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Cooking the books: Recipes and costs of falsified financial statements in China

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ABSTRACT

We examine the causes and consequences of falsified financial statements in China. Using bivariate probit regression analysis, we find that firms with high debt and that plan to make equity issues are more likely to manipulate their earnings and thus have to restate their financial reports in subsequent years. We also find that corporate governance structures have an effect on the occurrence and detection of financial fraud. There are significant negative consequences to fraudulent financial statements. Restating firms suffer negative abnormal stock returns, increases in their cost of capital, wider bid–ask spreads, a greater frequency of modified audit opinions, and greater CEO turnover. We also find that firms located in highly developed regions suffer more severe consequences when they manipulate their accounts.

1. Introduction

High quality financial information is a necessary condition for an efficient and vibrant stock market. However, trying to measure quality is a challenging task for researchers. The quality of financial statements is often examined with reference to “earnings management” or “earnings quality”.[3] However, the measurement of earnings management and earnings quality as done in accounting studies does not provide direct evidence that managers have manipulated earnings (Agrawal and Chadha, 2005). In contrast, a financial restatement is often a direct admission by managers of false accounting and financial misrepresentation. Restatements represent corrections to previously-issued financial statements and these corrections usually occur because of accounting manipulations in prior years. Thus, the restatements are *prima facie* evidence of low quality financial information disclosures in prior periods.

We examine financial restatements made by listed firms in China. In particular, we investigate the characteristics of firms that make restatements in order to understand why they occur. We then examine the consequences of restatements. While there are several research studies on restatements, they mainly use U.S. data and many of them relate to violations of accounting principles

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[3] Schipper and Vincent (2003) posit that earnings quality is multi-dimensional. Possible measures of earnings quality include persistence of earnings, value relevance of earnings, ability of earnings to predict future cash flows, and the conservative recognition of earnings.

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(e.g., Anderson and Yohn, 2002; Hennes et al., 2008; Palmrose et al., 2004; Plumlee and Yohn, 2009).[4] In contrast, we investigate falsified accounts rather than technical violations of accounting standards or unintentional errors of omission. The deliberate falsification of the accounts is a type of financial fraud. Given the different historical, legal, and institutional backgrounds between China and the U.S. (Allen et al., 2005), we should not automatically impute or generalize the findings from the latter to the former. Nevertheless, there are some similarities between the two countries, not least of which is China's willingness to adopt or modify the best governance practices from the developed countries, and this allows us to use the U.S. studies as a point of reference in our research.

In addition to examining financial statement misrepresentation in a different market setting, we also extend the literature in two other important ways. First, we use a two-stage procedure that examines the propensity to falsify the accounts and the reasons for its subsequent discovery and disclosure. This methodological advance is important as it allows us to gain a better understanding of the forces behind financial restatements.[5] Second, we recognize that there are substantial differences in economic and market development across the different regions of China and this can have a profound effect on our results. We therefore incorporate these regional differences into our research design.[6]

Restatements of the financial accounts are the result of a multi-stage process. The first stage is the decision to falsify the statements and therefore commit financial fraud. Subsequent stages include the discovery of the false accounting and the reporting of it in a restatement. However, most prior studies use a basic probit or logit model of restatements and do not differentiate between the different stages leading to the revelation of financial fraud (Dechow et al., 2010). One innovation of our study is that we use a two-stage process where we model the propensity to commit accounting fraud and, in the second stage, model the reporting of the fraud in a subsequent period. To identify the characteristics of, and the motivations behind, the propensity to falsify the financial statements and its subsequent disclosure, we use the bivariate probit regression with partial observability technique. This approach allows us to overcome the problem of distinguishing between the motives to manipulate the financial statements and the subsequent detection and reporting of the falsified accounts.

Recent research has focused on institutional factors to explain earnings quality and differences in quality across countries (e.g., Bushman et al., 2004; Raonic et al., 2004). Institutional factors include the prevailing economic conditions, the governance of firms, institutional and regulatory frameworks, and the legal environment (e.g., investor protection and legal enforcement). One little understood characteristic of China's reforms is the very uneven distribution of economic and legal development across the country. Natural resources and human capital resources account for some of the regional differences in development but political connections with the country's leadership elite are also very important. Great variations in regional per capita income and education levels are one manifestation of the vast differences in development across the country. We argue that the differences in regional development have significant effects on the incidence of, and consequences of, falsified accounts. In particular, we believe financial statement quality is higher for those firms located in well-developed provinces and consequently investors rely heavily on financial statements in their decision-making. This implies that the market will react strongly to the financial restatements of firms located in well-developed regions but there will be a much more muted response in poorly developed regions as investors have already discounted the low quality of financial reports. To test our beliefs, we explicitly account for market development using a set of indexes designed to capture differences in economic, political, legal, and institutional factors across regions. The advantage of conducting inter-regional studies within one country is that we can capture the effect of institutions on the quality of financial information free of contamination due to country differences in reporting and disclosure rules, taxation, and bankruptcy laws.

China has now emerged from the embryonic stage of capitalism and become a major economic power with significant inward investment from other parts of the world. Portfolio investment from the U.S. and elsewhere is accelerating as international investors search for high growth markets with substantial domestic demand. One impediment to this growth, however, is investors' lack of knowledge about China's capital markets environment and the quality of financial information. These concerns are real as high quality financial information is a major factor in assuring the supply of inward international investment. Our study is therefore important as it yields key insights into the quality of financial information by making an in-depth study of the causes and consequences of falsified accounts. We establish reasons that lead firms to manipulate their financial statements and we examine whether there are safeguards or governance features that help reduce the accounting fraud from taking place. We also investigate the influences that lead to the detection and disclosure of the false accounting. We provide a comprehensive examination of the consequences of restatements and this contrasts with prior research studies, which tend to focus on one or two consequences at a time (e.g., stock returns or executive turnover) while ignoring others. Examining market consequences is important as an absence of them may imply that investors ignore financial information altogether.

We identify 813 restatements in the period 2000 to 2005. Of these cases, 542 relate to the corrections of non-financial information and we do not consider these any further in our study. The remaining 271 cases involve corrections to the income statement and the balance sheet. On average, about 3.7% of listed firms restate their financial numbers each year. We find evidence that firms are more likely to manipulate their financial statements if they make equity issues, are highly levered, are controlled by the central government, and are located in less developed regions. This proclivity to restate is tempered, however, if a firm has a high percentage of directors

[4] There are also studies on accounting errors and fraud uncovered in the SEC's enforcement actions in the U.S. (e.g., Karpoff et al., 2009).

[5] As we discuss later in Section 3.4, there are practical problems in implementing the bivariate probit model and these need to be overcome to achieve meaningful results.

[6] As we will review and discuss later, there are several studies on financial restatements in China. These studies do not use a two-stage process to explain restatements and do not control for a region's economic and market development. Furthermore, these other studies limit their examination of consequences of restatements to stock returns whereas we examine a large number of consequences. For the stock returns analysis, we examine the first announcement of false accounting rather than its subsequent disclosure as a restatement in the annual report.