



CPS Paper

Measuring resident households' consumption abroad using payment card transactions data

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Brief Description

In 2020, because of the pandemic Covid19, new data source was involved in estimation of household spending abroad, namely payment card transactions data. These data are available quarterly and include the channel of acceptance and the Merchant Category Codes (MCCs) as well.

We created a correspondence table between MCC and COICOP in order to analyse spending data based on the type of products and services.

We found that the Hungarian spending abroad covers several types of goods and services.

Abstract

Measuring resident households' consumption abroad using payment card transactions data

The direct purchases abroad by residents include all purchases of goods and services made by residents while travelling abroad for business or pleasure. A large part of this item covers expenditure by other resident travellers on personal trips which are accounted as final consumption of households and imports of services. The main data source is the tourism questionnaire in Hungary. In 2020, because of the pandemic Covid19, new data source was involved in estimation, namely payment card transactions data. We analysed the dataset for the period between the first quarter of 2020 and the second quarter of 2022 covering all payment transactions which realised in territory of Hungary as well as all transactions of Hungarian households abroad. These payment card data are available quarterly, providing an indicator of household spending. The data include the channel of acceptance and the Merchant Category Codes (MCCs) as well. With the help of the channel of acceptance, not only spending related to tourism, but also online purchases from abroad can be identified. Three quarters of Hungarian households' purchases abroad are made via the Internet, while approx. a quarter is connected to other physical terminals. We found that aggregated Hungarian households' payment transactions data abroad which are settled especially at POS terminals shows a close correlation (0.85) with the tourism questionnaire data. The main difference is caused by online purchases and most of them refer to services whose accounting in foreign service trade and households' consumption has been missing until now due to the lack of reliable data. The MCCs of dataset allow a deeper analysis and so the classification of merchants and businesses by the type of goods or services provided. We created a correspondence table between MCC and COICOP in order to analyse spending data based on the type of products and services. We found that the Hungarian spending abroad covers several types of goods and services, not only accommodation and restaurant services and services provided by museums, libraries, and cultural sites, but also education services, financial services, goods relating to games, toys and hobbies, major durables to recreations, jewellery and watches etc. We note that these payment card transactions are not necessarily representative of total spending, but we emphasize the benefits of using the payment card transactions data by obtaining a timely and relatively accurate estimate of households' spending abroad in a given quarter.