

## SESSION 2: CEO AND DIRECTORS' REMUNERATION

## **EARNINGS MANAGEMENT AND** ASYMMETRIC SENSITIVITY OF BONUS COMPENSATION TO EARNINGS FOR **HIGH-GROWTH FIRMS**

Sung S. Kwon\*, Patrice Gélinas\*\*, Nelson Waweru

\* Faculty of Liberal Arts & Professional Studies, School of Administrative Studies, York University, Toronto, Canada



How to cite: Kwon, S. S., Gélinas, P., & Waweru, N. Received: 10.02.2022 (2022). Earnings management and asymmetric Accepted: 04.03.2022 sensitivity of bonus compensation to earnings for Keywords: Accrual and high-growth firms. In G. M. Mantovani, A. Kostyuk, & Real Earnings D. Govorun (Eds.), Corporate governance: Theory and Management, Executive practice (pp. 30–33). https://doi.org/10.22495/cgtapp4

Copyright © 2022 The Authors

Compensation, Sarbanes-Oxley, Ex Post Settling Up, Asymmetric Sensitivity JEL Classification: J33, L2, M41

**DOI:** 10.22495/cgtapp4

## Abstract

In this study, we examine whether high-IOS (investment opportunity set) firms vis-à-vis non-growth (low-IOS) firms will not reduce discretionary expenditures, such as advertising expenses, research and development, and selling, general and administrative (SG&A) expenses, to further sustain the firm growth in a more conservative reporting environment (the post-Sarbanes-Oxley (SOX) period). We investigate, as an extension of a prior paper, the sensitivity of chief executive officer (CEO) bonuses to earnings in the cases of high-IOS and low-IOS firms. As we hypothesize, both high-IOS and low-IOS firms showed significant decreases in the sensitivity after SOX. Also, our empirical evidence is also consistent with Lobo and Zhou's (2006) observations that high-IOS and low-IOS firms are more conservative in financial reporting in the first two years after SOX because of required regulatory changes. Consistent with prior research, IOS is measured by the principal component of four IOS proxies. The principal component was calculated from eigenvectors (coefficients) and the four proxies at the beginning of fiscal year t, where t belongs to the pre-SOX period (1995-2000) and the post-SOX period (2002-2007). The high-IOS firm years in the pre-SOX (post-SOX) period were those with IOS composite scores above the pre-SOX (post-SOX) period sample median; the low-IOS firm years were those with IOS composite scores below the pre-SOX (post-SOX) period sample median. Empirical evidence generally supports the above hypotheses. As in Zang (2012), the data was winsorized at both ends at the level of 2.5%. In terms of contributions and limitations of this study, we use the investment opportunity set variable (IOS) as a proxy for firm growth. The proxy was more recommended by prior research and is measured by the principal component of four IOS proxies (investment intensity, geometric mean annual growth rate of the market value of total assets, market-to-book value of total assets, and research and development expenditure to total assets) rather than the simple, frequently-used proxy for firm growth (the market-to-book (MTB) value of assets). The evidence of high-IOS firms' increase in discretionary expenditures (and decrease in real earnings management) even after SOX and the effects of SOX and other concurrent reforms on the sensitivity of executive bonus compensation-to-earnings changes are considered to be particularly useful information for regulators. managers, politicians, investors, and academics in their assessment of the earning-management methods differently adopted by high-IOS and low-IOS firms and the equitable relationship between executive efforts and executive compensation for firms affected by the SOX Act and levels of IOS. The potential limitations of this manuscript are obviously related to the use of proxies (IOS), especially for firm growth and earnings management models, which are usual for many empirical studies. Also, our findings should be understood within the context that the study relied on data from the USA, a developed country. Therefore, the findings may not be generalized to firms operating in developing countries.

## REFERENCES

- Baber, W. R., Janakiraman, S. N., & Kang, S.-H. (1996). Investment opportunities and the structure of executive compensation. *Journal of Accounting and Economics*, 21(3), 297–318. https://doi.org/10.1016/0165-4101(96)00421-1
- Baber, W. R., Kang, S.-H., & Kumar, K. R. (1998). Accounting earnings and executive compensation: The role of earnings persistence. *Journal of Accounting and Economics*, 25(2), 169–193. https://doi.org/10.1016/S0165-4101(98)00021-4
- 3. Baber, W. R., Kang, S.-H., & Kumar, K. R. (1999). The explanatory power of earnings levels vs. earnings changes in the context of executive compensation. *The Accounting Review*, 74(4), 459–472. https://doi.org/10.2308/accr.1999.74.4.459

- 4. Ball, R., & Brown, P. (1968). Empirical evaluation of accounting income numbers. *Journal of Accounting Research*, 6(2), 159–178. https://doi.org/10.2307/2490232
- 5. Banker, R. D., & Datar, S. M. (1989). Sensitivity, precision, and linear aggregation of signals for performance evaluation. *Journal of Accounting Research*, 27(1), 21–39. https://doi.org/10.2307/2491205
- 6. Barringer, B. R., Jones, F. F., & Neubaum, D. O. (2005). A quantitative content analysis of the characteristics of rapid-growth firms and their founders. *Journal of Business Venturing*, 20(5), 663–687. https://doi.org/10.1016/j.jbusvent.2004.03.004
- Barth, M. E., Elliott, J. A., & Finn, M. W. (1999). Market rewards associated with patterns of increasing earnings. *Journal of Accounting Research*, 37(2), 387–413. https://doi.org/10.2307/2491414
- 8. Carter, M. E., Lynch, L. J., & Zechman, S. L. C. (2009). Changes in bonus contracts in the post-Sarbanes-Oxley era. *Review of Accounting Studies*, 14, 480–506. https://doi.org/10.1007/s11142-007-9062-z
- 9. Cohen, D. A., & Zarowin, P. (2010). Accrual-based and real earnings management activities around seasoned equity offerings. *Journal of Accounting and Economics*, 50(1), 2–19. https://doi.org/10.1016/j.jacceco.2010.01.002
- Cohen, D. A., Dey, A., & Lys, T. Z. (2008). Real and accrual-based earnings management in the pre- and post-Sarbanes-Oxley periods. *The Accounting Review*, 83(3), 757-787. https://doi.org/10.2308/accr.2008.83.3.757
- 11. Dechow, P. M., Kothari, S. P., & Watts, R. L. (1998). The relation between earnings and cash flows. *Journal of Accounting and Economics*, 25(2), 133–168. https://doi.org/10.1016/S0165-4101(98)00020-2
- 12. Delmar, F., & Davidson, P. (1998). A taxonomy of high-growth firms. In *Frontiers of entrepreneurship research* (pp. 399–413). Wellesley, MA: Babson College. Retrieved from https://fusionmx.babson.edu/entrep/fer/papers98/XIV/XIV A/XIV A.html
- 13. Demerjian, P., Lev, B., & McVay, S. (2012). Quantifying managerial ability: A new measure and validity tests. *Management Science*, 58(7), 1229–1248. Retrieved from https://www.jstor.org/stable/41499554
- Dikolli, S. S., Kulp, S. L., & Sedatole, K. L. (2009). Transient institutional ownership and CEO contracting. *The Accounting Review*, 84(3), 737–770. https://doi.org/10.2308/accr.2009.84.3.737
- Feldmann, D., & Read, W. (2010). Auditor conservatism after Enron. AUDITING: A Journal of Practice & Theory, 29(1), 267–278. https://doi.org/10.2308/aud.2010.29.1.267
- 16. Garvey, G. T., & Milbourn, T. T. (2006). Asymmetric benchmarking in compensation: Executives are rewarded for good luck but not penalized for bad. *Journal of Financial Economics*, 82(1), 197–225. https://doi.org/10.1016/j.jfineco.2004.01.006
- 17. Gaver, J. J., & Gaver, K. M. (1998). The relation between nonrecurring accounting transactions and CEO compensation. *The Accounting Review*, 73(2), 235–253. Retrieved from https://www.jstor.org/stable/248467
- 18. Givoly, D., & Hayn, C. (2000). The changing time-series properties of earnings, cash flows and accruals: Has financial reporting become more conservative? *Journal of Accounting and Economics*, 29(3), 287–320. https://doi.org/10.1016/S0165-4101(00)00024-0

- 19. Graham, J. R., Harvey, C. R., & Rajogopal, S. (2005). The economic implications of corporate financial reporting. *Journal of Accounting and Economics*, 40(1–3), 3–73. https://doi.org/10.1016/j.jacceco.2005.01.002
- Kwon, S. S., & Yin, J. (2006). Executive compensation, investment opportunities, and earnings management: High-tech versus low-tech firms. Journal of Accounting, Auditing and Finance, 21(2), 119–148. https://doi.org/10.1177/0148558X0602100203
- 21. Kwon, S. S., Yin, Q. J., & Ndubizu, G. A. (2019). Asymmetric sensitivity of executive bonus compensation to earnings and the effect of regulatory changes. Review of Quantitative Finance and Accounting, 53, 845–869. https://doi.org/10.1007/s11156-018-0768-8
- 22. Lambert, R. A., & Larcker, D. (1987). An analysis of the use of accounting and market measures of performance in executive compensation contracts. *Journal of Accounting Research*, 25(Supplement), 85–125. https://doi.org/10.2307/2491081
- 23. Leone, A. J., Wu, J. S., & Zimmerman, J. L. (2006). Asymmetric sensitivity of CEO compensation to stock returns. *Journal of Accounting and Economics*, 42, 167–192. https://doi.org/10.1016/j.jacceco.2006.04.001
- 24. Lobo, G., & Zhou, J. (2006). Did conservatism in financial reporting increase after the Sarbanes–Oxley Act? Initial evidence. *Accounting Horizons*, 20(1), 57–73. https://doi.org/10.2308/acch.2006.20.1.57
- 25. Mullins, J. W. (1996). Early growth decisions of entrepreneurs: The influence of the competency and prior performance under changing market conditions. *Journal of Business Venturing*, 11(2), 89–105. https://doi.org/10.1016/0883-9026(95)00106-9
- Roychowdhury, S. (2006). Earnings management through real activities manipulation. *Journal of Accounting and Economics*, 42(3), 335–370. https://doi.org/10.1016/j.jacceco.2006.01.002
- 27. Skinner, D. J., & Sloan, R. G. (2002). Earnings surprises, growth expectations, and stock returns or don't let an earnings torpedo sink your portfolio. Review of Accounting Studies, 7, 289–312. https://doi.org/10.1023/A:1020294523516
- 28. Sloan, R. G. (1993). Accounting earnings and top executive compensation.  $Journal \quad of \quad Accounting \quad and \quad Economics, \quad 16 (1-3), \quad 55-100. \\ \text{https://doi.org/}10.1016/0165-4101(93)90005-Z$
- 29. Watts, R. L. (2003). Conservatism in accounting Part I: Explanations and implications. *Accounting Horizons*, 17(3), 207–221. https://doi.org/10.2308/acch.2003.17.3.207
- 30. White, H. (1980). Heteroskedasticity consistent covariance matrix estimator and a direct test of heteroskedasticity. *Econometrica*, 48(4), 817–838. https://doi.org/10.2307/1912934
- 31. Zang, A. Y. (2012). Evidence on the trade-off between real activities manipulation and accrual-based earnings management. *The Accounting Review*, 87(2), 675–703. https://doi.org/10.2308/accr-10196