Tourism demand and tourism growth cycles in Portugal and Spain

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Abstract | This paper investigates the patterns of tourism growth cycles in domestic and international tourism demand for Portugal and Spain with monthly data on visitor’s arrivals in tourist accommodation establishments from January 1990 to September 2013. The de-trending method proposed by Hodrick-Prescott filter is used to extract the tourism growth cycles for both resident and non-resident tourists. The Bry-Boschan algorithm finds that the duration of contractions tend to be on average twice longer for resident tourists than for non-resident tourists, and the length of expansions is almost three times higher for non-resident tourists than for resident ones in Portugal. The duration of the tourism growth cycles is much higher in Portugal than in Spain in both groups of tourists by ten to twelve months. Large expansion phases in Portugal tend to coexist with large contraction phases in Spain along the cycles from non-resident tourists. Spectral analysis confirms the existence of one dominant cyclic frequency within tourism demand from both tourist groups. The paper is concluded with a brief discussion of findings.

Keywords | Tourism demand, Expansion, Contraction, Spectral analysis, Iberian Peninsula.

Resumo | Este artigo investiga os padrões de ciclos de crescimento da procura turística nacional e internacional para Portugal e Espanha, através de dados mensais das chegadas de visitantes em estabelecimentos de alojamento turístico, no período de janeiro de 1990 a setembro de 2013. A metodologia aplicada consistiu num filtro de Hodrick-Prescott usado para extrair a tendência da série cronológica relativa à procura turística por turistas residentes e não residentes. O algoritmo de Bry-Boschan considera que a duração das contrações tendem a ser, em média, duas vezes maior para os turistas residentes do que para os turistas não residentes, bem como a duração das expansões é quase três vezes maior para os turistas não residentes do que para os

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1. Introduction
Recent research has highlighted the influence of business cycles and economic crises on tourism destinations competitiveness in both emerging and mature destinations (Perles-Ribes, Ramón-Rodríguez, Rubia-Serrano & Moreno-Izquierdo, 2013). Business cycles affect tourism development, and tourism is highly vulnerable to economic fluctuations (Andraz, Gouveia & Rodrigues, 2009). Tourism demand does not respond immediately to the business cycles fluctuations, as it happens in the demand of market goods and services, because of substitution effects between different types of destinations and existing lags between the tourist decision and the time of the holiday (Guizzardi & Mazzocchi, 2010). Moreover, the tourism industry is very susceptible to reflect the consequences of various types of disturbances, such as wars, disease outbreaks, terrorist attacks, economic fluctuations, currency instability and energy prices (Gouveia, Guerreiro & Rodrigues, 2013).

Contrary to the literature that connects cyclical fluctuations of the economic activity and tourism demand, this study does not focus directly on the importance of tourism for the transmission of business cycles. It rather employs statistical methods found in business cycle research to assess the patterns of domestic and international tourism demand in Portugal and Spain. These countries rank among the world's most visited tourist destinations where tourism has become an important source of income. The aim of this study is to make an important contribution to tourism policy, planning and business practices in these two neighbouring countries. It contributes to the literature and knowledge advance in the field of tourism demand modelling and forecasting. Monthly observations on visitor's arrivals in tourist accommodation establishments are gathered from January 1990 until September 2013, in order to investigate the pattern of tourism growth cycles for the countries made up by Portugal and Spain. However, unlike previous research, it employs spectral analysis techniques for assessing the cyclic behaviour of tourism demand in the frequency domain.

This paper is structured as follows. Section two presents the key concepts of the business cycle theory, and looks at how these can be applied in tourism demand studies. Section three presents the data and methods, and discusses the empirical results of the tourism growth cycles analysis. Section four presents the conclusions of the study.

2. Business cycle theory and tourism demand analysis
The concept of business cycles refers to fluctuations of economic activity in the long term. The cycle involves alternating periods of expansion, peak, contraction and trough, and of relative rapid growth of output, with periods of relative stagnation or decline, often called contraction or recession. Although the business cycles recur and present a sequence of phases, usually between one and...