

# Monitoring tourism flows and destination management: Empirical evidence for Portugal

Jorge Andraz<sup>a</sup>, Paulo M.M. Rodrigues<sup>b</sup>

<sup>a</sup> Universidade do Algarve

<sup>b</sup> Banco de Portugal e Nova SBE Universidade Nova de Lisboa

Outubro 27, 2016

# Introduction

- Business cycles are recurrent phenomena in all economies and are transversal to all economic sectors.
- Tourism is not an exception, as this sector is particularly vulnerable to economic fluctuations.
- This vulnerability reinforces the relevance of developing tools that allow for a clear understanding of the sector's cyclical stance in order to inform the authorities and to manage the adoption of measures to diversify and, simultaneously, to reduce the country's dependency on a reduced number of tourism source markets.
- Research on tourism cycles was, to the best of our knowledge, first considered by Gouveia and Rodrigues (2005).

# Introduction

- Both the increasing number of tourists and the sector's strategic importance have led Portuguese economic and political agents to pay special attention to this sector by taking active measures towards its sustainability.
- It is therefore not surprising that private and public organizations are increasingly interested in obtaining a deeper understanding of the tourism cycles of the main origin markets and monitoring their evolution.

# Data and Methodology

## Dataset: sources and description

- **The data used:** monthly overnight stays in hotels, apartment hotels, tourist apartments, tourist villages, motels, bed and breakfasts, inns, guest houses and camping parks of domestic tourists and international tourists coming from the **UK, the Netherlands, Germany and Spain**.
- **Period:** January 1987 to September 2015, during which several economic downturns have occurred. The consideration of such a long period provides a rigorous picture about the reactions of tourism from different sources markets to Portugal and, thereby, allows us to identify general trends.
- The data were collected from the annual issues of Tourism Statistics published by Statistics Portugal (INE).

Table 1: Percentage values of overnight stays by source market

Period	Germany	Netherlands	UK	Spain	Portugal	Total
1987-1999	14.94%	5.50%	20.89%	6.16%	28.81%	76.30%
2000-2010	11.08%	4.97%	19.52%	6.72%	32.81%	75.10%
2011-2013	9.26%	5.21%	16.47%	8.01%	31.24%	70.19%
Average	12.46%	5.22%	19.71%	6.65%	30.94%	74.98%

# Data and Methodology

- Overall, the five source markets considered represent around 75.0% of the total number of overnight stays in the country. The first position belongs to domestic tourism with an average of 30.9% over the period under analysis, and is followed by the UK with an average of 19.7% and Germany with an average of 12.5%. The last positions are shared by the Spanish and the Dutch markets, which together represent an average close to 12.0% of the total number of overnight stays in the country.
- We notice steadily decreasing patterns in tourism coming from Germany, the UK and the Netherlands, and increasing trends in the number of overnight stays of domestic and Spanish tourists.

# The tourism cycle tracer

- The methodology used to analyze the cyclical evolution of tourism in Portugal is inspired in the economic climate tracer developed by Gayer (2010).
- The standardized levels of tourism on the y-axis are plotted against their month-on-month changes on the x-axis.
- This approach provides an attractive visual tool for the inspection of tourism series through circular movements across the four quadrants of the graphs, corresponding to the four growth cycle phases.

# The tourism cycle tracer

- These phases can be characterized in a counter-clockwise rotation as follows:
  - above average and increasing (upper-right quadrant, corresponding to "Expansion");
  - above average but decreasing after having reached the peak (upper-left quadrant, corresponding to "Downswing");
  - below average and decreasing (lower-left quadrant, corresponding to "Recession");
  - below average but increasing after having passed the trough (lower-right quadrant, corresponding to "Upswing").



# Empirical Analysis

## World economic crisis and the tourism cycle

- The tourism industry is very sensitive to shocks as they impact negatively on tourists confidence and income.
- The uncertainty about the economic evolution in each country is regarded with caution and imposes serious limitations to tourism flows.
- However, the reaction of economies to shocks can be quite diverse given the structural and political differences they exhibit and consequently the impact on destinations can differ depending on the composition of the tourism source markets "portfolio".

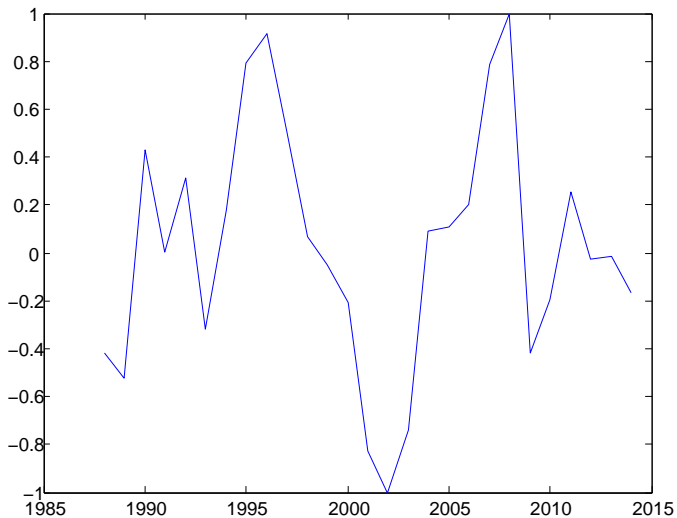


Figure: World Tourism Cycle

# Empirical Analysis

## World economic crisis and the tourism cycle

- The evolution of the tourism cycle mirrors the chronology of the economic crisis of the National Bureau of Economic Research ([www.nber.org/cycles.html](http://www.nber.org/cycles.html)).
- From Figure 1 three major crisis periods can be identified:
  - the period from 1990 to 1995 with two negative movements;
  - the period from 2000 to 2005;
  - the period after 2007.

# The Domestic Demand Cycle

- The impacts of crisis on destinations are more or less pronounced depending on the impact of events on the source markets responsible for the main tourism flows.
- In all countries there are downswings in tourism flows over the periods 1990-1995, 2000-2005 and recently since 2007. These movements are possibly more pronounced in some countries than in others, which clearly suggests that countries have reacted differently to external shocks.
- This information is of valuable importance to tourism agents in Portugal since it can be a guide to identify which source markets are less sensitive to external shocks and to endeavor efforts to maintain and/or increase tourism flows from those countries, and which markets are more prone to shocks in order to look for market diversification.

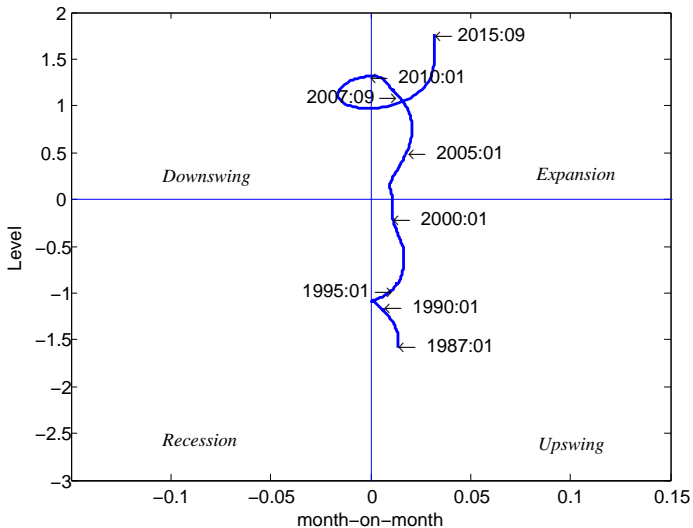


Figure: Domestic Demand Cycle Dynamics

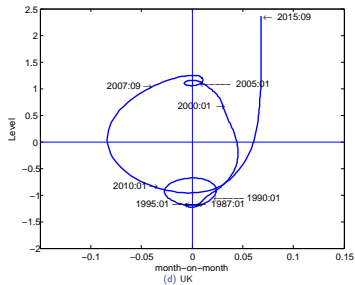
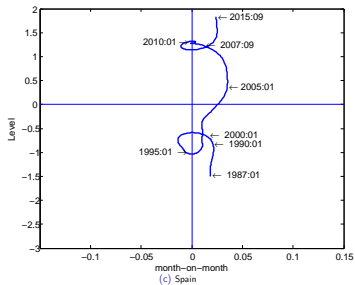
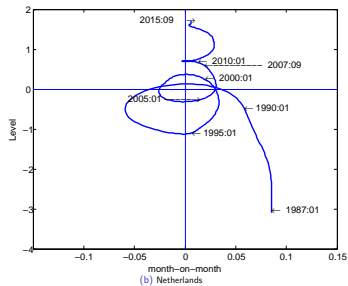
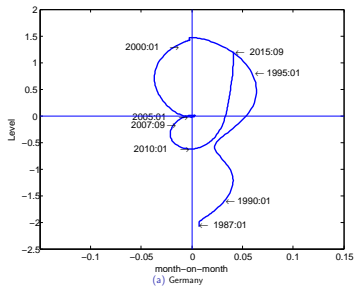


Figure: International Demand Cycles Dynamics

- Two main distinctive aspects emerge from the graphs. The **first** is related to the distinctive movements reported by tourism flows in their trajectory across quadrants:
  - Tourism from the Netherlands reported large volatility over the 2000s. Over the first half of 2000 it moved to the downswing quadrant and then to the expansion quadrant, reaching the peak by the end of 2013.
  - Tourism from Spain moved to the expansion quadrant in 2005, reached its peak in 2010, and after a short passage through the downswing quadrant, it registered an inversion towards the expansion quadrant.
  - The behavior of tourism from Germany and the UK followed similar, but smoother, patterns. In fact, tourism from Germany entered the expansion phase by the middle of the 1990s and reached the peak by the end of 1999.
  - Tourism from the UK entered the expansion phase in the second half of the 1990s and after a small cycle, reached a peak in 2006.

- The **second** aspect is the leading role of tourism flows from Germany, motivated by a smooth evolutionary path and continuous high growth rates over the 1990s.
- This growth engine explains the fact that the German tourism flow path is one-step ahead of the other source markets.
- We also notice that the recession period that tourism flows experienced over the first half of 2000s was felt by German tourism earlier and with shorter duration.
- It seems that tourism from Germany is more resilient to crises and that its trajectories are followed by tourism from other source markets.



# Conclusions

- In this paper we illustrate the usefulness of the approach introduced by Guyer (2010), known as the "economic climate tracer" to analyze and monitor the cyclical evolution of tourism demand, through an application to Portugal.
- It is shown, through the analysis of the economic evolution in the tourism source economies from 1987 to 2015 that the climate tracer is a useful tool for the illustration of the evolutionary patterns of the different markets and therefore an important source of information to support economic and policy agents in decision making.

# Conclusions

- This analysis highlights three relevant issues:
  - First, tourism flows from Germany, the Netherlands and the UK exhibit decreasing trends over the period under analysis, whereas domestic tourism and Spanish tourism report increasing trends.
  - Second, tourism from all source markets, including the domestic market, reported levels below the average with increasing growth rates by the end of the 1980s, and all are currently reporting growth rates and levels above their averages.
  - Third, in-between, tourism flows from different source markets to Portugal depicted different behavior paths which are not independent of the economic and financial environments in each country.

# Conclusions

- **Notwithstanding, these results should be interpreted with caution.** The source markets here considered are in different maturity stages. The evolution of tourism from different sources is perhaps not independent from their destination life cycle stages.
- Portugal has been a traditional destination for British tourists since the 1960s, while tourism from the Netherlands, or even Germany or Spain are more recent. Therefore, linking the evolutionary paths with the corresponding destination life cycle stages of each market may provide additional insights on the cyclical behavior of tourism and is left for future research.