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Effects of budgetary constraints on international tourism expenditures

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HIGHLIGHTS

- This paper examines budgetary constraints in international tourism expenditures.
- This paper adopts panel smooth threshold regression model.
- There are smooth transition effects under different savings regimes.

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ABSTRACT

This paper implements a logistic transition regression model to examine the relationships between GDP per capita and international tourism expenditures across countries in 2001–2010 by types of savings regimes. While studies have focused on the effect of income on international tourism expenditures, none consider the nonlinear smooth transition status of savings and its impacts on discretionary spending and hence expenditure on tourism. The impact of income on tourism expenditures can vary under different savings regimes. The results show that in a low savings regime the effect of an increase in the GDP per capita on international tourism expenditures is more pronounced. In a high-savings regime, there is strong motivation for precautionary savings and tourism is considered a luxury; therefore such spending is crowded out by an increase in savings as GDP per capita increases. Although international tourism expenditures also increase with GDP per capita, they do so at a slower rate. These findings establish an accurate understanding of the effects of savings on international tourism expenditures.

1. Introduction

Despite the global financial crisis and economic recessions of late 2008 and 2009, the recovery of international tourism has surpassed expectations (United Nations World Tourism Organization, UNWTO, 2011a, 2011b, 2011c): The number of international tourists increased from 25 million in 1950, to 277 million in 1980, 438 million in 1990, 681 million in 2000, 939 million in 2010, and 980 million in 2011, due to rising disposable income. International tourism expenditures have also continued to rise in emerging markets, particularly those of Brazil, Russia, India, and China. Of the advanced economy source markets, Germany, Australia, Norway, Belgium, and Canada report the greatest absolute growth. Although rising incomes boost demand for tourism (Alegre, Mateo, & Pou, 2010; Lim, McAleer, & Min, 2009; Rudez, 2008) argue that budget restrictions are a gating factor in tourism participation. They state that such budget restrictions should be examined within the context of GDP level, household savings capability, and family member unemployment. Along this line of reasoning, while global tourism continues its growth trend, not all cities will benefit from it (see Fig. 1). Europe & Central Asia countries have major shares of international tourism expenditures, as is shown in Fig. 2. South Asia countries have relatively small shares.

International tourism is playing an increasingly important economic role throughout the world. International tourism expenditures—including shopping, accommodations, food and beverages, transportation, sightseeing, and entertainment—have outpaced gross domestic product (GDP) growth. This imbalance has created job opportunities and promoted social and economic development, tourism expenditures contributing significantly to local economies. Academics and practitioners have therefore been paying a great deal of attention to the analysis of tourism demand. Table 1 shows the Top 20 countries with largest international tourism receipts/

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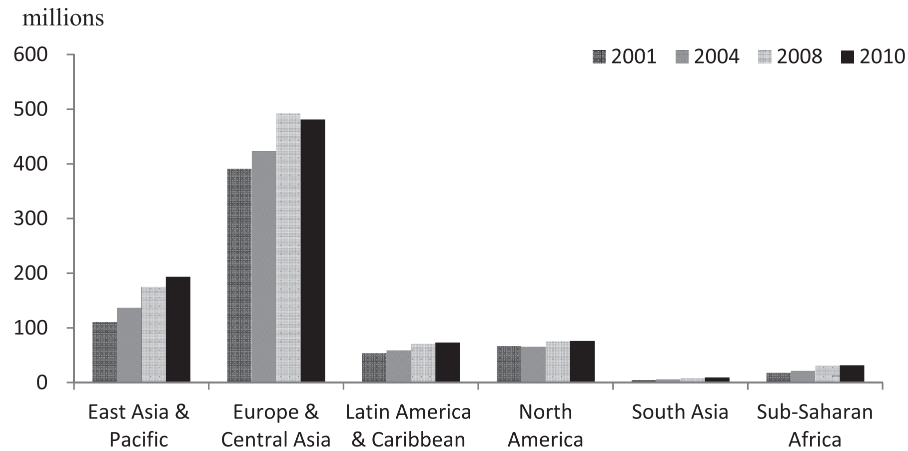

Fig. 1. International tourist arrivals.

expenditures in 2010. The study of tourism in the context of economics has become a discipline of its own, rich in theory and research methodologies (Stabler, Papatheodorou, & Sinclair, 2010).

Jang and Ham (2009) suggest that tourism expenditure provides insight into the details of tourism economy. Hence, it is an important factor in models of the economic impact of travel, also affecting society and culture. Tourism development is closely related to the macroeconomy. Tourism expenditure is for leisure and grows along with economic development on the basis of rising consumer expenditures. Growth in consumption stems from increasing incomes in a steadily expanding economy. According to the pattern seen in international tourism development, tourism expenditure grows in gradual steps, in tandem with economic developments. The tourism industry thus grows in the context of macroeconomic developments and demand for travels emerges when an economy experiences rapid growth.

International tourism expenditures provide detailed information regarding the economic benefits of tourism. They are subject to the influence of financial variables and travel participation is related to the country of origin cultural characteristics. Studies of the determinants of tourism expenditures do not generally consider how people budget their tourism expenditures. This paper explores whether there are nonlinear relations and smooth transition effects between GDP per capita and international tourism expenditures across countries during 2001–2010, with constraints. It also assesses the direction and level of the effects. The use of cross-sectional or time-series variable estimates alone is likely to lead to biases. Since panel model yield more effective estimates, this paper runs a panel smooth transition regression model (PSTR) that can capture data heterogeneity. This approach increases the number of degrees of freedom, controls for omitted variable bias, reduces collinearity problems, and hence enhances the accuracy of parameter estimates. The model describes the smooth transition around a threshold by changing the speed of the parameters.

This paper examines the effects of GDP per capita on tourism expenditure. International tourism expenditures are related to economic and cultural characteristics (i.e., budgetary allocations). Cultural differences across countries and cultures can dominate the entire value system of a country. For example, Asians tend to favor precautionary savings over travel in terms of budgetary allocations. This paper adopts a global approach by sub-categorizing regional travel activities in the context of international tourism expenditures. The presumption is that budgetary constraints significantly restrict travel participation and can be measured by GDP level and savings capability.

This paper finds that, due to the differences of saving regimes, there are nonlinear relations and smooth transition effects between the average GDP per capita and international tourism expenditures across countries. When savings rates are below a certain threshold, an increase in GDP per capita leads to an increase in international tourism expenditures. Growth in the average income or GDP of the home country leads to an increase in the number of outbound

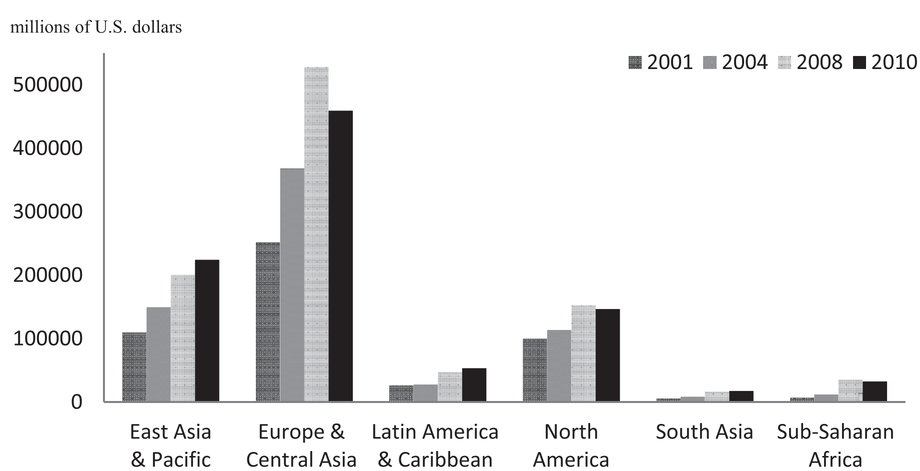

Fig. 2. International tourism expenditures.