

## **Measuring price dynamics of package holidays with transaction data**

In Germany, package holidays, which consist of a bundle of flight and accommodation services, are an important driver of consumer prices. Several challenges arise when measuring the price development of package holidays, such as the timing of the booking, the treatment of out-of-season services and discounts as well as the underlying holiday season. Statistical practices are currently based on sampling price offers. As an alternative, transaction price data by AMADEUS/TravelTainment might be used. The data set of this IT provider for touristic booking services comprises both online and offline sales of package holidays on a daily basis and allows assessing several approaches to extract price dynamics.

The aim of this project, which is carried out in collaboration with colleagues from Destatis, is to derive transaction data-based price indicators of package holidays. Transaction data raise a number of methodological issues, e.g. the grouping of unstructured text information into meaningful categories or the identification of outliers. In addition, the extraction of pure price trends is challenging due to varying sample compositions over time. Thus, various index aggregation methods are analysed, which include matched models and hedonic regressions. As transaction data is generally a more comprehensive source for deriving price indicators in comparison to a sample of price offers, this approach also contributes establishing a statistical reporting system for package holiday prices which is disaggregated with respect to individual holiday destinations.