EARNINGS MANAGEMENT AND CREDIT RATING

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ABSTRACT

We utilize Ordered Probit Model to explore the relationships between credit ratings and earnings management for all Taiwan public holding companies from 1997 to 2002, except for the financial industry. During our study period, credit ratings of most firms significantly changed. We find the relationships between credit ratings and the accrual accounting items for earnings management purpose. Firms with better credit ratings tend to use long-term accrual items for earnings management; on the other hand, firms with inferior credit ratings use current accrual items to manipulate earnings. We also find that if the firm tries to maintain its credit ratings level, it would use more accrual items for earnings manipulation and credit ratings. The electronics industry is studied alone in contrast to the rest of our sample firms because of its key role in Taiwan economic development and capital market. Our findings indicate that the average credit ratings of electronics manufacturing company are better than rest of our studied sample firms.

INTRODUCTION

The motivation of this research is to investigate whether the credit ratings of Taiwan firms are constrained by the various conditions and whether the credit ratings were influenced by earnings management. We also will investigate the relationship between debt covenant and earnings management for Taiwan corporations. In other words, will Taiwan firms try to manage their earnings to maintain or lower their cost of debt? Past researches on the issue of earnings management focused on accrual accounting items to discover the phenomenon of earnings smoothing. Our different research direction is first to examine the whether there is a motivation for a firm to manage earnings to meet the expectation of certain level of credit ratings. Secondly, we are also interested in whether firm will change its strategy of managing earning while credit ratings changed. Last, we would study how the significant changing economy will profoundly cause the dramatic change in credit ratings and consequently whether the earning management strategy will change significantly accordingly.

METHODOLOGY

We utilize financial and credit ratings data from the database of Taiwan Economic Journal (TEJ) from 1997 to 2002, excluding initial public offerings (IPOs)[1], seasoned public offerings (SPOs), and financial industry [4][5].Our study covers 2,892 complete financial and credit ratings data, which include 948 data from electronics industry. We have a separate study for the electronics industry[2]. The variables for analysis purpose are the accounting accrual items and the proxy variables for income smoothing. We classify the accrual items into four parts [1][3][4][5] and choose proxy variables for income smoothing [2]. Definition of credit ratings is referred to TEJ[3]. Credit ratings variables are tested against earnings management variables in order to observe their relationships and the degree of manipulation by the management. Because of the nature of credit ratings (qualitatively ordered data), we apply ordered probit model for hypothesis testing analysis.

ANALYTICAL RESULTS

Our research results indicate the credit ratings are affected by business cycle. We find that during the early stage of economic changes, management tried to influence the companies' credit ratings by managing earnings through current income and expense recognitions, or changing the ratio of current liabilities to current assets. We also find that credit ratings are much significantly affected by discretionary current accruals (DCA) and discretionary long-term accruals (DLA). This implies that management tends to manipulate earnings through the recognition of current income and expenses, plus utilizing property and plant equipments to manipulate earnings; therefore, use more long-term accruals to manage earnings and credit ratings. We cannot validate the relationships between credit ratings and income smoothing variables. There were about 30% of the firms that practiced income smoothing strategy; indicating income smoothing is not a common practice among firms in Taiwan. Management probably tried to smooth income by managing earnings, but could not utilize income smoothing to affect credit ratings effectively.

Our results show that firms with better credit ratings (TCRI < 5) do not rely on their earnings management strategies to affect their credit ratings. Most of the companies with inferior ratings (TCRI > 6) tend to utilize DCA to manipulate earnings. There are about 50% of the firms that have inferior credit ratings, indicating that trying to affect credit ratings through manipulating current accruals is not a success practice. Firms with their either upgrading or downgrading ratings, would utilize DLA to affect

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[1] Many researches indicated that, the stock prices fluctuated significantly before and after the IPO. The consequence is that the cash flow may fluctuate as well during the IPO period.

[2] Electronics industry plays a key role in Taiwan economy

[3] TEJ named the credit ratings index as TCRI (**T**aiwan Corporate **C**redit **R**isk **I**ndex). TCRI data are qualitatively ordered data. The ranking of the credit ratings from TEJ is from 1 to 10. "1" indicates the best credit rating while "10" indicates the worst credit rating.

credit ratings but in opposite directions. Electronics firms with upgrade ratings tend to use DLA to affect credit ratings. Electronics firms with downgrade ratings tend to use DCA to affect credit ratings. This implies that firms with different objectives of credit ratings would utilize different earnings management items to achieve their target. Firms with stable ratings have to utilize more earnings management to maintain their credit ratings levels. These earnings management items are DCA, DLA, and nondiscretionary long-term accruals (NDLA). Firms with superior ratings only need to utilize fewer current accruals to achieve their credit ratings purposes. Firms with other credit ratings use DLA to manage earnings. The distribution of credit ratings of the entire electronics industry is clustered in the mediocre rank (TCRI = 5), significantly better than all other industries. There are more than half of the firms from other industries have credit ratings greater than 6. Electronics firms tend to utilize long-term investments and investments in fixed assets to maintain or improve their credit ratings; therefore their DLA are significantly related to credit ratings.

SYNOPSIS

This study utilizes ordered probit model to explore the relationships between credit ratings and the earnings management strategies and found that the accrual items for earnings management may cause changes of credit ratings. Generally, we also find that credit ratings are affected by economic fluctuations, DCA and DLA. We could not verify the relationship between credit ratings and income smoothing variables. Our study also shows that firm with different objective for credit ratings would utilize different earnings management items to achieve its target. For electronics industry, their overall credit ratings are better than other industries in our study and we find DLA are significantly related to credit ratings for this industry.

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