

Price Adjustment Behavior of Firms under Low Inflation Environment

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The price adjustment behavior of individual firms can vary according to the level of inflation. This is because, when there is upward price pressure such as cost increases, firms tend to decide on the frequency and size of price adjustment in consideration of inflation and market competition. This paper investigates whether there has been a change in firms' price adjustment behavior under the recent prolonged low inflation environment. In particular, this is more so in during economic transition periods or in during a situation where the volatility of labor-related indicators increases. As the a stock-based linear model does not capture the asymmetry of labor market changes, forecast errors become bigger in economic transition periods when forecasting is more important.

To do this, we first analyzed trends in the frequency and size of changes in product prices by firms, using weekly price data on 150 basic necessities (collected by the Korea Consumer Agency) for the period between January 2014 and September 2019. The analysis revealed the following characteristics: first, the frequency of price adjustment, representing the share of products whose prices have changed on a monthly basis, declined gradually since 2015, with the pace of decline accelerating beginning in 2019. Second, unlike the frequency of adjustment, the average rates of price increase and decrease, compared to prices in the immediately preceding period, showed an acceleration, suggesting a tendency among firms toward larger price adjustments than in the past. Third, when the rate of price increase was broken down into the contributions of the frequency and size of adjustment, price increase

appeared more closely associated with the frequency than the size since 2017. Fourth, an empirical analysis of price adjustment behavior according to the level of inflation found that in a low inflation environment, firms tend to lower the frequency of adjustment, but increase the size of adjustment.

What this implies is that under a low inflation environment, firms tend to not immediately reflect upward price pressure in their prices, but make a sizeable adjustment when they do make one. The fact that the price adjustment behavior of firms is affected by inflation provides micro-evidence suggesting that economic conditions may have less influence on inflation than in the past and the relationship between the two may be changing. However, due to the limited availability of data, this study was restricted to a small number of products. Further study using a broader set of price data, including service prices, would be needed to be able to draw a general conclusion.

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II. Data

III. Frequency and Size of Price Adjustment

IV. Analysis of Relation Between Inflation and Price Adjustment Behavior

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