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State advances and private retreats? — Evidence of aggregate productivity decomposition in China

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ABSTRACT

This paper is motivated by the recent debate on the existence and scale of China's '*Guo Jin Min Tui*' phenomenon, which is often translated as 'the state sector advances and the private sector retreats'. We argue that the profound implication of an advancing state sector is not the size expansion of the state ownership in the economy *per se*, but the likely retardation of the development of the already financially constrained private sector and the issues around the sustainability of the already weakening Chinese economy growth. Drawing on recent methodological advances, we provide a critical analysis of the contributions of the state and non-state sectors in the aggregate Total Factor Productivity and its growth over the period of 1998–2007 to verify the existence of *GJMT* and its possible impacts on Chinese economic growth. Overall, we find strong and consistent evidence of a systematic and *worsening* resource misallocation within the state sector and/or between the state sectors and private sectors over time. This suggests that non-market forces allow resources to be driven away from their competitive market allocation and towards the inefficient state sector.

1. Introduction

The private sector in China has been the engine of the remarkable economic growth (Allen, Qian, & Qian, 2005; Huang, 2008). In fact, privatization, as well as political decentralization and regional centralization and competition, are the three centerpieces of the fundamental institutional reform and development in China that explain the unprecedented economic growth in the last three decades (Xu, 2011). However, a recent debate on "*Guo Jin Min Tui*" in China (*GJMT* hereafter), translated as "the state sector advances and the private sector retreats", has repeatedly made its appearance in the media around the world, suggesting the possible retreat of China's market-oriented reforms (for example The Economist, 2011; Xu, 2009). Some argue that, since 2005, there has been a trend of the state sector expanding market power and pushing private firms into the fringe.

There is insufficient and inconsistent evidence to support or dispute the presence and the scale of such a phenomenon. If one takes *GJMT* simply as the growing share of the state sector in the aggregate economy, then the statistics indicate the exact opposite. Officially the state sector as a whole has been slimming down sharply over the years, while firms in the non-state sector

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prospered. Hu (2012) among others shows that the size, production, employment, profitability and tax contribution of the state sector clearly contracted.

However, it is impossible to overlook the gigantic position of the state sector in the Chinese economy. Not only Chinese state-owned enterprises (SOEs) have an increasing presence in the *Fortune* list,[1] but also large Chinese SOEs are becoming the dominant force in both domestic and international markets (Elliott & Zhou 2013; Hsueh, 2011). The Economist (2011) argues that the Chinese government may have been muscling in on business in a variety of ways, not only by tightening its grip on strategic industries, but also devising market-access rules to favor state companies, to the chagrin of private businesses. In addition, over a decade into the initial privatization reform, SOEs surprisingly remain active in a wide range of palpably non-strategic sectors, from textiles and papermaking to catering (Du & Liu, 2012). In fact, we can draw a quite telling picture of the evolution of firm's operating scale among the state-owned, domestic private and foreign firms using the aggregate official statistics. Fig. 1 demonstrates some of the remarkable differences in the operating scales between the three sectors, defined either by average total assets per firm or by average total employees per firm in the last decade or so. While the average size of the private and foreign firms does not seem to differ very much over the period, the state sector firms have scaled up considerably.

Has the state advanced and the private retreated? The large amount of attention that this puzzle has attracted in the popular press lately is just indicative of its importance. In fact, one might take a step back and in the spirit of Deng Xiaoping[2] ask why does this matter. We argue that what matters is not just the size expansion of the state ownership itself or an implicit halt of the on-going privatization, nor the relative proportion of the sectors in the economy, but rather whether this movement leads to or hinders the economic development and growth of the country. If the expansion of the state sector means restraining the already resource-constrained private sector, and consequently a digression of economic progress, then the implications of the shifted policy towards *GJMT* would be alarmingly profound. In a boarder context where the recent crisis of liberal capitalism has seen rendered more seriously by the rise of the alternative state capitalism (Wooldridge, 2012), it is important to reassess the costs and benefits of the visible hand melding with the power of the invisible one. Clearly, either direction of the argument requires significant qualification before suggesting a way forward.

This paper endeavors to disentangle the puzzle by comparing the contributions of the state and non-state sectors in the aggregate Total Factor Productivity (henceforth TFP) and its growth. TFP is a well-understood source of long-run economic growth, and recently has been recognized as the main driver of the global inequality (Hall & Jones, 1999; Hsieh & Klenow, 2009). This paper also contributes the discussion around the tendency of China falling into the "Middle Income Trap" (MIT for short) (see among others Woo, Lu, & Sachs, 2012). As it becomes increasingly clear, stagnated economic growth is strongly associated with slow productivity growth (Aiyar, Shekhar, et al., 2013). Hence the key to resolve the MIT problem also boils down to promoting productivity in essence.

In general, aggregate productivity can increase in two ways. First, when the average individual firm productivity improves through, for example, technology upgrading and improved management practice. Put simply, aggregate productivity increases when an average firm becomes more productive. A large literature is devoted to informing us how this process may happen (Syverson, 2011). Second, aggregate productivity increases when resources, such as labor and capital, flow from less productive firms to more productive ones. In other words, aggregate productivity rises by downsizing or even closing down the less productive firms and by allowing the better ones to grow. In this sense, even without raising the productivity level of an average firm, aggregate productivity may still increase.

The recent literature built upon cross-country comparisons and individual country case studies show that resource misallocation across firms within a given industry is an important contributing factor of the large and persistent dispersion in aggregate productivity (Bartelsman, Haltiwanger, & Scarpetta, 2013; Hsieh & Klenow, 2009). Closely relevant to these findings is the recent enquiry of how globalization facilitates structural change and productivity growth across countries. McMillan and Rodrik (2011) identify that large labor productivity gaps between countries are driven by growth-reducing structural change between sectors. The resource misallocation due to resource directed to certain sectors, such as from manufacturing to informality or clinging to resource-reliant sectors, explains the lack of productive performance of Latin America and African countries. China, among a group of developing countries, has done pretty well in this aspect (McMillan & Rodrik, 2011).

Yet China has a different set of problems. Given that so much has been learned from the Chinese institutional background (Xu, 2011), the well documented soft-budget constraints and the poorly performing SOEs (Jefferson & Su, 2006), and the widespread financial constraints to the private sector, private SMEs in particular (Allen et al., 2005; Bai, Lu, & Tao, 2006), our main objective in this paper is twofold. First, to examine the role of state ownership in driving the components of aggregate productivity and its growth, and second, based on the robust evidence of this, to reflect on the presence of *GJMT*.

To achieve this aim, we derive the sources of TFP gains by adopting the recently improved methodology of Melitz and Polanec (2012) which allows to decompose the aggregate TFP and its growth into the contributing components of average individual firms' productivity improvements, resource allocative effects, and industrial creative destruction (*i.e.* entry and exit). Based on these results, we compare and contrast the roles of the state *versus* private sectors in shaping the aggregate productivity level and its growth. We postulate that if there has been a consistent, systematic and more importantly *worsening* resource misallocation

[1] Of the 42 Mainland Chinese companies in the *Fortune* 500 list of the world's biggest firms in 2010, all but three were owned by the government (The Economist, 2011).

[2] Deng Xiaoping was the second-generation leader of China, who famously quoted "white cat or black one does not matter, a cat that catches mice is a good cat" to make the point that it does not matter if it was capitalist or socialist system, what matters is the economic results.

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