

An Empirical Study on the Impact of Economic Policy Uncertainty on Earnings Management of Listed Companies

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Abstract. Taking 273 listed companies from 2011 to 2019 as the research sample, we have a total of 2730 balanced panel data. And we use the Uncertainty Index of China Economic Policy constructed by Baker et al. (2016) as the measure of economic policy uncertainty (EPU). Besides, using the Jones model and Roychowdhury's calculation method respectively, with accrual earnings management (EM) and real earnings management (REM) as the explained variables, the paper constructs a multiple regression model. Using STATA15.1 empirical analysis, it is found that the level of economic policy uncertainty increases, and listed companies reduce accrued earnings management activities and real earnings management activities.

Keywords: Economic policy uncertainty; Accrual earnings management; Real earnings management.

1. Introduction

In recent years, as Chinese economy has entered a new era, the state has frequently introduced economic reform policies, which has caused economic environment to face greater volatility and uncertainty. Then this kind of uncertainty in China's economic environment has been exacerbated by the confrontation. And the research on the uncertainty of economic policy is in line with the current environment of my country's economic policy changes. In addition, Baker et al. constructed a monthly frequency of uncertainty index of China's economic policy for the first time in 2013, which made economic policy uncertain. With more accurate, specific, and continuous data support for the measurement indicators of sexuality, it is more convenient to conduct academic research. Therefore, both the current state of the country and the academic progress have prompted the academic community to conduct more extensive and in-depth research on issues related to economic policy uncertainty.

In addition, a stable external environment is very important to business operations. And uncertainty of economic policies will aggravate the fluctuations in the business environment faced by enterprises, which will have uncertain and mostly negative impacts on the business performance of enterprises. When the volatility of the economic environment intensifies, the managers of enterprises often take some extraordinary measures to stabilize the performance of the company, as well as earnings management, as an important method to adjust the performance of the company's statements, which is often used by managers. Due to the inconsistency in the interests of investors and company management, managers may use earnings management, modify the disclosure of financial information, and fabricate the company's future development prospects, so as to attract investors to invest and maximize their own interests. Once corporate managers purposefully abuse earnings management to make the level of earnings in line with their own interests, it will inevitably lead to a decline in the transparency of the securities market, mislead investors in their decision-making, and ultimately cause investors to suffer heavy losses.

2. Theoretical basis and research assumptions

2.1 Economic policy uncertainty

Economic policy uncertainty refers to whether the government will change the current economic policy, and the time and content of the change cannot be accurately predicted (Gulen & Ion, 2012).

What's more, it belongs to environmental uncertainty, while "economy" and "policy" respectively indicate the nature of the environment and the source of uncertainty. Also it reflects the uncertainty of the economic environment caused by policy changes, and has a clear direction compared with general environmental uncertainty.

2.2 The connotation of earnings management

In the 1980s and 1990s, earnings management began to be widely studied in foreign countries. At first, Schipper (1989) believed that earnings management was the "disclosure management" carried out by management in order to obtain personal interests by controlling the process of financial external reporting. After years of research, in a review of earnings management, Healy & Wahlen (1999) integrated the definition of earnings management as follows. When managers tried to mislead stakeholders who wanted to understand the underlying economic performance of the company, or to influence. Besides, earnings management occurred when reported economic data determines contractual outcomes, thereby using one's own judgments about financial reporting and trading arrangements to alter data in financial statements. So today, for the research on earnings management, including "accrual earnings management" and "authentic earnings management", the earnings management behavior studied in this paper focuses on the adjustment of accrual items in the statement, that is, accrual earnings management. And accrual management mainly refers to the use of accounting policies and accounting estimates to "reasonably" revise the data in the financial report, so as to realize the manipulation of earnings.

Based on the above analysis, this paper proposes the following assumptions.

H1: The higher the economic policy uncertainty, the lower the accrued earnings management activities of listed companies.

H2: The higher the economic policy uncertainty, the lower the real earnings management activities of listed companies.

3. Study Design

3.1 Sample selection and data selection

Selecting the research data of Chinese listed companies from 2011 to 2019 as the sample, excluding the financial industry, ST and * ST, and company samples with missing financial data, and finally obtaining the balanced panel data of 273 listed companies, with a total of 2730 observations. The financial data of enterprises are from the Cathay Pacific (CSMAR) database, and the economic policy uncertainty index is obtained by using the weighted average of the monthly index of China's economic policy uncertainty constructed by Baker et al. (2016).

3.2 Variable Definition

3.2.1 Economic policy uncertainty

The explanatory variable is economic policy uncertainty, which is measured by the Uncertainty Index of China Economic Policy (EPU) calculated by Baker et al.

3.2.2 Earnings Management

The explained variables are accrual earnings management (EM) and real earnings management (REM). And accrual earnings management adopts the modified Jones model, also the relevant calculation formula is as follows.

$$EM_t = \frac{TA_t}{ASSET_{t-1}} - \left(\frac{\bar{b}_1}{ASSET_{t-1}} + \frac{\bar{b}_2(\Delta REV_t - \Delta REC_t)}{ASSET_{t-1}} + \frac{b_3 PPE_t}{ASSET_{t-1}} \right) \quad (1)$$

$$\frac{TA_t}{ASSET_{t-1}} = \frac{b_1}{ASSET_{t-1}} + \frac{b_2(\Delta REV_t - \Delta REC_t)}{ASSET_{t-1}} + \frac{b_3 PPE_t}{ASSET_{t-1}} + \epsilon_t \quad (2)$$

Then the real earnings management adopts the calculation method of Roychowdhury (2006), and the formula is as follows by estimating the enterprise sample by year and industry.

$$REM_t = ABPROD_t - ABCFO_t - ABDISEXP_t^{(2)} \quad (3)$$

3.2.3 Definition of control variables

In order to avoid serial correlation of variables, this paper uses profitability (EPS), financial leverage (LEV), company size (ASSET), property rights (PRO), industry (IND) and year (YEAR) as control variables to control other variables.

3.3 Model Construction

In order to verify the impact of economic policy uncertainty on accrual earnings management and real earnings management of listed companies, Model I and Model II are established.

$$EM_{it} = \alpha_0 + \alpha_1 EPU_{t-1} + \alpha_2 EPS_{it} + \alpha_3 LEV_{it} + \alpha_4 ASSET_{it} + \alpha_5 PRO_{it} + \sum IND + \sum YEAR + \epsilon_{it} \quad (\text{Model I})$$

$$REM_{it} = \beta_0 + \beta_1 EPU_{t-1} + \beta_2 EPS_{it} + \beta_3 LEV_{it} + \beta_4 ASSET_{it} + \beta_5 PRO_{it} + \sum IND + \sum YEAR + \epsilon_{it} \quad (\text{Model II})$$

4. Empirical Results and Analysis

With the help of STATA 15.1 software, model I and model II are subjected to multiple regression respectively, and the results are as follows.

From the regression analysis results, first of all, the coefficient of determination and F value of model I are 0.211 and 23.3721, respectively, and the coefficient of determination and F value of model II are 0.136 and 18.1603, respectively, indicating that the model can perform well, as well as explaining the research question. Secondly, the regression coefficient between the economic policy uncertainty index and accrual earnings management EM_{it} is -0.01071, and it is significant at the 5% level, and the t value is significantly -3.0018, indicating that the uncertainty of economic policy has intensified and the number of listed companies has decreased. Then accrual earnings management practices. Supposing H1 is validated, from the regression results, the regression coefficient of economic policy uncertainty index and real earnings management REM_{it} is -0.04112, and the t value is significantly -5.7713, which is significant at the 1% level, indicating that economic policy uncertainty has increased. , listed companies reduce real earnings management behavior. Supposing H2 is verified, at the same time, it can be seen from the regression analysis results that the regression coefficients of listed companies' profitability EPS, accrual earnings management and real earnings management are -0.0017 and -0.0033 respectively, and the regression is significant, indicating that listed companies with strong profitability. Then earnings management incentives weaken, and the regression coefficients of property property PRO, accrual earnings management and real earnings management are -0.0079 and -0.0176 respectively, and the regression results are all significant at the 5% level. It can be speculated that among listed companies in China, the nature of state-owned property rights can inhibit the earnings management activities of listed companies to some extent.

5. Conclusions and Recommendations

This paper uses the Uncertainty Index of China Economic Policy constructed by Baker et al. (2016) text mining method as the explanatory variable, with accrual earnings management and real earnings management as the explained variables, and empirically discusses the impact of economic policy uncertainty on listed companies, together with the impact of earnings management. And the study concludes that the uncertainty level of economic policies increases, and listed companies reduce earnings management activities to alleviate the uncertain impact of economic policy uncertainty on

companies. In addition, the conclusion of the study shows that the government should not only pour attention into the stimulating effect on enterprises, but also take into account the inhibitory effect on micro-enterprise behaviors when adjusting macroeconomic policies. Faced with the external uncertainty of economic development, the government should also pay attention to the stability of the policy when formulating macroeconomic policies and enhance the government's trust. At the same time, it is necessary to further improve accounting standards and corporate auditing systems to create a transparent and fair financial environment. For enterprises, facing the uncertainty of economic policies, they need to establish long-term thinking, further strengthen internal management and supervision, reduce negative behaviors, and ensure that they can survive in the uncertain external environment of economy.

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