

## Feature Article

### Analyzing tourism through the lens of economic analysis: A myriad of exciting possibilities for research that everyone should know about

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#### Introduction

Almost 3,000 lives were lost when, on September 11, 2001, 19 militants linked to the Islamic extremist group al-Qaeda hijacked four airplanes and used them to conduct suicide attacks against major targeted venues in the United States. The September 11, 2001, terrorist attacks prompted the US State Department to implement stricter border control, and a tightening of visa policies. These policies increased the magnitude of cross-border frictions for human travel into and out of the USA and significantly raised the bar for potential visitors of certain nationalities to obtain a short-term visa necessary for entering the United States. The impacts of these policies on the US economy were immense. For example, according to the National Foreign Trade Council, newly enforced border policies were responsible for US businesses making a staggering loss of \$31 billion in sales, between the short period of 2002 to 2004.<sup>(1)</sup>

On the afternoon of March 11, 2011, life in eastern Japan was ravaged by the Great Kanto earthquake, the world's fifth largest earthquake over the course of the past century. As many as 15,000 lives were lost, and the tsunami which was initiated by the earthquake led to the melt-down of nuclear reactors in the Fukushima Daiichi Nuclear Power Plant.<sup>(2)</sup> This series of disasters dealt a heavy blow to inbound tourism to Japan, especially in the immediate aftermath of the crisis. For example, an article entitled "Corporate travel to Japan dries up after quake", published by NBCNews.com, cites the chief executive of Partnership Travel Consulting, a Princeton, N.J.-based firm, in estimating that corporate travel to Japan had taken an 80 % plunge between the time of the earthquake and about slightly more than a week after.<sup>(3)</sup> The earthquake also led to a massive exodus of foreign travelers from Japan, as travel companies and businesses with employees stationed in Japan endeavored to help them exit. Needless to say, the steep decline in foreign travel to Japan afflicted the nation's economic well-being tremendously. One only has to consider the value generated by foreign travelers in Japan - which was estimated by the Japan Tourism Agency to be as much as ¥1.2 trillion in 2009—to grasp the severity of the situation. Moreover, the economic

effect of spending by foreign tourists extends far beyond its face value, since tourist spending also exerts a ripple effect on production, a value-added inducing effect, and an employment inducing effect.

Man-made and natural disasters, such as the above two crises, serve to elucidate how shocks to the tourism sector are intricately linked to the well-being of the economy, both at the national and global scale. Yet, despite the importance of tourism on economic welfare and policy-making, relatively little work has been dedicated to understanding the complex relationships between tourism and economic growth or development; tourism and trade; and tourism and economic geography. Further, perhaps due to limitations in the availability of statistical data, relatively little work has been conducted to understand the short and long-run effects of (positive and negative) demand shocks to the tourism sector. For example, although the literature on the use of natural experiments to establish causal effects or assess the impact of policies has been growing very rapidly within the field of economics, the literature has been relatively silent on the use of natural experiments to understand the tourism sector.

The aim of this paper is two-fold. First, it seeks to explore how recent developments in the tourism industry may be analyzed through the lens of rigorous economic analysis. Second, it strives to inspire the reader by pointing to a myriad of possible topics for future research. In what follows, we shall explore some exciting research themes where the economist's toolbox has been used to analyze the tourism industry. These are, namely, tourism and trade; tourism and economic geography; and the use of natural experiments to establish causal effects or assess the impact of policies that have to do with tourism. Finally, we shall look at how the availability of statistical data on tourism in Japan has improved tremendously over the past decade or so. This is very inspiring, as the wealth of data that is currently available suggests that there is tremendous potential for future work to be conducted with regards to the links between tourism and economic activities.

### Tourism and trade economics/international economics

The branch of economics that is known as Trade Economics, or International Economics, is dedicated to the pursuit of answering questions of the following nature. What is the reason for countries to engage in trade with one another? What are the determining factors of global trade patterns?<sup>(4)</sup> What should optimal (i.e. the most efficient) trade policy look like? Finally, how does trade affect the level of welfare of a nation, and what distributional effects does it exert amongst the different sectors of an economy?

It follows that tourism ought to be a sector of interest to trade economists because it involves the export of non-traded local amenities, such as historical monuments, cultural experiences, natural scenery, and local services across geographic space. Spending by tourists on local amenities, goods, and services are then recorded as “tourism exports” in cross-country data on the trade in services. Recently, a small but growing strand of literature has emerged within the field of International Economics, which focuses on understanding how the growth of the tourism sector affects the gross output or welfare of countries. It also seeks to shed light on how the growth of tourism might affect the different sectors of the economy, that is, on the distributional effects of tourism.

The literature on tourism and trade has been predominantly focused with the analysis of country-level (i.e. country-to-country) data, where the data has been used to examine the impact of international (i.e. inbound/outbound) tourism on the economic growth or development of nations. However, if we were to consider that a growth in tourism could have very significant distributional effects upon the different sectors or strata of society within a nation, it is surprising that very little work has been devoted to the analysis of within-country data, or to the understanding of how tourism could affect the economic growth of local economies within a nation. Moreover, local governments have often sought to implement policies to revive rural areas that are economically lagging (behind the growth of their urban counterparts within the same country), and a significant proportion of such policies often have to do with boosting the growth of tourism in these areas. For example, a recent article in *The Japan Times* described how a small town in Saitama Prefecture, with a shrinking population, embraced a series of new policies to attract public-private projects that could help promote the town and attract more tourists to visit it.<sup>(5)</sup> The potential for tourism to lead to a redistribution of wealth across different sectors or strata of society; coupled with the need to evaluate the effectiveness of policies targeted at boosting the demand for tourism in economically lagging areas, speak of the importance for more work to be conducted on the analysis of within-country data on tourism.

The analysis of tourism via the lens of International Economics promises a myriad of exciting possibilities for future research. A quick survey of the literature on International Economics and tourism seems to suggest that economists have, in general, not been very optimistic about the impact of a growth

in tourism on the long-run economic growth of nations. This is largely due to the fact that some economists have argued that growth in tourism may lead to the onset of the so-called “Dutch Disease”<sup>(6)</sup>, where scarce economic factors are reallocated away from tradable good sectors with a relatively higher level of productivity, to service sectors with a relatively lower level of productivity. This may be especially true in developing nations, where the productivity of service sectors is low, relative to other sectors such as manufacturing. It would definitely be interesting to analyze whether this is true, using specific countries as case studies.

Another exciting avenue for future research would be to evaluate the effectiveness of policies aimed at boosting tourism, in order to revive suburbs that are experiencing demographic drains and graying populations. What are the effects of these policies on local economies in the short-run versus long-run? How effective are these policies with regards to achieving the goals they were designed to achieve? Do they lead to a redistribution of wealth away from certain sectors to others, and if so, who wins and who loses from these policies? These are just some examples of the myriad of research questions that economists could pursue in future research.

### Tourism and economic geography

The branch of economics that has come to be known as Economic Geography, studies how location and the spatial organization of production and consumption across geographic space interact with economic activity. Recently, there has been a rise in the popularity of a particular approach, within this branch of economics - spatial equilibrium modeling. A spatial equilibrium model is a theoretical model that comprises multiple geographic regions, and that links producers and consumers located across geographic space. An economist first computes the partial equilibrium, that is, a scenario where the set of production and consumption activities considered in the model are optimal (or most efficient) across space. The partial equilibrium is then used as a theoretical benchmark against which the economist can evaluate real-life scenarios, policies, or counterfactuals. For example, an economist may want to evaluate how an aggregate shock to trade and mobility across geographic space could affect the domestic welfare of a nation, and he/she could conduct such an evaluation by computing the counterfactual level of domestic welfare after the shock, and comparing it to the level of domestic welfare in the partial equilibrium.<sup>(7)</sup>

Given the fact that shocks to (human) mobility are an important variable of interest to economists studying Economic Geography, and that tourism is clearly an economic activity that involves human mobility, it is surprising that relatively little work has been conducted to elucidate the impact of an aggregate shock to tourism on economic welfare. The application of concepts in Economic Geography and spatial equilibrium modeling to the study of tourism could be tremendously useful for economic-related policy-making. For example, researchers may be inspired to examine how a growth in tourism may lead

to within-sector and cross-sector spillover effects across the different geographic locations in a country.

### Tourism and natural experiments

Economists are often interested in studying how an explanatory variable - such as a policy change, or exogenous shock to demand or supply - may affect one or more economic indicators (i.e. the response variable(s)). In the natural sciences, scientists often conduct controlled experiments to test for causal relationships between two or more variables. In such experiments, two groups are studied. The two groups are identical, except that one group, known as the “treatment group”, is subject to the explanatory variable, whereas the other group, known as the “control group”, is not. By comparing the outcome in one group versus the other, the scientist is able to evaluate whether the explanatory variable has an effect on the response variable(s).

However, traditionally controlled experiments conducted in a laboratory are often expensive and difficult to implement in the social sciences. Due to these limitations, economists often prefer to make use of “natural experiments”, instead of controlled experiments, to study the impact of explanatory variables on response variables. A natural experiment is a study in which the control and treatment groups and experimental variables of study are not artificially controlled by the researcher, but are instead determined by nature or factors beyond the researchers’ control. For example, a natural experiment may be one induced by a change in policy, government randomization, or natural or man-made disasters. In these experiments, there should be a transparent exogenous source of variation in the explanatory variable, so that the treatment group is exposed to the variable but the control group is not.

With respects to tourism, exogenous shocks to the demand for tourism—induced by a policy change, or a natural or man-made disaster—have tremendous potential to serve as an exogenous source of variation in a natural experiment. In future work, economists may be interested to make use of exogenous variation in the tourism-related policies of local towns or municipalities, to evaluate how such policies impact the demand for tourism within a nation. For example, many Japanese towns have tried to implement policies aimed at attracting (both local and foreign) tourists, as a strategy to revive their lackluster economies. How do these policies affect the level of tourism across the different geographic locations in Japan? What factors play an important role in determining the success of these policies? These are important questions to be answered, given the tremendous economic value that inbound (i.e. foreign) and domestic tourists generate within Japan.

### Recent improvements in the availability of data on tourism in Japan

As mentioned previously, the overall impression that one receives upon careful review of the existing literature is that very little work has been devoted to the analysis of within-country data, or to the understanding of how tourism could

affect the economic growth of local economies within a nation. However, according to an article entitled “General Information of Tourism Statistics in Japan” furnished by the Japan Tourism Agency on their official website, the value of spending by domestic tourists was estimated to be as large as 89.5 % of the total spending incurred by Japan’s inbound, outbound, and domestic tourists within 2009.<sup>(8)</sup>

Given the magnitude of the size of the market for domestic tourism within Japan, one cannot help wondering why not more work has been conducted on within-country analysis of the economic impact of tourism in Japan. One very plausible reason could be the scarcity of data on within-country data, especially prior to the 2000s. However, the availability of data on tourism, especially that within Japan, has definitely improved over the past decade or so.

For example, the Japan Tourism Agency has implemented a Tourism Satellite Account, which is an account that tracks the economic activities of inbound, outbound, and domestic tourists systematically, within the framework of the nation’s System of National Accounts. Examples of time-series data on economic indicators provided by the Japan Tourism Agency include the consumption expenses of tourists (classified under each of the three categories: inbound, out-bound, and domestic), the size of employment generated by the tourism sector, and the concentration of inbound and domestic tourists across geographic space, by nationality.<sup>(9)</sup>

The wealth of data that is currently available to researchers is exciting because it promises tremendous potential for future work to be conducted.

### Conclusion

In this paper, we explored some research themes where developments in the tourism sector may be analyzed through the lens of economics. More specifically, we saw how tourism is intricately linked to topics that are highly relevant to International Economics, Economic Geography, and the use of natural experiments to establish causality or assess the impact of economic-related policies. Finally, we considered how the availability of statistical data on tourism in Japan has improved tremendously over the past decade or so. These developments within tourism-related research are certainly exciting, as they hint at a myriad of possible topics for future research.

### Notes

- <sup>(1)</sup> Bliss, J. and Hughes, J. (2006, December 26). ‘Fortress America’ visa system scaring businesses away—Business—International Herald Tribune. Retrieved November 28, 2017, from <http://www.nytimes.com/2006/12/26/business/worldbusiness/26iht-usvisa.4016469.html>.
- <sup>(2)</sup> A nuclear power plant in Fukushima prefecture.
- <sup>(3)</sup> Levere, J. L. (2011, March 20). Corporate travel to Japan dries up after quake. NBCNews.com. Retrieved November 28, 2017, from [http://www.nbcnews.com/id/42154546/ns/travel-business\\_travel/t/corporate-travel-japan-dries-after-](http://www.nbcnews.com/id/42154546/ns/travel-business_travel/t/corporate-travel-japan-dries-after-)

quake/.

- <sup>(4)</sup> That is, what factors determine “who trades with whom” and “what goods are being traded between particular trade partners”?
- <sup>(5)</sup> Martin, A. (n.d.). Small Saitama town embraces sharing economy in bid to battle demographic drain. The Japan Times. Retrieved November 10, 2017, from <https://www.japantimes.co.jp/news/2017/11/08/business/small-saitama-town-embraces-sharing-economy-bid-battle-demographic-drain/>.
- <sup>(6)</sup> The term “Dutch Disease” originated from a phenomenon in the late 1950s, where the Netherlands experienced a gas export boom, which led to a sharp appreciation of the Dutch guilder. This, in turn, reduced the competitiveness and profitability of other competing sectors in the Dutch economy, such as manufacturing and service.
- <sup>(7)</sup> A shock to trade and mobility across space could be either positive, as in the case of a newly-implemented policy that promotes mobility, or negative, as in the case of a man-made or natural disaster that discourages mobility.
- <sup>(8)</sup> The Japan Tourism Agency defines a “tourist” as someone who travels to a “non-everyday area for whatever purpose, such as leisure, recreation, or business” (Japan Tourism Agency, 2013). “Inbound tourists” are foreign tourists entering Japan for the purpose of tourism, “outbound tourists” are local tourists traveling to countries outside Japan for the purpose of tourism, and “domestic tourists” are local tourists visiting a location within Japan that is not his/her permanent place of residence, for the purpose of tourism.
- <sup>(9)</sup> The final indicator is furnished by the “Survey of Hotels” conducted by the Japan Tourism Agency. The survey requires all hotels to report the total number of nights spent in their facilities, by domestic and foreign tourists.