

The granular origins of inflation*

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Abstract

This paper uses barcode-level price data for 14 advanced and emerging market countries over the period 2008-2020 to investigate the role of individual firms and product categories in aggregate inflation. We develop a decomposition of inflation into the components due to aggregate shocks, and the granular residuals capturing the impact of individual firms and product categories, respectively. In advanced economies, the firm granular residual accounts for nearly 40% of the variance of overall inflation, while the category granular residual accounts for another 20%. Most of the variation in the firm granular residual is due to idiosyncratic shocks, rather than to higher sensitivity of larger firms to the aggregate shocks. In emerging markets, the granular components together account for 13% of the total inflation variance, indicating that granular forces are weaker in higher-inflation environments where aggregate shocks matter more.

Keywords: Inflation, aggregate fluctuations, price setting, firm-level shocks, granular economies, large firms, globalization.

JEL Codes: E31, E32, F44

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