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A re-examination of China's share issue privatization

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ABSTRACT

Previous studies show that in contrast to evidence that share issue privatization (SIP) in most other countries have improved firm profitability, China's SIP of the 1990s had no such effect. We argue that the main reason for the failure of China's SIP is likely to have been the weak institutional environment in place at that time. We examine China's SIP in a more recent period in which the institutional environment was greatly improved. Using a matching sample method, we find that SIP firms continued to experience negative post-SIP profitability changes in our sample period. However, their performance decline was significantly less than that of their matched non-SIP SOEs. We also find that the introduction of the independent director rule helped to improve firm performance. Our results reconcile the findings of the SIP effect in China with international evidence and illustrate the importance of a developed capital market to ensuring the success of privatization schemes.

1. Introduction

Share issue privatization (SIP), in which government sell shares in state-owned enterprises (SOEs) to private investors through IPOs and list the issuing companies on the stock market, has been the most popular method of privatization and been successful in improving firm efficiency and profitability. Megginson and Netter (2001) review a broad range of SIP studies and conclude that SIP almost always improves firm efficiency and profitability, regardless of whether it takes place in transitional or non-transitional economies.[1] In a recent paper, Gupta (2005) also finds evidence that partial privatization has a positive impact on firm profitability. Shleifer (2005) provides an in-depth analysis of why private ownership is superior to public ownership in the context of most economic activities, a theoretical argument supportive of documented empirical results.

Transforming a pure SOE into a SIP firm is expected to improve firm performance for at least two reasons. First, a pure SOE is not usually profit-oriented. It is part of the central economic plan and serves the government's fiscal and social objectives. By contrast, a SIP firm, following the injection of private capital and with a new ownership structure that includes private investors, is more profit-oriented. Second, SIP firms are also listed on the stock market. As Gupta (2005) argues, the stock market can serve as a powerful monitoring and disciplinary tool that improves a firm's corporate governance. These factors should lead to better post-SIP performance.

However, studies of China's SIP find that in the early stages (i.e., the 1990s) firm profitability did not improve. For example, based on a sample of 634 SOEs that went through the SIP process between 1994 and 1998, Sun and Tong (2003) find that firm profitability, as measured by return on sales (ROS), decreased from 16.5% in the pre-SIP period to 11.4% in the post-SIP period.[2] Similarly, Wang et al. (2004) examine 793 SIP firms and find that ROS decreased 8.3% around the time of a firm's privatization. Given that these results conflict with the evidence from studies undertaken in other parts of the world and that the Chinese economy experienced robust growth during this period, they are somewhat surprising.

Shleifer and Vishny (1997) offer explanations for why privatization might not work from a corporate governance perspective. For example, privatization will not work if it does not create major private shareholders, if there is an absence of protection of minority

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[1] There are exceptions though. For example, Harper (2002) finds that although the overall effects of privatization are positive, Czech firms privatized in the first wave experienced a decline in performance.

[2] Sun and Tong (2003) use a larger set of performance measures than profitability and find some improvements after SIP measured by real net profits, real EBIT, and real sales. However, as we argue later, these measures are inappropriate for measuring profitability changes in the Chinese SIP setting because all SIP in China has involved primary offerings and resulted in an enlarged asset and equity base.

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shareholders, and/or if the management is incompetent.[3] All three of these problems exist in the early SIP firms in China.

First, China's SIP, while introducing private investors to the former SOEs, did not result in a transfer of effective control from the state to private investors. The original objective of the Chinese government in implementing the SIP was to raise capital for state-owned enterprises. The motive for SIP in China was thus quite different from that in eastern European countries, which first experienced a change in political regime, followed by privatization. Governments in the eastern European countries usually gave up control of SIP firms. In contrast, there was no shift of political regime in China, and its privatization program can be characterized as a *reluctant* one. Rather than being seen as a way to strengthen the market, share issue privatization was seen as a way to strengthen the state.

Second, even where the state maintains effective control over SIP firms, if the stock market can provide meaningful minority investor protection through market institutions and mechanisms, SIP might still work. However, in the early stages of China's SIP process, these institutions (such as independent audit and independent director) and mechanisms (such as cumulative voting and proxy voting) were near to non-existent. The stock market was seen as an experiment and did not feature in any of the Communist Party's official public reports until 1999 (see Walter and Howie, 2003).

Finally, the management of SIP firms was mostly inherited from their predecessor SOEs, and was accountable to their government controlling shareholders, thus limiting the potential for improved level of management expertise after SIP.[4]

All three factors outlined above might explain why China's SIP in its early stages did not improve firm profitability (Sun and Tong, 2003; Wang et al., 2004). Privatization per se, and especially partial privatization that does not involve a change of control or does not establish a meaningful level of investor protection, is no guarantee of success.

In this paper, we re-examine the effect of China's SIP in a more recent period (1999–2002). This period is widely seen as a new stage in the development of the Chinese stock market and SIP program. After an experiment lasting eight years, China's stock market was finally recognized in an official public report of the Communist Party in 1999 (Walter and Howie, 2003). The private sector began to be seen as an integral part of the socialist economy. Giant SOEs in mainstay industries, such as national petroleum and telecommunications companies, started to go through the SIP process.

Furthermore, the Asian financial crisis of 1997 exposed the governance weakness of Asian securities markets (Johnson et al., 2000) and strengthened the Chinese regulator's will to build stronger market institutions and mechanisms. Regulatory authority over securities market was consolidated into the China Securities and Regulatory Commission (CSRC) in 1998, a development that was quickly followed by the implementation of the first Securities Law on July 1, 1999. The CSRC, separately or in conjunction with other government agencies and the legislature, moved fast to establish modern market institutions and governance mechanisms.[5]

Given these improvements in Chinese investor protection, we believe it is worthwhile re-examining whether or not the SIP process during this recent period was successful. The fact that the state sector still accounted for 37% of China's GDP in 2006 makes this question an important one. SOEs are still inefficiently run. Partial privatization through the SIP seems to be the only feasible way forward, and evaluating whether or not SIP works and, if so, what makes SIP work, could shed light on the future of China's economic reforms.

Using a sample of 149 manufacturing firms that were wholly state-owned before being restructured into shareholding companies and listed on the stock exchanges through the SIP process, we re-examine the effects of SIP on firm performance. We use a matching sample method to pair SIP firms with non-SIP SOEs and identify the effects of SIP. Most empirical studies on SIP effects use the direct comparison method developed by Megginson et al. (1994) (MNR). As Megginson and Netter (2001) point out, the MNR method may involve a selection bias problem, because "governments have a natural tendency to privatize the 'easiest' firms first, those SOEs sold via share offerings may well be among the healthiest state-owned firms."

Our data suggests that the selection bias problem is extremely severe in China. The SOEs that went through the SIP process and listed on the stock markets were those that had performed better than their peers. In our sample, we find that before IPO, 99% of SIP firms were in the top 20% of SOEs in terms of total assets, 95% were in the top 20% of SOEs in terms of ROS, and 100% were in the top 20% of SOEs in terms of ROA. The average ROS before SIP was 18.5%, and the average ROA before SIP was 13.3%. This suggests that the SIP process has involved severe selection bias. If it is not controlled for, there is a tendency for the superior performance in the pre-SIP period to revert to normal levels in the post-SIP period, leading to negative performance changes.

Previous studies (e.g., Barber and Lyon, 1996) suggest that a matching approach is appropriate to control for the selection bias problem. While SIP studies such as Megginson and Netter (2001) also recognize that a pre-event performance matching approach is preferred, matching data is very difficult to obtain for such studies because the information for non-listed firms is not usually publicly available. We obtained access to a State Statistical Bureau of China database which contains enough balance sheet and income statement information on all unlisted manufacturing SOEs over the period 1998–2003 to make matching possible. The matching approach also controls for the impact of economy-wide fluctuations in the performance of SIP firms.

For each SIP firm, we find a matching SOE in the same manufacturing industry that was of a similar size and had similar pre-SIP performance (Barber and Lyon, 1996), but has not gone through the SIP process. We then compare the post-SIP profitability of SIP firms with that of SOE firms to identify the real effect of SIP on firm performance. We measure profitability using ROS. We find that the ROS of SIP firms in our sample declined, confirming findings in prior studies: median ROS decreased by a significant 4.1%. However, we also find that the matching SOEs experienced a greater decline in ROS, with a fall of 7.4%. In other words, SIP firms outperformed matched SOEs by a statistically significant 2.5% margin.[6] Our evidence thus suggests that SIP had a positive effect on firm profitability in China during the recent period of stock market development. Our result holds for both revenue privatizations and control privatizations, is robust as we vary the ROS measurement horizon, and holds after controlling for other variables.

In further tests, we find that over our sample period (1999–2002), the outperformance of SIP firms relative to matched SOEs increased significantly, indicating that as China built up investor protection and corporate governance mechanisms, the SIP process became more successful. In particular, we find that the introduc-

[3] We are grateful to the referee for making this point to us.

[4] As late as 2007, the government arranged the chairmen or CEOs of China Telecom, China Netcom, and China Mobile to swap posts, though these three firms are listed firms in competition with one another.

[5] See Section 2 for more detailed discussion of the changes.

[6] This conclusion depends on the assumption that the SIP firms and their matched SOEs were drawn from the same population of SOEs. We thank the referee for cautioning us on this assumption and discuss it in Section 3.