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Corruption and firm growth: Evidence from China☆

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ABSTRACT

Corruption is one of the most pervasive obstacles to economic and social development. However, in the existing literature it appears that corruption seems to be less harmful in some countries than in others. The most striking examples are well known as the "East Asian paradox": countries displaying exceptional growth records despite having thriving corruption cultures. The aim of this paper is to explain the high corruption but fast economic growth puzzle in China by providing firm-level evidence of the relation between corruption and growth and investigating how financial development influences the former relationship. Our empirical results show that corruption is likely to contribute to firms' growth. We further highlight the substitution relationship between corruption and financial development on firm growth. This means that corruption appears not to be a vital constraint on firm growth if financial markets are underdeveloped. However, pervasive corruption deters firm growth where there are more developed financial markets. This implies that fast firm growth will not be observed until a later stage of China's development when financial markets are well-functioning and corruption is under control. Furthermore, the substitution relationship exists in the private and state-owned firms. Geographically, similar results can be seen in the Southeast and Central regions.

1. Introduction

Bureaucratic corruption is pervasive throughout the world.[1] The relationship between corruption and economic growth has been broadly studied in the literature. Corruption is one of the most pervasive obstacles to economic growth and social development, as it is well observed that some countries with poor economic performance also suffer from severe corruption. From the theoretical point of view, many researchers attempt to explain this phenomenon by addressing various issues in the macroeconomics of misgovernance (e.g., Ehrlich & Lui, 1999; Sarte, 2000). A considerable amount of empirical evidence shows that corruption directly deters economic growth and development (e.g., Keefer & Knack, 1997; Knack & Keefer, 1995; Li, Xu, & Zou, 2000; Méon & Sekkat, 2005). Others explore the principal transmission mechanism through which corruption reduces investment and hence, hampers economic growth (e.g., Mauro, 1995; Mo, 2001).

However, it is reasonable to be cautious about the strong negative correlation between corruption and growth. The incidence of corruption may vary markedly across countries, and significant diversity clearly exists conditional on other social and economic factors. Neeman, Paserman, and Simhon (2008) find that the negative relationship between corruption and growth holds only for countries with a high degree of financial openness. In contrast, for those countries with less financial integration, the negative

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[1] This paper uses the most commonly used definition of corruption: corruption is defined as misuse of power by public officials for private gain (see Bardhan, 1997).

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relationship more or less disappears. Aidt, Dutta, and Sena (2008) show that quality of institutions substantially affects the impact of corruption on economic growth: corruption is detrimental to growth where there are high-quality political institutions, but otherwise has no impact on growth. Similar results can also be seen in Méon and Weill (2010) who observe that corruption is less harmful to efficiency in countries with less effective institutions, and may even improve efficiency where there are extremely ineffective institutions. The results of Méndez and Sepúlveda (2006) indicate that the level of corruption which maximizes growth is significantly greater than zero. That is, corruption benefits growth at low levels of economic development and becomes detrimental to growth as the economy develops to a high level.

It seems that not all countries over the world have suffered from widespread corruption, while some countries have coped well. The most prominent examples form the basis of what Wedeman (2002) termed the "East Asian paradox": some countries in this region, such as China, Indonesia, South Korea[2] and Thailand, have grown remarkably well in spite of high levels of corruption.[3] Campos, Lien, and Pradhan (1999) show that corruption has less negative impact on investment when it is more predictable — being more organized with less uncertainty. Rock and Bonnett (2004) point out that the negative relationship between corruption and investment exists only in small developing countries, but displays positive correlation in the large East Asian newly industrialized economies (China, Indonesia, South Korea, Thailand and Japan). Given all the above, corruption appears to be less harmful to economic growth in "East Asian paradox" countries, among which China is the most striking example.[4] Since the early 1980s, China has been one of the most rapidly growing economies in the world with an average annual growth rate of around 10%. At the same time however, corruption continues to thrive in China along with economic reforms. Why does corruption not slow down economic growth in China? Would China grow even faster if corruption were lower? In this paper, we aim to investigate how corruption affects economic growth in China. In particular, we intend to see how financial development influences the former relationship.[5]

To our knowledge, empirical studies on corruption and growth in China remain scarce. A few cross country macro-level studies have China in their sample (e.g., Méon & Sekkat, 2005; Neeman et al., 2008; Rock & Bonnett, 2004), though the results are mixed as we mentioned above. Fisman and Svensson (2007) argue that cross country analysis is unable to tell us much about the effect of corruption on individual firms, which may lead to suspicion of the existence of the negative role of corruption for growth at the micro-level. Moreover, cross country studies neither allow us to analysis variation of corruption within country nor to examine individual heterogeneity. In addition, many factors affecting individual firms may not appear in aggregate macroeconomic statistics. It is possible, and has been proved by Svensson (2003), that though corruption deters economic growth at the macro-level, bribe payments correlate positively with a cross-section firm growth in Uganda. Recently, firm-level research of corruption in China has been conducted by the World Bank Group. Hallward-Driemeier, Wallsten, and Xu (2004) used firm-level data from five cities (Beijing, Chengdu, Guangzhou, Shanghai and Tianjin) in 2002 and found that external finance significantly improves firm performance and the total number of days in dealing with government inspectors positively affects firms' sales growth, though the magnitude is very small. By using the same data, World Bank (2003) shows that corruption, measured as an index comprising the governance effectiveness, regulatory burden, rule of law, the frequency and size of irregular payments, has negative impact on firms' growth rates of sales, but the impact is not statistically significant.

This paper aims to investigate the impact of corruption, together with the comovement of corruption and financial development, on firm growth in China. In the existing literature, only very limited cross-country studies attempt to investigate the interaction between corruption and financial development on economic growth. The empirical results of Ahlin and Pang (2008) show that corruption control and financial development both improve economic performance. The worse either of these, the greater the marginal benefit from an improvement in the other. Compton and Giedeman (2011) find similar results that banking development has reduced effect on growth when the institution quality is improved. The alternative results can be seen in Demetriades and Law (2006), who find that both institution improvement and financial development are necessary conditions for stimulating growth. In addition, their results show that institutional improvement would bring more economic growth in low-income countries, while financial development could generate more growth in middle-income and high-income countries but with smaller magnitude. There is no micro-level study paying attention to the influence of interaction between corruption and financial development on firm growth. We intend to fill this gap in the literature. We also aim to detect the impact of the interaction between corruption and financial development on firm growth cross ownership and regions. As economic reforms continue, various types of ownership flourish in China replacing unitary state ownership. In addition, there is a broad consensus that China is undergoing an uneven growth pattern in different geographic regions — Eastern and coastal areas being more developed than Western and landlocked areas. It is therefore worth investigating whether corruption and its interaction with financial development play a different role across types of ownership and regions.

Our empirical analysis shows that the growth of firm sales income per employee is likely to benefit from both financial development in terms of easier access to formal loans and the presence of corruption, that is, corruption and financial development

[2] For more details of corruption in South Korea, see Kang (2002). Corruption is interpreted as "money politics", which highlights the interaction between public and private.

[3] Even some developed countries share the same notoriety, such as Italy.

[4] A few theoretical papers have also attempted to explain the puzzle of high levels of corruption but fast economic growth in "East Asian paradox" countries (see Blackburn & Forgues-Puccio, 2009; Blackburn & Wang, 2009).

[5] A country's financial development plays an increasingly important role in economic growth. There is not much doubt that better access to finance correlates with higher growth and investment in developing countries. A great deal of research demonstrates that a well developed financial market promotes economic growth (e.g., Guiso, Sapienza, & Zingales, 2004; Levine, 1997). See also World Bank (2001) for a detailed review. In China, financial market liberalization started in the early 1990s, when the policy banks started to be separated from commercial banks. Despite the reforms, Chinese firms access less formal finance than other Asian countries according to the World Bank (2003). Many studies emphasize the prevalence of capital market imperfections in China, from both macro (e.g., Allen, Qian, & Qian, 2005; Guariglia & Poncet, 2008) and micro (e.g., Guariglia, Liu, & Song, 2011; Héricourt & Poncet, 2009) perspectives.