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Audit report information content and the provision of non-audit services: Evidence from Spanish lending decisions

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ABSTRACT

This study examines whether auditor economic independence affects the information content of going concern audit reports in the European setting. We conduct an experiment where 80 experienced Spanish loan officers from the second largest European commercial bank review a loan request under two lending scenarios: (1) a potential borrower receiving an unqualified but modified going concern opinion, and (2) a potential borrower receiving a qualified going concern opinion. Auditor economic independence, measured by the provision of non-audit services (NAS), is manipulated (absence vs. presence of significant NAS). We find that a qualified going concern audit report is interpreted as a primary warning signal (death penalty). However, the provision of NAS acts as a second order mechanism that only activates loan officers' professional skepticism in the case of an unqualified but modified going concern report scenario. Therefore, we find evidence suggesting that the potential negative impact of a perceived lack of auditor independence depends on the nature of the audit report. Our findings have important implications for the European regulator, which is currently considering establishing an auditor independence regulation framework similar to that in the United States of America.

1. Introduction

One significant input to the lending decision is the borrower's financial statements, which allows loan officers to evaluate current cash flows, predict future cash flows, and assess debt service ability. Because financial statements play such a critical role in the loan evaluation process, the credibility of financial statements is a major concern to loan officers. Consequently, loan officers rely on audit reports as a primary financial information source (Guiral-Contreras, Gonzalo-Angulo, & Rodgers, 2007). This information is particularly helpful in the case of a going concern opinion, where an auditor expresses doubts about the ability of the client firm to continue in existence in the next year (Asare, 1990). A going concern opinion should be informative to loan officers to the extent that such an opinion provides additional information about the borrower's future cash flows, or directs loan officers' attention to the impact of this uncertainty on future cash flows (Bamber & Stratton, 1997). Being transparent and disclosing material uncertainty are crucial issues to avoid a going concern audit report (ICAEW Going Concern, 2009).

Behavioral research has explored the effect of going concern audit reports on lending decisions (Asare, 1990 and Strawser, 1991; Bamber & Stratton, 1997). The findings of these previous experimental studies are not conclusive (Bessell, Anandarajan, & Umar, 2003). While several papers find that qualified audit reports do not provide any specific information

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useful for financial statement users beyond that contained in the financial statements themselves, other studies provide empirical support for the hypothesis that loan officers perceive companies receiving qualified audit reports as being more risky.

Our research is timely since the European regulator is currently considering the possibility of establishing an auditor independence regulation framework similar to that of the United States (Global Governance in Audit Research Team, 2011; Humphrey, Kausar, Loft, & Woods, 2011). Auditor independence is viewed as one of the critical determinants of the credibility of the audit report, and is believed to enhance the quality of financial statements (Church & Zhang, 2011). Because an auditor's independence cannot be observed, the appearance of independence is critical for the public's evaluation of audit quality, and the perceived credibility of the audit report.

A series of accounting scandals recently has shattered public confidence in the audit profession, and the provision of non-audit services (NAS) is perceived as potentially compromising auditor independence (Schneider, Church, & Ely, 2006). The majority of behavioral papers provide evidence that loan officers believe that auditor independence is compromised by the provision of NAS (Nelson & Tan, 2005). Consequently, regulators hope that restricting the provision of NAS by auditors will improve the perceived independence of auditors, and hence audit quality, similar to what happened in the United States after the Sarbanes-Oxley Act (SOX) legislation in 2002. Some critics have called for the revision of the SOX independence requirements (DeFond & Francis, 2005).

This paper contributes to the literature by integrating research on loan officer perceptions of auditor independence with investigations on the information content of going concern audit reports in the European setting. Consistent with Bamber and Stratton (1997), we suggest that the inconclusive results of the information content of going concern reports in prior studies could be due to the omission of variables which may potentially interact with the audit report in loan officer decisions (e.g., the information pertaining to the provision of NAS). Specifically, we conduct an experiment with Spanish loan officers to explore whether the potential negative impact of a perceived lack of auditor independence depends on the nature of the audit report. None of the previous behavioral studies have considered the possibility that the provision of NAS may affect audit report information content. Our results suggest that the information content of going concern audit reports, as interpreted by the loan officers, is affected by the provision of NAS. We observe that the impact of the provision of NAS on loan officer decisions varies with the types of audit opinions the borrower receives.

The remainder of the paper is organized as follows. Section 2 provides a summary of the previous literature and develops our research question. Section 3 describes the research method. Section 4 provides the results of our analyses. Section 5 concludes the paper.

2. Previous literature and research question

2.1. Information content of going concern audit reports

Results of previous experimental studies on the information content of going concern opinions are mixed (Bessell et al., 2003). Table 1 summarizes the most significant behavioral studies on this topic by country and findings. Table 1 suggests that the lack of consistent findings among studies is not mainly due to differences across countries. Several papers find that going concern audit reports do not provide any specific information useful for financial statement users beyond that contained in the financial statements themselves (Bessell et al., 2003; Elias & Johnston, 2001; Houghton, 1983; LaSalle & Anandarajan, 1997; Libby, 1979). For this reason, part of the literature argues that the impact of a going concern audit report on financial statement users' decision-making is solely based on the events contained in the audit report, rather than on the audit report itself.

Conversely, other behavioral papers provide empirical support for the hypothesis that the audit report can act as an independent second opinion that makes the information contained in financial statements more salient to users (Guiral-Contreras et al., 2007). Firth (1979, 1980a), Gul (1987), and Bamber and Stratton (1997) all find evidence supporting the hypothesis that loan officers perceive companies receiving going concern audit reports as being more risky. For instance, Bamber and Stratton (1997) find that, when a loan application included a going concern audit report, bank loan officers give the application a higher risk assessment and a higher interest rate premium.

While the aforementioned studies have made significant contribution to the audit literature, the mixed results suggest that the role played by the audit report in credit decisions deserves further investigation (Bessell et al., 2003). According to Bamber and Stratton (1997), the lack of consistent results may be due to incompleteness of previous experimental designs. Further, while the effect of going concern opinions can be context-specific, not all contexts have been examined. In this regard, we argue that the provision of NAS may be a critical source of information for loan officers when interpreting the information content of going concern audit reports.

2.2. Auditor economic independence and the provision of non-audit services

It has been argued that the joint provision of audit services and NAS to the same client may pose an unacceptable threat to auditor independence (Krishnan, Sami, & Zhang, 2005). However, the independence implications of auditors providing NAS to audit clients have long been a source of controversy in the auditing literature. Certain empirical studies suggest that auditor independence is not negatively affected by the provision of NAS by arguing that (i) the provision of NAS enhances

Table 1
Summary of behavioral research findings for the information content of the going concern audit report.

Context	Study	Information content	Findings
North America	Libby (1979)	No	A qualified going concern audit report did not accentuate the message if disclosures have already been made in the notes of the financial statements.
	LaSalle and Anandarajan (1997)	No	Results show no difference in loan granting decisions between a qualified audit report and a disclaimer of opinion.
	Bamber and Stratton (1997)	Yes	When a loan application included a going concern audit report, bank loan officers give the application a higher risk assessment and a higher interest rate premium.
	Elias and Johnston (2001)	No	Once a going concern contingency is disclosed in the notes to the financial statements, an explanatory paragraph describing a going concern uncertainty appeared to convey no additional information.
Asia-Pacific	Houghton (1983)	No	Although loan officers believe the audit report provides useful information, uncertainty qualifications do not affect lenders' decisions.
	Bessell et al. (2003)	No	For a financially distressed firm, the issuance of a going concern opinion does not affect Australian loan officers' credit decisions.
	Gul (1987)	Yes	An uncertainty-modified audit report significantly increased Singapore loan officers' perceptions of risk for their clients.
Europe	Firth (1979)	Yes	British loan officers negatively reacted in the presence of going concern uncertainties.
	Firth (1980a)	Yes	British loan officers make less favorable decisions for companies receiving serious going concern qualifications than for those receiving an unqualified opinion.

the auditor's knowledge regarding non-routine activities of the client and increases independence (Global Governance in Audit Research Team, 2011; Goldman & Barlev, 1974; Wallman, 1996), and (ii) the increased revenues generated by auditors from the provision of NAS lead to greater reputational capital that contributes to improve auditor independence (Arruñada, 1999; DeAngelo, 1981; Dopuch, King, & Schwartz, 2003). In contrast, other studies question whether auditors are able to maintain independence when a significant portion of their revenue comes from the fees of non-audit services (Fleischer & Goettsche, 2012; Schneider et al., 2006; Simunic, 1984).

While results of archival studies on the effect of NAS on auditor independence are inconclusive (Carson et al., 2013), behavioral research provides strong evidence that loan officers believe that auditor independence is compromised by the provision of NAS (Nelson & Tan, 2005). Table 2 shows that a majority of behavioral papers find that the provision of NAS affects investor and loan officer decisions. Except for McKinley, Pany, and Reckers (1985) and Davis and Hollie (2008), U.S., European and Asia-Pacific investors and loan officers perceive that the provision of NAS reduces auditor independence.

2.3. Going concern audit reports and the provision of NAS

The aforementioned literature suggests that even when auditors act independently, loan officers may perceive that independence is impaired when NAS are provided. Given that the audit report will have valuable information only if it contains useful information (Guiral-Contreras et al., 2007), the provision of NAS may have implications for the level of reliability assigned to the audit report. Although management's decision to hire its auditor for NAS can be based on cost or efficiency considerations, it could be perceived as providing an incentive for the auditor to concur with management and hold the firm to less stringent audit standards. For example, Mitra and Hossain (2007) demonstrate that institutional shareholders who monitor corporate decision-making processes induce managers to reduce the level of NAS purchased when they perceive that such action has the effect of impairing auditor objectivity in auditing the financial reports.

The underlying assumption is that loan officers probably will discount the credibility of the unqualified audit report if they consider that the auditor would be less likely to qualify an audit opinion when it is warranted. Consequently, we examine the possibility that the perception of auditor economic independence may affect the information content attributed to going concern audit reporting. If the joint provision of audit and NAS leads to the perception of lower auditor economic independence, we could expect that loan officers will assign low reliability to the going concern audit report. Specifically, we expect that, when the borrower receives an unqualified but modified going concern opinion, the auditor's economic dependence will have a negative effect on the loan officer's perception regarding the borrower's risk of repayment. However, when the borrower receives a qualified opinion that reflects the auditor's concern not only about the firm's ability to survive but also about the financial statements departure from GAAP, the auditor's economic independence will

Table 2
Summary of behavioral research findings on the association between NAS and auditor economic independence.

Context	Study	Association NAS-GCO	Findings
North America	Shockley (1981)	Negative	Audit firms providing NAS firms are perceived as having a higher risk of losing independence.
	Knapp (1985)	Negative	Management is perceived as more likely to obtain its preferred resolution when auditors also provide NAS.
	McKinley et al. (1985)	No	The provision of NAS does not significantly affect loan decision, financial statement reliability perception or auditor independence perception.
	Pany and Reckers (1987)	Negative	Loan officers and financial analysts viewed auditors as lacking independence.
	Lindsay (1990)	Negative	The provision of NAS affected Canadian and Australian loan officers' perception of auditor independence.
	Bandyopadhyay and Francis (1995)	Negative	The comparison between the provision of NAS and the absence of NAS does not appear to be economically significant in Canadian loan officers' decisions.
	Lowe and Pany (1995, 1996)	Negative	Perceived non-audit services do reduce auditor independence in loan decisions.
	Lowe et al. (1999)	Negative	Auditors' involvement in internal management function had a significantly adverse impact on loan officers' perception of auditor independence, and loan approval.
	Davis and Hollie (2008)	No	The disclosure of NAS provision by auditors negatively affects investors' decisions and leads to asset pricing inefficiencies in experimental markets.
Europe	Firth (1980b)	Negative	The provision of NAS has a significantly negative impact on British lenders' perception of auditor independence.
	Firth (1981)	Negative	British bank lenders significantly lowered loan acceptances when NAS were provided.
Asia-Pacific	Gul (1991)	Negative	The provision of NAS affected New Zealand Bankers' perceptions of the auditors' ability to resist management pressure regardless of the other variables.

not provide significant additional information content to the lending decision. These arguments lead us to the following hypotheses:

H1: *The credibility/information content of the unqualified but modified going concern opinion is negatively affected by the provision of NAS.*
H2: *The credibility/information content of the qualified going concern opinion is not affected by the provision of NAS.*

3. Research method

3.1. Participants

The participants in our experiment were 80 experienced loan officers (19 females and 61 males) from the second largest commercial bank in Europe (in terms of market capitalization). Their average age was 42, and they ranged in age from 29 to 59. Their average experience as loan officers was 15 years. We informed participants of the importance of working independently on the experiment's cases, and also guaranteed that their responses would remain anonymous. One of the researchers personally administered the experiment during different advanced accounting training sessions in the headquarters of the bank.

3.2. Experimental design and research instrument

The experiment design was inspired by the one used by Guiral (2012). Loan officers were asked to respond to a borrower's credit request and make loan decisions based on the situation described. Case materials were built from a medium-sized publicly traded firm in the European pharmaceutical industry. They were carefully reviewed by several experienced loan officers from the subjects' bank, as well as other financial institutions to ensure relevance and reasonableness of assumptions.

The prospective borrower requested a EUR 20 million loan for expanding production capacity. The loan would be payable monthly over sixty months. The borrower had no prior loan history with the subject's bank. We provided participants with a summary of the audit report using two different lending scenarios. The first scenario illustrated a loan request for a potential borrower who had received an unqualified but modified going concern report. The audit report included an emphasis on matter paragraph that highlighted the existence of a material uncertainty and drew attention to the footnote in the financial statements that disclosed the going concern issue.

The second lending scenario presented a loan request from a potential borrower who had received a qualified going concern report alerting statement users of a material going concern uncertainty that had not been adequately disclosed in the financial statements (i.e., the existence of a going concern uncertainty plus a departure from generally accepted accounting principles). There was no significant difference in the lending experience of loan officers assigned to either of these two lending scenarios (an experience of 15.2 years vs. 14.9 years, *t-statistic* = 0.127, *p-value* = 0.899).

We also provided loan officers with descriptive information on both the company and industry (i.e., four years of key consolidated financial information, eleven common company financial ratios, and three financial statements note disclosures). Similar to the research design of Bamber and Stratton (1997), the first note explains significant accounting policies and the second discusses long-term debt. In case of the unqualified but modified audit report (i.e., lending scenario 1), a third note explaining the reasons for the going concern uncertainty was included.

We manipulated auditor economic independence by providing loan officers with a summary of audit and non-audit fees paid to the auditor for the last two years. In the presence of significant NAS scenario, the auditor does not receive any fee for the NAS; in the absence of significant NAS scenario, the firm acquires both audit and NAS from the same audit firm. Additionally, in the absence of significant NAS scenario, we show that the firm increased its purchase of NAS from the auditor. The non-audit fee ratio (non-audit fees/total audit fees) increased from 20.8 percent in t_{-2} to 41.1 percent in t_{-1}, where year t is the year of the audit report.

For each lending scenario, we manipulated the auditor's economic independence (absence vs. presence of significant NAS). Loan officers were randomly assigned to one of the four groups: (i) unqualified but modified report and presence of significant NAS; (ii) unqualified but modified report and absence of significant NAS; (iii) qualified report and high economic independence; and (iv) qualified report and low economic independence.

The case first asked the loan officers to provide some demographic information, then they were presented with the different lending scenarios and loan applications. Next, they were asked to make a preliminary assessment of the borrower's ability to improve its financial performance by increasing profitability and lowering leverage. Subjects indicated their assessment of the borrower's ability to generate profits and reduce financial leverage on two separate five-point Likert scales (1 very low, 5 very high). These assessments also served as manipulation checks.

Next, we asked participants to make their lending decisions. Loan officers first expressed their perception of the borrower's overall risk (i.e., ability to service the debt), again using a five-point Likert scale (1 low ability, 5 high ability). Respondents then were asked to indicate their final credit/loan recommendation on a five-point scale anchored "definitively not recommended" and "definitively recommended".

4. Results

4.1. Loan officers' preliminary assessments

Table 3 shows a summary of the loan officer preliminary assessments of the borrower's ability to improve its financial status in terms of both profitability and financial leverage for the two lending scenarios. In the first lending scenario (Table 3, Panel A, Sample 1), loan officers viewed borrowers receiving the unqualified but modified report from an economically independent auditor (Group 1) as being more profitable (*t-statistic* = 1.718; *p-value* = 0.094) and less leveraged (*t-statistic* = 2.58; *p-value* = 0.014) than those getting the report from an economically dependent auditor (Group 2).

In contrast, in the second lending scenario (Table 3, Panel B, Sample 2), the loan officers' profitability and leverage assessments for a borrower receiving a qualified going concern opinion do not appear to be affected by the auditor's economic independence. The differences between Group 3 and Group 4 responses was not statistically significant for either profitability (*t-statistic* = 1.46; *p-value* = 0.151) or leverage (*t-statistic* = 1.025; *p-value* = 0.312). These preliminary results suggest that the loan officers' assessment is affected by the degree of the auditor's economic independence, but only in the unqualified but modified going concern report lending scenario.

When no NAS are provided by the auditor, loan officers perceive the potential borrower receiving the unqualified audit report as the most profitable (Group 1 vs. Group 3, *t-statistic* = 5.92; *p-value* < 0.01; Group 1 vs. Group 4, *t-statistic* = 9.01; *p-value* < 0.01). Their leverage assessment also is highest for potential borrowers receiving an unqualified audit report (Group 1 vs. Group 3, *t-statistic* = 7.74; *p-value* < 0.01; Group 1 vs. Group 4, *t-statistic* = 9.41; *p-value* < 0.01). These results suggest that the unqualified audit report without the NAS provision is viewed positively by the loan officers.

Overall, these initial findings seem to indicate that whether or not NAS negatively impacts a loan officer's preliminary assessments of borrower profitability and leverage depends on the type of audit report issued. The provision of NAS has a negative effect on the assessments when an unqualified but modified audit report is issued, but not when a qualified audit report is issued.

4.2. Lending decisions

4.2.1. Univariate analysis

Correlations for this study's variables are presented in Table 4. Panels A and B reveal that preliminary assessments on the borrower's ability to generate profits and reduce leverage are positively and significantly correlated with the loan officers' risk perceptions and lending recommendations. Thus, a profitable and low-leveraged borrower is more likely to receive a

Table 3
Descriptive statistics for loan officers' preliminary assessments.[a]

Panel A: Loan officers' preliminary assessments – sample 1									
$N = 40$	Unqualified but modified audit report lending scenario	Profitability assessment				Leverage assessment			
		Mean	Minimum	Maximum	S.D.	Mean	Minimum	Maximum	S.D.
Group 1 ($n = 20$)	Unqualified audit report + high auditor economic independence	3.47	3	5	.56	3.27	3	5	.51
Group 2 ($n = 20$)	Unqualified audit report + low auditor economic independence	3.16	3	5	.56	2.77	2	5	.68
	Total	3.32	3	5	.57	3.02	2	5	.64
Panel B: Loan officers' preliminary assessments – sample 2									
$N = 40$	Qualified audit report lending scenario	Profitability assessment				Leverage assessment			
		Mean	Minimum	Maximum	S.D.	Mean	Minimum	Maximum	S.D.
Group 3 ($n = 20$)	Qualified audit report + high auditor economic independence	2.01	1	4	.94	1.83	2	4	.65
Group 4 ($n = 20$)	Qualified audit report + low auditor economic independence	1.62	1	3	.72	1.62	1	3	.59
	Total	1.82	1	4	.85	1.72	1	4	.62

[a] Unqualified audit report = the company received an unqualified but modified audit report for the last accounting period; Qualified audit report = the company received a going concern opinion for the last accounting period; High Auditor Economic Independence = the audit firm did not provide any non-audit services (NAS) for the last two years; Low Auditor Economic Independence = the firm purchased NAS from its auditor for the last two years and has experienced a significant increase in the non-audit fee ratio (non-audit fees/audit fees) last year; Profitability Assessment = Preliminary assessment about the client's ability from its to generate profits on a 1-to-5-point scale anchored "Very Low" and "Very High"; Leverage Assessment = Preliminary assessment about the client's ability to reduce its financial leverage on a 1-to-5-point scale anchored "Very Low" and "Very High".

Table 4
Correlation matrix for the dependent variables.

Panel A: Correlation matrix for the unqualified but modified audit report lending scenario

Sample 1	Preliminary assessments		Risk perception	Lending decision
	Profitability	Leverage		
Profitability	1	.544***	.526***	.392**
Leverage	–	1	.563***	.556***
Risk perception	–	–	1	.457***
Lending decision	–	–	–	1

Panel B: Correlation matrix for the qualified audit report lending scenario

Sample 2	Preliminary assessments		Risk perception	Lending decision
	Profitability	Leverage		
Profitability	1	.447**	.590***	.384**
Leverage	–	1	.729***	.556***
Risk perception	–	–	1	.611***
Lending decision	–	–	–	1

** Significant at the 5% level (two-sided).
*** Significant at the 1% level (two-sided).

favorable risk perception and lending recommendation in both scenarios. Furthermore, we observe a positive and significant correlation between risk perception and lending recommendation, indicating that risk perception may affect loan officer lending decisions (Libby, 1979; Wright & Davidson, 2000).

Table 5 Panel A, shows descriptive statistics for loan officers' risk perceptions and lending recommendations in the unqualified but modified audit report lending scenario. Similar to our findings in the preliminary assessments, a potential borrower receiving an unqualified audit report from an economically independent accounting firm (Group 1) receives a more favorable risk-perception rating (mean = 3.41; standard deviation = 0.43) and a better final lending recommendation (mean = 4.07; standard deviation = 0.51) from the loan officers. A firm with low auditor economic independence (Group 2) receives a less favorable risk-perception rating (mean = 3.15; standard deviation = 0.41) and a less favorable lending recommendation (mean = 3.34; standard deviation = 0.68). *t*-Tests comparing Group 1 with Group 2 in the first lending scenario show that group differences are significant for both risk-perception (*t-statistic* = 1.95; *p-value* = 0.058) and the lending recommendation (*t-statistic* = 2.71; *p-value* = 0.010). Again, consistent with the preliminary assessment results, Panel B in Table 5, shows that both loan officers' risk-perceptions and loan decisions are not affected by the degree of an auditor's economic independence in the qualified going concern report lending scenario. A firm receiving a going concern opinion is generally considered a high risk borrower, regardless of whether the auditor also provides NAS (i.e., Group 3 mean = 1.97 and standard deviation = 0.57 vs. Group 4 mean = 1.89 and standard deviation = 0.57) The *t-statistic* of 0.392 and *p-value* = 0.698) also confirms the lack of influence of auditor economic independence. In this qualified report scenario, the borrower also receives a poor credit recommendation with no significant difference between groups (Group 3 mean = 1.59 and standard deviation = 0.82 vs. Group 4 mean = 1.42 and standard deviation = 0.86; *t-statistic* = 0.649 and *p-value* = 0.520). These findings suggest that the provision of NAS does have a negative impact on lending decisions in the case of an unqualified but modified going concern report (H1). However, the effect of the provision of NAS is not significant in the case of a qualified going concern report (H2). Further, if we compare all potential borrowers, those receiving unqualified but modified reports from auditors not providing NAS are perceived by the loan officers as the ones with the lowest risk (Group 1 vs. Group 3, t = 7.16; *p-value* < 0.01; Group 1 vs. Group 4, *t-statistic* = 9.50; *p-value* < 0.01). This group also received the best lending recommendation (Group 1 vs. Group 3, *t-statistic* = 10.57; *p-value* < 0.01; Group 1 vs. Group 4, *t-statistic* = 11.01; *p-value* < 0.01).

4.2.2. Multivariate analysis

We examine the role played by the auditor's economic independence by type of audit report lending scenario using a 1×2 ANCOVA, with loan officers' credit recommendation as a dependent variable, auditor economic independence (*AI*) as an independent variable, and risk perception as a covariate for the two lending scenarios. We did not use a 2 (unqualified but modified vs. going concern audit report) $\times$ 2 (absence vs. presence of significant NAS) between participants design since the information provided by each type of audit report scenario was slightly different.

Table 6 Panel A, presents the results for the unqualified but modified audit report scenario. Both the main effect for *AI* (F = 4.00; *p-value* = 0.053) and the risk-perception covariate (F = 6.30; *p-value* = 0.016) are statistically significant. For the qualified going concern opinions (Table 6 Panel B), the main effect for *AI* was not significant (F = .26; *p-value* = 0.613). However, we do observe a significant effect for the risk-perception covariate (F = 21.82; *p-value* < 0.01). These results show that an auditor's economic independence has an impact on lending decisions only when the borrower has received an unqualified but modified audit report. The information that the borrower also purchases the NAS from its auditor prompts the loan officers to exercise professional skepticism regarding the credibility of the audit report and the financial statements. In the case of a qualified going concern report, the report itself has already caused the loan officers to revise their evaluations of the

Table 5
Descriptive statistics for loan officers' risk perceptions and credit decisions.[a]

Panel A: Loan officers' risk perceptions and credit decisions by sample

Sample 1 $N=40$	Unqualified but modified audit report lending scenario	Risk perception (rating-riskiness)				Decision (lending recommendation)			
		Mean	Minimum	Maximum	S.D.	Mean	Minimum	Maximum	S.D.
1 ($n=20$)	Unqualified audit report + high auditor economic independence	3.41	2	5	.43	4.07	3	5	.51
2 ($n=20$)	Unqualified audit report + low auditor economic independence	3.15	2	4	.41	3.34	2	5	.68
	Total	3.28	2	5	.43	3.71	2	5	.90

Panel B: Loan officers' risk perceptions and credit decisions by sample

Sample 2 $N=40$	Qualified audit report lending scenario	Risk perception (rating-riskiness)				Decision (lending recommendation)			
		Mean	Minimum	Maximum	S.D.	Mean	Minimum	Maximum	S.D.
3 ($n=20$)	Qualified audit report + high auditor economic independence	1.97	1	4	.78	1.59	1	4	.82
4 ($n=20$)	Qualified audit report + low auditor economic independence	1.89	1	2	.57	1.42	1	4	.86
	Total	1.93	1	4	.68	1.50	1	4	.83

[a] Unqualified audit report = the company received an unqualified but modified audit report for the last year accounting period; qualified audit report = the company received a going concern opinion for the last accounting period; High Auditor Economic Independence = the audit firm did not provide any non-audit services for the last two years; Low Auditor Economic Independence = the client firm purchased NAS from its auditor for the last two years and has experienced a significant increase in the non-audit fee ratio (non-audit fees/audit fees) last year; Profitability Assessment = Preliminary assessment about the client's ability to generate profits on a 1-to-5-point scale anchored "Very Low" and "Very High"; Leverage Assessment = Preliminary assessment about the client's ability to reduce its financial leverage on a 1-to-5-point scale anchored "Very Low" and "Very High".

Table 6
ANCOVA with loan officers' lending recommendation decision as the dependent variable, risk perception as a covariate, and audit economic independence as the independent variable.[a]

Source of variation	Sum of squares	df	Mean square	*F*-statistic	*p*-Value
Panel A: Unqualified audit report lending scenario (Sample 1)					
Covariate					
Risk Perception (rating-riskiness)	4.074	1	4.074	6.386	.016
Main effects					
Auditor Economic Independence (AI)	2.552	1	2.552	4.000	.053
Residual error	23.603	37	.638		
Total	583.978	40			
Total (corrected)	33.042	39			
ANOVA adj. R^2	.30				
Panel B: Qualified audit report lending scenario (Sample 2)					
Covariate					
Risk Perception (rating-riskiness)	9.966	1	9.966	21.822	.000
Main effects					
Auditor Economic Independence (AI)	.119	1	.119	.260	.613
Residual Error	16.897	37	.457		
Total	117.913	40			
Total (corrected)	27.161	39			
ANOVA adj. R^2	.38				

[a] Auditor economic independence (AI) = 1, when the audit firm did not provide any NAS for the last two years, 2 when the client firm purchased NAS from its auditor for the last two years and the non-audit fee ratios (non-audit fees/audit fees) were 20.8 and 41.1 percent for the last two years, respectively; risk perception (rating-riskiness) = perception of the ability of the company to service the debt on a 1-to-5 scale anchored "Low ability" and "High ability"; Decision (credit recommendation) = loan officers' credit decisions were expressed in a 1-to-5-point scale from "definitely not recommended" to "definitely recommended".

borrowers downward. These multivariate results are robust after including age, gender, lending experience and educational background as additional covariates. This evidence supports H1 and H2.

4.2.3. Mediation analysis

In this section, we explore whether auditor independence affects loan officer lending decisions via credit risk perception. To this end, we conduct a series of mediation analyses consistent with Baron and Kenney (1986) to get a better understanding of how the provision of NAS influences the entire lending decision process (i.e., preliminary assessments, credit judgments and lending outcomes). For this mediation analysis, we estimate four regression models:

$$CreditJudgments = intercept + \beta 1\,Profitability + \beta 2\,Leverage + \beta 3\,AuditorEconomicIndependence + \varepsilon \tag{1}$$

$$Profitability = intercept + \beta 4\,AuditorEconomicIndependence + \varepsilon \tag{2}$$

$$Leverage = intercept + \beta 5\,AuditorEconomicIndependence + \varepsilon \tag{3}$$

$$LendingDecisions = intercept + \beta 6\,Credit\,Judgments + \beta 7\,AuditorEconomicIndependence + e \tag{4}$$

Eq. (1) models the potential impact of both the preliminary assessments (profitability and leverage) and the auditor's economic independence on loan officers' credit judgments. Eqs. (2) and (3) specify the direct impact of the provision of NAS on the preliminary assessments of profitability and leverage, respectively. Finally, Eq. (4) presents the impact of credit judgment and auditor's economic independence on the lending decisions.

Fig. 1 shows the regression results in the unqualified but modified going concern opinion scenario. As expected, we observe that both preliminary assessments for profitability ($\beta 1 = 0.293$; *p-value* = 0.005) and leverage ($\beta 2 = 0.295$; *p-value* = 0.003) significantly affect credit judgments (adj. $R^2 = 0.415$) which, in turn, affects loan officers lending decisions ($\beta 6 = 0.779$; *p-value* = 0.016, adj. $R^2 = 0.247$). We also find a direct and negative effect of auditor economic dependence on loan officer lending decisions ($\beta 7 = -0.530$; *p-value* = 0.053). In contrast, we did not find a direct impact of the provision of NAS on credit judgments ($\beta 3 = -0.025$; *p-value* = 0.832). However, both preliminary assessments for profitability ($\beta 4 = -0.308$; *p-value* = 0.094) and leverage ($\beta 5 = -0.493$; *p-value* = 0.014) are negatively affected by auditor economic dependence, which suggests a potential mediation effect of the provision of NAS on credit judgments. We used the Sobel (1982) test statistic to check whether these mediated relationships are significant. We find mediating effects on credit judgments not only through profitability ($Z = -1.516$, *p-value* = 0.064, one-tailed) but also through leverage ($Z = -1.988$, *p-value* = 0.023, one-tailed). Thus, mediation analysis suggests that there is also a negative indirect influence of the provision of NAS on credit judgments through loan officers' preliminary assessments, apart from the direct and negative effect of the provision of NAS on lending decisions.

We repeated this analysis for the qualified audit report lending scenario (see Fig. 2) but only find a significant direct effect in the preliminary for profitability assessments ($\beta 1 = 0.281$; *p-value* = 0.004) and leverage ($\beta 2 = 0.642$; *p-value* < 0.01) on credit judgments, which, in turn, influences lending decisions ($\beta 6 = 0.746$, *p-value* < 0.01). These results suggest that

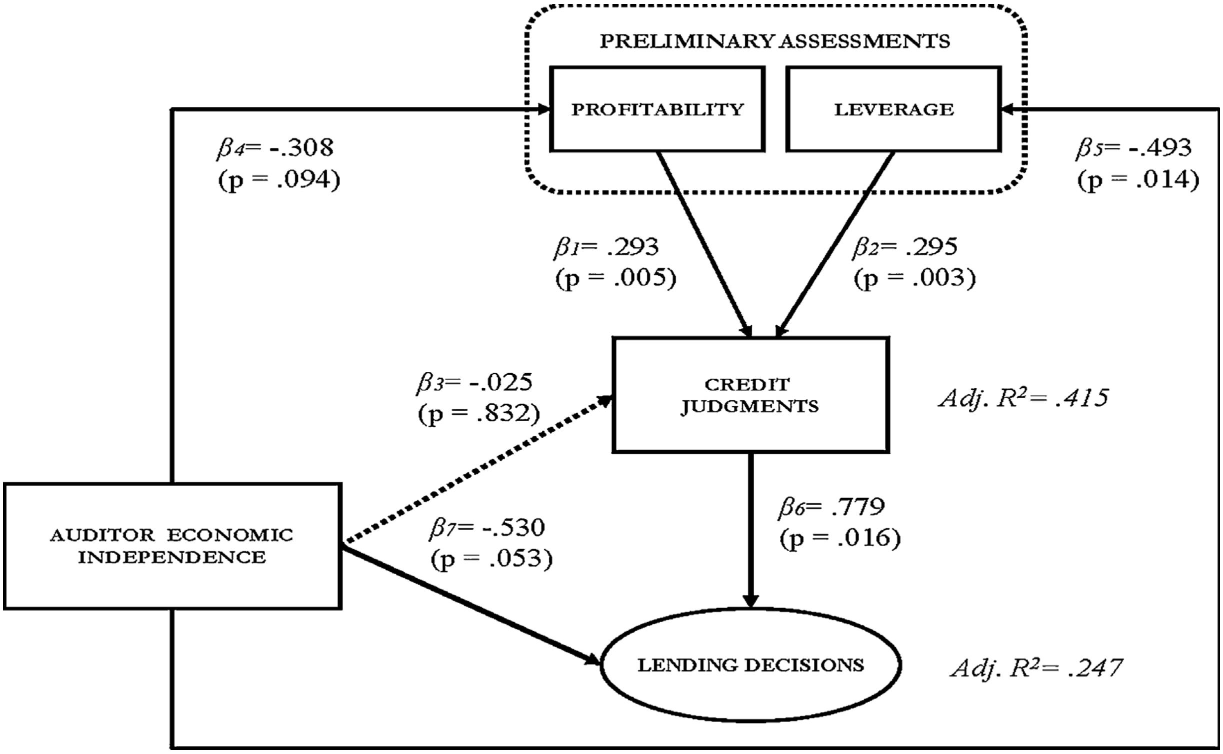

Fig. 1. Mediation analysis for the qualified going concern lending scenario. *Profitability Assessment = Preliminary assessment about the client's ability to generate profits on a 1-to-5-point scale anchored "Very Low" and "Very High"; Leverage Assessment = Preliminary assessment about the client's ability to reduce its financial leverage on a 1-to-5-point scale anchored "Very Low" and "Very High". Auditor Economic Independence = 1, when the audit firm did not provide any NAS for the last two years, 0 when the client firm purchased NAS from its auditor for the last two years and the non-audit fee ratios (non-audit fees/audit fees) were 20.8 and 41.1 percent for the last two years, respectively; Credit Judgments = Perception of the ability of the company to service the debt on a 1-to-5 scale anchored "Low ability" and "High ability"; Lending Decisions = Loan officers' credit decisions were expressed in a 1-to-5-point scale from "definitely not recommended" to "definitely recommended". $\beta 1$ through $\beta 7$ are the estimated coefficients from the following regression equations:

$$CreditJudgments = intercept + \beta 1\, Profitablilty + \beta 2\, Leverage + \beta 3\, AuditorEconomicIndependence + \varepsilon$$
$$Profitablilty = intercept + \beta 4\, Auditor\ Economic\ Independence + \varepsilon$$
$$Leverage = intercept + \beta 5\, Auditor\ Economic\ Independence + \varepsilon$$
$$LendingDecisions = intercept + \beta 6\, Credit\ Judgments + \beta 7\, AuditorEconomicIndependence + \varepsilon$$

auditor economic independence has neither a direct nor mediating effect on loan officers' perceptions or decisions in the qualified audit report lending scenario.

4.2.4. Other robustness checks

To evaluate the robustness of our results, instead of the five-point scale used for the lending recommendation, we partitioned the lending recommendation variable at the mean of the full sample (i.e., mean lending recommendation for all 80 observations) and used a dichotomous variable to represent the recommendation. The variable has a value of 1 if the lending recommendation scale point is greater than the sample mean, and 0 otherwise. Results, using this approach are qualitatively the same as those previously reported.

Table 7 presents this dichotomous lending recommendation by type of audit report and auditor economic independence. In the unqualified but modified audit report scenario, results suggest that loan officers recommend 95 percent of the loan requests from borrowers not purchasing NAS from their auditors, in comparison with a forty-five percent recommendation rate for those purchasing NAS from their auditors. The difference is statistically significant ($\chi^2 = 3.137$, *p-value* = 0.077; Fisher exact test = 0.182, *p-value* = 0.091). Results for the qualified report lending scenario show that the percentage of recommendation stays at 5% regardless of the auditor's economic independence. That is, the provision of NAS does not affect the lending recommendation rate.

4.2.5. Limitations

We are aware of potential alternative interpretations of our results. One can interpret the results from a default risk perspective. Default risk is the major risk to which lenders are exposed. Similar to bondholders, when lenders decide whether to grant loans to a firm, their major concern is whether the firm can make the fixed contractual payments (Easton, Monahan, & Vasvari, 2009; Elliot, Ghosh, & Moon, 2010). In the situation where the borrower received a qualified or a modified going

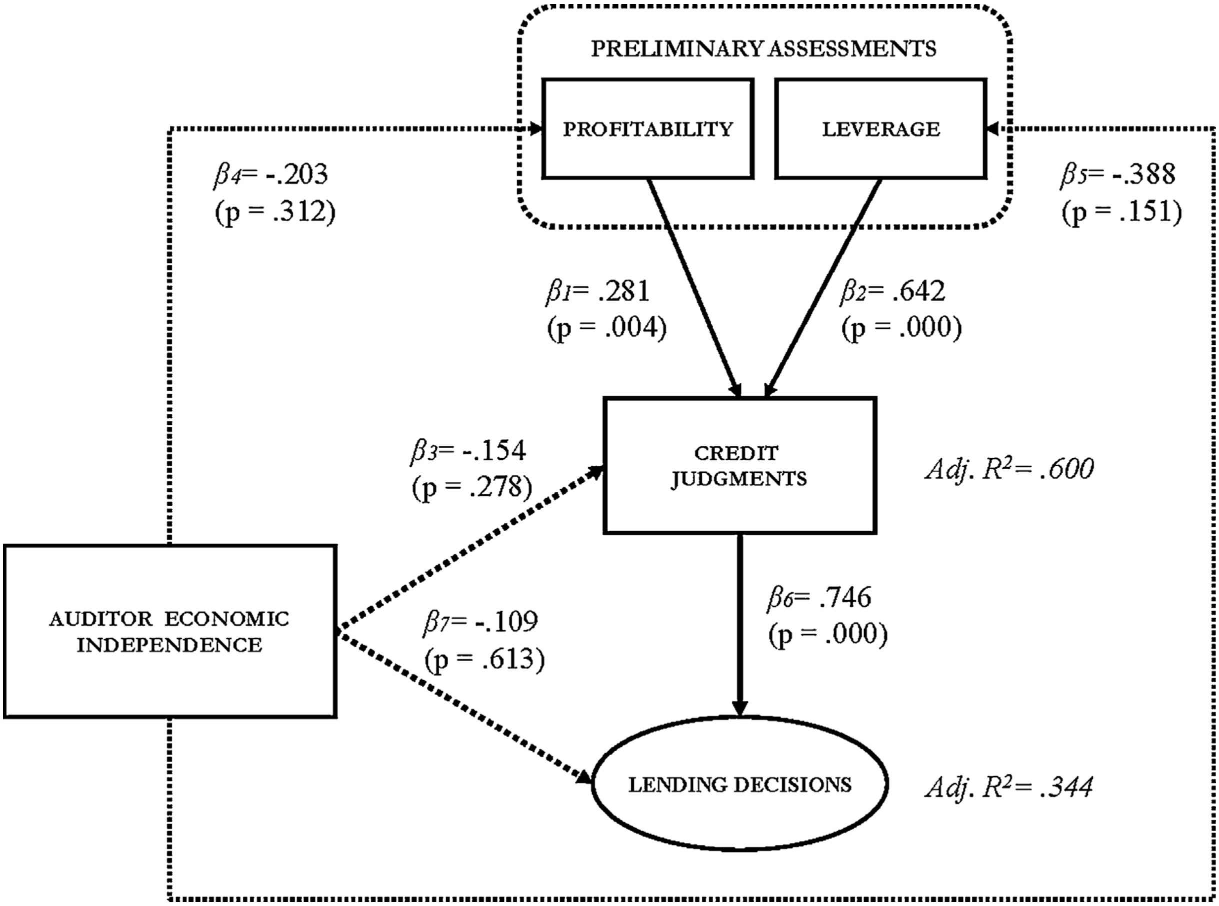

Fig. 2. Mediation analysis for the unqualified but modified going concern lending scenario. *Profitability Assessment = Preliminary assessment about the client's ability to generate profits on a 1-to-5-point scale anchored "Very Low" and "Very High"; Leverage Assessment = Preliminary assessment about the client's ability to reduce its financial leverage on a 1-to-5-point scale anchored "Very Low" and "Very High". Auditor Economic Independence = 1, when the audit firm did not provide any NAS for the last two years, 0 when the client firm purchased NAS from its auditor for the last two years and the non-audit fee ratios (non-audit fees/audit fees) were 20.8 and 41.1 percent for the last two years, respectively; Credit Judgments = Perception of the ability of the company to service the debt on a 1-to-5 scale anchored "Low ability" and "High ability"; Lending Decisions = Loan officers' credit decisions were expressed in a 1-to-5-point scale from "definitely not recommended" to "definitely recommended". $\beta 1$ through $\beta 7$ are the estimated coefficients from the following regression equations:

$$CreditJudgments = intercept + \beta 1\, Profitablilty + \beta 2\, Leverage + \beta 3\, AuditorEconomicIndependence + \varepsilon$$
$$Profitablilty = intercept + \beta 4\, AuditorEconomicIndependence + \varepsilon$$
$$Leverage = intercept + \beta 5\, AuditorEconomicIndependence + \varepsilon$$
$$LendingDecisions = intercept + \beta 6\, CreditJudgments + \beta 7\, AuditorEconomicIndependence + \varepsilon$$

concern opinion, loan officers may want to gather more information about the firm's ability to pay its contractual obligations. The provision of NAS can affect lending decisions by conveying signals about the firm's future cash flow (i.e., default risk). Hence, while the provision of NAS could proxy for audit quality, we cannot eliminate the possibility that its impact on the lending decision is via signaling a firm's default risk.

Also, our study is limited in several ways. First, we retrieve loan officer credit decisions from a single banking institution. Second, participants in the experiment do not have the opportunity to seek any additional information on their own. Third, in contrast to other studies (e.g., Bamber & Stratton, 1997; Elias & Johnston, 2001), we do not ask the loan officers to provide an assessment of the interest rate they would charge. Fourth, we employ a 1-to-5-point scale to capture the dependent variables. Using a larger scale might provide additional information or insights into loan officers' lending recommendations. Fifth, we did not control for the role played by corporate governance quality on loan officer decisions (Holder-Webb & Sharma, 2010). Sixth, in the case of low auditor economic independence, we manipulated the non-audit fee ratio to increase from 20.8 percent to 41.1 percent. However, we did not ask participants whether and how the magnitude of the ratio change might affect their credit judgment or lending recommendations in the current experiment. Seventh, we only use one measure to capture auditor economic independence and do not provide any other information on the auditor's relationship with the client. For example, we do not provide the loan officers with information regarding the importance of the audit client to the

Table 7
Descriptive statistics for loan officers' recommendation decisions by lending scenarios and auditor economic independence condition.[a]

Not recommended (recommended) % recommended	Lending scenario		
	Unqualified but modified	Qualified	Overall
Auditor economic dependence			
Low	1 (19) 95% $n=20$	19 (1) 5% $n=20$	20 (20) 40% $n=40$
High	5 (15) 45% $n=20$	19 (1) 5% $n=20$	24 (16) 45% $n=40$
Overall	6 (34) 85% $n=40$	38 (2) 5% $n=40$	44 (36) 45% $n=80$

[a] Auditor economic independence = high when the audit firm did not provide any NAS for the last two years; low when the audit firm provided NAS for the last two years and the non-audit fee ratios (non-audit fees/audit fees) were 20.8 and 41.1 percent for the last two years, respectively.

auditor in our experimentation (Chung & Kallapur, 2003; Ghosh, Kallapur, & Moon, 2009). Finally, a possible confounding issue could be that current economic conditions in the European Union are even worse than when the experiment was first conducted.

5. Conclusion

This paper contributes to the literature by investigating whether the potential negative impact of a perceived lack of auditor independence depends on the nature of the audit report issued. Based on the responses of 80 Spanish loan officers, we observe that the impact of auditor economic independence, defined as the effect of the provision of NAS on a lending recommendation, varies with the type of going concern audit opinion a borrower receives. When a borrower receives an unqualified but modified opinion that reflects the auditor's concern regarding the borrower's ability to survive, auditor economic dependence has a negative effect on the loan officers' perceptions regarding the borrower's risk of repayment. This, in turn, affects the officers' lending recommendations. On the other hand, if the borrower receives a qualified opinion that reflects the auditor's concern not only on the firm's ability to survive but also on the financial statements' departure from generally accepted accounting principles, auditor economic independence has no significant impact on the loan officers' risk evaluation and lending recommendations, suggesting that such an opinion is in and of itself enough for auditors to not even be concerned about auditor independence. Our findings suggest that loan officers view a qualified audit report as a first-order mechanism/filter that acts as an early warning system. Indeed, this warning signal has such a high intensity that its impact on loan officer decisions is not affected by the degree of auditor economic independence. Our results also suggest that auditor economic independence is viewed as a second-order mechanism that only activates loan officer skepticism when the auditor has issued a modified but unqualified going concern audit report.

Our research is timely since the European regulator is currently considering the possibility of establishing an auditor independence regulation framework similar to that adopted in the United States (Global Governance in Audit Research Team, 2011; Humphrey et al., 2011). Another implication of our results affects the relationship between auditors and their financially distressed clients. According to our results, in order to avoid giving a negative first impression, an auditor and its client should probably discuss the disclosure of the going concern issue in the footnotes of financial statements, instead of issuing a qualified going concern report. However, an impression of dishonesty or lack of integrity, as signaled by the qualified going concern report, likely leads to a decline in loan applications. For a firm in financial difficulty, this can be a death penalty' (ICAEW Going Concern, 2009). Since access to credit is critical for business survival, our recommendation for borrowers facing going concern uncertainties is to disclose them in the footnotes of the financial statements, avoid the purchasing of NAS, and maintain a transparent communication with the auditors.

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References

Arruñada, B. (1999). The provision of non-audit services by auditors: Let the market evolve and decide. *International Review of Law and Economics*, *19*, 513–531.

Asare, S. K. (1990). The auditor's going-concern decision: A review and implications for future research. *Journal of Accounting Literature*, *9*, 39–64.

Bamber, M., & Stratton, R. A. (1997). The information content of the uncertainty-modified audit report: Evidence from bank loan officers. *Accounting Horizons*, *11*(2), 1–11.

Bandyopadhyay, S. P., & Francis, J. R. (1995). The economic effect of differing levels of auditor assurance on bankers' lending decisions. *Canadian Journal of Administrative Sciences*, *12*(3), 238–249.

Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic and statistical considerations, Journal of Personality and Social Psychology. *51*, 1173–1182.

Bessell, M., Anandarajan, A., & Umar, A. (2003). Information content, audit reports and going-concern: An Australian study. *Accounting and Finance*, *43*, 261–282.

Carson, E., Fargher, N. L., Geiger, M., Lennox, C., Raghunandan, K., & Willekens, M. (2013). Audit reporting for going-concern uncertainty: A research synthesis. *Auditing: A Journal of Practice and Theory*, *32*(1), 353–384.

Chung, H., & Kallapur, S. (2003). Client importance, nonaudit services, and abnormal accruals. *The Accounting Review*, *78*(4), 931–955.

Church, B., & Zhang, P. (2011). Nonaudit services and independence in appearance: Decision context matters. *Behavioral Research in Accounting*, *23*(2), 51–67.

Davis, S. M., & Hollie, D. (2008). The impact of nonaudit service fee levels on investors' perception of auditor independence. *Behavioral Research in Accounting*, (Spring), 31–44.

DeAngelo, L. E. (1981). Auditor size and audit quality. *Journal of Accounting and Economics*, *3*(December), 183–199.

DeFond, M., & Francis, J. (2005). Audit research after Sarbanes-Oxley. *Auditing: A Journal of Practice and Theory*, *4*(Suppl.), 5–30.

Dopuch, N., King, R., & Schwartz, R. (2003). Independence in appearance and in fact: An experimental investigation. *Contemporary Accounting Research*, *20*, 79–114.

Easton, P. D., Monahan, S. J., & Vasvari, F. P. (2009). Initial evidence on the role of accounting earnings in the bond market. *Journal of Accounting Research*, *47*(3), 721–766.

Elias, R. Z., & Johnston, J. G. (2001). Is there incremental information content in the going concern explanatory paragraph? *Advances in Accounting*, *18*, 105–117.

Elliot, J. A., Ghosh, A., & Moon, D. (2010). Asymmetric valuation of sustained growth by bond-and equity-holders. *Review of Accounting Studies*, *15*, 833–878.

Firth, M. (1979). Qualified audit reports and bank lending decisions. *Journal of Bank Research*, *9*, 237–241.

Firth, M. (1980a). A note on the impact of audit qualifications on lending and credit decisions. *Journal of Banking & Finance*, *4*(3), 257–267.

Firth, M. (1980b). Perceptions of auditor independence and official ethical guidelines. *The Accounting Review*, (July), 451–466.

Firth, M. (1981). Auditor–client relationships and their impact on bankers' perceived lending decisions. *Accounting and Business Research*, (Summer), 179–188.

Fleischer, R., & Goettsche, M. (2012). Size effects and audit pricing: Evidence from Germany. *Journal of International Accounting, Auditing and Taxation*, *21*, 156–168.

Ghosh, A., Kallapur, S., & Moon, D. (2009). Audit and non-audit fees and capital market perceptions of auditor independence. *Journal of Accounting and Public Policy*, *28*(5), 369–385.

Global Governance in Audit Research Team. (2011). *The European Commission's green paper-audit policy: Lessons from the crisis. Responses to the consultation questions*. Available from: www.hec.edu/.../3/.../Humphrey_C_7-1-11.pdf

Goldman, A., & Barlev, B. (1974). The auditor–firm conflict of interests: Its implications for independence. *The Accounting Review*, *49*(October), 707–718.

Guiral, A. (2012). Corporate social performance, innovation intensity, and financial performance: Evidence from lending decisions. *Behavioral Research in Accounting*, *24*(2), 65–85.

Guiral-Contreras, A., Gonzalo-Angulo, J. A., & Rodgers, W. (2007). Information content and recency effect of the audit report in loan rating decisions. *Accounting and Finance*, *47*(2), 285–304.

Gul, F. A. (1987). The effects of uncertainty reporting on lending officers' perception of risk and additional information required. *Abacus*, *23*(2), 172–179.

Gul, F. A. (1991). Size of audit fees and perceptions of auditors' ability to resist management pressure in audit conflict situations. *Abacus*, *27*(2), 162–173.

Holder-Webb, L., & Sharma, D. S. (2010). The effect of governance on credit decisions and perceptions of reporting reliability. *Behavioral Research in Accounting*, *22*(1), 1–20.

Houghton, K. A. (1983). Audit reports: Their impact on the loan decision process and outcome: An experiment. *Accounting and Business Research*, *66*, 15–20.

Humphrey, C., Kausar, A., Loft, A., & Woods, M. (2011). Regulating audit beyond the crisis: A critical discussion of the EU green paper. *European Accounting Review*, *20*(3), 431–457.

ICAEW. (2009). Going concern. *Accountancymagazine.com*, (January), 85–87. http://www.icaew.com/~/media/Files/AboutICAEW/Newsroom/Accountancy/Features/going-concern-dont-panic.ashx

Knapp, M. C. (1985). Audit conflict: An empirical study of the perceived ability of auditors to resist management pressure. *The Accounting Review*, *60*(April), 202–211.

Krishnan, J., Sami, H., & Zhang, Y. (2005). Does the provision of non-audit services affect investor perceptions of auditor independence? *Auditing: A Journal of Practice and Theory*, *24*(2), 111–135.

LaSalle, R. E., & Anandarajan, A. (1997). Bank loan officers' reactions to audit reports issued to entities with litigation and going-concern uncertainties. *Accounting Horizons*, *11*(2), 33–40.

Libby, R. (1979). The impact of uncertainty reporting on the loan decision. *Journal of Accounting Research*, *Suppl.*, 35–57.

Lindsay, D. (1990). An investigation of the impact of contextual factors on Canadian bankers' perceptions of auditors' ability to resist management pressure. *Advances in International Accounting*, *3*(1), 71–85.

Lowe, D. J., & Pany, K. (1995). CPA performance of consulting engagements with audit clients: Effects on financial statement users' perceptions and decisions. *Auditing: A Journal of Practice and Theory*, *14*(2), 35–53.

Lowe, D. J., & Pany, K. (1996). An examination of the effects of type of engagement, materiality and structure on CPA consulting engagements with audit clients. *Accounting Horizons*, *10*(4), 32–51.

Lowe, D. J., Geiger, M. A., & Pany, K. (1999). The effects of internal audit outsourcing on perceived external auditor independence. *Auditing: A Journal of Practice and Theory*, *18*(Suppl.), 7–26.

McKinley, S., Pany, K., & Reckers, P. M. J. (1985). An examination of the influence of CPA firm type size, and MAS provision on loan officer decisions and perceptions. *Journal of Accounting Research*, *23*(Autumn), 887–896.

Mitra, S., & Hossain, M. (2007). Ownership composition and non-audit service fees. *Journal of Business Research*, *60*, 348–356.

Nelson, M. W., & Tan, H. T. (2005). Judgment and decision making research in auditing: A task, person, and interpersonal interaction perspective. *Auditing: A Journal of Practice and Theory*, *24*(Suppl.), 41–71.

Pany, K., & Reckers, P. M. J. (1987). Within- vs. between-subjects experimental designs: A study of demand effects. *Auditing: A Journal of Practice and Theory*, *7*(1), 39–53.

Schneider, A., Church, B., & Ely, K. (2006). Non-audit services and auditor independence: A review of the literature. *Journal of Accounting Literature*, *25*, 169–211.

Shockley, R. A. (1981). Perceptions of auditors' independence: An empirical analysis. *The Accounting Review*, *56*(October), 785–800.

Simunic, D. (1984). Auditing, consulting, and auditor independence. *Journal of Accounting Research*, *22*, 679–702.
Sobel, M. E. (1982). Asymptotic confidence intervals for indirect effects in structural equation models. In S. Leinhardt (Ed.), *Sociological methodology* (pp. 290–312). Washington, DC: American Sociological Association.
Strawser, J. R. (1991). The role of accountant reports in users' decision-making processes: A review of empirical research. *Journal of Accounting Literature*, *10*, 181–208.
Wallman, S. M. H. (1996). The future of accounting, part III: Reliability and auditor independence. *Accounting Horizons*, *10*(December), 76–97.
Wright, M., & Davidson, R. (2000). The effect of auditor attestation and tolerance for ambiguity on commercial lending decisions. *Auditing: A Journal of Practice and Theory (Fall)*, 67–81.