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Exploring the regional distribution of tourism and the extent to which there is convergence

Adrián L. Mérida [a], Mónica Carmona [b], Emilio Congregado [c], Antonio A. Golpe [c, *]

[a] Department of Innovation and Organizational Economics, Copenhagen Business School, Copenhagen, Denmark
[b] Department of Business Administration and Marketing, University of Huelva, Huelva, Spain
[c] Department of Economics, University of Huelva, Huelva, Spain

HIGHLIGHTS

- This paper tests for convergence among twelve tourist source markets of Spain.
- While full convergence is rejected, three different convergence clubs are identified.
- Our findings may help policy makers to develop strategies based on differentiation.

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ABSTRACT

In this paper we test the hypothesis of convergence in a set of twelve of the main tourism source markets of Spain over a time period that ranges from January 2000 to September 2015. We analyse the potential convergence by following an econometric strategy consisting of three different methodologies. Firstly, we test for the presence of full convergence in the dataset by means of the panel stationary test developed by Hadri (2000). Next, we conduct a robustness check for the full convergence hypothesis by considering the potential existence of structural breaks in the dataset through the test proposed by Carrion-i-Silvestre et al. (2005). Finally, the hypothesis of club convergence (Philips and Sul, 2007) is also tested. The results point to absence of full convergence even when controlling for structural breaks while three different clubs of convergence are found. We discuss potential policy implications that can be extracted from these results.

1. Introduction

Convergence analyses of tourism markets are helpful in evaluating the performance of the tourism industry in a particular country as well as the effectiveness of policy measures developed to boost the number of tourist arrivals (Narayan, 2006). Evidence of convergence in visitor arrivals from different tourism markets indicates that the policy measures are—or have been—appropriate (Narayan, 2007). Furthermore, if unexpected shocks affect countries in a heterogeneous way, then a diversified set of source countries would help to minimize the risk of loss that might be incurred in a situation of excessive dependence on a few tourism markets. Therefore, the analysis of convergence is useful not only as a policy evaluation tool but also to determine whether efforts need to be redirected towards boost arrivals from untapped markets, thereby increasing the level of diversification.

Interestingly, source markets might converge in different smaller groups (Abbott, Vita, & Altinay, 2012; Solarin, 2014). Identifying those different convergence groups offers the possibility of developing customized marketing strategies—rather than a single strategy that treats all tourism markets indistinctly—in an efficient manner as doing so for each specific source market would require excessive effort.

The diversification of tourism markets is highly relevant for a country such as Spain whose economic growth is so closely connected to the performance of the tourism industry. The importance of tourism for economic growth and development in Spain has been explored in several occasions (e.g., Balaguer & Cantavella-Jorda, 2002; Cortes-Jimenez, 2010; Merida & Golpe, 2016; Nowak, Sahli, & Cortes-Jimenez, 2007), but whether Spain's main tourism

* Corresponding author.
E-mail addresses: almg.ino@cbs.dk (A.L. Mérida), monica@uhu.es (M. Carmona), congregado@uhu.es (E. Congregado), antonio.golpe@dehie.uhu.es (A.A. Golpe).

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markets are converging is still unexplored.

Therefore, in this paper, we explore whether there is convergence among Spain's 12 main source markets. We follow an empirical procedure that consists of three different steps. First, we analyse the potential full convergence through traditional panel unit root techniques, namely, the LM test developed by Hadri (2000). Second, we test whether structural breaks are hiding deeper results by applying the test for panel stationarity detailed by Carrion-i-Silvestre, del Barrio, and Lopez-Bazo (2005). Finally, we assess the hypothesis of club-convergence by means of the methodology proposed by Phillips and Sul (2007).

The remainder of this paper is structured in five parts. Section 2 provides a brief overview of the Spanish tourism industry. Section 3 contains a literature review on the topic of convergence in tourism markets. Section 4 describes the data and methodology employed in the analysis. Empirical results are discussed in Section 5. Section 6 concludes this paper and explains some policy implications that can be inferred from our analysis.

2. The tourism industry in Spain

Spain is one of the top tourist destinations in the world. However, the Spanish tourist sector was not always as advanced an industry as it is currently. At the beginning of the past century, tourism was an activity reserved for a few privileged persons. Thus, one could think of it as an *elite* tourism. Of course, Spain was not an exception to that rule. Although Spain had a relatively late incorporation into international tourist activity, its popularity rose rapidly. Over the last decades, strong efforts have been made to increase the attractiveness of Spain as a tourist destination. Expanding marketing campaigns, construction of new infrastructures and renovating accommodation facilities are just a few examples.

Table 1 shows the top ten destinations in terms of international tourist arrivals over several years. Although Spain was able to surpass the United States in 2004 in the second place on the list, it seems that its most frequent place is third. The recent boom of China appears to be a real threat for Spain, although in 2013 Spain was able to expand the gap again.

Table 2 contains the variation rates of the international tourist arrivals for each of the top 10 countries. The variation rates have been declining over time in a generalized way. It is worth noting the extraordinary boom in the Russian tourist market with a change of more than 100% from 1995 to 2000. The case of Turkey is also special. Its most successful period was from 2000 to 2008, whereas the period of higher growth rates for every other country on the list took place just before the beginning of the new millennium. Something similar, although less volatile, happened in the United Kingdom. In contrast, the period with the highest growth rate for Thailand coincided with the toughest years of the last global crisis.

Table 1
Top ten destinations in international tourist arrivals (millions).

Rank in 2012	Country	1995	2000	2004	2008	2012	2013*
1	France	60.0	77.2	74.4	79.2	83.0	–
2	United States	43.5	51.2	46.1	57.9	67.0	69.8
3	Spain	34.9	46.4	52.4	57.2	57.7	60.7
4	China	20.0	31.2	41.8	53.0	57.7	55.7
5	Italy	31.1	41.2	37.1	42.7	46.4	47.7
6	Turkey	7.1	9.6	16.8	29.8	35.7	37.8
7	Germany	14.8	19.0	20.1	24.9	30.4	31.5
8	United Kingdom	21.7	23.2	25.7	30.1	29.3	31.2
9	Russia	10.3	21.2	22.1	23.7	28.2	28.4
10	Thailand	7.0	9.6	11.7	14.6	22.4	26.5

Source: UNWTO, 2014. * indicates provisional data.

In Spain, the tourist sector seemed to be showing signs of deceleration if we only look at the number of tourist arrivals up to 2012. However, that trend is expected to come to an end following the figure for the change from 2012 to 2013.

In terms of money generated through the tourist activity, Spain is also performing at a high level. Table 3 exhibits the top ten destinations in international tourism receipts. While the United States ranks first by a large margin, Spain is currently second with over 60 billion dollars generated by the arrival of visitors in 2013.

Given the above figures, one could say that the investment in enhancing this sector in Spain has been successful and is paying off. However, it might be the case that better performance is possible, albeit still not developed. Even if Spain is a very popular destination for tourists from many countries, such as the United Kingdom, Germany or the Netherlands, there may be other potential markets that are still not fully exploited.

3. Literature review

The body of literature devoted to the analysis of the convergence hypothesis in tourist markets started with the pioneering work of Narayan (2006), who explored the potential convergence of thirteen major tourist source markets for Australia. In his setup, convergence analysis was based on testing whether the difference between the total number of visitors to a country and the number of visitors from a specific source country was stationary. The results from unit root tests of both univariate and panel Lagrange multiplier suggested convergence between all thirteen source markets after considering two structural breaks in the model.

This approach was extended in Narayan (2007) in which the same author added another econometric technique to assess the convergence of tourism markets in Fiji. In addition to the stationarity test of his previous work, a cointegration analysis was also included. By following very similar approaches, the hypothesis of convergence in tourism markets was later tested for the cases of other countries.

The extant literature is mostly focused on regions whose economic growth is largely driven by tourism, such as Malaysia (Lean & Smyth, 2008; Tang, 2011), Singapore (Lee, 2009; Tan & Tan, 2013), South Africa (Solarin, 2014), the Caribbean Islands (Lorde & Moore, 2008), Seychelles (Solarin & Lean, 2014) and Turkey (Abbott et al., 2012; Yilanci & Eris, 2012; Ozcan & Erdogan, 2015; Hepsag, 2016).

In Malaysia, Lean and Smyth (2008) followed the same strategy used by Narayan (2006)—i.e., unit root tests with one and two structural breaks—and found solid evidence of convergence in ten major source markets. Nevertheless, Tang (2011) came to the conclusion that only five source markets for Malaysia showed evidence of convergence after following the test for unit roots with *m* breaks developed by Kapetanios (2005).

In the context of Singapore's tourism markets, Lee (2009) tested for convergence from two different points of view: convergence in the long-run and convergence as a catching-up process. The results indicated that international arrivals to Singapore from Africa and Europe were catching up to those from Asia, while arrivals from the Americas and Oceania were converging in the long run. Later, Tan and Tan (2013) found evidence of convergence in Singapore's 15 top source markets when allowing for structural breaks in the framework of univariate and panel LM unit root tests.

Convergence has also been studied in South Africa's markets. Solarin (2014) applied the Lee and Strazicich (2003, 2004) test for unit roots, which allows for structural breaks in an endogenous framework. The author also assesses the club-convergence hypothesis by clustering the different source markets into two different clubs: African markets and overseas markets. The results confirmed both widespread convergence and club convergence