Unintended Consequences of Section 201 of the Sarbanes-Oxley Act

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Outline

- Background

- Objective

- Literature Review

- Contribution

- Model

- Results

- Conclusion

Background

- Section 201 of SOX imposed significant restrictions on NAS that auditors can provide to their audit clients.

  ➢ Section 201 proponents claim that the joint provision of audit and NAS to the same client may impair auditor independence and audit quality, and therefore lead to bad investment decisions.

  ➢ Opponents argue that restricting NAS may damage the synergy between audit and NAS, and would therefore reduce rather than enhance audit quality.

Objective

- To analyze the effects of Section 201 of SOX on

  - The auditor's decision to exert effort to collect audit evidence (i.e., the audit quality decision)

  - The auditor's willingness to express an opinion that faithfully reflects the evaluation of what has been discovered during the audit (i.e., the audit report decision)

  - The reliability of audit reports (i.e., the joint product of audit quality and audit report decisions)

  - The efficiency gain that can be obtained from an audit

Literature Review

- Dopuch, King and Schwartz (2004)

  ➢ An increase in contingent economic rents, which they interpret as a decrease in dependence in appearance, will trigger an increase in audit quality when the misstatement risk is moderate such that the auditor always report faithfully.

- Kornish and Levine (2004)

  ➢ Restricting NAS might lead to biased audit reports.

Contribution

- This paper provides an economic framework to study the effects of Section 201 of the SOX.

- My analysis indicates that Section 201 of the SOX might have some unintended negative consequences.

Main Model Features

- The model has two important features:

  1. The joint provision of audit and NAS creates synergies that leads to economic rents that can only be materialized if the auditor issues an unmodified report.

  2. The audit report is the result of the two strategic decisions made by the auditor (i.e., the audit effort and audit report decisions).

Main Model Features

- Economic tensions captured in the model:

  ➢ The auditor will lose the opportunity to earn economic rents from consulting business if he issues a modified opinion, but failing to issue a modified opinion exposes the auditor to lawsuit.

  ➢ The opportunity to provide NAS to the same client and the synergy between these services might not only induce the auditor to suppress the unfavorable audit evidence (if one exists), but also offer an additional incentive to the auditor to exert a higher audit effort.

Sequence of Events in the Model

- One period model with events taking place at three dates.

$t = 0$ An initial owner who wishes to sell the entire firm to outside investors claims the firm's type is good and hires an auditor to attest to his claim by paying a market-determined flat audit fee, F.

The auditor exerts effort to collect audit evidence on the firm's type, privately observes the value of a consulting opportunity that might arrive at date 1, and then decides whether to agree, A, or disagree, D, the owner's claim.

Given the audit report, the investors buy the firm by paying V and then to invest I in the firm's initial project, P, if, and only if, the firm receives the unmodified report, A. If investors do not buy, the game ends, with the initial owner of the firm incurring a loss equal to F.

Sequence of Events in the Model

$t = 1$ A new project, S, is available to the firm if the firm implemented the initial project.

The firm hires the incumbent auditor to provide consulting services for the new project.

$t = 2$ The firm realizes cash flows from its projects. The true firm type is revealed if project P fails.

The investors sue the auditor if, and only if, the firm is revealed to be a bad type. The court assigns damage awards if the auditor is held liable.

Auditor's Effort and Report Decisions

- **Audit Technology**: conditional probabilities of audit evidence, *g* or *b*, being privately observed by the auditor, given the firm's true type, *G* or *B*, and the audit effort, *a*, are characterized by:

$$\Pr(g \mid G, a) = 1 \quad \text{and} \quad \Pr(b \mid B, a) = a.$$

- A consulting opportunity arrives only after the firm receives an unmodified opinion. Owing to synergy effects, the joint provision of audit and NAS yields an additional benefit of

$$K \in \{0, \ \overline{K}\} \ \text{with} \ \Pr(\overline{K} \mid a) = \omega a, \ \text{where} \ \omega > 0.$$

Assumption: $\tau \overline{K} > (1 - p) L$

Auditor's Effort and Report Decisions

- Auditor's Opinion:

$$\Pr(A \mid g) = 1 \quad \text{and} \quad \Pr(D \mid b) \in [0, \ 1].$$

- Pre-SOX:

$$\Pr(D \mid b, \overline{K}) = 0 \quad \text{and} \quad \Pr(D \mid b, 0) = 1.$$

- Post-SOX: $X(\Delta) = \min\{K, \ \Delta\}$, where $\Delta \equiv (1-p)L/\tau$
  is the maximum amount of the additional benefit that is
  implied by the regulation to ensure faithful reporting:

$$\Pr(D \mid b, K) = 1 \text{ for all } K.$$

Auditor's Objective Function

- Pre-SOX:

$$\max_{a} \ \Pi(a) = F - \tfrac{1}{2}ca^2 + \tau\omega a\bar{K} - (1-\phi)[1-a(1-\omega a)](1-p)L.$$

- Post-SOX:

$$\max_{a} \ \Pi(a) = F - \tfrac{1}{2}ca^2 + [\phi + (1-\phi)(1-a)]\tau\omega a\Delta - (1-\phi)(1-a)(1-p)L.$$

Investors' Decision and Social Surplus

- Investors buy the firm and undertake project P (and, subsequently, project S) if, and only if, the auditor issues an unmodified report.

- The assumption of perfect competition in both the capital and the audit markets implies zero expected payoff to both the investors and auditor, and therefore the initial owner's ex ante expected payoff is the same as the social welfare, $W(a)$.

- Social surplus, which measures the efficiency gain that can be obtained from an audit, is defined as

$$SS(a) \equiv W(a) - W^N.$$

Reliability of Audit Reports

- Is measured by the joint probability of detecting a misstatement and reporting it.

- Pre-SOX:

$$a^*(1 - \omega a^*)$$

- Post-SOX:

$$a^{\#}$$

Results

- Section 201 of the SOX lowers $\bar{K}$ to Δ to ensure faithful reporting.

- Effect on marginal cost of audit effort: unchanged

- Effect on marginal expected consulting profit: decreased by

$$A \equiv \tau\omega\{\bar{K} - [1 - 2a(1 - \phi)]\Delta\}$$

- Effect on marginal benefit from avoiding an audit failure: increased by $B \equiv 2\tau\omega a(1 - \phi)\Delta$

- Given that $\bar{K} > \Delta$, we have $A > B$; implying that the auditor will optimally decrease his audit effort.

Results

Table 2: Effects of Section 201 of the SOX

	$\Delta < \hat{\Delta}$ ($\bar{K}-\Delta$ is large)	$\hat{\Delta} < \Delta < \tilde{\Delta}$ ($\bar{K}-\Delta$ is moderate)	$\Delta > \tilde{\Delta}$ ($\bar{K}-\Delta$ is small)
Audit effort	Decrease	Decrease	Decrease
Reliability of audit reports	Decrease	Increase	Increase
Efficiency gain that can be obtained from an audit	Decrease	Decrease	Increase

$\Delta \equiv (1-p)L/\tau$

$\hat{\Delta}$ is the unique value of Δ at which $a^*(\hat{\Delta})[1-\omega a^*(\hat{\Delta})] = a^\#(\hat{\Delta})$

$\tilde{\Delta}$ is the unique value of Δ at which $SS^*(a^*(\tilde{\Delta})) = SS^\#(a^\#(\tilde{\Delta}))$

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Regulatory Implications

- The condition described in the first scenario may be more descriptive when Section 201 of the SOX was enacted given that

  ➢ Consulting services have grown rapidly since the mid-1970s, and by 2000, the Big Five audit firms has expanded into multidisciplinary service firms that earned more than half of their gross fees from NAS.

  ➢ The Private Securities Litigation Reform Act of 1995 has replaced joint-and-several liability with proportionate liability and most of the national audit firms are now limited liability corporations .

Conclusion

- While Section 201 of the SOX can be effective in restoring faithful reporting, it reduces auditors' incentive to provide audit effort.

- If the adverse direct impact on the synergy between audit and NAS has to be significant in order to restore faithful reporting, this regulatory change might also result in an overall deterioration in the reliability of audit reports and the efficiency gain that can be obtained from an audit.

Thank you!