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The GDP fudge: China edition

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SMU Professor Cheng Qiang, Dean of the School of Accountancy, presenting his paper at the Review of Accounting Studies (RAST) Conference. Credit: Flora Teoh

For all its shortcomings, the gross domestic product (GDP) of a country remains an important barometer of its economic health, strongly influencing both private and public spending. Though conceptually

simple as the total dollar value of all goods and services produced within a specified time frame, calculating GDP is tricky in practice and can be manipulated by individual firms in a strategy known as earnings management.

In particular, China's economic reporting has been called into question, with the provincial governments reporting in 2016 a collective GDP that was 2.76 trillion yuan higher than the national GDP calculated by the National Bureau of Statistics, or about 3.7% of the national GDP. The central government has acknowledged the issue: in 2017, the National Audit Office singled out ten provinces which had inflated their fiscal revenue to the tune of 1.5 billion yuan.

According to a new analysis presented at the 2019 Review of Accounting Studies (RAST) conference, held from 13 to 14 December at the Singapore Management University (SMU), there is reason to believe that Chinese firms engage in earnings management to prop up provincial GDP figures. Titled "GDP Growth Incentives and Earnings Management: Evidence from China," the study presented by the Dean of the School of Accountancy, Professor Cheng Qiang, also won the "Best Paper Award" by popular vote.

The pressure to grow GDP

"If the government is making decisions based on an inaccurate GDP number, then its decision quality will be lower," said Professor Cheng, explaining the implications of his study findings. Although discrepancies in GDP calculation can simply be a result of poor infrastructure for the collection of statistical data, differences in calculation methods or simple human error, not all such problems are unintentional, he said.

In the case of China, there is a strong incentive for provincial officials to present a rosy economic picture as this is intrinsically linked to

opportunities for political advancement. This desire may lead officials to pressure firms into behaviours that negatively affect the accuracy of their financial statements, Professor Cheng suggested.

"The central government controls the personnel: who should be promoted into the central government, who should move to a bigger province. The political careers of provincial officials are decided by the central government," he said. Because a province's GDP is a significant factor in deciding which officials to promote, the system creates competition among them to present the best economic picture to the central government, Professor Cheng explained.

To test their hypothesis, Professor Cheng and his colleagues examined various measures of financial reporting between 2002 to 2016 representing over 21,000 firm-years. Specifically, they looked at three figures as proxies for earnings management: discretionary revenues, overproduction and abnormal asset impairment losses, all of which can be manipulated to directly influence GDP numbers.

These measures were then examined in tandem with potential incentives for inflating GDP growth. One way in which the study calculated such incentives was to compare provinces' GDP growth with that of adjacent provinces (which are more likely to have similar economic situations) as well as the national GDP growth. A province with a lower GDP growth compared to the national average or that of adjacent provinces would hypothetically be under greater pressure to engage in earnings management to inflate future GDP growth.

Additionally, the study also examined the issue of incentives from other perspectives, such as the age of provincial officials. Hypothetically, younger officials are more likely to compete for advancement compared to older officials nearing the retirement age of 65, therefore giving younger officials a stronger incentive to inflate a province's GDP.

Short-term gain, long-term pain

Indeed, Professor Cheng and colleagues found that firms in provinces with GDP growth lower than national or adjacent provinces' average GDP growth were more likely to engage in earnings management in the future compared to firms in other provinces. Specifically, these firms were more likely to inflate revenues, overproduce and delay asset impairment losses.

Lending strength to the study's hypothesis was that these results were more pronounced for firms in provinces with younger officials (60 years old and below), as well as firms which were local state-owned enterprises (SOEs) - over which provincial officials have greater control—compared to central SOEs or non-SOEs.

Besides studying the factors behind GDP inflation, the study also examined the potential consequences of earnings management to the firms (and in turn the province), revealing that there is a heavy price to pay for constructing an artificial image of a flourishing economy.

"When the province reports a high growth, the tax collected as well as other economic expectations will also be higher," Professor Cheng explained. "When you cannot fulfil these expectations, at some point, the situation will just blow up." This was indeed what played out in many provinces that admitted to inflating their GDP between 2017 and 2018, he pointed out.

In short, engaging in earnings management is costly to firms in the long run, Professor Cheng cautioned. "We find that firms that engage in earnings management for the incentive of GDP growth have a high bad debt expense that comes from inflating revenue; high inventory write-off that comes from overproduction; and high asset impairment losses that come from the delaying of asset impairment losses. All these result in a

lower return on assets in the future."

"This is the first study that examines how the incentives at the government level affect management at the firm level. The second contribution is that this paper provides evidence about one mechanism by which government officials use to inflate GDP growth," Professor Cheng said.

"The third contribution is in articulating the dynamics between macroeconomic numbers and microeconomic numbers, and how the macroeconomic situation can affect the integrity of a firm's financial reporting."

More information: GDP Growth Incentives and Earnings Management: Evidence from China: accountancy.smu.edu.sg/sites/a … aper5_QiangCheng.pdf

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