


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Abstract

This study investigates the relationship between audit fees and the number of investment layers in consolidated group companies. We focus on publicly traded companies in Taiwan. We measure the number of vertical layers from the parent company to the lowest-tiered subsidiary. Our results show a positive association between audit fees and the number of investment layers. In addition, we find that the positive association between audit fees and the number of layers becomes stronger for firms which have more investees located in tax haven countries. Our results also show that the positive association between audit fees and the number of investment layers is more pronounced as companies' engagement in related-party transactions increases. Overall, the results support the argument that auditors attach higher audit risks to firms with more investment layers and therefore charge higher audit fees.



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Appendices

Appendix. Variable Definitions.

Variable	Definition
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Variable	Definition
<i>LNFEET</i>	The natural logarithm of audit fees.
<i>LAYER</i>	The natural logarithm of the number of investment layers of the vertical investment structure.
<i>SIZE</i>	The natural logarithm of the total assets in year t .
<i>MB</i>	The ratio of the market value of equity to the book value of equity.
<i>LEV</i>	Long term debt for year t scaled by total assets in $t - 1$.
<i>QUICK</i>	Quick ratio, measured as quick assets (the sum of cash and cash equivalent, marketable securities, accounts receivable) divided by current liabilities.
<i>ROA</i>	The ratio of pretax income from continuing operations for year t to beginning of the year total assets.
<i>LOSS</i>	1 if pretax income from continuing operations in year t is smaller than zero and 0 otherwise.
<i>RECINV</i>	The sum of receivables and inventories scaled by total assets.
<i>SUB</i>	The natural logarithm of the number of investees.
<i>SEGMT</i>	The natural logarithm of the number of business segments.
<i>STD_ROA</i>	The standard deviation of the ratio of pretax income to total assets over 5 years.
<i>ΔSALES</i>	The annual percentage change in net sales.
<i>CURRENT</i>	Current ratio measured as current assets divided by current liabilities.
<i>DA</i>	The performance-adjusted abnormal accruals derived from the modified Jones model (<i>DA</i>)
<i>BIG4</i>	1 if a firm is engaged with the Big 4 international audit firms and 0 otherwise.
<i>EXPT_PARTNER</i>	1 if one of the audit partners is the largest supplier in the industry at the partner level and 0 otherwise, where we measure the market share using the number of clients audited by the partner within the industry.

Variable	Definition
<i>EXPERIENCE</i>	The number of years the auditor is performing his function as an audit partner.
<i>TENURE</i>	The length of tenure for the audit partner who has the longest tenure, where each partner's tenure is the number of cumulative years the company has retained the audit partner.
<i>GOING</i>	1 if the client firm received a going concern opinion and 0 otherwise.
<i>INITIAL</i>	1 for initial audit firm engagement and 0 otherwise.
<i>IMPORTANCE</i>	Client importance measured at the firm level, where client importance is measured as the natural logarithm of client sales divided by the sum of the natural logarithm of client sales from all public clients of the audit firm.
<i>DUAL</i>	1 if a person is both CEO and chairman and 0 if CEO and chairman are different persons.
<i>INSIDEB</i>	The proportion of board director shareholding.
<i>INSIDEM</i>	The proportion of management shareholding.
<i>INST</i>	The proportion of external institutional shareholding.
<i>INDE</i>	The percentage of outside (that is, nonmanagement) directors on the board.
<i>FF</i>	1 if the firm is controlled by a family and 0 otherwise.
<i>BOARDSIZE</i>	The natural logarithm of the number of directors sitting on the board.
<i>MEETING</i>	The natural logarithm of the number of board meetings per year.
<i>TAXH</i>	The number of investees in tax havens divided by the total number of investees, based on the list of tax havens in Dyreng and Lindsey (2009) .
<i>DLAYER</i>	1 if the number of layers equals 3 or is greater than 3 and 0 otherwise.
<i>RELATED</i>	Related-party sales over total sales plus related-party purchases over total purchase.
<i>ABNORMAL_RELATED</i>	The abnormal level of the related-party purchases and sales after removing the normal level of related-party purchases and sales via OLS regressions, similar to Jian and Wong (2010) .

Note. OLS = ordinary least squares.

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