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Effective timing of tourism policy: The case of Singapore ☆

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ABSTRACT

In this paper, we examine the effective timing of economic policies actions in the tourism industry of a small open economy such as Singapore. The effective timing of policy actions is an open challenge issue to researchers and also a much needed rule of thumb to policy makers and private agents. This paper aims to (a) derive the influencing factors of a tourism demand function and (b) identify the time impact of these factors, thus, allowing the formulations of effective policy actions, by both, governmental tourism authorities and private tourism agents in Singapore. Our findings suggest that tourism government authorities and private tourism agents in Singapore should choose the timing of their actions depending upon the anticipated factor changes and their estimated impact. That is, if exchange rate variability is anticipated then policy actions should start at least twelve months prior to the start of the tourist period. If, a keen price competition is expected to prevail then the best timing of policy actions is nine months ahead the tourism period. If income improvements in origin countries could be expected, then a rather shorter timing action of six months would be available to tourism authorities and private agents in Singapore.

1. Introduction

Much of the literature on economic policies is focused on the qualitative and/or the quantitative effects of factors that may affect large sectors of an economy. However, governmental actions and policies need to be formulated on a rather restricted short-run horizon, for three distinct reasons. First, due to the nature of large and most extrovert economic sectors of an economy such as the services sector that are exposed to many external shocks. Consider, for example, the tourism sector that is sensitive to many short-run external and internal factors, such as seasonality, volatility of exchange rates, oil shocks, political instability, social unrest and terrorist upheavals; factors that are often unforeseeable for periods longer than six to nine months. Second, parliamentary procedures require that proposed policy actions by the government be scrutinised and reformulated into a concrete policy mix for the country within a specific time period, as "timing of actions is related to their effectiveness", a motto often proclaimed by politicians. Finally, the implementation of the approved policy action plan, could, in principle, be achieved via agreed-upon government contracts with domestic partners (institutional bodies, domestic firms and agents) and specialised international companies, which is also another time consuming process. These three reasons jointly contribute to a shortening of the time horizon available for shaping economic policy. Consequently, the remaining time for implementing economic policies is becoming, indeed, a critical issue for governments and parliamentary political parties, as well as, for companies and people involved in these policies. Yet, this timing dependence of economic policy, or equivalently when economic policy could be effective, is an issue often missing from the literature.

The focus of our paper is on the effective timing of economic policies and actions in tourism industry either by governments or by private agents. To this purpose, we examine an economy with a large tourism sector simply because the tourism industry, by its nature, is facing both internal and external constraints and responds continuously to them. A typical example of such a country is Singapore that provides extended quarterly data. The purpose of this paper is, first, to derive the influencing factors of a tourism demand function and second, to identify the timing of the factors affecting tourist flows and thereby give a rule of thumb for effective tourism policy actions. Further, the method applied to exercise tourism policy may be applied to the social sciences to find the best timing effects of any social policy exercised by either national authorities or international institutional bodies, such as the European Union (EU), the Organization of Eastern

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Caribbean States (OECS), the North American Free Trade Area (NAFTA), or the Asia-Pacific Economic Cooperation (APEC).[1]

We examine tourist flows into Singapore for the period 2005–2014, for thirty-seven countries of tourist origin, using quarterly data.[2] The choice of Singapore in our analysis is based on the fast growth of its tourism sector in the post 1965 period; on a number of good governmental policies that improved the infrastructure of the industry, creating at the same time a well-diversified tourist product; and, also, due to the availability of data to conduct the previously described type of analysis. Tourist arrivals in Singapore were available from the Singapore Tourism Board on a monthly basis for this period; however, we calculated the arrivals dataset on a quarterly basis to match the time frequency of the regressor variables. The empirical methodology we employ relies on the theory of panel data cointegration and error correction representation using the Pooled Mean Group (PMG) method.

The remainder of the paper is organised as follows: Section 2 examines the growth of the tourism sector in Singapore since 1965. Section 3 presents a brief review of the literature regarding the factors affecting tourist flows. Section 4 presents our model; the specification of variables used, and also provides a description of the data and presents the estimating methodology. Section 5 discusses the estimation results, while Section 6 contains concluding remarks and states the policy implications of our findings.

2. Tourism in Singapore – a historical analysis

Tourism in Singapore has been a growing industry since 1965 and was affected by a variety of events. During the post-independence period (after 1965), Singapore experienced growth in its transportation and communications industries. These developments stimulated tourism as they allowed for cheaper and faster travel (Teo, 1994). The result was a considerable boom in the tourism industry. In an effort to improve and promote tourism more effectively, the Singapore Tourist Promotion Board was founded; it conducted a campaign targeting the availability of different accommodations as well as the safety and security of visitors (Toh and Low, 1990).

During the next period, from the 1980s onwards, the main achievements in Singapore tourism included changes in policies which allowed for better tourism management. However, during the same period, the tourism industry was negatively impacted by an international recession in 1985. As a result, tourist arrivals decreased (-3.4%) during the year 1986 (Hornby and Fyfe, 1990). Singapore's response to this shock was a further improvement of the tourism infrastructure, which consisted of new accommodations as well as further development of cultural attractions and emphasis on traditional activities. In line with all these activities, the Ministry of Trade and Industry developed a 223 million US dollars redevelopment plan which resulted in the creation of different cultural attractions (Khan et al., 1990; Wong and Gan, 1988). This policy pattern continued on through the 1990s, during which time a new plan was put into effect called the Strategic Plan for Growth (Ministry of Trade and Industry, 1986). At the end of the 1990s, new origin countries of tourists emerged, such as Malaysia and Indonesia. In addition, changes in technology also affected tourism flows (STPB, 1996).

During the post 2000 period, there has been an effort to change the nature of tourism. As a result, new air links with Asia have been established and new changes in technology and travel have allowed for the implementation of a tourism hub generating flows from Southeast Asia. In addition new infrastructure has been developed which is intended to be "Clean and Green" (Chang, 1998). Furthermore, considerable efforts have been made to increase the attraction of tourists to cultural sites and to host international events aimed at establishing Singapore as a regional arts hub.

3. Literature review

In addition to the previously discussed governmental policies that substantially increased the overall tourist arrivals in Singapore, the vast literature on tourist demand has established a variety of factors that may affect tourist flows.[3] Much of the literature finds that the economic capacity of the tourist origin country and an index of domestic to foreign country prices could be major determinants of tourist arrivals.

The origin country income has been shown to have a positive effect on tourist arrivals. As the origin country's welfare expands, more tourists are induced to travel abroad. A recent study by Lee et al. (2015) for Singapore has shown that the origin country income is highly significant in Singapore's tourist receipts.

Another determinant of tourism flows is the relative prices in the destination country and the origin country (or even a set of competing destinations). A big difference in relative prices could either induce or divert tourist flows into competitor countries that apply a different pricing strategy, e.g. a lower VAT. As a result, relative price is established as a significant factor in tourist flows (see, e.g., Lim (1999) and Li et al. (2005)). Li et al.'s (2006) findings suggest that relative price is an important determinant when forecasting tourist flows for France, Greece, Italy Portugal and Spain. Their relative price coefficient proved to be, for the most part, negative and statistically significant. Gang et al. (2006) also employed a measure of relative prices in their estimation of demand modelling, utilising an Almost Ideal Demand System (AIDS) model. Their model incorporated a measure of relative prices which included the share of the price in an index of total expenditure.

Since the early 1990s, researchers have been expanding tourism models to incorporate exchange rates. The reason for this is that exchange-rate changes induce responses not only from tourists travelling individually, but also from risk adverse tour operators, which may decide to switch their business operations to other countries where the exchange rate is more stable (Crouch, 1993). As a result, some researchers claim that one of the most important determinants of tourism flows is the exchange rate (Patsouratis et al., 2005). Empirical studies suggest that currency appreciation (depreciation) in the tourist-origin country (in the destination country) induces tourism flows abroad (into the destination country) (see, e.g., Witt and Witt (1995), Garin-Munoz and Amaral (2000), Song and Li (2008), Agiomirgianakis et al. (2014, 2015)). Bunnag et al. (2010) examined the effects of exchange rates on tourist flows for different sets of exchange rates which were calculated between the main countries of arrival for Thailand. Their study concluded that exchange rate growth is a significant deterrent to tourist arrivals. Nanthakumar et al. (2013) examined potential effects from exchange rates on tourist flows for a variety of countries and concluded that there is a relationship between exchange rates and tourist arrivals for Singapore. Also, Lee et al.'s (2015) findings in a study on Singapore tourist arrivals indicate potential effects from exchange rates.

Moreover, exchange rates not only change but they change suddenly and unpredictably in response to economic fundamentals and to "news" in the globalized financial markets. However, a

[1] See, e.g., Scott (2011) and OECS (2011).

[2] The 37 countries of the data set are listed in Appendix B.

[3] See, e.g., Peng et al. (2015) for an excellent review of 195 studies published during the period 1961–2011.