Auditors' Role in Fair Value Monitoring: Evidence from Security-Level Data

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What Do I Do?

- I study the **economic forces** that shape **auditors' effectiveness** as monitors of their clients' FVs

Motivation:

- FVs have become increasingly important in financial reporting
  - Concern: high scope for manager discretion leads to high uncertainty

- Auditors' role is to mitigate uncertainty about insiders' reports

Question:

- What factors affects how well auditors can monitor FV?

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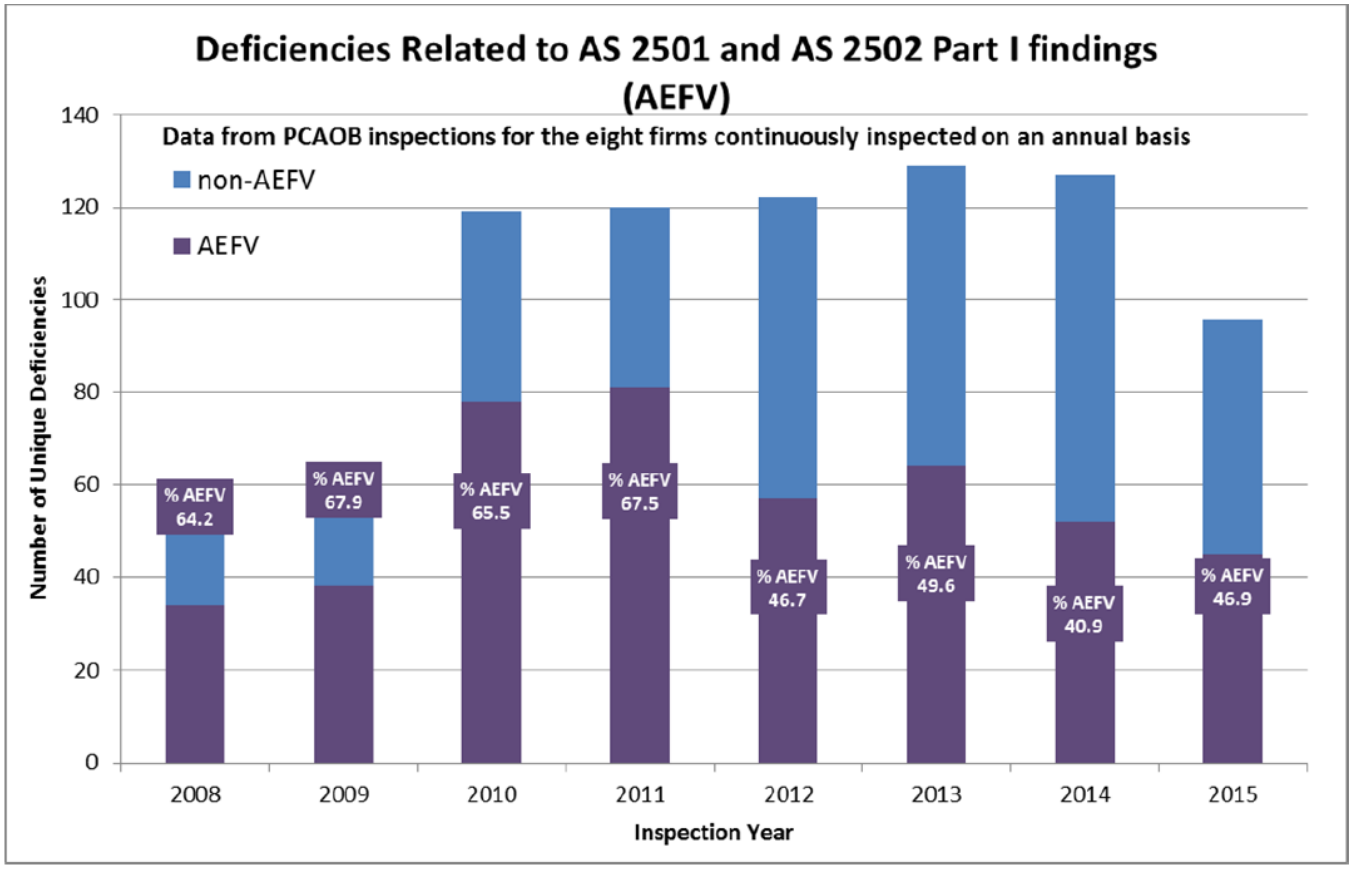
A long history of PCAOB FV Deficiencies



"oversight activities have revealed a recurring pattern of deficiencies in this (FV) area"

- PCAOB May 2020 in new FV standard

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Empirical Challenge

- Audit process is fundamentally unobservable
- Difficult to separate outcome differences stemming from the auditing process from other sources

<u>My Approach:</u>

- Compare outcomes across auditors **for the same security in the same period**.
  - Fixed Income, difficult to value, securities
  - Required disclosure in insurance companies' statutory reports
  - Audit outcome: average across clients

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Hypothesis Development: Internal

- Centralized pricing desks act as central clearing houses
- Task-specific expertise is valuable in auditing complex areas
- Work from examples, check managers' calculations

H1: audit firms' **security-specific experience** strengthens their **views on appropriate FVs**

increased precision in valuations of the same security across an audit firm's different clients

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Hypothesis Development: External

- Interaction with other FV monitors
- Auditors face competing pressures:
  - **Maintain relationship** by allowing hard-to-detect discretion
  - **Ensure quality** due to regulatory pressure

- audit firms apply their FV capabilities strategically when risk is highest.

H2: H1 varies with the external regulatory environment.

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Imprecision Measure

- Deviation from the mean (proxy for "true" value)

$$|Auditor\ FV\ Diff_{ast}| = \left| \overline{FV_{ast}} - \frac{1}{N_A - 1} \sum_{A \neq a}^{N_A} \overline{FV_{Ast}} \right|$$

  - Auditor a
  - Security s
  - Year *t*

- Robustness: deviation from within auditor mean

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Research Design

$$Impercision\ Measure = \beta_1 Auditor\ Experience_{ast} + \Gamma_1 Controls + u_{at} + v_{st}$$

$Auditor\ Experience_{ast}$: cross-sectional and time-series

$Controls_{ast}$: client-varying securities characteristics and average firm-level characteristics from Hanley et al. (2018) associated with client firm manipulation

u_{at}, v_{st}: security-year and auditor-year fixed effects

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Security-level expertise development

		| Auditor FV Difference |		
	Pr. Sign	*(1)*	*(2)*	*(3)*
Number of securites at auditor (X-S experience)	-	-0.135*** (-7.64)		-0.086*** (-8.00)
Cumulative Number of securities at auditor (time series experience)	-		-0.031*** (-6.21)	-1.323 (-0.53)
Auditor-Security Controls		Included	Included	Included
Auditor-Year FE		Yes	Yes	Yes
Security-Year FE		Yes	Yes	Yes
Cluster		Auditor, Security	Auditor, Security	Auditor, Security
Adjusted R-Squared		0.590	0.537	0.540
No. of Observations		31175	10555	10555

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Internal vs. External motivation

Dependent Variable:	Across Auditors: | Auditor FV Difference |	Firm level: |insurer FV Difference |
	(1)	*(2)*
Number of securites at public clients	-0.128***	-0.015
(X-S experience)	(-2.99)	(-1.52)
Number of securites at private clients	-0.130***	0.006
(X-S experience)	(-8.91)	(0.94)
Number of securites at public clients x private client		-0.009
		(-0.84)
Number of securites at private clients x private client		-0.036***
		(-4.78)
Controls	Included	Included
Auditor-Year FE	Yes	Yes
Client-Year FE	No	Yes
Security-Year FE	Yes	Yes
Cluster	Auditor, Security	Auditor, Security
Adjusted R-Squared	0.726	0.551
No. of Observations	31175	102797

Client Level Incentives Matter

Dependent Variable:	Firm level: |Insurer FV Difference |		
	(1)	*(2)*	*(3)*
Regulator staff per insurer x Number of securites at auditor	0.003***		
	(5.43)		
Regulator budget per insurer x Number of securites at auditor		0.014***	
		(3.23)	
Regulator Discretionary Exams per insurer x Number of securites at auditor			0.172***
			(5.76)
Controls	Included	Included	Included
Auditor-Year FE	Yes	Yes	Yes
Client-Year FE	Yes	Yes	Yes
Security-Year FE	Yes	Yes	Yes
Cluster	Auditor, Security	Auditor, Security	Auditor, Security
Adjusted R-Squared	0.551	0.551	0.551
No. of Observations	102569	102488	102488

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Conclusion

- Findings
  - Internal expertise development
  - Other monitoring affects auditor monitoring
- Contribution
  - Nascent auditor FV expertise literature
  - Provide evidence on the way auditors build expertise in detecting within-GAAP manipulations that characterize FV
  - Interaction between auditors and other players in the monitoring ecosystem
- Next Steps
  - Consequences of expertise

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Thank you!

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Summary Statistics

	Panel B: Audit firm-Security-Insurer Years (2012-2017)					
	Mean	SD	P25	P50	P75	N
Audit firm FV Diff	0.027	2.531	-0.713	0.000	0.749	31,175
|Audit firm FV Diff|	1.820	2.502	0.338	0.977	2.266	31,175
Insurer FV Diff	-0.015	2.461	-0.720	-0.002	0.728	31,175
|Insurer FV Diff|	2.053	2.526	0.450	1.258	2.653	31,175
Number of firms holding security	13.369	11.448	7.000	10.000	15.000	31,175
PAR	0.011	0.010	0.003	0.008	0.015	31,175
must FV	0.034	0.152	0.000	0.000	0.000	31,175
Big4	0.956	0.206	1.000	1.000	1.000	31,175
FV level 1	0.014	0.087	0.000	0.000	0.000	31,175
FV level 2	0.741	0.295	0.500	0.800	1.000	31,175
FV level 3	0.245	0.292	0.000	0.167	0.500	31,175
SVO level 1	0.405	0.486	0.000	0.000	1.000	31,175
SVO level 2	0.484	0.493	0.000	0.000	1.000	31,175
SVO level 3	0.079	0.263	0.000	0.000	0.000	31,175
SVO level 4	0.024	0.147	0.000	0.000	0.000	31,175
SVO level 4	0.005	0.067	0.000	0.000	0.000	31,175
SVO level 6	0.003	0.048	0.000	0.000	0.000	31,175

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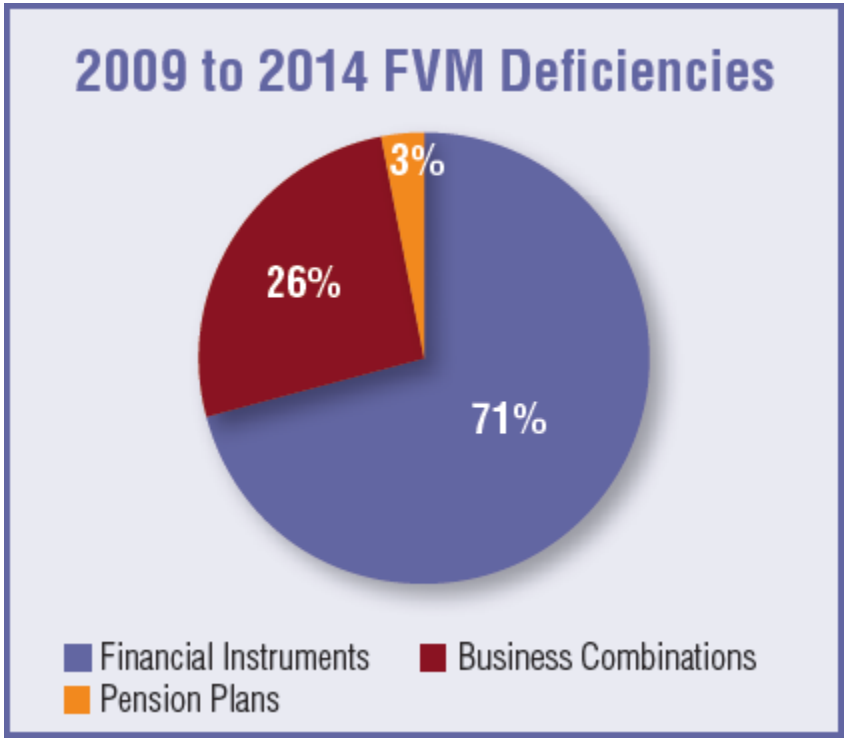
Deficiencies in Financial Instruments



"oversight activities have revealed a recurring pattern of deficiencies in this (FV) area"

PCAOB May 2020 in new FV standard

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Data and Sample Selection

- Statutory reports of private and public insurance companies operating in the US 2012-2017
- FV of each security at the CUSIP level, including the level it is held at (levels 1, 2, 3)
- Sample Selection:
  - FV determined at group level
  - Concentrate on sub-sample of securities most likely to be affected

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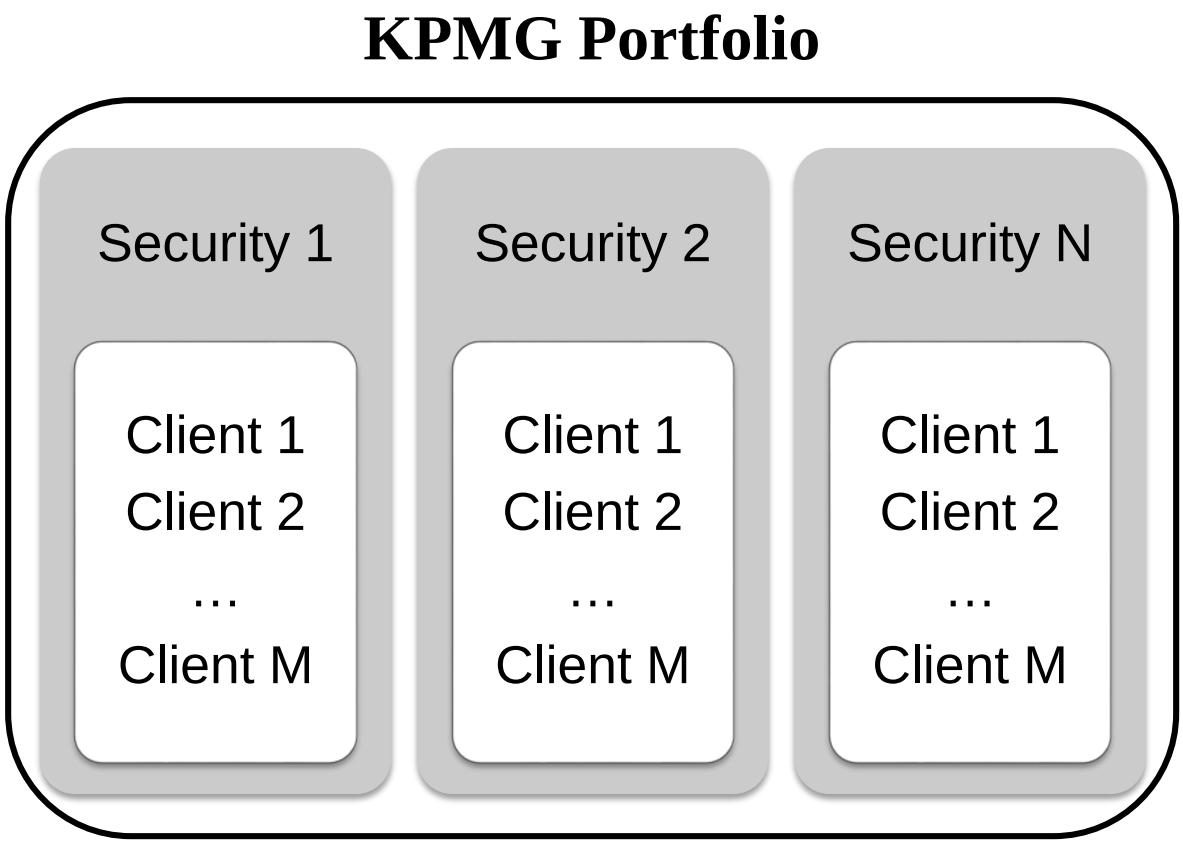
Measure Example



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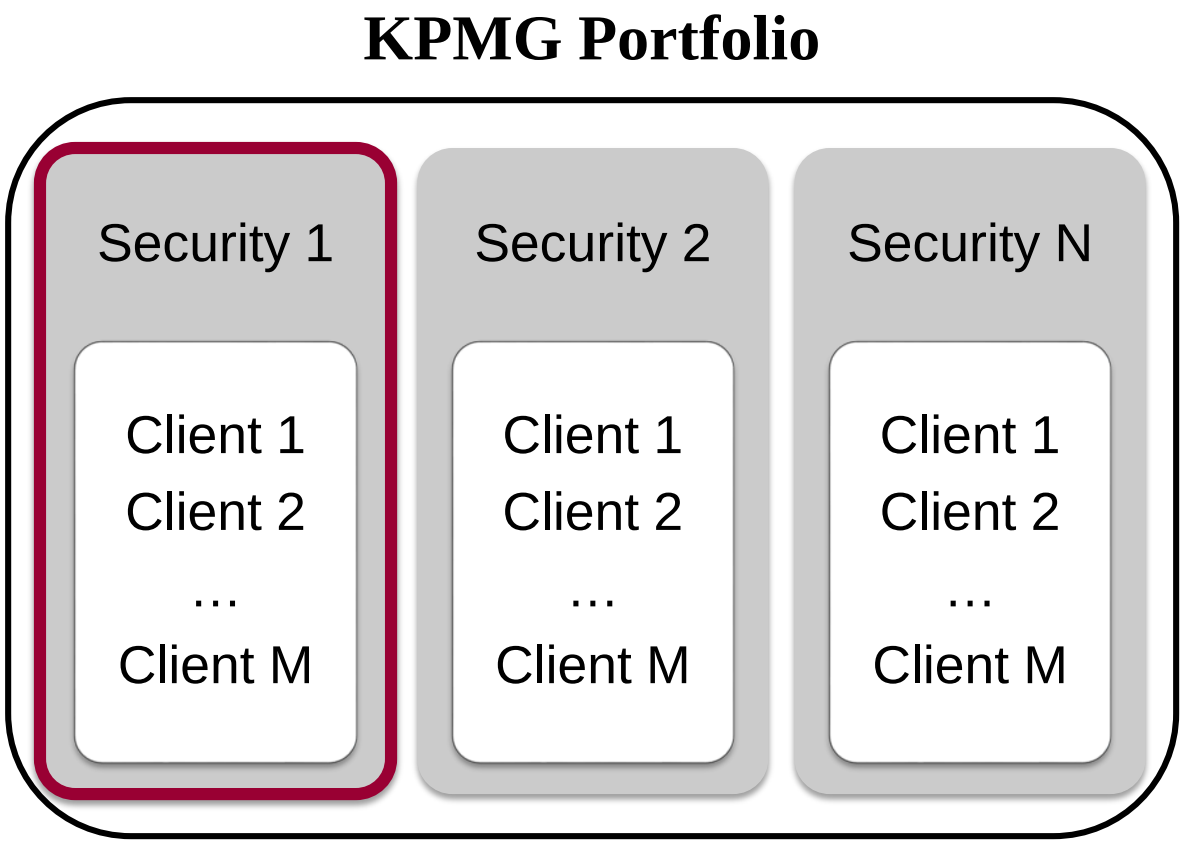

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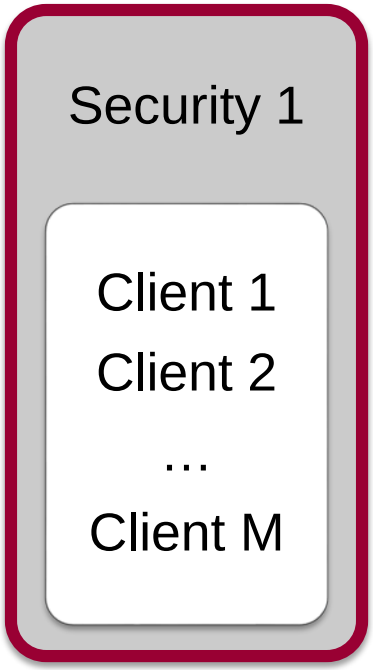
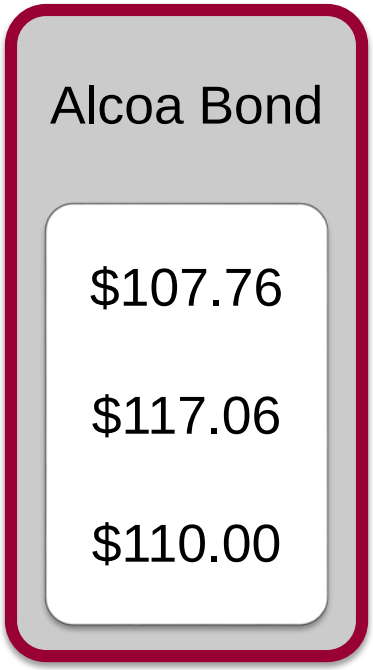


Measure Example



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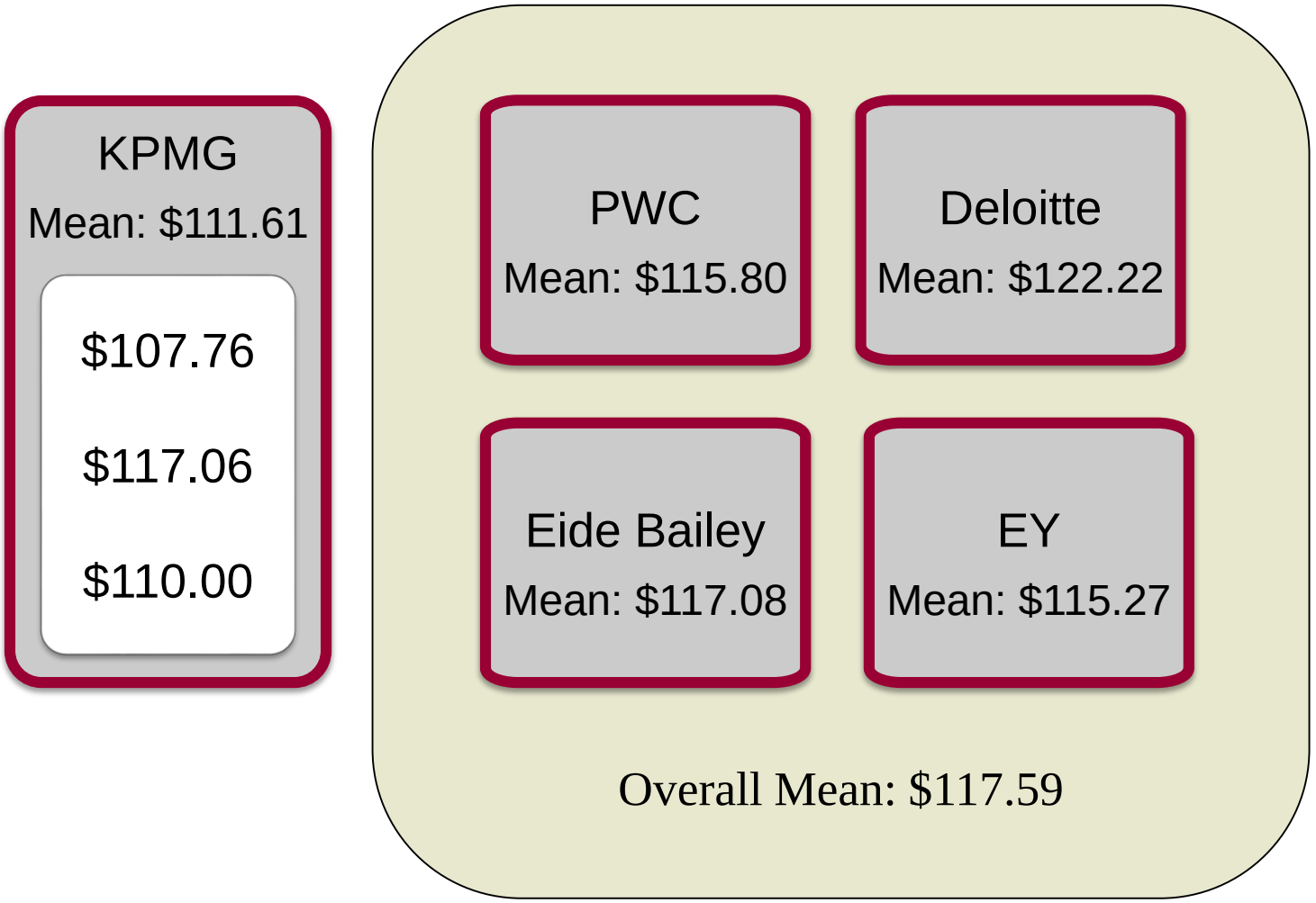
Measure Example



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RBC

Dependent Variable:		Signed Insurer FV Difference		
	Pr. Sign	*(1)*	*(3)*	*(5)*
RBC incentive to overstate (negative lnrbc)	+	0.355** (2.15)		
RBC incentive to overstate x experienced auditor	-		-0.296** (-2.62)	
Self Estimated x experienced auditor	-			-0.344*** (-3.31)
Experienced Auditor			-0.755*** (-3.48)	0.090 (0.90)
Self Estimated Security		0.768*** (3.62)	1.092*** (9.59)	1.343*** (7.46)
Must FV		0.186*** (3.63)	0.130* (1.99)	0.128* (1.95)
FV Level		-0.687* (-2.01)	-0.924*** (-3.77)	-0.924*** (-3.76)
Group Par		1.466 (0.35)	0.443 (0.44)	0.557 (0.56)
Public		-0.061 (-0.22)		
P&C		-0.168** (-2.29)		
Auditor-Year FE		Yes	Yes	Yes
Client-Year FE		No	Yes	Yes
Security-Year FE		Yes	Yes	Yes
Cluster		Auditor, Security	Auditor, Security	Auditor, Security
Adjusted R-Squared		0.108	0.188	0.188
No. of Observations		102569	102569	102569

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