False Financial Statements (FFS) have long been a serious problem in China and other Asian countries, which significantly dampen the confidence of the investors. Regardless of listed companies or non-listed companies, the percentage of financial statements that contained false information is quite high, which is one of the major reasons why China stock markets moved in the opposite direction towards its wonderful economic growth over the past few years. The objective of this research is to introduce one statistical technique — Classification and Regression Tree (CART), to identify and predict the impacts of FFS. We survey financial statements manipulation tricks, FFS indicators and FFS detection techniques from both China and international perspective, and further look into ten listed companies with known FFS history in China; combining these findings, we propose key indicators to work with CART.

Our analysis includes 24 false financial reports, and 124 non-false financial reports. We use CART to develop two FFS detecting models: CART without industry benchmark and CART with industry benchmark. For supporting comparison, we also build a Logit regression which is a commonly used technique in FFS detecting. We find that CART is effective in distinguishing FFS from non-FFS. Both CART models achieve better accuracy in identifying fraud cases and making predictions than Logit regression does, and CART with industry benchmark is slightly better than CART without benchmark, but it does not always have superior performance. Our CART model also tries to capture the indicators and their combinations that could reflect firms with high possibility of FFS in China.

**Keywords:** False financial statements; China's listed companies; classification and regression tree; industry benchmark