

# Goodness-of-Fit Test for Price Duration Distributions

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## Abstract

Is the actual price-setting behavior of an individual commodity item consistent with the predictions of a sticky-price model? Part of the question may be formally addressed by performing a goodness-of-fit test for price duration distributions. For each of the 495 items in the Japanese retail price data for 2000–2005, we fitted the standard parametric models with or without unobserved heterogeneity to the data and tested the goodness of fit. We found that 93 percent of the tested items reject the hypothesis that the underlying distribution is exponential, which corresponds to the time-dependent pricing model of Calvo (1983), at the one percent significance level.

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Key words: Sticky prices, Hazard function, Goodness-of-fit test

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