

# Consumer Price Indexes based on Scanner Data: An Investigation of New Products Bias

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## Abstract

We construct the Laspeyres price index using scanner data over 215 commodity groups (Jan 2005–Apr 2008) and examine the effect of dynamic changes in product universe by comparing the indexes with a different frequency of sample rebasing. The price index is characterized by the monthly unit value index for the elementary aggregates defined over the intersection universe, which includes price observations available in both the base and reference periods. We find the small proportion of monthly unit value that can be matched across two or more years; in the half of the commodity groups, the value of initial set of items falls less than 52 per cent of the total sales within two years. We also find a delay of capturing the prices of new products can lead to a severe upward bias.

JEL classification codes: C43, E31, L16

Key words: Consumer price index, Scanner data, Unit value index,  
Product universe, Sample rebasing, New products bias

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