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A Mixed Frequency Approach to Forecast Private Consumption with ATM/POS Data

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Abstract

The recent worldwide development and widespread use of electronic payment systems provided the opportunity to explore new data sources for monitoring macroeconomic activity. In this paper, we analyse the usefulness of data collected from Automated Teller Machines (ATM) and Points-Of-Sale (POS) for nowcasting and forecasting quarterly private consumption. In order to take advantage of the availability of the high frequency data, we use Mixed Data Sampling (MIDAS) regressions. A comparison of several MIDAS variants proposed in the literature is conducted, and both single- and multiple variable models are considered, as well as different information sets within the quarter. Given the substantial use of ATM/POS technology in Portugal, it is of importance to assess the information content of this data for tracking private consumption. We find that ATM/POS data displays better forecast performance than typical indicators, reinforcing the potential usefulness of this novel type of data among policymakers and practitioners.