet and special-purpose entities, which are also of interest to investors. Table 1 summarizes the variables of interest to bank investors.

Table I. Areas of Interest to Investors in Banks		
	Variable	Variable Estimated using Data from Financial Statements
Variables identified using basic valuation model:	Deposit growth rate	Yes
	Interest rate earned on assets	Yes
	Interest rate paid on deposits	Yes
	Liability to Asset ratio (i.e. Equity in the bank)	Yes
	Investment Securities	Yes
	Net Loans	Yes
	Provision for Loan Losses	Yes
	Growth rate of Net Income after period- T	No
	Cost of capital after period- T	No
Return on Equity after period- T	No	
Additional variables:	Loan impairment	Yes
	Loan charge-offs	Yes
	Loan recoveries	Yes
	Net fee income	Yes
	Merger and acquisitions	Yes
	Off-balance sheet and special purpose entities	Yes

⁵ Practitioners often use the Capital Asset Pricing Model (CAPM) to estimate the cost of capital.

⁶ Loan impairment is accounted for in accordance with SFAS 114 and SFAS 118.

⁷ Net fee income is fee income minus associated costs. Fee income is earned, for example, when banks originate loans.

3. AREAS OF FOCUS DURING A SEC REVIEW

In order to identify the areas in which the SEC focuses on, this paper examines the content of SEC comment letters. These are letters written by the SEC following the filing of a report by a firm with the SEC. Comment letters contain questions for the filer as well as requests for additional information and require the filer to send a response letter to the SEC.

3.1 The Comment Letter Process

The SEC began the wide dissemination of comment letters as well as the filers' responses to these letters for all filings submitted after August 1st, 2004. Comment and response letters are released within 45 days of the completion of the SEC's filing review and are freely available through the SEC's website.

After a bank files a report with the SEC, such as an annual or quarterly report, the Division of Corporation Finance of the SEC selects some of these filings for review. For the selected cases, the SEC staff writes a letter to the bank on the specific filing. The bank usually has 10 business days to reply to the SEC. The SEC staff can send follow-up letters that prompt filers to write additional response letters. Several such rounds of correspondence are possible. This correspondence cycle ends when the SEC staff is satisfied with the responses.

Although the SEC uses these letters to opine on any type of filing subject to requirements of the Securities Act of 1933, the Securities Exchange Act of 1934, the Trust Indenture Act of 1939 or the Investment Company Act of 1940, this article focuses only on comment letters related to annual and quarterly reports, commonly referred to as 10K and 10Q reports, respectively.⁸

3.2 The Data Sample

This study focuses exclusively on the national commercial bank sector, with the Standard Industrial Classification (SIC) code of 6021. Examples of firms in this sector include Bank of America, Citigroup, and Wells Fargo. State commercial banks, savings institutions, and broker-dealers are classified under different sectors. A random sample of all national commercial banks was selected. The sample was restricted to corporations that filed 10K or 10Q reports between August 1, 2004 (when comment became letters widely available to the public) and December 31, 2006. This sample, which forms the basis of all the results presented in this article, consists of 101 firms, 35 of which generated comment letters. There were on average four letters per review.

3.3 Areas of Interest to the SEC

All issues covered in the SEC comment letters and the companies' response letters are classified according to the section of the annual or quarterly report that the issue pertains to.⁹ The SEC identifies the report section in its comment letters. The report sections that generated the highest number of issues are shown in table 2. The ten report sections shown in table 2 are responsible for 51% of all issues. Note that the first and third rows in table 2 are related to the accounting for

⁸ The SEC reviews these filings selectively, but must review the 10K reports of every company at least every three years according to the requirements of Section 408 of the Sarbanes-Oxley Act.

⁹ An issue can appear in multiple rounds of correspondence between the SEC and the filer. Each unique issue is tracked throughout this correspondence to ensure that there is no double counting of issues. Therefore, all issues counted here are unique.

derivatives. Together, these two sections are responsible for 14.1% of all issues. Therefore, by this metric, the SEC's single most important area of focus is compliance with Statement of Financial Accounting Standard No. 133: Accounting for Derivative Instruments and Hedging Activities.

Table II. Report Sections with the Highest Percentage of Issues		
	Report Section	Percentage of issues identified by the SEC in sample
1	Accounting policy on derivatives and hedging	8.1%
2	Debt and equity securities	6.7%
3	Derivatives	6.0%
4	Merger, acquisition or sale of subsidiary	5.4%
5	Auditor's report	4.7%
6	Statements of Cash Flows	4.7%
7	Allowance for loan losses, non-performing assets, non-accrual loans	4.7%
8	Accounting policy on allowance for loan losses, non-performing assets, delinquencies, foreclosures, and impairments	4.0%
9	Change of auditor	3.4%
10	Exhibits/Certifications	<u>3.4%</u>
	Percentage of all issues due to the top 10 issues	51.0%

3.4 Testing for Areas of Interest to the SEC

As discussed above, variables of interest to investors are identified in table 1. In addition, the preliminary data analysis above also showed that the SEC places a significant amount of attention on derivative issues. Based on this, several hypotheses are developed:

- H1: *The SEC does not focus on:* the provision for loan losses, the allowance for loan losses, loan impairment, loan charge-offs, and loan recoveries.
- H2: *The SEC does not focus on:* bank investments in debt and equity securities.
- H3: *The SEC does not focus on:* merger and acquisition activity, and on goodwill.
- H4: *The SEC does not focus on:* fee income, related costs, and resulting net fee income.
- H5: *The SEC does not focus on:* special-purpose and off-balance sheet entities.
- H6: *The SEC does not focus on:* derivative accounting issues.

The results of the tests of these hypotheses are presented in table 3.¹⁰ In the sample of 101 filers, there were a total of 19 issues related to the provision for loan losses, net loans, the allowance for loan losses, loan impairment, loan charge-offs, and loan recoveries. Therefore, filers have a 19% probability of having an issue on these topics raised by the SEC. Statistical testing of this figure shows that it is significantly different from zero at the 5% confidence level. Hence, according to this test, hypothesis H1 is rejected. Similar tests reject hypotheses H2 and H6, and fail to reject H3, H4 and H5. These results reinforce the finding that the main focus areas for the SEC are: (a) derivatives; (b) loan losses, impairments, charge-offs, impairments, etc.; (c) and investments.

¹⁰ Additional hypothesis were also tested on other topics of interest (e.g. fee accounting, statement of cash flows, etc.). However, the mean number of issues on each of these other topics was not found to be significantly different from zero at the 5% confidence level.

Table III. Testing Hypotheses on Areas of Interest to the SEC

Hypothesis:	H1	H2	H3	H4	H5	H6
Area of interest tested:	Loan Losses ⁽¹⁾	Investments	M&A & Goodwill	Fees	SPEs ⁽²⁾	Derivatives
Sample = 101 Filers:						
Number of total issues	19	18	12	4	2	22
Sample Mean	0.19*	0.18*	0.12	0.04	0.02	0.22*
Sample Standard Deviation	0.83	0.62	0.62	0.24	0.14	0.83
95% Confidence Interval for the Mean	0.02 – 0.35	0.06 – 0.30	-0.004 – 0.24	-0.01 – 0.09	-0.01 – 0.05	0.05 – 0.38
Sample = 35 Filers with Comment Letters						
Number of total issues	19	18	12	4	2	22
Sample Mean	0.54*	0.51*	0.34	0.11	0.06	0.63*
Sample Standard Deviation	1.36	0.98	1.03	0.40	0.24	1.33
95% Confidence Interval for the Mean	0.08 – 1.01	0.18 – 0.85	-0.01 – 0.70	-0.02 – 0.25	-0.02 – 0.14	0.17 – 1.09

(1) Also includes the topics: loan impairments, charge-offs, recoveries, provision for loan losses, and net loans.

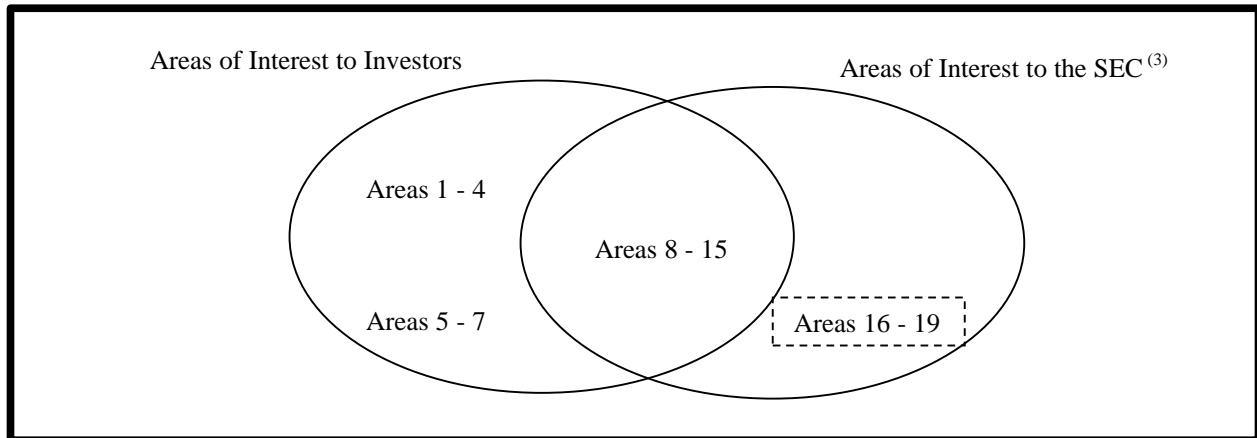
(2) Special purpose and off-balance sheet entities.

* Significantly different from zero at the 5% confidence level.

4. AREAS OF INVESTORS INTEREST vs. AREAS OF SEC INTEREST

Areas of interest to investors and the SEC are shown in figure 1. Nineteen areas are identified. The first four areas (1 – 4) are deposit growth, interest earned on loans, interest paid on deposits, and bank’s equity. These are all areas of interest to investors, yet they did not generate any issues in the SEC review process. It could be that investors have all the data that they need, although this is unlikely (see section 4.1). Areas 5 – 7 in figure 1 are long-run net income growth rate, long-run cost of capital, and long-run return on equity. These areas are of interest to investors for which no data is available in financial statements because investors select values for these variable based on their long-term views. Areas 8 – 15 are of interest to both investors and the SEC and are among the areas that generated the most issues in the comment letters examined.

Figure 1. Areas of Interest to Investors and the SEC



Areas of Interest		To Investors	To the SEC ⁽³⁾
1	Deposit growth rate	Yes	No
2	Interest rate earned on assets	Yes	No
3	Interest rate paid on deposits	Yes	No
4	Liability to Asset ratio (i.e. Equity in the bank)	Yes	No
5	Growth rate of Net Income in the long-run	Yes	N/A
6	Cost of capital in the long-run	Yes	N/A
7	Return on Equity in the long-run	Yes	N/A
8	Loan impairment	Yes	Yes ⁽¹⁾
9	Loan charge-offs	Yes	Yes ⁽¹⁾
10	Loan recoveries	Yes	Yes ⁽¹⁾
11	Investment Securities	Yes	Yes ⁽¹⁾
12	Net Loans	Yes	Yes ⁽¹⁾
13	Provision for Loan Losses	Yes	Yes ⁽¹⁾
14	Accounting Policy on Origination Fees and Related Costs	Yes	Yes ⁽²⁾
15	Merger, Acquisition, or Subsidiary Sale	Yes	Yes ⁽²⁾
16	Derivatives	Possible	Yes ⁽²⁾
17	Statement of Cash Flows	Possible	Yes ⁽²⁾
18	Auditor's Report	Possible	Yes ⁽²⁾
19	Officer's Certifications	Possible	Yes ⁽²⁾

⁽¹⁾ Significantly different from zero at the 5% confidence level.

⁽²⁾ Not significantly different from zero at the 5% confidence level.

⁽³⁾ Areas of Interest to the SEC as demonstrated by the contents of comment letters.

Areas 16 – 19 in figure 1 generated issues in comment letters, but are of questionable interest to investors. One of these areas (area 16) is derivative accounting. The reason that this area is not necessarily of great interest to investors is that the accounting standard on derivatives, SFAS 133, provides limited, misleading, or no information on the economic impact of derivatives – which is what investors are interested in. There are several reasons for this. First, SFAS 133 allows accounting for hedges only in limited cases. This is a considerable problem for a bank that hedges deposits.¹¹ Second, SFAS 133 allows hedge accounting only for hedging certain risks. Therefore, derivatives used to hedge some economic risks are not accounted for under SFAS 133. Third, SFAS 133 does not account for hedges related to held-to-maturity securities. Consequently, a bank holding a portfolio of securities designated as held-to-maturity, will not apply hedge accounting to derivatives used to hedge these securities. Fourth, SFAS 133 allows hedges to be designated as Fair Value hedges or Cash Flow changes. Financial reporting will vary depending on the choice of designation by the bank, so this allows banks to impact financial statements through their choice of hedge designation. Fifth, disclosures required under SFAS 133 are often at such high-level of aggregation that they are not of much use in gauging their usefulness in hedging specific risks. To sum up, although investors are interested in derivatives, the current accounting treatment of derivatives raises substantial doubts on the value of

¹¹ For example, consider a bank that pays a variable interest on its deposits, so the bank's expenses increase with increasing interest rates. Suppose that the bank has mostly fixed-rate loans outstanding. Therefore, this bank is subject to interest rate risk because an increase in interest rates will generate losses for this bank. This risk can be hedged by entering into a receive-floating and paying-fixed swap. With this hedge in place, changes in the value of the bank's assets and liabilities will be offset by changes in the value of the swap whenever interest rates change. However, the impact of this hedge will not be captured in financial statements.

derivative-related disclosures. Yet, in spite of these limitations, the SEC devotes significant resources to this area.

Another area that generates issues in comment letters but is unlikely to be of great interest to investors is the statement of cash flows (area 17). This is usually of limited interest to investors because investors are primarily interested in cash from operations¹², which can be obtained from the income statement and the balance sheet. Therefore, focusing on the statement of cash flows is not usually of high importance to investors.¹³

Areas 18 and 19 are the auditor's report and officer's certifications, respectively. These areas generated issues in comment letters, but are unlikely to be of interest to investors. Examples of auditor's report issues are missing auditor signatures, missing auditor names, or missing auditor reports. Examples of officer's certification issues include missing officer's signatures and formatting issues. The cases examined in both of these areas all appeared to be due to oversight by filers, and are therefore of no interest to investors.

To sum up, the areas of interest to investors and the SEC can be organized into four groups. First, there are areas that are of interest to investors that are not of interest to the SEC (areas 1 – 4 in figure 1). Second, there are areas of interest to investors, for which no data filed with the SEC is available (areas 5 – 7). Third, there are areas of interest to investors that are also of interest to the SEC (areas 8 – 15). Fourth, there are areas of interest to the SEC that are of questionable or no interest to investors (areas 16 – 19). Unfortunately, the latter generated a substantial amount of issues, primarily in the area of derivatives. This suggests that the SEC may be mis-allocating its resources and may want to consider re-focusing its efforts in other areas.

4.1 Required SEC disclosures

There is already a substantial amount of information of interest to investors included in reports filed with the SEC. For example, SEC Industry Guide 3, requires banks to provide information on net interest earnings, including disclosing the following for each major category of interest bearing assets: the average amount outstanding of the asset, the interest earned on such amount, the average yield, and the net yield.¹⁴ As noted above (table 3), there were no issues in the comment letters related to interest earnings. Does this mean that all the information on interest earnings of interest to investors is already available in financial statements filed with the SEC and that there are no issues with the information banks provide? The answer is probably no. For instance, in the specific case of interest earnings, investors are more likely to be more interested in period-end rates and interest rate forecasts by bank's management rather than in average rates. Also, the interest earned is related to asset risk, so information on such risk would also be helpful.¹⁵

¹² See Koller et al (2005).

¹³ The issues in the comment letters related to the statement of cash flows consisted of misclassifications, omitted items, and insufficient disclosures as required by SFAS 95.

¹⁴ Net yield is given by net interest earnings divided by assets, with net interest earnings equal to interest earned minus interest paid.

¹⁵ For example, riskier loans should earn a higher interest than less risky ones.

Another example that existing disclosure requirements do not provide enough information to investors is the required disclosures related to a bank's investment portfolio. According to SEC Industry Guide 3, the following disclosures are required: (1) the book value of investments in U.S. bonds, agency bonds, corporate bonds, bonds issued by States and their subdivisions, and bonds issued by the Federal Reserve; (2) a breakdown, by maturity, of each of the major investment categories, as well as the weighted average yield for each range of maturities; (3) if securities from a single issuer make up 10% or more of stockholder's equity, the name of the issuer, and the book and market value of the holdings from this issuer needs to be disclosed. In addition to this information, investors would benefit from having additional information on a bank's investment portfolio. For example, investors want a breakdown of investments by credit quality, a detailed description of the portfolio's risk, and a listing of investments that are insured and the name of the insurance company.¹⁶ Overall, investors want detailed information to understand and quantify the value and risks of bank's investment portfolios. From these examples, it is clear that the SEC could work at enhancing disclosures further. It could, for instance, use its comment letters to request additional information on interest earnings, or on the risks in a bank's investment portfolio.

5. FIRM ATTRIBUTES AND THE COMMENT LETTER PROCESS

5.1 What firms generate issues during a review by the SEC?

Table 4 shows differences between firms that generate issues in SEC letters and those that do not. There are three main differences between these firms. First, firms with issues are on average larger, are more likely to list their shares on the New York Stock Exchange (NYSE), and are also more likely to be audited by a Big Four firm. Big four firms are KPMG, Deloitte and Touche Tohmatsu, Price Waterhouse Coopers, and Ernst & Young.

Table IV. Characteristics of Filers		
	Filers With Issues in Comment Letters	Filers With NO Issues in Comment Letters
Firm Size		
Filer's median total assets	\$980 million	\$533 million
Exchange Where Filer's Shares Traded		
NYSE	23%	5%
NASDAQ	43%	56%
Pink Sheets	26%	25%
Not Listed	8%	14%
Firm's Auditor		
BIG 4	51%	29%
D&T	9%	2%
E&Y	14%	8%
KPMG	17%	18%
PWC	11%	2%

¹⁶ Some bond categories, such as muni-bonds, are often insured, so if an issuer is not able to pay interest or principal, the insurer will step in and make the payments to the investors. Recently, the financial condition of these insurance companies has deteriorated, and insurance payments are now unlikely. The values of these bonds have therefore fallen. Therefore, bank investors would have benefited from knowing what insurance companies provided coverage to bonds held in a bank's portfolio.

In order to find the separate effects that these factors have on the SEC review, the following Probit equation is estimated:

$$ISSUE = \mathbf{b}_0 + \mathbf{b}_1DT + \mathbf{b}_2EY + \mathbf{b}_3KPMG + \mathbf{b}_4PWC + \mathbf{b}_5NASDAQ + \mathbf{b}_6NYSE + \mathbf{b}_7NOTLISTED + \mathbf{b}_8ASSETS + \mathbf{e} \quad (9)$$

ISSUE is a dummy variable equal to one if a company had one or more issues in comment letters and zero otherwise. The independent variables are dummies for the auditor, the exchange in which shares of the firm trade and the amount of assets held by the firm. The equation is estimated using Maximum Likelihood, and the results are in table 5. The LR-statistic tests the joint null hypothesis that all slope coefficients except the constant are zero, and the Probability (LR) is the p-value of the LR test under this null hypothesis. Since the Probability (LR) is 0.006, we can reject the null at the 1% confidence level. In addition, the results show that two coefficients are significantly different from zero. The first one is coefficient $\mathbf{b}_4 = 1.92$, which indicates that banks audited by PWC are more likely to have issues during the SEC review. The second one is $\mathbf{b}_7 = -6.89$ which indicates, unsurprisingly, that firms that have shares that do not trade in exchanges are less likely to generate issues with the SEC.¹⁷

Table V. Probit Model to Explain SEC Issues			
$ISSUE = \mathbf{b}_0 + \mathbf{b}_1DT + \mathbf{b}_2EY + \mathbf{b}_3KPMG + \mathbf{b}_4PWC + \mathbf{b}_5NASDAQ + \mathbf{b}_6NYSE + \mathbf{b}_7NOTLISTED + \mathbf{b}_8ASSETS + \mathbf{e}$			
Coefficient	Estimate	Std. Error	Prob.
\mathbf{b}_0	-1.780497	0.454983	0.0001
\mathbf{b}_1	0.827386	0.809206	0.3066
\mathbf{b}_2	0.687057	0.561821	0.2214
\mathbf{b}_3	0.293907	0.463632	0.5261
\mathbf{b}_4	1.924630	0.745178	0.0098
\mathbf{b}_5	0.522469	0.534290	0.3281
\mathbf{b}_6	0.820492	0.754955	0.2771
\mathbf{b}_7	-6.896454	0.778149	0.0000
\mathbf{b}_8	-7.09E-08	6.44E-07	0.9124
McFadden R-	0.251410		
LR statistic	21.25464		
Prob(LR statistic)	0.006501		

It is also important to find out what firms generate the highest number of issues. To accomplish this, the following model is estimated:

$$TOTAL_ISSUES = \mathbf{b}_1DT + \mathbf{b}_2EY + \mathbf{b}_3KPMG + \mathbf{b}_4PWC + \mathbf{b}_5NASDAQ + \mathbf{b}_6NYSE + \mathbf{b}_7NOTLISTED + \mathbf{b}_8ASSETS + \mathbf{e} \quad (10)$$

$TOTAL_ISSUES$ is the total number of issues for each bank. The results of the regression are in table 6. These results indicate that there are three main factors that raise the number of issues in a

¹⁷ Several different model specifications were estimated. The results shown here are robust to changes in model specification.

review. First, firm size matters as larger firms have more issues. Second, firms with shares listed in the NYSE also generate a larger number of issues. Third, filers that use PWC as their auditor also show a larger number of issues.

Table VI. Model to Explain the Total Number of Issues				
Regression Equation:				
$ISSUE = b_1DT + b_2EY + b_3KPMG + b_4PWC + b_5NASDAQ + b_6NYSE + b_7NOTLISTED + b_8ASSETS + e$				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
b_1	0.316091	0.608233	0.519688	0.6045
b_2	0.056107	0.446165	0.125755	0.9002
b_3	-0.304222	0.336369	-0.904430	0.3681
b_4	3.094462	0.613822	5.041298	0.0000
b_5	0.240806	0.206390	1.166750	0.2463
b_6	0.980864	0.496374	1.976058	0.0511
b_7	-0.008979	0.343468	-0.026141	0.9792
b_8	2.16E-06	6.84E-07	3.158228	0.0021
R-squared	0.474151			
Adjusted R-squared	0.434141			
Durbin-Watson stat	1.878909			

6. CONCLUSION

This paper examines whether the oversight provided by the SEC over commercial banks during the recent real-estate boom and its aftermath was appropriate or not. The approach followed was to find the topics of interest to bank investors, analyze evidence from comment letters to identify areas of interest to the SEC, and then examine if the SEC's review efforts are aligned with the interests of bank investors. The results are mixed: in some instances the SEC focuses on the same areas as investors, but in other areas it does not – either because the SEC does not focus on areas of interest to investors, or because the SEC focuses in areas that are of questionable or no interest to investors. Even in cases in which the SEC and investors' interests are aligned, investors would benefit from improved disclosures. Overall, the analysis suggests that the SEC may be mis-allocating its resources and may want to consider re-focusing its efforts.

In addition, the paper analyzed the attributes of banks that generated issues upon SEC review. Results indicated that banks audited by Price Waterhouse Coopers are more likely to generate issues than banks using other auditors. Results also agree with previous findings that larger firms, particularly those with shares trading in the NYSE, receive greater scrutiny from the SEC.

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