

**Determinants of Capital Structure: Evidence from China Public
Listed Industrial Companies**

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ABSTRACT

This paper examines determinants of capital structure of China-Listed companies in Shang Hai Stock Exchange. Profitability, size, growth rate and liquidity are the variables used as the independent variables, while capital structure is proxied by leverage. The capital market of China went through a remarkable growth from 2006 to 2008, but currently it is in deep recession. This study looks at the factors that influence China's industrial companies' capital structure in a ten-year period, from 1998 to 2010. The findings show that size is positively and significantly correlated to leverage, whilst liquidity is negatively but significantly influences leverage. Both profitability and growth rates do not have any effect on capital structure of the 967 industrial companies examined. The findings also demonstrate that neither the pecking order theory nor trade-off theory derived from the western setting could provide convincing explanation for the capital structure choices of the China's companies. The differences in the choices may be attributed to the fundamental institutional assumptions in the western models that are not valid in China.

Keywords: Capital structure, profitability, size, growth, liquidity, pecking order, trade-off.

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CHAPTER 1

INTRODUCTION

1.1 BACKGROUND

Nowadays, no matter which industrial area a company is involved in, managing capital structure is important. Companies usually need capital to support funding, such as to buy property and to build or acquire production facilities and equipment to expand their business. The needs for capital would either come from internal funding add/or external funding. A financial manager should plan an optimum capital for company in order to maximize company's profit and market value. The determination of the optimum capital structure is a difficult task and the manager has to perform this task properly, so that the firm could achieve its ultimate objective which is maximization of shareholders' wealth.

There were voluminous of researches tested on companies' choice in the determinants of the debt to equity ratios in various sectors of the economy, such as restaurant industry (Upneja and Dalbor, 2001), bank industries (Amidu, 2007), Portuguse listed company (Serrasqueiro and Rogao, 2009) and Turkish lodging companies (Karadeniz, Kandir, and Onal, 2009). One of the main conclusions of these empirical studies is that industrial classification is an important determinant of capital structure because there are various differences among industries and companies within an industry.

Capital structure is the mix of debt and equity used by a company to finance its assets. Capital structure decision is one of the most significant decisions which is

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Reference:

- Abor, J & Biekpe, N. (2009). How do we explain the capital structure of SMEs in sub-Saharan Africa?. *Journal of Economic Studies*, 36, 1, 83-97
- Amidu, M. (2007). Determinants of capital structure of banks in Ghana: An empirical approach. *Baltic Journal of Management*, 2, 1, 67-79.
- Al-Najjar, B. and Taylor, P. (2008). The relationship between capital structure and ownership structure: New evidence from Jordanian panel data. *Journal of Managerial Finance*, 34, 12, 2008, 919-933.
- Bauer, P. (2004). Determinants of Capital Structure Empirical Evidence from the Czech Republic. *Journal of Economics and Finance*, Vol. 54, from: http://journal.fsv.cuni.cz/storage/958_s_2-21.pdf.
- Chen, J.J. (2004). Determinants of capital structure of Chinese-listed companies. *Journal of Business Research*, Vol. 57, 1341–1351.
- Harris, M. & Raviv, A. (1991). The Theory of Capital Structure. *Journal of Finance*, vol. 46, 1991, 297–355.
- Karadeniz, E., Kandir, S.Y., & Balçilar, M. and Onal, Y. B. (2009). Determinants of capital structure: Evidence from Turkish lodging companies. *International Journal of Contemporary Hospitality Management*, 21, 594-609.
- Klapper, L.F., Sarria-Allende, V. and Sulla, V. (2002). World Bank Policy Research Working Paper: Small- and medium-size enterprise financing in Eastern Europe, 2933, from: <http://ssrn.com/abstract=4636295>.

- Mukherjee, S. and Mahakud, J. (2010). Dynamic adjustment towards target capital structure: Evidence from Indian companies. *Journal of Advances in Management Research*, 7, 250-266.
- Myers, S.C. (1984). The capital structure puzzle. *The Journal of Finance*, 39, 575-92.
- Myers, S.C. and Rajan, R.G. (1998). The paradox of liquidity. *Quarterly Journal of Economics*, 113, 733-71.
- Myers, S. C. (2001). Capital Structure. *Journal of Economic Perspectives*, 15, 81–102.
- Omran, M.M. (2009). Capital structure and firm characteristics: An empirical analysis from Egypt". *Review of Accounting and Finance*, 8, 4, 454-474.
- Ooi, J. (1999). The determinants of capital Structure: Evidence on UK property companies. *Journal of Property Investment & Finance*, 17, 5, 464-480.
- Rajan, R.G. & Zingales, L. (1995). What Do We Know about Capital Structure? Some Evidence from International Data. *Journal of Finance*, 50, 1421–1460.
- Ramlall, I. (2009). Determinants of Capital Structure Among Non-Quoted Mauritian Firms Under Specificity of Leverage: Looking for a Modified Pecking Order Theory. *International Research Journal of Finance and Economics*, Issue 31, from: http://www.eurojournals.com/irjfe_31_07.pdf

- Reinhard L. & Steven Li (2010). A note on capital structure target adjustment – Indonesian evidence. *International Journal of Managerial Finance*, 6, 3, 245-259.
- Rongrong Zhang, R.R and Yoshio Kanazaki, Y. (2007). Testing static tradeoff against pecking order models of capital structure in Japanese firms. *International Journal of Accounting and Information Management*, 15, 2, 24-36.
- Serrasqueiro, Z.M.S. and Ragao, M.C.R. (2009). Capital structure of listed Portuguese companies: Determinants of debt adjustment. *Review of Accounting and Finance*. Vol. 8, No. 1, pp. 54-7.
- Upneja, A. and Dalbor, M. (1999). An examination of leasing policy, tax rates and financial stability in the restaurant industry. *Journal of Hospitality & Tourism Research*, 23, 1, 85-99.
- Valeriy, S. (2007). Asset Liquidity and Capital Structure. from: <http://ssrn.com/abstract=594523>
- Viviani, J.L. (2008). Capital structure determinants: An empirical study of French companies in the wine industry. *International Journal of Wine Business Research*, 20, 2, 171-194.
- Zuraidah A. (2009). The Impact of Capital Structure on Firms Operating Performance. College of Business, UUM Sintok, Kedah.
- James A. Colton and Keith M. Bower (2002). *International Society of Six Sigma Professionals, EXTRAOrdinary Sense*, 3, 2, 20-22.