Does foreign direct investment crowd in or crowd out private domestic investment in China? The effect of entry mode

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ABSTRACT

Using quarterly data spanning from 1994Q1 to 2014Q4, we find a neutral relationship between foreign direct investment (FDI) and domestic investment in China. However, when we consider the entry mode chosen by foreign investors, we find that whilst equity joint venture (EJV) crowds in domestic investment, wholly foreign-funded enterprise (WFFE) crowds it out. Our results remain robust under alternative estimators and across different time periods. Based on these results, we argue that the Chinese government needs to actively promote the formation of EJV and uses it as the catalyst for industrial upgrading in the economy.

1. Introduction

Following the famous 1992 Southern Tour by then the Chinese leader, Deng Xiaoping, foreign direct investment (FDI) in China enjoyed, for the most part of the last two decades, unprecedented growth. Driven by the renewed interest following its accession to the World Trade Organisation (WTO) in 2001, China surpassed the United States as the world’s most popular destination among international investors for the very first time in 2003. To put this achievement into perspective, UNCTAD (2015) reported that in 2013 China hosted approximately US$1,085 billion or around 13% of the total FDI stock in the developing world. With this backdrop, many researchers argue that FDI plays a catalytic role in modernizing the Chinese economy, not only in terms of promoting technological transfers, but also in transforming business practices and the institutional environment in China (Berthélemy and Démurger, 2000; Cole et al., 2009; Elliott et al., 2013; Havrylych and Poncet, 2007; Hering and Poncet, 2010; Lo et al., 2016; Long et al., 2015; Madariaga and Poncet, 2007; Whalley and Xin, 2010; Yang et al., 2013). Undoubtedly, these positive spillovers further reinforce the willingness of the Chinese firms to re-invest, contributing to China’s impressive growth record since the early 1990s. For example, Sun (1998) attributes at least one third of the growth in domestic private investment (henceforth, domestic investment) in 10 coastal provinces during the 1983–1995 period to the influx of FDI. Meanwhile, Xu and Wang (2007) examine China’s national accounts data and find that FDI crowds in domestic investment from 1980 to 1999. Tang et al. (2008) extend this idea to show unidirectional causality running from FDI to domestic investment in China over the 1980–2003 period.

However, not everyone shares such an optimistic sentiment and argues that FDI crowds out domestic investment, damaging the long-term prosperity of the host country. In part, this pessimistic view stems from the premise that FDI intensifies competition in local factor and product markets that either reduces the willingness of the indigenous firms to re-invest or drives the incompetent ones out of business altogether (Aitken and Harrison, 1999). Meanwhile, Gall et al. (2014) show that a sudden withdrawal of FDI may severely hinder the growth prospect in those host countries with imperfect credit markets. Indeed, as witnessed during the 1997 Asian currency crisis, and more recently, the global financial crisis in 2008, an unexpected decline in FDI presented a major obstacle impeding the recovery process in many emerging economies. This crowding-out hypothesis echoes Huang’s

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argument that China’s massive influx of FDI merely reflects institutional deficiency brought about by inefficient allocation of resources under a planned economy. Specifically, he suggests that preferential treatment given to state-owned enterprises by China’s state-led banking sector has significantly limited the scope of growth in many private firms. In order to overcome this lack of credit availability and other finance constraints, many rapidly growing private firms start to seek foreign partners (Egger and Nelson, 2011). In this regard, FDI simply substitutes domestic investment, leaving little changes to the level of overall investment in China. This substitution hypothesis is supported by Braunstein and Epstein (2002), who examine the FDI–domestic investment nexus in 29 Chinese provinces during the 1986–1999 period and question the widely held belief that China’s rapid ascendency was largely propelled by FDI.

Despite a rather voluminous literature on the causes and effects of FDI in China, most studies have ignored the effect of entry mode on the relationship between FDI and domestic investment in the Chinese economy. According to China’s National Bureau of Statistics (NBS), the top-three entry modes chosen by foreign investors are equity joint venture (EJV), contractual joint venture (CJV), and wholly foreign-funded enterprise (WFFE). 1 A recent study by Ashraf and Herzer (2014), who investigate the effect of entry mode on the FDI–domestic investment nexus in 100 developing countries, conclude that whilst there is a neutral relationship between mergers and acquisitions (M & As) and domestic investment, WFFE tends to crowd out domestic investment. If their finding also holds true for China, then the policy makers need to curtail the growth of WFFE, which has been that most preferred entry mode in China since 1999, particularly among investors from Hong Kong, Macao, and Taiwan.

Our study represents the first systematic inquiry into the fundamental relationship between entry mode and domestic investment in China. Conceptually, we extend Ashraf and Herzer (2014) by also including EJV and CJV, two of the most popular entry mode chosen by foreign investors in China, in the analysis. Methodologically, our study examines the association between entry mode and domestic investment through the lens of the autoregressive distributed lag (ARDL) bounds test. According to Pesaran et al. (2001) and Narayan and Smyth (2005), this test delivers much better small sample properties and places less restrictive conditions on the order of integration in the model. Apart from the conceptual and methodological considerations, our analysis focuses on quarterly data spanning from 1994 to 2014, which takes into the account the impact of China’s accession to the WTO in 2001 on the entry mode–domestic investment nexus.

In general, we find a neutral relationship between FDI and domestic investment in China for the entire sample period. However, when we introduce entry mode into the analysis, we find that EJV crowds in domestic investment, but WFFE crowds it out. Furthermore, we show that the nature of the FDI–domestic investment nexus changes over time. Specifically, we find that whilst FDI crowds in domestic investment prior to joining the WTO, FDI crowds it out during the post-WTO era. Based on these findings, we argue that the Chinese government should encourage the formation of EJV and use it as the platform for encouraging industrial upgrading in the economy.

The remaining part of this paper is structured as follows. Section 2 provides a brief literature review on the current state of research on the FDI–domestic investment nexus. Section 3 describes the emerging trend of entry mode in China and argues for its inclusion in the analysis. The econometric framework and results are discussed in Sections 4 and 5, respectively. Section 6 concludes.

2. Literature review

2.1. Panel studies

In a recent seminal paper, Agosin and Machado (2005) apply the difference generalized method of moment (GMM) estimator to examine the effects of FDI on domestic investment in 36 developing countries during the period 1971–2000. In order to mitigate aggregation bias, they split these countries equally into 12 countries in each of the Asian, African and Latin American regions and find that FDI either exerts no influences over, or partially crowds out, domestic investment in the host country. Based on this finding, they challenge the notion that positive externalities brought about by FDI stimulate domestic investment in the host country and conclude that “the effects of FDI on domestic investment are by no means always favorable, that simplistic policies towards FDI are unlikely to be optimal and, foremost, that more attention needs to be paid to economic policies that foster the domestic component of total investment” (Agosin and Machado, 2005, p. 149).

In a following-up study, Morrissey and Udomkerdmongkol (2012) improve on Agosin and Machado (2005) by including governance as one of the control variables and apply the system GMM estimator to a panel consisting of 46 developing countries from 1996 to 2009. 2 In general, they find that FDI not only crowds out domestic investment in the host country, but the extent of such crowding out increases with better governance. In part, they attribute this finding to the fact that whilst good governance promotes FDI, it also creates fierce competition in the factor and product markets that reduces the willingness of inefficient indigenous firms to re-invest. Since domestic investment is often regarded as an engine of sustainable economic development, they share the view expressed by Alguacil et al. (2011) and suggest that “policies designed to attract FDI are not sufficient to ensure economic growth” (Morrissey and Udomkerdmongkol, 2012, p. 443).

Despite the attempt by Morrissey and Udomkerdmongkol (2012) to address various shortcomings in Agosin and Machado (2005), Farla et al. (2016) question the validity of the unfavorable findings against FDI in the host country. Conceptually, they criticize Morrissey and Udomkerdmongkol (2012) for using inappropriate proxies of foreign and domestic investment in the analysis that introduces downward bias on the estimates. Methodologically, this downward bias is further exacerbated by the fact that Morrissey and Udomkerdmongkol (2012) overlook the problem of instrument proliferation in their system GMM estimations. Applying properly specified system GMM estimator to the original Morrissey-Udomkerdmongkol dataset, they find that FDI crowds in domestic investment in the host country and conclude that “policy aimed at stimulating FDI inflow is likely to have a positive effect on developing countries’ economy” (Farla et al. 2016, p. 7).

An important point demonstrated by Farla et al. (2016) is that the nature of the FDI–domestic investment nexus can be extremely sensitive to model specifications and prone to aggregation bias. In the case of the Morrissey-Udomkerdmongkol dataset, a potential source of aggregation bias can be traced to the mixed collection of developing countries at various stages of economic development. In theory, this mixed collection violates the homogeneity assumption imposed on the coefficients of the lagged dependent variables by the GMM estimators, “when in fact the dynamics are heterogeneous across the panel” (Herzer et al., 2008, p. 796). In order to mitigate aggregation bias, Ndikumana and Verick (2008) focus on 38 sub-Saharan African countries for the period 1970–2005 and find a

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1 The remaining entry modes reported by the NBS include joint exploration and FDI shareholding. In general, joint exploration is more common among natural resource-seeking foreign investors. Meanwhile, FDI shareholding usually involves a much larger minimum registered capital threshold and requires the Chinese entity to be divided into local and foreign shareholding, each with an equal par value (Wei et al., 2005). Our study excludes these two entry modes as they account for less than 5% of total registered FDI stock in China.

2 Since Arellano and Bover (1995) show in their Monte Carlo simulations that lagged levels are often poor instrument for first differences, Agosin and Machado’s (2005) choice of the difference GMM estimator may not be an appropriate choice.
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