РАЗДЕЛ 3 КОРПОРАТИВНОЕ УПРАВЛЕНИЕ В ТАЙВАНЕ

SECTION 3 NATIONAL CORPORATE GOVERNANCE: TAIWAN

THE CAUSES OF VOLUNTARY RESIGNATION OF INDEPENDENT DIRECTORS

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Abstract

In this research we investigate the possible determinants of voluntary resignations of independent directors. The results from 82 IPO firms with voluntary resignations of independent directors in the 2002-2006 periods show that independent directors concern more of the governance structure than of the performance and risk measures when making resignation decision. Specifically, we find that the most discerning variables for voluntary resignation are related party transactions, non-unqualified reports from the associated auditor, and total shareholdings of the large shareholders. Independent directors under the adverse conditions that hinder them from effective monitoring would choose voluntary resignation. Our findings potentially contribute to the literature in two threads. First, we comprehensively investigate the possible determinants from different dimensions and find that corporate governance would be more important than performance and risk in triggering the voluntary resignations of independent directors. Secondly, we prove that independent directors in an ownership-concentrated economic such as Taiwan are at best performing passive monitoring. Resignation would be their last resort when they are incapable of counterbalancing the predominant power of controlling owner.

Keywords: Independent Directors, Resignation

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1. Introduction

Over the past few years, high profile financial failures have focused the attention of economists and practitioners on corporate boards that were presumably perform an important function by monitoring managers of public firms. Directors have their fiduciary duty to protect the interests of shareholders. In addition to overseeing a corporation's major plans of actions, directors are responsible for such tasks as selecting, advising, compensating, evaluating, and, if necessary, dismissing top management. Independent directors are supposed to be more important and active in playing the roles when other directors are strictly related to the controlling shareholder who tends to be a family. Without a sophisticated thinking, an intuitive response to a firm's underperformance is to replace its CEO. However, the work of Hermalin and Weibach (1998) and Baker and Gomopers (2003) implies that board composition is an equilibrium outcome of negotiation between the CEO and the board. Moreover, theories proposed by Adams and Ferreira (2006), Harris and Raviv (2006) and Raheja (2005) suggest that firms may not discipline powerful CEOs if they are part of an optimal corporate governance design. Therefore, the last resort for independent directors is to resign from their directory post if they are unable to provide the surveillance function. However, the literature provides little evidence on why and under what conditions independent directors would voluntarily resign.

Prior studies referring board structural change, i.e. an increase/decrease of board independence, mainly focus on the dimension of firm's performance[95]. However, if the independent directors were informative[96], underperformance would be more an outcome than a cause. And if this is the case, any *ex ante* indicator other than underperformance that result in board membership change would provide investors an indication of the nature of the underlying firms. The information could be also useful for those who shall assume the directory post because voluntary resignation after assuming the directory post might take toll on their reputation assets in the sense that they failed to screen out the malfunctioned firms in the first place. People are therefore advised to be more cautious when being involved with these firms.

In this study we select the IPO firms in Taiwan after February 2002 when the Rule stipulates that all the newly listed firms are required to include at least two independent directors and one independent supervisor in the board. The selection of IPO firms is also meaningful in the sense that establishing effective corporate governance that protects minority shareholders is arguably most important at the time of an initial public offering because the IPO represents the first time that most firms raise equity from dispersed investors. We specifically target on the cases of voluntary resignations of these IPO firms in that voluntary leave is expected to be much informative than regular turnover that is due. The issue of voluntary resignation that has been covered in literature mainly focuses on the price impact of CEO turnover (i.e. Worrell et al.,1993; Weisbach, 1988) and auditor resignation (DeFond, Ettridge and Smith, 1997; Wells and Loudder, 1997; and Shu, 2000). However, there is sparse study that thoroughly investigates the issue of why independent directors would voluntarily resign before due. Krishnan and Krishnan (1997) suggest that auditor resignations typically occur for clients that are in poorer financial condition and higher levels of litigation risk. Companies that experience prolonged underperformance face substantial challenges in credibly communicating with investors (e.g. Choi and Jeter, 1992; Subramanyam and Wild, 1996) and therefore increase the likelihood that managers make relatively aggressive accounting and disclosure choices (e.g. Petroni, 1992; Sweeney, 1994; Christensen, Hoyt and Paterson, 1999). This might result in more non-unqualified audit opinions. Our analysis of 82 cases of voluntary resignations of IPO firms in the 2002-2006 periods indicates that the opinions of the associated auditor, especially when issuing a non-unqualified report, are predictive to the resignation of independent directors.

Even though managers of poorly performing firms would encounter the difficulty of credibly communicating qualities to the capital market, it would still premature to conclude that firms that experience sustained inferior performance would misrepresent corporate financial performance through fraudulent reports. Our results reveal that other than auditor-initiating action such as issuing a non-unqualified report, inferior corporate structure is also positively associated with the odds of voluntary resignations of independent directors. For example, related party transactions which are constantly referred to audit and accounting failures (Erickson et al., 2000; Swartz and Watkins, 2003; Gordon et al., 2004; Shastri and Kahle, 2003) and managerial over-consumption of perquisite (Jensen and Meckling, 1976; Holmstrom, 1979) are also positively related to voluntary resignation of independent directors. Specifically, related party transactions that favor the related party to the firm's detriment represent inappropriate wealth transfers on one hand, and alter the reliability of financial statements thereby reducing the effectiveness of contracts designed to reduce agency conflicts on the other. Our results also indicate that a high level of related party transactions implies that controlling owner's self-dealing actions are out of the control of independent directors who in turn would choose to resign from the directory post.

Furthermore, our results indicate that controlling owner's predominance, which is manifested in concentrated ownership in hand of large shareholders and CEO dual chairing the board, is also indicative of voluntary leave of independent directors.

Our findings potentially contribute to the literature in the following threads. First, we comprehensively investigate possible determinants from different dimensions to uncover which one would more discerning to trigger voluntary resignation of independent directors. The result shows that corporate governance is more crucial than performance measures or risk in predicting the odds that

[95] For example, Hermalin and Weisbach (1988) show that poor performance , a CEO change over, and exit from product markets are all important factors in causing board change, Denis and Sarin (1999) indicate that a sharp decline in the firm's operating profitability cause large changes in either the ownership structure or board composition over time. Gilson (1990) also studies board changes in underperforming firms, but Gilson conjectures that meaningful change in boards requires the disciplinary involvement of lenders and courts.

[96] Ravina and Sapienza (2006) find independent directors are informative through the evidence of their trading on company's stock. They show that independent directors earn positive and substantial abnormal returns when they purchase their company stock, and which is more pronounced when the firm's governance structure is weak and when independent directors attend more frequently the board meetings.

independent directors would resign from their directory post. In other words, independent directors would more likely to quit the directory post when the corporate governance of the underlying firms are unsounded as to hinder effective monitor by them than when the firms have unsatisfactory performance measures or higher financial/operational risk. This contributes to the existing literature the focuses mainly on the firm's performance or market response.

Secondly, our investigated targets are IPO firms in Taiwan market where family control is a predominant phenomenon. Family controlled firms leave little space for the board members who are disconnected to the controlling owners to negotiate with outcome of board structure. Therefore, the story that has been told in the western world (e.g. Hermalin and Weibach, 1998; Baker and Gomopers, 2003) is comparatively inapplicable herein. Our results imply that independent directors are at best passively monitoring the underlying firms. They would choose to leave the post when they find the underlying firms are suspicious in jeopardizing the governance structure or engaging in wealth exploration from minority shareholders. They would also resign from the post to avoid the possible legal responsibilities after the associated auditor issuing non-unqualified opinions.

Finally, our results are indicative to long-run investors and the ones who are possible to assume independent directors. A director's voluntary leave emits a negative signal that the underlying firms deteriorate in governance structure which will possibly in turn increase the likelihood of financial distress. Independent directors who cherish personal reputation assets are advised not to be associated with the firms. The paper is organized as follows. Section 2 introduces the data and methodology. Section 3 reports empirical results. Section 4 concludes.

2. Data and Methodology

Our data of Taiwanese IPO firms is hand collected from the websites and/or periodicals of Taiwanese Securities Exchange Corporation and the GreTai Securities Markets. We further use the data from Taiwan Economic Journal (TEJ, a data company in Taiwan) and Market Information Post System to verify the validity of data. According to the rules, firms that experience changes in directors and/or supervisors are mandatory to reveal the information on the Market Information Post System on the subsequent business day. The SEC in Taiwan stipulates that all newly listed firms after February 2002 are required to include at least two independent directors and one independent supervisor in the board. Therefore, our sample period begins with February 2002. Up to January 2006, we have 82 IPO firms that are associated with voluntary resignations of independent directors/supervisor (hereafter independent directors for brevity). We exclude the cases of resignations that are owing to death or changeover that is due. The sample does not cover the firms in financial industry which subject to different regulatory requirements and are fundamentally different in capital structure with firms in other industries. For the purpose of comparison, for each IPO firm with voluntary resignation of independent directors we choose two matching IPO firms that are without and in the same industry and are approximate in equity size.

The independent variables of interest include firm's performance, risk, and corporate governance. Firm's performance measures include return on assets (ROA) that is defined as net income divided by average assets and cash flow ratio (CFR) that is defined as the cash flow from operation divided by current liabilities. The risk measures include the variance coefficient of EBIT (CV) that is defined as the standard deviation of EBIT divided by the average EBIT and leverage ratio (LR) that is defined as the total debt divided by book value of owner's equity.

The corporate governance variables of interest are multidimensional. Related party transactions (RPTR) include the total amount of related party transactions (including sales, assets sales, accrual amount, borrowing/lending, and endorsement/warrantee) divided by total assets. The auditor dummy variable (AUDIT) is assigned the value 1 when the associated auditor issues non-unqualified report and 0 otherwise. The directory board size (DB) is the number of directors and supervisors. We also use the CEO/chairman duality (DUALITY) that is assigned the value of 1 when the firm's CEO simultaneously chairs the board and 0 otherwise. We also calculate the total shareholding of large shareholders (LS), institutional investors (IS) and directors/supervisors (DSS) to identify ownership distribution. The final one is the pledge ratio for the shareholdings of directors/supervisors (PLEDGE).

We firstly use univariate test to see if firms with voluntary resignations of independent directors bear different characteristics from the firms without. A following logistic model is applied to uncover the most discerning variables that affect voluntary resignation of independent directors.

3. The Results

3.1. The Backgrounds of the Voluntary-leave Independent Directors

In order to have a better understanding of the voluntary-leave independent directors, we summarize their characteristics including industry breakdown, level of education, and professions in Table 1. The result shows that the cases of voluntary leaves cluster in electronics industry (69 cases representing 84% of the sample), which comes at no surprise that the majority of IPOs in our sampling period also rivet on the industry. The average level of education of these resigning independent directors is mainly distributed in master and undergraduate level. Regarding to occupation, it is not unusual to evidence in practice that the independent director of a firm simultaneously serve managerial post in other firm. These cases represent 56% (46/ 82) of the sample. The result could reconcile with the possibility that these dual-post independent directors have a keen sense of market and are able to withdraw from the directory post before the firms they serve are indeed trapped in troubles.

Insert Table 1 Here

3.2. The Characteristics for Firms With and Without Voluntary-leave Independent Directors

We further investigate whether the firm's characteristics of the IPO firms with voluntary-leave independent directors are significantly different from the ones without Note that the financial information excerpted from one year prior to the resignation is used to investigate which indicators are able to dictate the resignation of an independent director. The results of univariate comparisons are summarized in Table 2.

Firms with voluntary-leave independent directors on average are associated with a lower return on assets (5.7%) than the ones without (10.3%). The difference is significant at 1% level. However, the two groups of firms are less significant in contrasting their short-term liquidity, as measured by cash flow to debt ratio. The result implies that the resigning independent directors concern more on overall financial performance than on short-term liquidity when they making the decision of resignation.

We use two variables, the variance coefficient of EBIT and leverage ratio, to capture the risk associated with the underlying firms. Firms with voluntary-leave independent directors are riskier than their counterparts. The average variance coefficient of EBIT (1.24) and the leverage ratio (1.03) for firms with voluntary-leave independent directors are significantly higher than 0.60 and 0.83 for firms without. In this sense, independent directors would more likely to resign from the directory post when the underlying firms involve too much risk either in operations or in financial leverage.

We further investigate the governance structure for firms with and without voluntary-leave independent directors. The results show that firms with voluntary-leave independent directors are associated with higher related party transaction than those without. The related party transactions denominated by total assets are 58.4% and 34.5% for firms with and without voluntary-leave independent directors, respectively. The difference between the two groups is significant at 1% level. Moreover, firms with voluntary-leave independent directors are more likely to come with a non-unqualified report from the associated auditor. 41.5% of the firms with and 22.1% of the firms without voluntary-leave independent directors are being rated as non-unqualified in financial reports. The difference in percentage is significant at 1% level. Furthermore, another factor that encourages independent directors to quit the directory post is when the CEO simultaneously chairs the board. We define a duality dummy that assigns the value of 1 when the firm's Rotherwise. The percentage (36.6%) for firms with voluntary-leave directors is significantly higher than the percentage for firms without (24.5%). Finally, Xiang and Zhang (1996) indicate that the more shareholdings connected to the large shareholders the more likely of them to engage in wealth exploitation at the expense of minority shareholders. We therefore calculate the total shareholdings of large shareholders who are listed in firm's annual reports. The result shows that independent directors are more likely to quit their directory post when the firm's shareholdings being concentrated in large shareholders. The aggregate shareholdings for firms with voluntary-leave independent directors are 22.7%, which is significantly higher than 16.7% for firms that are without.

The overall picture so far indicates the adversity when independent directors voluntarily resign from their post. Firms with inferior performance measures, higher risk, and unsounded governance structure are more likely to trigger the resignation of independent directors. The result is intuitively appearing in that the functioning role of independent directors who are deputed to supervise the underlying firms is vindicated. Their resignation happens after the underlying firms turn sour in terms of performance, risk, and governance structure while not to the brink of going bankruptcy or being trapped in litigation. In this sense, independent directors are information insiders whose resignation signaling deterioration of the underlying firms.

Insert Table 2 Here

3.3. The Determinants of Voluntary Resignation

We further use logistic model to capture the possible determinants that dictate voluntary resignation of independent directors. The dependent variable is a dummy that is assigned the value of 1 when the independent director(s) of an underlying IPO firm voluntarily resign from his/her post and 0 otherwise. The results show that related party transaction, non-unqualified report from the associated auditor, and the total shareholdings of the large shareholders are most discerning variables to voluntary resignation of independent directors. These variables are significant at 1% level no matter what variables were being included in the models. Moreover, the CEO/chairman duality also positively associated with the odds of voluntary leave of independent directors. In contrast, the firm's performance (ROA and cash flow ratio) and risk (variance coefficient of EBIT, leverage ratio) that were deemed to be important for the resigning decision of independent directors are less significant when variables of governance structure are juxtaposed in the models.

From a different perspective, independent directors concern more of the governance structure than of the performance or risk of the underlying firm in the moment that they decide to quit the directory post. A synopsis of these discerning variables implies that independent directors are more likely to resign their directory posts when the underlying firms are with deep family hue (manifested in concentrated shareholdings in hands of large shareholders or the duality of CEO/chairman post) and these insiders engage in self-dealing transactions (related party transactions) and have been detected by the associated auditor (non-unqualified report). In other words, independent directors under the context structure that family dominate the firm's superstructure and engage in wealth exploration are likely to refer the auditor's opinion and quit the directory post. On one hand, they would find themselves to be ineffective in monitoring the controlling shareholders. On the other, in order to protect themselves from further legal responsibility, independent directors would opt for early resignation before the firms they supervise were indeed trapped in legal courses.

4. Concluding Remarks

In this paper we investigate the possible determinants of voluntary resignation of independent directors. The possible factors of interest include firm's performance measures, risk, and corporate governance. The results show that independent directors concern more of the governance structure than of performance and risk measures of the underlying firms when making the decision of resignation. Specifically, we find that the most discerning variables for voluntary resignation include related party transactions, non-unqualified reports from the associated auditor, and total shareholdings of the large shareholders. Independent directors would choose to voluntary leave from the post when they find themselves are incapable of effective monitoring the underlying firms.

We did investigate the relationship between the voluntary resignation of independent directors and subsequent price reaction. However, the result is less significant. One possibility is that investors did not attend to this information. The other is that this information has been expected by the market long before the resignation of independent directors. The latter could be reconciled with the fact that independent director's resigning from their directory post is followed by the outcome that the associated auditor initiated a non-unqualified report, which is supposed to be associated with a negative price impact. This study provides a comprehensive view on why independent directors would voluntary resign from the directory post. One of the potential contributions of this research is to identify the importance of corporate governance that crucially dictates the resignation of independent directors. In contrast, independent directors are less likely to resign their post merely due to inferior performance measures or the associated risks in that they have been reflected in unsounded corporate governance. Further researches could extend the event to a longer time frame in order to uncover the possible determinants that have existed long before independent directors assuming the post and the odds of going bankruptcy for the underlying firms with resigning independent directors.

References

1. Adams, R., and D. Ferreia, 2006, "A theory of friendly boards," *Journal of Finance*, forthcoming.
2. Baker, M., and P. Gompers, 2003, "The determinants of board structure at the initial public offering," *Journal of Law and Economics* 46, 569-598.
3. Choi, S. K., and D. C. Jeter, 1992, "The effect of qualified auditor opinions on earnings response coefficients," *Journal of Accounting and Economics* 15, 229-247.
4. Christensen, T. E., R. E. Hoyt, and J. S. Paterson, 1999, "Ex ante incentives for earnings management and the informativeness of earnings," *Journal of Business Finance and Accounting* 26, 807-832.
5. DeFond, M. L., 1992, "The association between changes in client firm agency costs and auditor switching," *Auditing: A Journal of Practice and Theory* 11, 16-31.
6. Demis, D., and A. Sarin, 1999, "Ownership and board structure in publicly traded corporations," *Journal of Financial Economics* 52, 187-223.
7. Easterwood J. C. and C. G. Raheja, 2006, "CEOs vs. directors: Who calls the shots when firms underperform?" SSRN working paper.
8. Erickson, M., B. W. Mayhew, and W. L. Felix, 2000, "Why do audits fails? Evidence form Lincoln savings and loan," *Journal of Accounting Research* 38.
9. Gibson, S., 1990, "Bankruptcy, board, banks, and blockholders," *Journal of Financial Economics* 27.
10. Gordon, E., E. Henry, and D. Palia, 2004, "Related party transactions: associations with corporate governance and firm value," working paper, Rutgers Business School.
11. Harris, M., and A. Raviv, 2005, "A theory of board control and size," *Review of Financial Studies*, Forthcoming.
12. Hermalin, B., and M. Weisbach, 1988, "The determinants of board composition," *Rand Journal of Economics* 19, 589-606.
13. Hermalin, B., and M. Weisbach, 1998, "Endogenously chosen boards of directors and their monitoring of the CEO," *American Economic Review* 88, 96-118.
14. Holmstrom, B., 1979, "Moral hazard and observability", *Bell Journal of Economics* 10, 74-91.
15. Jensen, M., and W. Meckling, 1976, "Theory of the firm: managerial behavior, agency costs and ownership structure," *Journal of Financial Economics* 3, 305-360.
16. Krishnan, J., and J. Krishnan, 1997, "Litigation risk and auditor resignations," *Accounting Review* 72.
17. Petroni, K. R., 1992, "Optimistic reporting in the

property causality insurance industry," *Journal of Accounting and Economics* 15, 485-508.
18. Raheja, C., 2005, "Determinant of board size and composition: A theory of corporate boards," *Journal of Financial and Quantitative Analysis* 40, 283-306.
19. Ravina, E., and P. Sapienza, 2006, "What do independent directors know? Evidence from their trading," SSRN working paper.
20. Shastri, K., and K. Kahle, 2003,"Executive loans", working paper, University of Pittsburg.
21. Shu, S. Z., 2000, "Auditor resignations: clientele effects and legal liability," *Journal of Accounting and Economics* 29, 173-205.
22. Subramanyam, K. R., and J. J. Wild, 1996, "Going-concern status, earnings persistence, and informativeness of earnings," *Contemporary Accounting Research* 13, 251-273.
23. Swartz, M., and S. Satkins, 2003, "Power failure: the insider story of the collapse of Enron," New Youk, Doubleday.
24. Sweeny, A. P., 1994, "Debt-covenant violations and managers' accounting responses," *Journal of Accounting and Economics* 17, 281-308.
25. Weisbach, M., 1988, "outside directors and CEO turnover," *Journal of Financial Economics* 20.
26. Wells, D., and M. Loudder, 1997, "The market effects of auditor resignations", *Auditing: A Journal of Practice and Theory* 16, 138-144.
27. Worrell, D., W. Davidson, and J. Glascock, 1993, "Stockholder reactions to departures and appointments of key executives attributable to firings", *Academy of Management Journal* 36, 387-401.

Appendices

Table 1. The Distribution of Voluntary Resignations of Independent Directors

This table summarizes the distribution of 82 voluntary resignations of independent directors in the sample period from February 2002 through January 2006. Panel A reports the industry breakdown. The level of education and profession of the resigning independent directors are reported in Panel B and C, accordingly.

Panel A: Industry breakdown					
Electronics	Electricity/ Machinery	Construction	Biotechnology	Others	Total
69	8	1	3	1	82
Panel B: Educational Level					
Doctoral	Master	Bachelor	Junior College	Others	Total
20	30	22	4	6	82
Panel C: Profession					
Education	Accountant/ attorney	Enterpriser	Others	Total	
17	12	46	7	82	

Table 2. Differences Test between Resignations and Non-resignations

For each IPO firm with voluntary resignation of independent director, we select two matching IPO firms that without (non-resignation) in the cohort year. The means, standard deviations, t-statistics, and p-values of performance measures (Panel A), risk (Panel B) and corporate governance (Panel C) are reported accordingly. The variables of firm's performance include ROA and cash flow to debt ratio (CFR). The variables of risk include the variance coefficient of EBIT (CV) and leverage ratio (LR). The corporate governance variables include related party transactions (RPTR), the dummy variable that the associated auditor issues unqualified report(AUDIT), directory board size (DB), CEO/chairman duality (DUALITY), the total shareholding of large shareholders (LS), the total shareholdings of institutional investors (IS), the total shareholdings of directors/supervisors (DSS), the pledge ratio for the shareholdings of directors/supervisors (PLEDGE). ***, **, and * represent the significance level of 1%, 5%, and 10%, respectively.

Panel A: Operating Performance					
		Mean	S.D.	t-value	p-value
ROA	Resignation	0.057	0.142	-2.757***	0.006
	Non-Resignation	0.103	0.110		
CFR	Resignation	0.213	3.725	-1.623	0.106
	Non-Resignation	0.395			
Panel B: Risk					
CV	Resignation	1.238	3.725	1.975**	0.049
	Non-resignation	0.597	1.244		
LR	Resignation	1.026	1.014	2.016**	0.045
	Non-resignation	0.826	0.544		
Panel C: Corporate Governance					
RPTR	Resignation	0.584	0.744	2.677***	0.009
	Non-resignation	0.345	0.424		

AUDIT	Resignation	0.415	0.496	3.042***	0.003
	Non-resignation	0.221	0.416		
DB	Resignation	6.756	1.495	0.357	0.722
	Non-resignation	6.681	1.586		
DUALITY	Resignation	0.366	0.485	1.977**	0.049
	Non-resignation	0.245	0.432		
LS	Resignation	0.227	0.240	2.752***	0.006
	Non-resignation	0.167	0.104		
IS	Resignation	0.312	0.183	-0.397	0.692
	Non-resignation	0.323	0.205		
DSS	Resignation	0.265	0.113	-0.166	0.868
	Non-Resignation	0.267	0.117		
PLEDGE	Resignation	0.014	0.067	0.199	0.842
	Non-Resignation	0.013	0.052		

Table 3. The Determinants of Resignation of Independent Directors

This table reports the results of logistic regression. The dependent variable is assigned the value of 1 when the IPO firm with voluntary resignation of independent director(s) and 0 otherwise. The independent variables are defined in Table 2. In each cell, the regression coefficient is reported in upper case and the Wald statistics in parentheses are reported in the lower case. ***, **, and * represent the significance levels of 1%, 5%, and 10%, respectively.

	Dependent variable: Dummy (voluntary resignation of independent directors)				
	Model 1	Model 2	Model 3	Model 4	Model 5
Constant	-2.611 (13.971)***	-1.558 (4.122)**	-3.496 (11.942)***	-3.322 (10.425)***	-3.321 (10.412)***
ROA	-2.376 (1.689)	-2.695 (2.292)		-2.577 (2.959)*	-2.496 (1.792)
CFR	-0.050 (0.041)	0.084 (0.119)	-0.234 (1.449)		-0.019 (0.005)
CV	0.110 (2.522)	0.096 (1.987)	0.125 (3.598)*	0.109 (2.532)	0.109 (2.534)
LR	0.202 (0.937)	0.207 (1.017)	0.299 (2.174)	0.232 (1.280)	0.237 (1.267)
RPTR	0.809 (7.693)***	0.730 (6.554)***	0.783 (7.203)***	0.821 (7.481)***	0.819 (7.421)***
AUDIT	1.160 (11.716)***	0.999 (9.851)***	1.128 (10.835)***	1.119 (10.658)***	1.118 (10.635)***
DB		-0.000 (0.000)	0.080 (0.510)	0.102 (0.835)	0.100 (0.786)
DUALITY		0.542 (2.726)**	0.333 (0.925)	0.294 (0.712)	0.296 (0.716)
LS	4.416 (7.746)***		4.726 (8.347)***	4.455 (7.637)***	4.479 (7.416)***
IS	-0.913 (1.085)		-1.089 (1.296)	-1.136 (1.413)	-1.128 (1.375)
DSS	2.281 (2.114)		2.335 (2.144)	2.241 (1.986)	2.244 (1.988)
PLEDGE	-0.540 (0.045)		-0.250 (0.009)	-0.738 (0.079)	-0.716 (0.074)
-2 log likelihood	255.091	264.77	255.368	253.519	253.51
χ^2	39.788 (0.000)***	30.910 (0.000)***	39.511 (0.000)***	41.359 (0.000)***	41.364 (0.000)***
Nagelkerke R^2	0.219	0.173	0.218	0.227	0.227