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Japan's tourism-led foreign direct investment inflows: An empirical study☆

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This study analyzes international tourism–inward foreign direct investment (FDI) relationships by applying dynamic panel models to Japanese data for the 1996–2011 period. A growing number of studies have examined this topic following the publication of the UNCTAD (2007) report; however, the current literature is inadequate. Our analysis is not restricted to tourism-related FDI such as hotels and restaurants, as in the literature, but covers general FDI in the framework of FDI dynamics, because tourism–FDI interactions are not in reality restricted to typical tourism-related FDI. The analysis results reveal that enhanced inbound foreign tourism exhibits spillovers of inward FDI beyond tourism-related sectors. Hence, although policies related to FDI promotion and tourism enhancement are often planned, executed, and evaluated independently under different government jurisdictions, coordination is recommended, because these policies interact with each other in efforts to attain economic development goals.

1. Introduction

International organizations have begun promoting tourism–FDI relationships as a vehicle for development (United Nations Conference on Trade and Development (UNCTAD), 2007). Tourism facilitates not only export revenue generation but also service sector job creation and local economic revival through tourism-related FDI. Since the publication of the United Nations Conference on Trade and Development (UNCTAD) (2007) report, a growing number of studies have begun to analyze tourism–FDI relationships. The primary focus in the literature is the relationship between tourism (for which the number of arrivals and revenues are used as a proxy) and tourism-related FDI (i.e., FDI inflows into setting up tourism infrastructure such as accommodation, restaurants, and transportation in less-developed countries; Katircioglu, 2011 for Turkey; Samimi et al., 2013 for 20 developing countries; Selvanathan et al., 2012 for India; Tang et al., 2007 for China). Enhanced tourism is expected to contribute to the development of an economy through increased FDI inflows into tourism-related industries. Thus, tourism-related FDI is assumed to be a primary channel for economic development.

However, the existing research in this field is inadequate, because tourism–FDI interactions are not in reality restricted to typical tourism-related FDI such as in hotels, airlines, and restaurants. Tourism development may induce FDI in other sectors as well. For example, China's Suning Commerce Group Co. Ltd. formed a capital business alliance with Japan's Laox Appliance (a retail store for home appliances) and the latter became a subsidiary of the former in 2009.[2] One motivation for this alliance is the business opportunity of serving the growing number of Chinese tourists to Japan by offering services such as language support, duty-free arrangements, and acceptance of Chinese credit cards. This is because rice cookers, air purifiers, and digital cameras manufactured in Japan are principal purchase items for Chinese tourists. The example illustrates the possibility that enhanced tourism may induce FDI in sectors beyond hotels, etc.

Hence, this study analyzes international tourism–inward FDI relationships. Our analysis is not restricted to typical tourism-related FDI

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2 www.laox.co.jp/company/outline/ (last accessed on July 23, 2015).

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in the literature, but covers general FDI as well. Motivated by anecdotal evidence that tourism influences FDI in non-tourism sectors in Japan, we aim to fill the existing gap in the literature by estimating the effects of inbound tourism on inward FDI beyond tourism-related sectors.

We set up our empirical model by referring to the analytical framework of FDI determination. Our model extends the framework to a dynamic context after introducing international tourism. In order to investigate these dynamics, the analysis uses a sample of 29 countries/areas, each of which is a major FDI donor to Japan, over the period 1996–2011. Our analysis is distinct from other analyses in the literature, which examine the causality between tourism development and tourism-related FDI using time-series analyses including only these two variables. We focus on the spillover effects of tourism development on FDI, and thus, we need to control for other factors determining FDI. Such analysis requires the use of panel data on bilateral FDI and tourism between donor and recipient countries, which are not necessarily required for the time-series analyses presented in the literature. Bilateral FDI data, together with the number of foreign tourists and other control variables, are compiled for the analysis. Then, the tourism–FDI interactions are estimated by using a two-step system generalized method of moments (Arellano and Bover, 1995; Blundell and Bond, 1998; Roodman, 2009; Windmeijer, 2005).

The analysis results reveal that an increased number of foreign tourists visiting Japan helps promote FDI into Japan, and that the effects of tourism on FDI in non-tourism industries are observed to be significant. The effects of tourism on total FDI are estimated to be 5.6 times as large as those on tourism-related FDI. The results of a favorable interaction between tourism and FDI imply that the two policies of inward FDI promotion and inbound foreign tourism enhancement are mutually inclusive. There exist positive spillovers from promoting tourism to encouraging FDI in various sectors.

A favorable interaction between international tourism and inward FDI is confirmed under different specifications. The results obtained using a benchmark model are robust when we apply a different FDI modeling of the knowledge capital model (Carr et al., 2001, 2003; Markusen, 1997; Markusen et al., 1996) and a different empirical approach using the bias-corrected least-squares dummy variable (LSDVC) estimator of Bruno (2005a,b) to our context. The results of our analysis suggest that the effect of international tourism should have been extended to general FDI dynamics in previous works. The literature focusing on tourism-related FDI has the risk of underestimating the effects of tourism enhancement on FDI in reality.

Our results have important policy implications that are not covered in the literature. Tourism enhancement helps attain economic growth in not only less-developed tourism-oriented countries but also others, because international tourism positively influences FDI beyond traditional tourism sectors. Additionally, policy coordination is recommended between FDI promotion and tourism enhancement, although the two policies are often planned, executed, and evaluated independently under different government jurisdictions. These policies interact with each other to enable the attainment of economic development goals.

The remainder of this paper is organized as follows. Section 2 presents a description of data used for the analysis and introduces the model. Section 3 discusses the results of the analysis. Section 4 concludes the paper with future suggested lines of research.

2. Model and data

Our analysis uses Japanese data to study tourism–FDI interactions. Japan is relevant for analysis because it allows investigating the interactive relationships between inward FDI promotion and inbound foreign tourism enhancement. The Japanese government has aggressively targeted both inward FDI and tourism as priority policy areas for enhanced growth performance,[3] and thus, from a policy perspective, it is critical to know whether there are significant spillover effects among policies. Specifically, the situation in Japan amplifies the importance of examining spillover effects of increased tourism beyond tourism-related industries. Such industries are not major recipients of inward FDI in Japan; rather, Japan receives most of its FDI in other sectors such as finance and insurance, communications, wholesale and retail, chemicals and pharmaceuticals, and electric machinery. The two policies of inward FDI promotion and tourism enhancement may not help in attaining economic development goals if tourism development affects FDI into tourism-related industries only. Moreover, the Japanese situation allows us to examine whether enhanced tourism affects inward FDI in other industry sectors, because such an examination is not feasible if other sectors are not mature enough to receive inward FDI.

We use major FDI donor countries to Japan as our sample. The sample comprises 29 countries/areas from Asia (China, Hong Kong, Taiwan, South Korea, Singapore, Thailand, Indonesia, Malaysia, Philippines, India), North America (the United States, Canada), Central America (Mexico, Brazil), Pacific (Australia, New Zealand), Europe (Germany, United Kingdom, France, Netherlands, Italy, Belgium, Luxembourg, Switzerland, Sweden, Spain, Russia), and the Middle East (Saudi Arabia, United Arab Emirates). The Cayman Islands, a major FDI donor, is not included in our sample because the Japanese government does not provide any records of tourists from the Cayman Islands.

Our empirical model extends the framework of FDI determination to a dynamic context after introducing international tourism and controlling for other factors determining FDI. Whereas previous works focused on the causality between tourism and tourism-related FDI (Katircioglu, 2011; Samimi et al., 2013; Selvanathan et al., 2012; Tang et al., 2007), our approach is expressed in the following conceptual framework. FDI is a function of *Tour* and control variables, X: FDI $= f(Tour, X)$. Since FDI is composed of $FDI_{tourism\ -\ related\ industry} + FDI_{other\ indutries}$, the aforementioned literature with missing effects of tourism on $FDI_{other\ indutries}$ might mislead the policy effectiveness of tourism enhancement. In order to examine the possibility, FDI dynamics are examined using a system generalized method of moments (GMM), in which current FDI relies on past FDI realizations and the number of foreign tourists. The system GMM accounts for simultaneous bias between FDI inflows and foreign tourist arrivals.

$$FDI_{it} = \alpha + \beta_1 FDI_{it-1} + \beta_2 Tour_{it} + X_{it}\rho + \varepsilon_{it},\ \text{where } \varepsilon_{it} = \delta_i + \mu_{it} \quad (1)$$

FDI_{it} represents the net inflow of FDI from country i to Japan at time t, $Tour_{it}$ denotes the number of foreign tourists visiting Japan, X_{it} is a set of control variables, and ε_{it} is an error term, which comprises δ_i, an

[3] The Japanese government has been promoting international tourism ever since the "Basic Policies for Economic and Fiscal Management and Structural Reform" endorsed by the Cabinet in 2002 suggested increasing the number of foreign tourists visiting Japan. Correspondingly, the Ministry of Land, Infrastructure, Transport and Tourism (2003) proposed strategies to promote foreign tourists visiting Japan by providing a report entitled "Global tourism strategies". The report recognizes international tourism as a promising sector because the size of international tourism is expanding globally according to the World Tourism Organization (UNWTO), and expects expanded international tourism to vitalize the Japanese economy, specifically the declining local economy.

The Japanese government has also been trying to promote inward FDI for similar policy ends. During the 1990s, FDI promotion was proposed to revitalize the Japanese economy when Japan slipped into recession after the burst of the bubble economy. After the Economic and Fiscal Policy Management and Structural Reform in 2002, regional governments initiated inward FDI to revitalize the local economy and to acquire greater tax revenues. This is because the reform required regional governments to be less dependent on fiscal support from the central government. Regional governments were expected to raise tax revenues from the activity of multinational companies that are invited to their jurisdictions.

The topics of tourism development and inward FDI promotion have attracted academic attention as well. Tourism-led economic growth has been discussed by a few recent papers published in this journal (Antonakakis et al., 2015; Chou, 2013; Jalil et al., 2013). Moreover, Ahmed (2012) has examined the relationship between FDI inflows and economic growth.

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