The Role of Big 4 Auditors in the Global Primary Market: Discussion

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General Assessment

Interesting paper!

- Responds to calls for such cross-country research:
  - DeFond and Zhang (2014)
  - Leuz and Wysocki (2008)
- Many countries reforming institutions governing auditors after financial reporting failures and financial crises

My goal: provide constructive comments on motivation and analysis

Motivation – Auditor Discipline

The Role of Litigation in Disciplining Auditors

- Intuition for H1: info asymmetry is worse in countries with poor investor protection regimes
- However, litigation incentives stemming from investor protection institutions discipline the Big 4 to provide stricter external monitoring
  - Ball, 2011; Guedhami and Pittman, 2006 JAR

Suggestion: Outline both arguments before concluding that this remains an empirical issue that you strive to help resolve.

Motivation - valuable litigation put option

- In developing their predictions, the authors argue that the B4 conduct better audits that lowers information asymmetry, which reduces IPO underpricing
- However, B4 audits can be economically distinct (evident in lesser IPO underprizing) even when they are irrelevant to info asymmetry
- Prior theory (e.g., Dye, 1993) and evidence (e.g., Lennox and Li, 2017) imply that the B4 have “deep pockets” - attractive litigation targets
- These “deep pockets” provide investors with a valuable put option
- Exercisable to recover losses sustained when an audit failure occurs (Willenborg, 1999)

Suggestion: Since you cannot empirically distinguish between these competing explanations, be more circumspect in interpreting your evidence; i.e., avoid over-reaching in attributing your results solely to an info narrative.

Motivation – congested area

Extant Research on the Moderating Role of Country-Level Institutions

- The paper inadvertently downplays that there is already extensive evidence that the importance of B4 auditors is sensitive to countries' institutional infrastructure
- However, prior research is quite mixed:
  - B4 audits are more valuable in countries with strong institutions governing auditors (Khurana and Raman, 2004 TAR; Guedhami and Pittman, 2006 JAR; Francis and Wang, 2008 CAR; Guedhami, Pittman, and Saffar, 2014 JAR; El Ghoul, Guedhami and Pittman, 2016 AOS)
  - B4 audits are more valuable in countries with weak institutions (Mitton, 2002 JFE; Fan and Wong, 2005 JAR; Choi and Wong, 2007 CAR)
- Regrettably, fail to cite many papers despite relevance to the issues under study

Suggestion: Concede that there is already extensive evidence on similar RQs, although stress that this generates tension for your analysis. However, essential to clarify how you avoid further muddying the waters.

Motivation - low-litigation settings

Reconciling the results with evidence from low-litigation settings

- There is fairly extensive evidence that B4 audits are valuable in jurisdictions with benign investor protection institutions
- Weber et al. (2008 JAR) for Germany, Skinner and Srinivasan (2011) for Japan, and Fan and Wong (2005) for East Asia
- B4's global networks motivate them to supply uniform audit quality worldwide to preserve their valuable reputations (e.g., Cooper and Robson, 2006 AOS; Humphrey et al., 2009 AOS)
- Collectively, this research implies that reputational concerns can motivate the B4 to outperform smaller auditors

Suggestion: What do we learn from your research given this evidence?

Motivation

In the current version, the authors only analyze broad legal institutions

- This is a good start, although the paper would benefit from also considering disclosure regulation
- Extensive evidence that equity pricing is cheaper in countries with better disclosure regulation (Hail and Leuz 2006 JAR, 2009 JFE)
- Natural link to audit quality
- Does the value of B4 audits at the firm level hinge on country-level disclosure standards?

Suggestion: The analysis would be more comprehensive if complement evidence on broad investor protection institutions by also integrating disclosure standards.

Analysis

Alternative Auditor Specifications

- Are core results sensitive to excluding Andersen clients?
- Excluding Big 4 operating through a local affiliate (likely lower audit quality in these “joint ventures”)? Important as involve countries contributing large share to the sample
- Role of Second Tier auditors (e.g., Grant Thornton)?
- Replace Big 4 with audit fees, another standard proxy
- Market share (by assets or revenue) of 5 largest auditors in a country (e.g., China)

Analysis

Sample Composition by Country (Table 1) – Impact on Table 3 evidence

- Sequentially and collectively drop countries > 500 obs.
- Pervasive economic phenomena vs. some countries dominating the data
- Weighted least squares
- US special case: intensive litigation institutions (e.g., class action lawsuits), largest share of obs. - do all core results hold without US?

Analysis

Moderating Role of Institutions –Table 4

- Alternative investor protection institutions (e.g, Guedhami et al. 2014 JAR)
- Formally test for differences in Big 4 coefficients in pair comparisons
- Stress that the Big 4 coefficient magnitudes are economically far larger in “weak” set versus full sample in Table 3
- Exclude US from analysis: global litigation outlier

Analysis

Propensity Score Matching Approach

- Regrettably, this section of the paper was difficult to follow/incomplete
- First stage (Eq 2) appears under-specified given Eq 1: include all RHS variables
- Evaluate whether achieve covariate balance:

  Treatment versus Control firm distributions
- Results sensitive to PSM design choices; e.g., matching with replacement, caliper width, etc. (DeFond et al., 2016 MS)
- Why 1:1 matching when many high-quality matches apparently available (generate power)?

Analysis

Endogeneity in Auditor Choice Settings

- Major threat to reliable inference: endogeneity stemming from screening from B4 auditors (Shu, 2000 JAE) and selection by their clients (Fan and Wong, 2005 JAR)

- Applying PSM to control for variation in client characteristics is a good start – consider other designs:

1. Restrict to firms with long auditor tenure – more defensible to treat auditor choice as predetermined (Chang, Dasgupta, and Hilary 2009 TAR; Lennox and Pittman 2010 CAR)

Analysis

Endogeneity Threat – Other Approaches

2. Panel data estimation: adding firm fixed effects would reduce threat posed by correlated omitted variables (time-invariant selectivity)
   - Requires meaningful time-series variation in auditor choice
   - May be unrealistic: firms seldom upgrade to B4 or downgrade from B4?

3. Restrict samples to all firms smaller than the largest firm with a non-B4 auditor and all firms larger than the smallest firm with a B4 auditor
   - Feltham et al., 1991 JAE; Pittman and Fortin, 2004 JAE

4. Exploit plausible exogenous shock in info asymmetry in a DiD framework
   - Global brokerage house mergers and closures?
   - Better identification of info role vs. competing explanations(B4 put option)

Analysis

Exploit cross-sectional variation in firm characteristics

- Complement analysis of moderating role of institutions
- Do B4 auditors matter more when other forms of external monitoring – for example, analyst coverage and institutional investors – are poor?
- Do B4 auditors matter more when agency costs – for example, certain ownership structures – are worse?
- Another way to improve identification of info role

Final Comments

Interesting early working paper

- Loads of potential
- However, many ways to improve both motivation and analysis
- Good luck to Chenkai and his coauthors!
- Thank you to the organizers