

Contingent Economic Rents: Insidious Threats to Auditor Independence

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October 2000

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We thank Professors Stephen Asare (University of Florida), Stanley Biggs (University of Connecticut), Gary Holstrum (University of South Florida), Jane Kennedy (University of Washington), Robert Libby (Cornell University), Elaine Mauldin (University of Missouri), Mike Shields (Michigan State University) and George Young (Florida Atlantic University), as well as workshop participants at Michigan State University and the University of Connecticut, for their valuable comments and suggestions.

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ABSTRACT: This study examines the extent to which two forms of contingent economic rents (low-balling and potential non-audit revenue) can bias judgment and impair the independence of audit partners. Seventy-three partners representing four of the big-five CPA firms participated in this study. The experiment employed a two (low-balling: present and absent) by two (potential non-audit revenue: present and absent) between-subjects randomized design. Study hypotheses predict that contingent economic rents will stimulate three confirmatory processes: search for supportive information, cognitive distortion of audit evidence, and self-justification behavior. In turn, elevated confirmatory processing is expected to increase likelihood assessments that the client-company will continue as a going concern and minimize revisions to initial budget hours. Research findings support study hypotheses. Research evidence suggests that auditors' judgments were biased and independence was compromised in the presence of contingent economic rents. The current study contributes to extant auditing research by demonstrating how and why auditor independence may be unwittingly impaired.

Key Words: Cognitive Dissonance, Confirmation Bias, Consulting, Economic Rents, Going Concern, Independence, Low-balling, Non-audit Services, Self-justification, Self-serving bias.

Data Availability: Data is available from the authors upon request.

I. INTRODUCTION

“If the audit opinion is to provide the desired degree of assurance, the auditor must be able to form and express an opinion without bias” (Bazerman et al. 1997, p. 91).

In a Journal of Accountancy article (1942), Frederick Hurdman, then Chair of the AICPA’s Committee on Professional Ethics, expressed concern over the profession’s changing concept of independence from ‘a state of mind’ to a ‘state of rules’. He was worried that, while the former concept dealt with independence in fact, the latter focused primarily on independence in appearance. His early warning alarm still rings loudly in the ears of the accounting profession. For instance, the Chief Accountant of the SEC (Lynn E. Turner) recently indicated that the rule-based approach to defining auditor independence must be carefully scrutinized, as independence is a mind set—not a rule set (SEC 2000a). The Independence Standards Board (ISB) agrees that the profession’s view of auditor independence needs to be reexamined and is in the process of developing a conceptual framework using principles-based standards of independence (ISB, 2000).

Both the SEC and ISB have called for more research in the area of auditor independence, with particular emphasis on independence in fact. In light of a recent SEC proposal suggesting that CPA firms should recuse themselves of all situations with audit clients whereby the firms' economic self-interests might adversely affect auditor independence (SEC 2000b), the objective of this study is to investigate the extent to which two forms of contingent economic rents (low-balling and potential non-audit revenue) can bias the professional judgment and impair the independence of audit partners.

In this study, 73 audit partners representing four of the big-five CPA firms participated in a randomized, between-subjects experiment. The partners were asked to assume that they had just retained the audit client reflected in the case materials. Each partner was randomized into one of four

experimental conditions: low-balling (present or absent) and potential non-audit revenue (present or absent). As expected, the presence of contingent economic rents positively impacted three confirmatory process variables (search for supportive information, cognitive distortion, and self-justification). Also, as posited, heightened confirmatory processing positively affected the auditors' likelihood assessments that the company will continue as a going concern and negatively influenced their revisions to initial budget hours.

This study contributes to extant auditing literature in three areas. First, two forms of contingent economic rents are identified as exogenous factors that activate the use of confirmatory processes in the search for and evaluation of audit evidence. Second, research results offer insight into how and why contingent economic rents stimulate confirmatory processing of audit evidence. Third, study findings demonstrate the impact of confirmatory processes on auditors' judgments and independence. Overall, research evidence suggests that independence impairment is not necessarily the result of deliberate misrepresentation; rather, such impairment appears to be operating at the subconscious level. Thus, auditors may be unwittingly influenced by the presence of insidious threats to independence, particularly when such threats are related to their economic self-interests.

Section II advances the theoretical framework for this study and proposes research hypotheses. Section III describes the research method, section IV presents the experimental results, and section V discusses the research findings.

II. THEORY AND HYPOTHESES

There is no universally accepted definition of independence in fact. For instance, DeAngelo (1981) defined independence in fact as the conditional probability that an auditor will report a client breach, given that a breach has been uncovered. Antel (1984) claimed that auditors are not

independent in fact if they engage in side-payment schemes with client managers. Simunic (1984) assumed that independence in fact is compromised when self-interested auditors ignore, conceal, or misrepresent their findings. According to Magee and Tseng (1990), auditors are not independent in fact if they make reporting decisions that are inconsistent with their beliefs. Lastly, Lee and Gu (1998) indicated that independence in fact has been violated if there is collusion between client managers and the auditor. We propose that auditors are independent in fact when they render objective and unbiased judgments and opinions, and that auditors may be unaware of their own impairment if it occurs.

For the most part, prior definitions of independence in fact assume that violations occur when auditors knowingly misrepresent the truth. While deliberate misrepresentation may occur in rare instances, we suggest that independence impairment is more often the result of subconscious biases that alter and distort the collection and evaluation of audit evidence, such that auditors seek and interpret evidence in a manner consistent with their desired outcomes. The process of gathering and assessing audit evidence in this fashion is known as confirmation bias (Nisbett and Ross 1980) or confirmatory processes (e.g., Fischhoff and Beyth-Marom 1983; Church 1990).

The current study suggests that when the realization of future economic rents depends on maintaining on-going audit relationships with clients (the contingency), auditors are favorably predisposed toward their clients before the audit begins (the initial hypothesis); thus, confirmatory processes are activated during the collection and evaluation of audit evidence. Because confirmatory processing serves to align cognition (audit evidence), motivation (desire to keep the audit client) and behavior (audit opinion), auditors sincerely believe that their professional judgments are objective and unbiased, and that they are providing truthful representations based on factual evidence.

Figure 1 depicts the research model developed for this study. As indicated, low-balling and

potential non-audit revenue are classified as two forms of contingent economic rents. The inherent contingency in this study is the continuance of the auditor-client relationship in future periods. The confirmatory process variables examined are 1) search for supportive information (confirmatory collecting of information), 2) cognitive distortion of audit evidence (confirmatory evaluation of information), and 3) self-justification behavior (confirmatory alignment of cognition and motivation). The consequential outcomes examined are 1) auditor's likelihood assessments that the company will continue as a going concern in the upcoming year (auditor judgment) and 2) revisions to initial budget hours (auditor behavior). The following sections explain the research model and present study hypotheses.

[Insert Figure 1 about here]

Potential Economic Rents

Lowballing

Low-balling is a price cutting strategy whereby the initial year engagement fee is less than subsequent year fees (Baber et al. 1987; Francis and Simon 1987; Simon and Francis 1988; Schatzberg 1990; Lee and Gu 1998). One purpose of employing such a pricing strategy is to gain access to potential client-specific economic rents in future periods in the form of higher audit fees. Farmer et al. (1987) suggest that the following three economic conditions can lead to impairment of independence when low-balling is used: 1) cross-sectional reporting variation among auditors, 2) multiple-period quasi-rents arising from future audit fees, and 3) net economic benefit associated with misrepresentation. Prior audit research has investigated conditions one (e.g., Magee and Tseng 1990; Calegari et al. 1995; Schatzberg et al. 1996), two (e.g., Simon and Francis 1988; Schatzberg 1990; Schatzberg and Sevcik 1994; Schatzberg et al. 1996; Calegari et al. 1998;), and three (e.g., DeAngelo

1981; Schatzberg et al. 1996). The current study expands extant research dealing with the second condition; that is, the extent to which contingent economic rents arising from future increased audit fees can bias judgment and impair independence.

Low-balling is not an uncommon pricing strategy, particularly in fiercely competitive audit markets. For instance, Simon and Francis (1988) observed a 25% reduction in initial engagement fees upon a change of auditors, as compared to normal levels of on-going audit fees. Audit fees in the second and third years remained 15% below normal levels and then climbed to normal levels by the fourth year. In an experimental market simulation, Schatzberg (1990) concluded that low-balling is most likely to occur in competitive markets where transaction costs are positive. While the two studies mentioned above did not test the impact of low-balling on auditor independence, the authors discussed the potential adverse effect of such contingent economic rents on independence.

Several studies have examined the impact of low-balling on auditor independence using an experimental markets methodology and student surrogates acting as auditors. For example, Schatzberg and Sevcik (1994) and Schatzberg et al. (1996) found that auditors engage in low-balling under competitive economic conditions and misreport the clients' true financial condition under such circumstances. Calegari et al. (1998) reported that, under a disagreement scenario, auditors compromise independence to the client's advantage in the presence of contingent economic rents arising from low-balling.

The current study extends prior research dealing with low-balling and auditor independence by using real actors (audit partners), incorporating a real scenario (a company that went bankrupt in the year following the audit in question), examining a more comprehensive set of confirmatory processing variables, and conducting a controlled between-subjects experiment. While the collection of future audit

fees reflects one form of economic rents, the provision of non-audit services represents another form.

Potential Non-Audit Revenue

For decades, the Securities and Exchange Commission (SEC) has questioned whether auditors should provide non-audit services to audit clients. The Independence Standards Board (ISB) is debating whether the provision of non-audit services represents a threat to auditor independence (ISO 2000) and the AICPA is presently struggling with the same issue. Empirical evidence on the extent to which audit quality is compromised by contingent economic rents arising from potential non-audit revenue is limited and equivocal.

Titard (1971) and Pany and Reckers (1984) reports that financial statement users were highly concerned about independence impairment when auditors provided consulting services to audit clients, but they were less concerned when a separate division of the CPA firm offered such services. However, Schockley (1981) found that financial statement users were concerned about auditor independence in both scenarios just described. Using analytical modeling, Simunic (1984, p. 699) notes that “The involvement of the auditor in MAS reduces the probability of truthful audit reporting if the MAS work generates economic rents.” A survey of loan officers and financial analysts indicates that auditor provided consulting services do not impact their perceptions of auditor independence (Pany and Reckers 1988). In an experimental markets study, Schatzberg et al. (1996) indicate that potential economic rents in the form of non-audit fees can impair auditor independence if the benefits of misrepresenting audit findings exceed the costs.

Contribution of the Current Study

Prior studies in the areas of low-balling and non-audit services have relied on either analytical models (which include restrictive assumptions and ignore biased human information processing),

experimental markets (which use surrogate auditors and clients in simulated economic environments), or surveys (which lack internal validity and tradeoff scope of information for depth) (Kerlinger 1986). The current study complements and extends prior research by 1) examining how contingent economic rents impact specific confirmatory processing variables, 2) linking confirmatory processing to auditors' judgment and behavior, 3) using practicing audit partners as participants, 4) developing a case scenario based on a real company, and 5) conducting a randomized, between-subjects experiment.

A fundamental premise of the current study is that independence in fact can be impaired without deliberate misrepresentation of the truth, as indicated by Russo et. al (2000). The following section explains how and why auditors might believe they are independent in fact, when their judgments may indeed be unknowingly biased in favor of their clients.

Confirmatory Processes

The current study suggests that the economic self-interest of audit partners, arising from contingent economic rents, will establish an initial predisposition toward retaining their audit clients. This anchoring phenomenon, activated by a self-serving bias (Messick and Sentis 1979), is difficult to suppress (Jarvis and Petty 1996) and represents a powerful, yet subconscious, force which impacts the manner in which auditors process audit evidence (Bazerman et al. 1997; Russo et al. 2000). Specifically, under such circumstances, auditors will exhibit a tendency to search for and evaluate audit evidence consistent with their initial predisposition (e.g., Lord et al 1979; Gorman 1986; Church 1990). Collecting and evaluating audit evidence in this manner is known as using confirmatory processes.

When individuals psychologically commit to a given position, they tend to selectively seek information during their evidence search that supports their initial predisposition (e.g., Wason 1960; Festinger 1964; Wicklund and Brehm 1976; Doherty et al. 1979; Frey 1986; Kernan and Lord 1989).

Many accounting studies have documented the ‘supportive information search’ phenomenon (e.g., Bedard and Biggs 1991; McMillan and White 1993; Kennedy 1995; Beeler and Hunton 1996; Beeler 1998; Cloyd and Spilker 1999). While a few accounting studies have not supported this phenomenon (Kida 1984, Anderson and Kida 1989), there is overwhelming psychological evidence that individuals tend to search for information that supports their initial belief or predisposition (e.g., Lewicka 1998; Nickerson 1998; Chapman and Elstein 2000).

Another confirmatory process, known as cognitive distortion (Arkes and Blumer 1985; Frey 1986), occurs during the evaluation of evidence. After individuals form initial preferences for desired outcomes, they support their preferences during information evaluation activities by placing less decision weight on negative (disconfirming) and more weight on positive (confirming) evidence (Bazerman et al. 1997; Russo et al. 2000). Additionally, individuals tend to be more optimistic when assessing the character of relevant information, i.e., the extent to which information is favorable or unfavorable with respect to the decision outcome (Brockner and Rubin 1985 Brockner et al. 1987; Russo et al. 2000). Cognitively distorting audit evidence in this manner facilitates the alignment of initial preferences with supporting evidence, thereby achieving cognitive consistency (Church 1990).

Researchers also have found that individuals who use confirmatory processes during information search and evaluation activities exhibit higher levels of self-justification behavior prior to (Beeler and Hunton 1996) and after (e.g., Aronson 1968; Festinger 1957; Kernan and Lord 1989; Staw 1976, 1981) rendering a judgment or decision. In an experimental setting, Beeler and Hunton (1996) found that participants who exhibited increased pre-decisional self-justification behavior, as measured by the length of supporting arguments, were more likely to continue investing valuable resources into failing investments and were more confident in their final decisions, despite overwhelming evidence to the

contrary. The authors suggested that pre-decisional self-justification serves to reduce cognitive inconsistency (a psychologically unpleasant state) arising from the evaluation of discrepant evidence prior to making a judgment or decision. Additionally, auditors use pre-decisional self-justification as a way to gain the approval of others (Staw 1981; Gibbons 1984; Staw and Ross 1987; Church 1990).

Based on the theory and research presented above, we posit that the existence of contingent economic rents, due to either low-balling or potential non-audit revenue, will lead auditors to increase their search for supportive information, distort audit evidence in favor of their client, and exhibit higher levels of self-justification behavior. Accordingly, the following hypothesis (alternate form) is offered (see Figure 1):

H1: As compared to the absence of contingent economic rents, the presence of low-balling and potential non-audit revenue will significantly increase the following confirmatory process variables: 1) search for supportive information, 2) favorable cognitive distortion of audit evidence and 3) pre-decisional self-justification behavior.

Consequential Outcomes

The case materials provided in the current study indicate a situation where the deteriorating nature of financial information and key ratios suggest a possible going concern problem. The case is based on an actual company that went bankrupt in the year following the audit. Accordingly, for one dependent variable, auditor partners are asked to assess the likelihood that the client will continue to exist as a going concern in the coming year. Theory suggests a positive relationship between confirmatory process measures and going concern likelihood assessments, since heightened confirmatory processes will place the client's financial position in a more positive light.

As a second dependent measure, participants were given an opportunity to revise initial budget hours. Given the uncertainty surrounding the client's financial condition, it seems likely that unbiased

auditors might increase initial budget hours, particularly in the areas of analytical review and substantive testing, after learning about the client's precarious financial condition. Accordingly, this study suggests a negative relationship between confirmatory process measures and initial budget hour revisions since the client's financial condition will appear to be more positive to participants who exhibit higher levels of confirmatory processes.

Accordingly, it is hypothesized that the following relationships will be observed (alternative hypothesis):

H2: Confirmatory process measures will be positively associated with the auditors' likelihood assessments that the client company will continue as going concern in the coming year and negatively associated with revisions made to initial budget hours.

III. METHOD

The experiment employed a two (low-balling: present and absent) by two (potential non-audit revenue: present and absent) between-subjects randomized design. All subjects were provided with a computerized audit case. After an initial introduction screen, the participants read the following:

Please assume the role of Partner in Charge of this new audit client. Your firm is the second CPA firm to have audited the company's financial statements over the past 15 years. The owner dismissed the prior CPA firm, a local firm, upon the advice of an underwriting firm that managed the company's IPO, which took place in 1995. The underwriting firm urged the company to retain a more prestigious, national CPA firm to increase the public's confidence in the company's financial statements. As a result, the company has just hired your CPA firm to serve as auditors.

The absence [presence] of low-balling was next manipulated, as follows:

You are the partner who recruited this client in an effort to build the local office's audit practice. You bid the initial audit at above what it will cost to perform the audit; thus, you expect to make a profit on this engagement in the first year, and you anticipate making profits on this engagement in subsequent years.

[You are the partner who recruited this client in an effort to build the local office's audit practice. You bid the initial audit at below what it will cost to perform the audit; thus,

you expect to take a loss on this engagement in the first year, but you anticipate making profits on this engagement in subsequent years.]

The absence [presence] of potential non-audit revenue was manipulated on the same screen, as follows:

After holding preliminary discussions with the company's management team, you do not expect that your CPA firm will earn non-audit revenues (from management advisory services, tax planning, assurance services, information technology risk management, etc.) from this client in the future.

[After holding preliminary discussions with the company's management team, you do expect that your CPA firm will earn non-audit revenues (from management advisory services, tax planning, assurance services, information technology risk management, etc.) from this client in the future.]

Process Variable Measures

Participants were next asked to examine 12 pieces of information related to the client by clicking on each of 12 buttons presented on a computer screen. The order of the buttons was randomized per participant to preclude an order effect. Participants read the following 12 categories of information: background, marketing, inventory system, net income & EPS, analyst reports, IPO information, income statements, balance sheets, liquidity ratios, solvency ratios, activity ratios, and profitability ratios. After reading all client information, the auditors were asked to assess the favorability of and assign a decision weight to each piece of information. Specifically, participants were asked to respond to the following two questions for each information item:

How would you characterize the information you just read with respect to your client? (-3 = Very Unfavorable, -2 = Somewhat Unfavorable, -1 = Slightly Unfavorable, 0 = Neutral, +1 = Slightly Favorable, +2 = Somewhat Favorable, +3 = Very Favorable).

How much decision weight do you place on the information you just read with respect to assessing the financial viability of your client in the coming year? (1 = Very Low Weight, 2 = Somewhat Low Weight, 3 = Slightly Low Weight, 4 = Neutral Weight, 5 = Slightly High Weight, 6 = Somewhat High Weight, 7 = Very High Weight).

Auditors could reexamine each piece of information while responding to these two questions. A

cognitive distortion metric is calculated for each participant by multiplying the favorability rating by the decision weight ascribed to each piece of information, and then summing the metric across all 12 pieces of client information¹.

Next, participants were told that they would soon be asked to provide a likelihood assessment (0% to 100%) that the client will continue as a going concern in the coming year. Before providing this assessment, they were allowed to review the client's information once again. As they reviewed the information, the computer program tracked each piece of evidence that the auditors examined. The self-assessed favorability ratings for informational items reviewed were summed for each participant, yielding the search for supportive information metric.² Concurrent with reviewing client information, participants were provided with a word processor screen and asked to write down as many reasons they could think of to support the going concern likelihood judgment they were about to render. The length of their explanations, as reflected by the number of keystrokes (Beeler and Hunton 1996), serves as the self-justification metric.

Consequence Variable Measures

Next, participants provided their going concern likelihood assessments (0 to 100, in 10 point increments). Then, the audit partners read that the initial budget hours were 200 for analytical review, 500 for substantive testing, and 150 for audit administration, for a total of 850 hours. They were given an opportunity to revise the budgeted audit hours. The total hour change to the audit budget serves as the 'revisions to initial budget hours' metric.

Other Measures

At this point, the computerized experiment prevented the audit partners from going back and changing prior responses. Participants next responded to a series of manipulation check, between-

subject debriefing and demographic information items, which were randomized to preclude an order effect. Finally, at the end of the experiment, a series of within-subject debriefing item responses are obtained, as recommended by Kahneman and Tversky (1996).

Once again, participants were not allowed to go back and change any prior responses at this point. The audit partners were provided with four scenarios unrelated to the specifics of the case materials. The scenarios described a hypothetical auditor-client relationship where contingent economic rents, in the form of low-balling and potential non-audit revenue, were present or absent. For each of the four scenarios (low-balling – present or absent; potential non-audit revenues – present or absent), the audit partners are asked to assess the extent to which their independence and the independence of 'other audit partners' in their firms would be impaired in light of such economic rents.

Within-subjects assessments of this nature are designed to provide participants an opportunity think about and report their 'true' underlying beliefs with respect to the relationship between the independent (e.g., contingent economic rents) and dependent constructs of interest (e.g., independence in fact). According to social projection theory (e.g., Clement and Krueger 2000; Mikulincer and Horesh 1999; Ruvolo and Fabin 1999; Smith 1997), testing of this nature often reveals the respondents' underlying subconscious beliefs, as they project such beliefs onto referent others. Thus, if the between-subject assessments reveal that auditors in all treatment conditions believe they are independent, yet the within-subject analyses indicate that 'other partners' within the firm might succumb to such economic pressures, projection theory would suggest that the participants' own subconscious beliefs may be reflected in the 'other partners' responses.

Administration of the Experiment

The experimental materials were computerized and placed on a host computer so that the audit

partners could participate in the study via the Internet. The partners were assigned individual passwords ahead of time, which authorized them to participate in the study. The participants were told that they must complete the entire study in a single session that would last about one hour.

Controls were built into the program such that each password granted a one-time authorization to the program and participants were automatically randomized into treatment conditions once granted access. Oral interviews (mostly telephone) were conducted with all partners while they were in their offices. All partners indicated that they would participate in the study using their office computer. During the interviews, the researchers instructed the partners how to find the 'computer name' listed in their network settings. As a further control to ensure that the partners were the actual participants, the host computer granted access to the experimental software only if the respondents had the correct password and if the computer machine name matched their office computer.

All partners completed the study during a contiguous five-day window (Monday through Friday) wherein the computerized experiment was available on the host computer. Several pilot tests of the experimental materials and computerized programs were conducted prior to the final experiment, using master's level accounting students and audit managers/partners from local CPA firms. Necessary case material and software changes were incorporated along the way.

IV. RESULTS

Sample

The experimental participants represent 73 audit partners from four of the big-five accounting firms. The authors initially approached 23 audit partners through their personal networks of professional contacts. The partners were told that the researchers were interested in examining how auditors arrive at client-related judgments. After agreeing to participate in the experiment, the partners then recruited

other partners within their firms to participate. A total of 75 participants were identified.

The researchers contacted all participants and obtained written voluntary consents. Complete anonymity and confidentiality were assured verbally and in writing to the participating audit partners. As an incentive to participate in the study, the researchers contributed \$50 for each participant to the charity of their choice. Two of the 75 audit partners did not complete the experiment; accordingly, they were dropped from the study. The researchers personally called all participants after the experiment and debriefed them as to the study's purpose and summary results. At this point, the partners were asked whether they still wanted to have their data included in the study and all agreed in the affirmative. Sample statistics are presented in Table 1.

[Insert Table 1 about here]

Results of statistical testing (χ^2) indicate no significant proportional differences (all p -values exceeded .20) across treatment conditions for sample size, firms, gender, or day the week (the experiment ran from Monday through Friday). Also, ANOVA testing revealed no significant differences (all p -values exceeded .50) across treatment conditions for any of the demographic variables. The overall mean (standard deviation) elapsed time of the experiment was 53 (10.63) minutes. ANOVA testing coupled with Scheffe's pairwise comparison test revealed no significant difference ($\alpha \geq .05$) in mean experimental times across three of the four treatment conditions; however, mean elapsed time in the condition where both economic rents were present was significantly higher ($\alpha < .05$) at 61 (8.29) minutes.

Manipulation Checks

Manipulation check items were used to gauge the effectiveness of the experimental treatments. Participants were asked to respond to two items representing each treatment condition. The

manipulation check items for low-balling were:

I bid this engagement at a loss in order to obtain the client's future audit business (1= Strongly Disagree, 7 = Strongly Agree).

I used a low-balling strategy to acquire the initial audit engagement (1= Strongly Disagree, 7 = Strongly Agree).

Correlation between the two low-balling items was .49 ($p < .01$). The items were summed to obtain a low-balling index. The manipulation check items for potential non-audit revenue were:

In the future, it is likely that my CPA firm will earn non-audit revenues from this client (1= Strongly Disagree, 7 = Strongly Agree).

In the future, it is likely that non-audit revenues earned from this client will enhance my personal income (1= Strongly Disagree, 7 = Strongly Agree).

Correlation between the two potential non-audit revenue items was .72 ($p < .01$). The items were collapsed (summed) into a single non-audit revenue index.

The index means (standard deviations) for low-balling in the absent and present conditions were 4.63 (1.90) and 11.45 (2.05), respectively. A t test indicated a significant mean difference between the low-balling conditions ($t = 14.72, p < .01$). The index means (standard deviations) for potential non-audit revenue in the absent and present conditions were 4.17 (1.77) and 12.11 (2.07), respectively. A significant mean difference was obtained between the potential non-audit revenue conditions ($t = 17.66, p < .001$).

Finally, the self-serving bias (Messick and Sentis 1979) suggests that when decision-makers have an economic stake in continuing with a given course of action, they will exhibit a predisposition toward maintaining that course of action. In a related vein, Church (1990) indicates a positive relationship between confirmatory processing and commitment to an initial hypothesis or preference. To test the participants' initial level of client commitment, we asked the following question immediately after

the auditors read the initial client engagement screen and treatment condition (low-balling and non-audit revenue) screen, but before seeing the audit evidence:

At this point, I feel very committed to maintaining a long-term relationship with this client (1 = Strongly Disagree, 7 = Strongly Agree).

Treatment means (standard deviations) are as follow:

1. Low-balling [absent], potential non-audit revenue [absent]	3.94 ^a	(1.06)
2. Low-balling [present], potential non-audit revenue [absent]	4.95 ^b	(0.97)
3. Low-balling [absent], potential non-audit revenue [present]	5.11 ^b	(0.99)
4. Low-balling [present], potential non-audit revenue [present]	6.74 ^c	(0.56)

One-way ANOVA testing with four levels (each treatment condition) revealed a significant difference among treatment conditions ($F = 29.91$, $p < .01$). Different superscripts (shown above) indicate significantly different means using Scheffe's multiple pairwise testing ($\alpha = .05$). As indicated, the auditors' initial predisposition toward maintaining an on-going relationship with the client increased across the contingent economic rent conditions. Based on results of manipulation check testing, the experimental manipulations were considered successful.

Means and Correlations

Means and standard deviations for the confirmatory process variables (search for supportive information, cognitive distortion, and self-justification) and outcome factors (going concern likelihood and revision to initial budget hours) are presented in Table 2 (Panel A). Correlations among study variables are shown in Panel B (Table 2). As indicated, confirmatory process variables are highly correlated with one another. This is not a surprising result since the variables reflect three dimensions of a single construct. The confirmatory process variables are positively correlated with the going concern likelihood assessment and negative correlated with initial budget hour revisions. Study hypotheses are tested next.

[Insert Table 2 about here]

Hypothesis One

The first hypothesis (H1) posited that in the presence, as compared to absence, of low-balling and potential non-audit revenue, auditors would increase their search for supportive information, favorably distort audit evidence, and exhibit greater self-justification behavior. To test H1, a MANOVA model was first run to determine the impact of the experimental manipulations on the linear set of dependent variables. MANOVA testing indicated significant main effects for low-balling ($F = 71.65, p < .001$) and potential non-audit revenue ($F = 67.73, p < .001$), as well as for the interaction term ($F = 2.77, p = 0.05$). Next, separate ANOVA models were run for each dependent variable.

Panel A (Table 3) presents the results of ANOVA testing for the search for supportive information (SSI) index. Recall that the SSI index is a sum of the favorability ratings of all pieces of information reviewed by participants before making their going concern likelihood assessments. Scheffe's multiple pairwise comparison of means ($\alpha = .05$) indicates that control group participants examined significantly more net unfavorable information items ($m = -9.33$) than did participants in either the low-balling or non-audit revenue conditions. Also, the significant interaction term ($p = .057$) suggests that the presence of both contingent economic rents yielded a pronounced impact on the search for supportive information, as the index mean (+ 8.37) was quite favorable.

[Insert Table 3 about here]

Table 3 (Panel B) includes the ANOVA model and test results for the cognitive distortion index, which is calculated by multiplying the favorability rating by the decision weight for each informational item, and then summing the resulting products over all 12 items for each individual. Based on the size and sign of the control group mean (- 45.67), the weighted cognitive perception of all information was

negative. The weighted cognitive perception of client information for the low-balling only and potential non-audit revenue only conditions were somewhat neutral. In the presence of both contingent economic rents, the weighted cognitive perception of the client information was significantly positive (+ 33.11). Overall, the presence of either or both contingent rent conditions yielded a positive cognitive distortion to the client information, as compared to the control group.

Panel C (Table 3) displays the ANOVA results for the self-justification index, which reflects the number of keystrokes (i.e., an indicator of pre-decisional self-justification effort expended) entered by participants before making their going concern judgment. Results suggest that participants in the low-balling and potential non-audit revenue condition ($m = 332.79$) expended the highest level of effort justifying their upcoming decision, and the control group auditors expended the lowest amount of effort ($m = 116.56$). The mean number of keystrokes entered in the low-balling only and potential non-audit revenue only conditions fell between the two extremes. Once again, a significant interaction term is obtained, suggesting a pronounced effect of both contingent rents on self-justification behaviors. Overall, the first hypothesis was supported.

Hypothesis Two

The second hypothesis (H2) anticipated that confirmatory process variables would be positively associated with going concern likelihood assessments and negatively associated initial budget hour revisions. As depicted, the research model could be most effectively analyzed using structural equations modeling (SEM). However, the relatively small sample size ($n = 73$) precludes the use of SEM testing, as the estimated power of .27 is relatively low.³ Accordingly, path analysis is used to test the second hypothesis.

The statistical package used to analyze the data is called EQS. While a complete measurement

and structural model can not be reliably determined, given the small sample size, EQS can be used to calculate a path analysis model (e.g., a structural model based on measured variables). In the path model, measurement error is set to zero for the independent variables, since they were manipulated. However, before running the path analysis, the three variables representing ‘confirmatory processes’ in the research model (Figure 1) were combined into a single index in a manner suggested by Maruyama (1997).

As mentioned earlier in the paper, the process variables reflect three manifestations of a construct called ‘confirmatory processes.’ Since each variable is measured on a different scale, the variables were standardized and summed to yield a single index.⁴ The index mean and (standard deviation) are 0.000 (2.686), and the index ranges from –6.282 to 6.068. A path analysis was next performed and the results are shown in Figure 2.⁵

[Insert Figure 2 about here]

The extent to which the research model fits the data is reflected by ‘goodness of fit’ statistics. The χ^2 statistic compares the model's covariance structure to the observed covariance matrix. A non-significant χ^2 , as obtained with the research model ($p = .15$), suggests a good fit. The normal χ^2 is obtained by dividing the χ^2 statistic by the degrees of freedom. The normal χ^2 obtained for the research model is 1.40 (a normal χ^2 of less than 3 is considered a good fit). The goodness of fit (GFI) statistic is based on the ratio of the sum of the squared differences between the observed and model matrices to the observed variances. As such, it reflects the percent of observed covariances explained by the covariances implied by the model. The obtained GFI for the research model is .934, where values above .90 indicate a good fitting model. The adjusted GFI (AGFI) uses mean squares instead of total sums of squares (as with GFI) in the numerator and denominator. Hence, it is suggested for

models with relatively small sample sizes. AGFI values above .90 suggest a good fitting model. The AGFI for the research model is .917. The non-normed fit index (NNFI) is also advised as a goodness of fit statistic when sample sizes are relatively small. The NNFI compares the fit of the null and research models by analyzing the change in normal χ^2 statistics obtained from the former to the latter model. A NNFI greater than .90 indicates a good fit. The NNFI obtained for the research model is .905. Finally, the root mean square approximation (RMSEA) indicates the model discrepancy per degree of freedom; thus, it is relatively insensitive to sample size (RMSEA values below .05 suggest a good fit). The RMSEA for the research model is .041. Taken as a whole, the goodness of fit statistics suggest that the research model is a good fit with the data.

As hypothesized in H2, the path between confirmatory processes and the going concern likelihood assessments is significantly positive (standardized path coefficient: + .568). Also, as predicted, there is a significant negative path between confirmatory processes and revisions to initial budget audit hours (standardized path coefficient: - .725). Based on the goodness of fit statistics and significant path coefficients, the second hypothesis is supported.

Supplemental Analyses

The direct impact of low-balling and potential non-audit revenue on the dependent variables (going concern likelihood and revisions to budgeted hours) was also examined. A MANOVA model indicated significant effects for low-balling ($F = 53.43, p < .01$) and potential non-audit revenue ($F = 42.75, p < .01$), and a non-significant effect for the interaction term ($F = 1.99, p = .14$). The results of separate ANOVA models are shown on Table 4. As indicated in panel A (panel B), the mean going concern likelihood assessments (revisions to budgeted hours) were significantly lowest (highest) in the control condition and highest (lowest) in the treatment condition where both contingent economic rents

were present, with the remaining treatment means falling between the two extremes. While these supplemental analyses indicate direct effects that are congruent with H2, the path analysis model suggests that confirmatory processing mediates the relationship between the independent and dependent variables in this study.

[Insert Table 4 about here]

Post-Experiment Client Commitment

Before answering debriefing items, the auditors responded to the following client commitment item:

Before you examined the client’s information, you were asked to respond to the following question” “At this point, I feel very committed to maintaining a long-term relationship with this client.” Your response was [the participant’s initial response appeared here].

Now that you have read more information about your client, please indicate on the scale below the extent to which your initial commitment toward this client has changed (1 = Extremely less committed, 2 = Moderately less committed, 3 = Slightly less committed, 4 = No change, 5 = Slightly more committed, 6 = moderately more committed, 7 = Extremely more committed).

Treatment means (standard deviations) are as follow:

1. Low-balling [absent], potential non-audit revenue [absent]	2.39 ^a	(1.29)
2. Low-balling [present], potential non-audit revenue [absent]	3.79 ^b	(1.03)
3. Low-balling [absent], potential non-audit revenue [present]	3.94 ^b	(1.30)
4. Low-balling [present], potential non-audit revenue [present]	5.79 ^c	(1.08)

ANOVA testing (one-way with four levels) revealed a significant difference among treatment conditions ($F = 26.11, p < .01$). Different superscripts (shown above) indicate significantly different means using Scheffe’s multiple pairwise testing ($\alpha = .05$). Interestingly, contingent economic rents are associated with higher levels post-experimental client commitment, and there is a positive relationship between the confirmatory processing index and post-experimental client commitment ($r = .640, p < .01$). These

findings suggest that, in multi-period settings, contingent economic rents appear to strengthen the auditors' predisposition toward maintaining an on-going relationship with the client.

Between-Subjects Debriefing

The participants next answered debriefing items, which were randomized per individual. Wording of the debriefing items and means (standard deviations) are included in Table 5. ANOVA analyses indicated no significant difference across treatment conditions for any of the response items.

[Insert Table 5 about here]

The first category of debriefing items assessed the audit partners' perceptions of independence with respect to the case client. As indicated, all participants recorded relatively high levels of perceived independence. These findings are interesting because, if all participants honestly believed they were independent with respect to the client, then the significantly different going concern likelihood assessments across treatment conditions suggest that independence impairment was operating at the subconscious level.

The second category assessed how the auditors felt about the judgments they had just rendered, which is a reflection of post-decision cognitive dissonance. According to dissonance theory, when deliberate misrepresentation occurs, individuals often experience a tension producing psychological state referred to as cognitive dissonance, which arises when there is an inconsistency between an individual's beliefs and actions (Festinger 1957, 1964; Brockner 1992). Accordingly, if the participating auditors were intentionally misrepresenting the client's financial condition, some degree of cognitive dissonance might be indicated in the contingent economic rents conditions. However, the debriefing items do not indicate varying levels of cognitive dissonance across treatment conditions, as all auditors expressed relatively high levels of comfort with and confidence in their judgments.

The third category assessed perceived levels of personal responsibility toward the client. This debriefing item was asked because dissonance theory suggests that cognitive dissonance is most likely to occur when the decision-maker feels a sense of personal responsibility for the situation. The relatively high mean suggest that participants felt a considerable amount of personal responsibility for the client engagement.

The next category, compensation salience, is designed to measure the efficacy of the experimental incentives. Based on the overall mean, the auditors believed that the \$50 contribution to their favorite charity was adequate compensation. Finally, the relatively high mean response to the last item suggests that the auditors understood the case instructions.

Within-Subjects Debriefing

After collecting manipulation check, between-subject debriefing and demographic information, the auditors responded to a final set of within-subject debriefing items. The purpose of the within-subject items was to assess the participants' underlying beliefs regarding the extent to which their and other audit partners' independence in fact would be impaired in light of contingent economic rents arising from low-balling and non-audit services. The within-subjects assessments offer participants an opportunity to reflect on the relationship between the primary independent and dependent constructs of interest unconfounded by the experimental treatment condition to which they were assigned (Kahneman and Tversky 1996).

Each participant read four different scenarios, unrelated to the experimental case materials. The four scenarios reflected situations where low-balling and potential non-audit revenue were absent or present. After reading each scenario, the audit partners recorded the extent to which their own independence might be impaired, as well as how the independence of other auditors in their firm might

be compromised. The order of the four scenarios was randomized for each individual.

The wording of each item and response means (standard deviations) are presented in Table 6. For purposes of statistical testing, the means for ‘my judgment’ items were summed into a single index and the ‘other partner judgments’ item means were summed into another index. Within each scenario, the mean indices for ‘my judgment’ and ‘other partner judgments’ were then tested for significant differences using t tests. Within the first scenario (low-balling - absent; non-audit revenue - absent) the indices were not significantly different from each other ($t = 0.08, p = .93$). However, the two indices were significantly different within scenarios two (low-balling - present; non-audit revenue - absent) ($t = 16.81, p < .01$), three (low-balling - absent; non-audit revenue - present) ($t = 17.63, p < .01$), and four (low-balling - present; non-audit revenue - present) ($t = 37.40, p < .01$).

[Insert Table 6 about here]

Index means across the scenarios were also examined using t tests. The ‘my judgments’ index means were not significantly different across the four scenarios, as all t tests yielded p -values $> .90$. The ‘other partner judgments’ mean index in scenario one (low-balling - absent; non-audit revenue - absent) was significantly higher than scenarios two (low-balling - present; non-audit revenue - absent) ($t = 16.68, p < .01$), three (low-balling - absent; non-audit revenue - present) ($t = 20.37, p < .01$) and four (low-balling - present; non-audit revenue - present) ($t = 37.83, p < .01$). In the presence of either contingent economic rent, the ‘other partner judgments’ index means were not significantly different from each other ($t = 1.06, p = .29$). Finally, the ‘other partner judgments’ index mean for scenario four (low-balling - present; non-audit revenue - present) was significantly lower than scenarios two (low-balling - present; non-audit revenue - absent) ($t = 12.32, p < .01$) or three (low-balling - absent; non-audit revenue - present) ($t = 15.88, p < .01$).

Test results suggest that the audit partners do not believe their independence would be impaired by the presence of contingent economic rents. However, they indicate that the judgments of other partners in their firms might be duly compromised. In psychological testing of this nature, individuals often record answers that present themselves in the most favorable light (Kerlinger 1988). However, when asked how peers might respond to the same stimuli, respondents' often project their own subconscious beliefs onto referent others (e.g., Clement and Krueger 2000; Mikulincer and Horesh 1999; Ruvolo and Fabin 1999; Smith 1997). Thus, the within-subject debriefing items provide further indication that the presence of contingent economic rents might subconsciously bias the judgment and impair the independence of auditors.

V. DISCUSSION

The primary objective of this study is to examine the extent to which auditor independence is compromised in the presence of two forms of contingent economic rents: low-balling and potential non-audit revenues. A fundamental premise of this research is that impairment of auditor independence is not always deliberate; rather, such impairment is more often the result of subconscious information collection and evaluation biases, as indicated by Russo et al. (2000). In that light, we investigate specific confirmatory processes that are stimulated by contingent economic rents and the impact of such biased cognitive processing on auditor's judgment and independence.

A total of 73 audit partners from four of the big-five CPA firms participated in a 2 (low-balling: present or absent) by 2 (potential non-audit revenue: absent or present) randomized between-subjects experiment. Three confirmatory processing variables examined in the current study are 1) search for supportive information, 2) favorable cognitive distortion of audit evidence, and 3) pre-decisional self-justification behavior. Based on cognitive process theory, a research model was developed depicting

confirmatory processing of evidence as a mediating factor between contingent economic rents and audit judgment (likelihood assessments that the client will continue as a going concern) and behavior (revisions to initially budgeted audit hours).

In the presence, as compared to absence, of contingent economic rents, a phenomenon known as the self-serving bias (Messick and Sentis 1979) suggests that auditors are more intensely predisposed toward maintaining long-term relationships with their clients (i.e., the contingency). The auditors' strong desire for long-term client relationships under these conditions affects the manner in which they cognitively process audit evidence. That is, auditors who hold a strong initial preference, or predisposition, often use confirmatory processes when gathering and evaluating audit evidence (Church 1990). Findings from the current study indicate that the participants' initial commitment toward maintaining an on-going audit relationship with the case client was highest (lowest) in the presence (absence) of both contingent economic rents, while such commitment fell between the two extremes in the presence of either contingent economic rent.

The first hypothesis asserts that the presence, as compared to absence, of contingent economic rents will increase the auditors' search for supportive information, favorable distortion of audit evidence, and pre-decisional self-justification behavior. The second hypothesis predicts that confirmatory processing will be positively associated with going concern likelihood assessments and negatively associated with initial budget hour revisions. Research findings support both hypotheses.

Responses to between-subject debriefing items indicate that auditors in all four treatment conditions believed their judgments with respect to the case client were objective, unbiased and impartial. This finding is critical to the independence issue, as it questions the assumption that deliberate misrepresentation is a necessary condition of independence impairment. Within-subject debriefing items

were also assessed. After reading each of four scenarios (low-balling and potential non-audit revenue: absent or present) unrelated to the experimental case, auditors indicated that their client-related judgments would be objective, unbiased, and impartial. Interestingly, in the presence of contingent economic rents, they suggested that the judgments of other audit partners within their firms would be duly impaired. Projection theory would suggest that the participant responses to the 'other partners' items indicate, in part, similar subconscious biases inherent in the respondents' psyche.

The current study is limited by external validity threats common to laboratory experiments of this nature. However, using practicing audit partners as participants provides a degree of generalizability to the experimental results. The study is also limited in that the participants were not asked to render a final audit decision. Results of pilot testing, with a different group of audit partners, suggested that there is too little information in the case for auditors to provide opinions, particularly with respect to going concern; hence, likelihood assessments seemed to make more sense to the respondents. Thus, the extent to which professional responsibility, legal concerns, accountability and other factors might affect the auditors' final opinions is unknown. Finally, with respect to the between-subjects debriefing items, it is possible that participant responses were not reflective of their true beliefs regarding independence; rather, the auditors may have responded in a way that placed them in the most favorable and accepted light. Hence, whether confirmatory processing is truly subconscious cannot be determined with absolute certainty in this experiment.

As stated by Bazerman et al. (1997) "The assumption of deliberativeness is important because it implies that any tendency toward bias can potentially be rectified by moral suasion and/or the threat of sanctions." However, if confirmatory processing is wholly or partially subconscious, such remedies may be ineffective. Therefore, future research in the area of auditor independence should focus on

developing self-awareness techniques that audit partners and firms can use to identify situations where independence in fact may be impaired. Self-awareness procedures of this nature could be integrated into firm training sessions and auditor decision aids. Also, it would be fruitful to investigate the impact of other possible threats to independence, such as the size and nature of equity stakes with clients, and the length of the auditor-client relationship.

Results from the current study indicate that audit partners may be unknowingly biased in their client-related judgments when contingent economic rents are present. Unfortunately, without some form of intervention, these findings support the assertion made by Bazerman et al. (1997) that it may be impossible for auditors to maintain independence in fact when their continued economic self-interest is inextricably linked to future economic rents. In the final analysis, the accounting profession can either cave into the SEC's proposed measures aimed at eliminating all situations whereby auditors might have conflicting economic interests with audit clients -or- take proactive steps to identify insidious threats to auditor independence and effectively deal with such threats thereby retaining the right to broaden client services and enhance the economic viability of CPA firms into the foreseeable future.

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Table 1

Sample Characteristics

Sample Size Composition

<u>Low-Balling</u>	<u>Non-Audit Revenue</u>	
Absent	Absent	18
Present	Absent	19
Absent	Present	17
Present	Present	<u>19</u>

Four of the Big-Five CPA Firms (Participants requested that the firm name be disguised)

One	19
Two	20
Three	16
Four	<u>18</u>

Gender

Male	58
Female	<u>15</u>

Total Sample Size (n) 73

Demographic Variables

Mean (standard deviation) age	44.60	(6.09)
Mean (standard deviation) years in public accounting	21.07	(5.99)
Mean (standard deviation) years with current firm	18.06	(7.66)
Mean (standard deviation) years as partner	8.70	(5.67)
Percent experience auditing public companies	69.10	(17.36)

Table 2**Process and Consequence Variables*****Panel A: Treatment Means (Standard Deviations)***

<i>Low-Balling Potential Non-Audit Revenue</i>	<i>Absent Absent</i>	<i>Present Absent</i>	<i>Absent Present</i>	<i>Present Present</i>
Search for Supportive Information Index	-9.33 (7.92)	1.52 (4.62)	2.82 (4.33)	8.37 (5.84)
Cognitive Distortion Index	-45.67 (20.04)	-4.32 (16.56)	0.59 (16.93)	33.11 (18.66)
Self-Justification Index	116.56 (33.90)	208.58 (40.80)	191.65 (39.45)	332.79 (58.17)
Going Concern Likelihood	41.11 (16.76)	64.21 (22.44)	60.59 (24.10)	85.26 (13.89)
Revision to Initial Budget Hours	478.89 (120.39)	276.32 (68.65)	291.18 (68.64)	163.16 (30.02)

Panel B: Correlation Matrix

<i>Process and Consequence Variables</i>	[1]	[2]	[3]	[4]
[1] Search for Supportive Information Index				
[2] Cognitive Distortion Index	.834			
[3] Self-Justification Index	.576	.698		
[4] Going Concern Likelihood	.477	.536	.512	
[5] Revision to Initial Budget Hours	-.620	-.668	-.658	-.507

Note: All correlations are significant at $p \leq .01$

Table 3

ANOVA Test Results for Hypothesis One (H1)

Panel A: Search for Supportive Information Index

<u>Source</u>	<u>d.f.</u>	<u>Sum-Squares</u>	<u>F-Ratio</u>	<u>p-value</u>
Low-Balling	1	1,225.22	35.77	.001
Non-Audit Revenue	1	1,643.40	47.97	.001
Interaction Term	1	128.60	3.75	.057
Error	69	2,363.63		
Total (Adj.)	72	5,378.66		

Results of Scheffe's multiple pairwise comparison test ($\alpha = .05$)

<i>Low-Balling</i>	<i>Non-Audit Revenue</i>	<i>Means</i>
Absent	Absent	-9.33 ^a
Present	Absent	1.52 ^b
Absent	Present	2.82 ^b
Present	Present	8.37 ^c

Different superscripts indicate significant differences at $\alpha = .05$.

Table 3

ANOVA Test Results for Hypothesis One (H1)

Panel B: Cognitive Distortion Index

<u>Source</u>	<u>d.f.</u>	<u>Sum-Squares</u>	<u>F-Ratio</u>	<u>p-value</u>
Low-Balling	1	24,842.52	75.80	.001
Non-Audit Revenue	1	31,877.59	97.27	.001
Interaction Term	1	355.29	1.08	.301
Error	69	22,614.01		
Total (Adj.)	72	80,373.02		

Results of Scheffe's multiple pairwise comparison test ($\alpha = .05$)

<i>Low-Balling</i>	<i>Non-Audit Revenue</i>	<i>Means</i>
Absent	Absent	-45.67 ^a
Present	Absent	-4.32 ^b
Absent	Present	0.59 ^b
Present	Present	33.11 ^c

Different superscripts indicate significant differences at $\alpha = .05$.

Table 3

ANOVA Test Results for Hypothesis One (H1)

Panel C: Self-Justification Index

<u>Source</u>	<u>d.f.</u>	<u>Sum-Squares</u>	<u>F-Ratio</u>	<u>p-value</u>
Low-Balling	1	247,522.00	126.23	.001
Non-Audit Revenue	1	180,845.40	92.23	.001
Interaction Term	1	10,984.58	5.60	.021
Error	69	135,302.10		
Total (Adj.)	72	583,374.50		

Results of Scheffe's multiple pairwise comparison test ($\alpha = .05$)

<i>Low-Balling</i>	<i>Non-Audit Revenue</i>	<i>Means</i>
Absent	Absent	116.56 ^a
Absent	Present	191.65 ^b
Present	Absent	208.58 ^b
Present	Present	332.79 ^c

Different superscripts indicate significant differences at $\alpha = .05$.

Table 4

**ANOVA Test Results for Direct Effect of Independent Variables on
Going Concern Likelihood and Revisions to Budgeted Hours**

Panel A: Going Concern Likelihood

<u>Source</u>	<u>d.f.</u>	<u>Sum-Squares</u>	<u>F-Ratio</u>	<u>p-value</u>
Low-Balling	1	10,391.39	26.95	.001
Non-Audit Revenue	1	7,478.80	19.39	.001
Interaction Term	1	11.30	0.03	.865
Error	69	26,608.74		
Total (Adj.)	72	44,775.34		

Results of Scheffe's multiple pairwise comparison test ($\alpha = .05$)

<i>Low-Balling</i>	<i>Non-Audit Revenue</i>	<i>Means</i>
Absent	Absent	41.11 ^a
Absent	Present	64.21 ^b
Present	Absent	60.59 ^b
Present	Present	85.26 ^c

Panel B: Revisions to Budgeted Hours

<u>Source</u>	<u>d.f.</u>	<u>Sum-Squares</u>	<u>F-Ratio</u>	<u>p-value</u>
Low-Balling	1	497,585.80	79.11	.001
Non-Audit Revenue	1	412,138.10	65.52	.001
Interaction Term	1	25,306.50	4.02	.049
Error	69	434,006.90		
Total (Adj.)	72	1,377,795.00		

Results of Scheffe's multiple pairwise comparison test ($\alpha = .05$)

<i>Low-Balling</i>	<i>Non-Audit Revenue</i>	<i>Means</i>
Absent	Absent	478.89 ^a
Absent	Present	276.32 ^b
Present	Absent	291.18 ^b
Present	Present	163.16 ^c

Different superscripts indicate significant differences at $\alpha = .05$.

Table 5

Means and (Standard Deviations) for Between-Subjects Debriefing Questions

Perceptions of Independence

I am independent of this client in all respects.	6.59	(0.93)
My audit judgment with regard to this client is unbiased.	6.56	(1.05)
My audit judgment with regard to this client is objective.	6.41	(1.22)
There are no conflicts of interest impairing my independence on this audit engagement.	6.38	(1.13)
I believe that my audit judgment with respect to this client is impartial.	6.55	(1.01)

Cognitive Dissonance

I feel comfortable with the judgments I just provided concerning HMW Inc.	6.28	(0.97)
I am uncertain about the judgments I just provided concerning HMW Inc.	2.04	(1.32)
I am uneasy with the judgments I just provided concerning HMW Inc.	2.27	(1.11)

Perceptions of Personal Responsibility

I feel personally responsible for this initial engagement.	5.59	(1.42)
I am personally responsible for recruiting this client and accepting this engagement.	5.98	(1.25)

Compensation Salience

I am satisfied with my compensation for participating in this study, considering the time and effort I just expended.	5.92	(1.38)
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Case Instructions

The case instructions for this study were understandable.	6.03	(1.37)
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1. Scale used for all items: 1 = Strongly Disagree, 2 = Disagree, 3 = Slightly Disagree, 4 = Neither Agree nor Disagree, 5 = Slightly Agree, 6 = Agree, 7 = Strongly Agree,
 2. All means are statistically non-significant ($p > .10$) across the between-subject experimental treatment conditions.
 3. All means are significant different ($p < .01$) from the mid-point of the scale.

Table 6

Means and (Standard Deviations) for Within-Subjects Debriefing Questions

Scenario One: Low-Balling (Absent), Non-Audit Revenue (Absent)

My audit judgments with respect to this client would be totally:	objective.	6.85 ^a	(0.64)
	unbiased.	6.84 ^a	(0.37)
	impartial.	6.80 ^a	(0.66)
The audit judgments of other partners in my firm would be totally:	objective.	6.93 ^a	(0.25)
	unbiased.	6.78 ^a	(0.73)
	impartial.	6.77 ^a	(0.70)

Scenario Two: Low-Balling (Present), Non-Audit Revenue (Absent)

My audit judgments with respect to this client would be totally:	objective.	6.81 ^a	(0.59)
	unbiased.	6.81 ^a	(0.49)
	impartial.	6.82 ^a	(0.42)
The audit judgments of other partners in my firm would be totally:	objective.	4.82 ^b	(1.54)
	unbiased.	5.05 ^b	(1.46)
	impartial.	4.77 ^b	(1.65)

Scenario Three: Low-Balling (Absent), Non-Audit Revenue (Present)

My audit judgments with respect to this client would be totally:	objective.	6.67 ^a	(0.99)
	unbiased.	6.74 ^a	(0.87)
	impartial.	6.78 ^a	(0.69)
The audit judgments of other partners in my firm would be totally:	objective.	5.00 ^b	(1.27)
	unbiased.	4.88 ^b	(1.28)
	impartial.	5.19 ^b	(1.21)

Scenario Four: Low-Balling (Present), Non-Audit Revenue (Present)

My audit judgments with respect to this client would be totally:	objective.	6.79 ^a	(0.67)
	unbiased.	6.80 ^a	(0.66)
	impartial.	6.84 ^a	(0.65)
The audit judgments of other partners in my firm would be totally:	objective.	3.08 ^b	(1.20)
	unbiased.	3.27 ^b	(1.26)
	impartial.	3.12 ^b	(1.36)

1. Scale used for all items: 1 = Strongly Disagree, 2 = Disagree, 3 = Slightly Disagree, 4 = Neither Agree nor Disagree, 5 = Slightly Agree, 6 = Agree, 7 = Strongly Agree,
2. All means are statistically non-significant ($p > .10$) across the between-subject experimental treatment conditions.
3. Within each scenario, different superscripts indicate significantly different means ($p < .01$)

Figure 1

Research Model

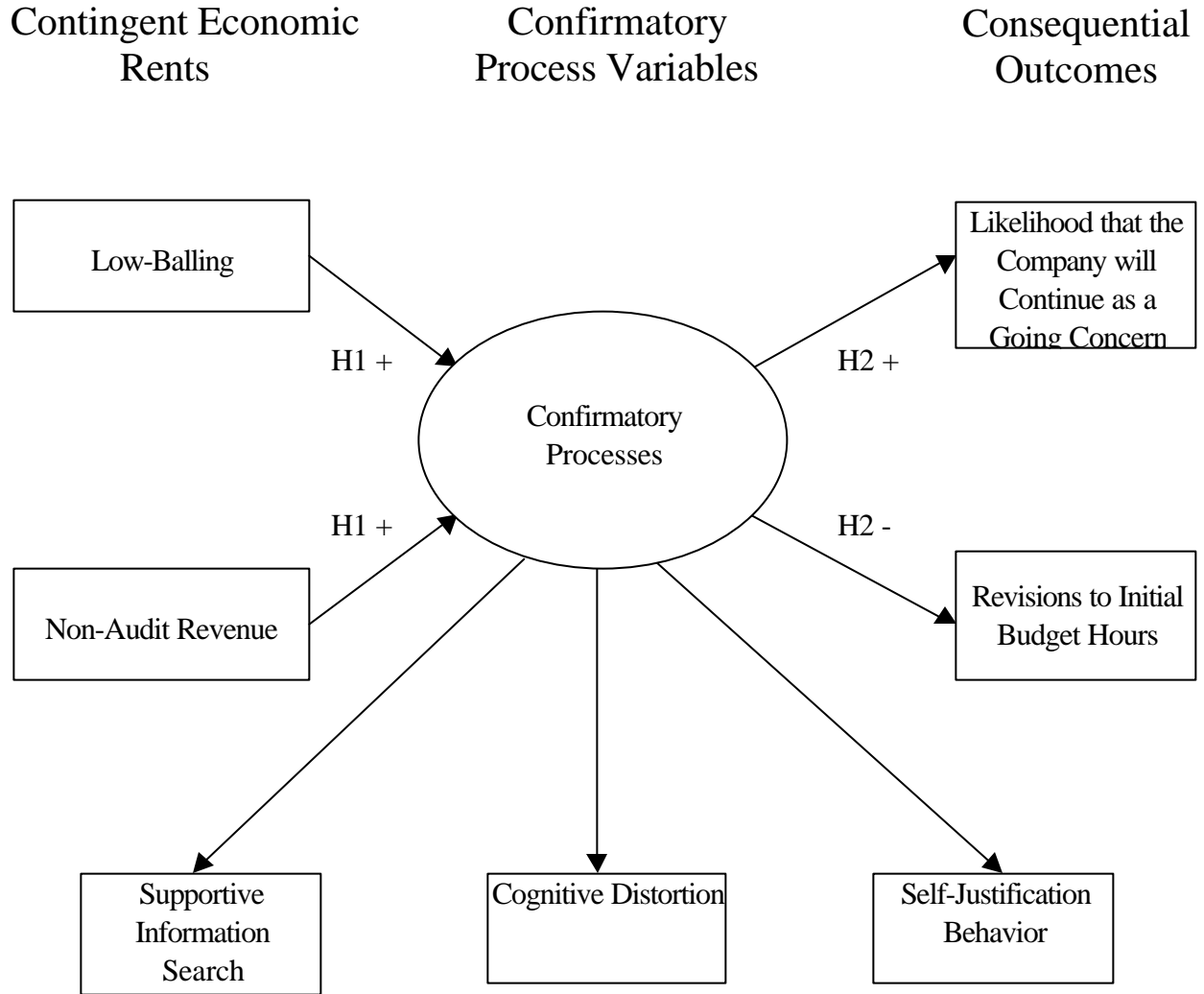
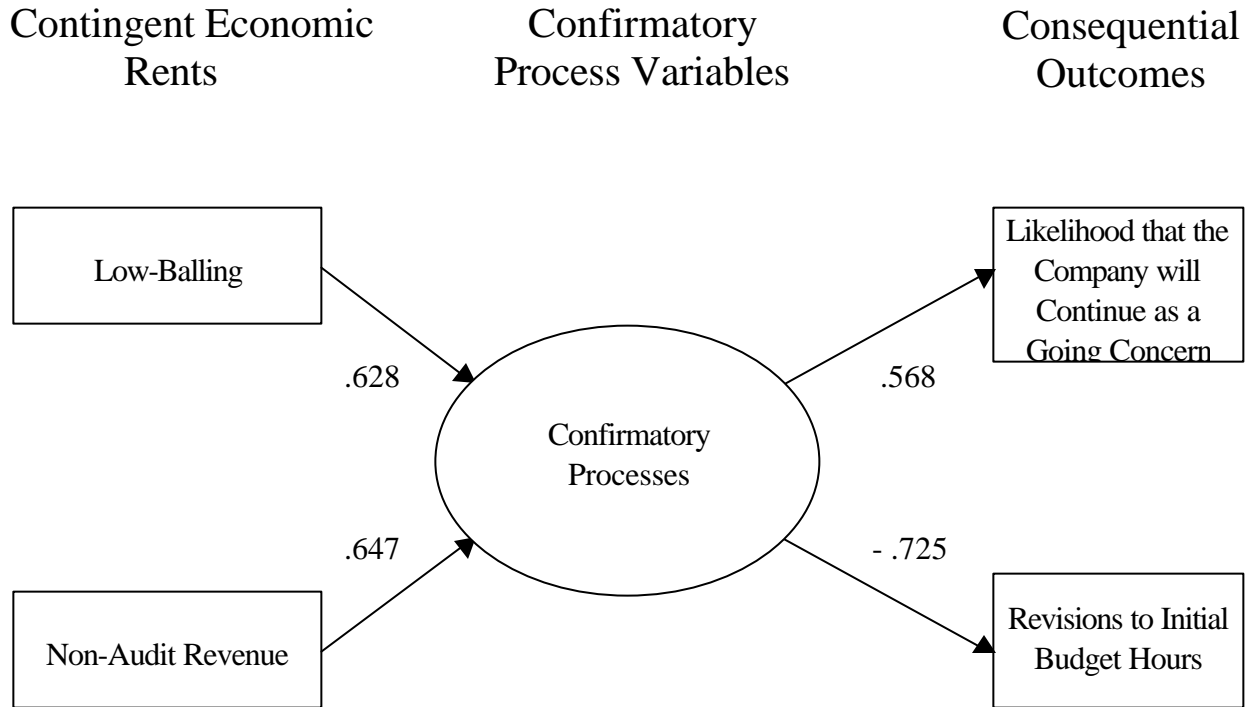


Figure 2

Path Analysis Model Testing Hypothesis Two (H2)



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1. All paths are significant at $p < .01$.
 2. Goodness of fit statistics: $X^2 = 29.3$ (d.f. = 21, $p = .15$), Normal $X^2 = 1.40$, GFI = .934,
 3. AGFI = .917, NNFI = .905, RMSEA = .041.
 4. Direct effects from Low-Balling to the dependent variables and from Non-Audit Revenue to the dependent variables were tested, but found to be statistically insignificant ($p > .23$).

Endnotes

¹ For instance, if a participant rated a piece of information as +2 on the favorability scale and 5 on the decision weight scale, the cognitive distortion metric for that informational item would be +10. The cognitive distortion metric for each of the 12 pieces of information is summed to obtain the overall metric value for a given participant. The cognitive distortion metric for a single informational item can range from -21 (-3 x 7) to +21 (+3 x 7) and the possible range for a given participant over all 12 pieces of information can range from -252 (-21 x 12) to + 252 (+21 x 12).

² If a participant reviewed the same piece of information more than once, the favorability rating for that informational item was counted only once in the search for supportive information metric. Twenty-five auditors reviewed the same pieces of favorable (where the rating was greater than zero) information more than once and three auditors reviewed the same pieces of negative (where the rating was less than zero) information more than once. While the inclusion of multiple favorability ratings for single informational items in statistical analyses does not change the direction and interpretation of study results, such inclusion does increase the power of statistical testing with respect to rejecting the null hypothesis. As a result, multiple favorability ratings for the same informational item are excluded from the analyses, as this procedure reflects a more conservative testing approach.

³ SEM power was tested via the procedure described in MacCallum et al. (1996).

⁴ An alternative technique is to run factor analysis on the three variables, save the factor scores for factors with eigenvalues greater than 1.0, and sum the resulting factor scores to yield a 'dissonance relief' index. This procedure was performed using the study data. Two factor scores were retained, using Varimax rotation, where the eigenvalues were 1.23 and 1.10. The factor scores were summed into a single index. The two path analysis models (one using the standardized variables and the other using factor analysis scores) were compared using the LaGrange Multiplier Test. Both models were statistically similar, as indicated by the non-significant X^2 value of 1.34 ($p = .26$).

⁵ An ANOVA model was used to determine the significance of the interaction term when the independent variables are low-balling (present or absent) and potential non-audit revenue (present or absent), and the dependent variable is the confirmatory process index. Statistical results indicated significant main effects for low-balling ($F = 155.20, p < .001$) and potential non-audit revenue ($F = 165.45, p < .001$), and a non-significant interaction term ($F = 0.38, p = .537$). Accordingly, the exclusion of an interaction term in the path analysis model is deemed appropriate.