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Dynamic relationship between China's inward and outward foreign direct investments

Shujie Yao [a,b,c], Pan Wang [d], Jing Zhang [e], Jinghua Ou [f,*]

[a] Chongqing University, China
[b] University of Nottingham, United Kingdom
[c] Fudan University, China
[d] Agricultural Bank of China, Zhejinag Branch, China
[e] School of Contemporary Chinese Studies, University of Nottingham, United Kingdom
[f] School of Economics and Business Administration, Chongqing University, China

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ABSTRACT

This paper studies the dynamic relationship of China's inward and outward foreign direct investments (FDI). It first identifies the key determinants of China's outward FDI (OFDI) in 172 host countries during 2003–2009 using a partial stock adjustment model. It finds strong evidence of dynamic adjustment in China's OFDI stock with an agglomeration effect. The dynamic adjustment and agglomeration effects are stronger in "high-tech" countries than in "low-tech" ones but indifferent in host country's resource endowments and income levels. The empirical results suggest that there exists a substantial adjustment cost in China's OFDI and that China's existing OFDI stock can gradually adjust toward its long-term equilibrium level, which is not only greater but also more volatile than the actual stock. Of particular interest is that we find a strong and positive relationship between lagged inward FDI (IFDI) and contemporaneous OFDI, implying that capital outflow from China has been partially induced by the countries which have invested in China.

1. Introduction

The geo-economic pattern of foreign direct investments (FDI) has changed significantly since 2000 as developed countries' domination has been seriously challenged by the emerging and transition economies. The share of global FDI accounted for by the developed world declined from over 90% in the end of the 20th century to only 65% by 2012.

Multinational enterprises (MNEs) in developed countries took a "wait-and-see" approach or divested their assets from host countries (UNCTAD, 2013). By contrast, MNEs from emerging and transition economies took an aggressive approach in overseas expansion, led by the so-called BRICS economies (Brazil, Russia, India, China, and South Africa).

Developed-country MNEs usually combine their ownership and internalization advantages with location advantage to minimize the overall cost of operation (Dunning, Kim, & Lin, 2001). Such conventional FDI theory only partially explains the internationalization of emerging economy MNEs (EMNEs). Recent theoretical research suggests that EMNEs use OFDI (outward FDI) as a springboard to acquire strategic resources and to overcome institutional and market constraints at home (Luo & Tung, 2007).

There have been a number of empirical studies on the determinants or motivations of EMNEs' overseas expansion (Makino, Lau, & Yeh, 2002; Yamakawa, Peng, & Deeds, 2008), particularly those based on Chinese experiences (Buckley et al., 2007;

* Corresponding author.
E-mail addresses: shujie.yao@nottingham.ac.uk (S. Yao), wangpan110@hotmail.com (P. Wang), j.zhang@nottingham.ac.uk (J. Zhang), oujinghua@cqu.edu.cn (J. Ou).

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Cheung & Qian, 2009; Kolstad & Wiig, 2012; Ramasamy, Yeung, & Laforet, 2012; Zhang & Daly, 2011). However, these studies investigate the attraction factors of OFDI from China and other emerging economies in a static framework. None of them considers the dynamic adjustment of OFDI stock toward its long-term equilibrium.

This paper aims to fill this literature gap through investigating the dynamic adjustment process of China's OFDI in 172 countries during 2003–2009. China is selected of interest because it has become the largest investor among all the developing countries and the third largest investor in the world (UNCTAD, 2013). We construct a partial stock adjustment model proposed in Cheng and Kwan (2000), which enables us to examine the dynamic adjustment effect of OFDI and to restore its unobservable equilibrium stock value. Estimating the equilibrium OFDI stock and comparing it with the actual stock can help us understand China's OFDI behavior from a new dimension.

As China has become one of the largest recipients as well as one of the largest investors of foreign capital in the world, it is an ideal candidate to study the intrinsic relationship between IFDI (inward FDI) and OFDI. However, the empirical evidence in the OFDI literature is limited. This paper considers the impact of IFDI stock on China's OFDI in the host countries. Other control variables include bilateral trade, market size, GDP growth, income level, openness, institution quality, inflation, resource endowment, and technology of the host countries. It further investigates if the effects of these factors vary with some host country characteristics, such as technology, resources, and incomes. A system-generalized method of moments (system GMM) technique is used for estimation.

The rest of the paper is organized as follows. Section 2 briefly reviews China's OFDI in recent years. Section 3 reviews the relevant literature on the location choice of China's OFDI. Section 4 presents data, methodology, and the empirical model of partial adjustment in OFDI. Section 5 presents and discusses the empirical results. The final section concludes.

2. Development of China's OFDI

China's OFDI has expanded substantially since the country entered to the World Trade Organization (WTO) in 2001 and the launch of the "Go Global" strategy in 2002. China has established an OFDI policy system including a series of promotion measures and monitoring policies to support its MNEs investing overseas (Luo, Xue, & Han, 2010). During the 2003–2008 period, the average annual growth rate of China's OFDI was 73% compared to the world average of 29% (UNCTAD data base).

Although the world financial crisis significantly cut down the scale of global investments, China's OFDI still achieved an annual growth of 11% in the crisis period 2009–2012 (Fig. 1).

Yao and Sutherland (2009), Yao, Sutherland, and Chen (2010), and Xiao and Sun (2005) have pointed out that a distinctive feature of China's emergence as a major global investor is the country's national "Go Global" strategy. Selected large state-owned enterprises (SOEs) are deployed as investment vehicles supported with a soft-budget constraint and easy bank credits to realize the country's overseas investment interests, such as securing a long-term and stable supply of natural resources at reasonable prices.

China has only become a large FDI source country very recently, but it has long been acknowledged as an important FDI recipient thanks to its opening up policy adopted in 1979. It has been the top host country of IFDI in the developing world since the late 1990s and one of the three largest host countries in the world since 2005 (UNCTAD, 2007).

China has invested in both the developed and developing economies with a high concentration in Asia, particularly Hong Kong. By the end of 2012, over two-thirds of China's total OFDI went to Asia, with Hong Kong accounting for 57.6% (Table 1).

Tax heavens, such as the British Virgin and Cayman Islands, are also two of the most attractive locations for China's OFDI. Developed countries, such as the US, Australia, Singapore, Canada, and the member states in the EU, have also become popular

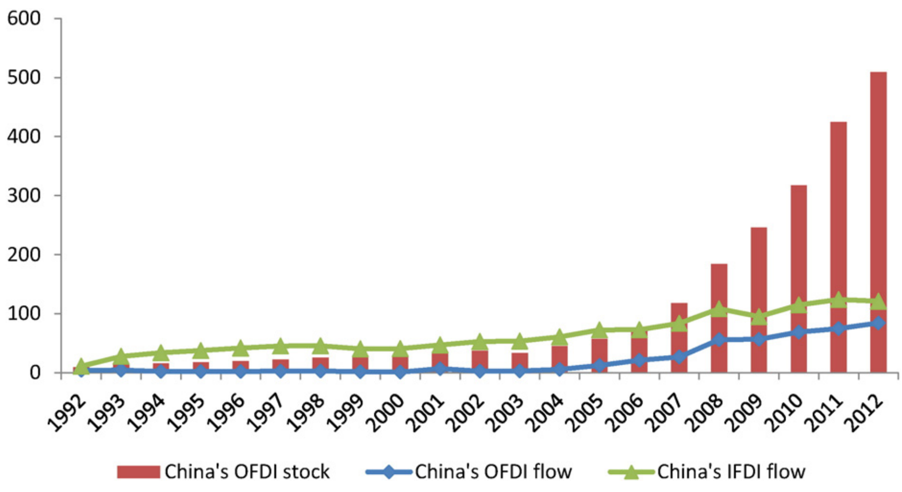

Fig. 1. China's OFDI Flow and Stock and IFDI Flow (US$ current prices in billions).
Source: UNCTAD Statistics, http://unctadstat.unctad.org/EN/.