In the Name of God

Inflation, Inflation Uncertainty, and Relative Price Dispersion

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Abstract

This paper explores the relationship between inflation, inflation uncertainty, and relative price dispersion (RPD) in Iran. The hypothesis proposed here is to explain the positive correlation between relative price dispersion and inflation uncertainty.

Reviewing the descriptive statistics on Consumer Price Index (CPI) and its 8 major groups as of the first quarter of 1360 (1981/82) until the second quarter of 1385 (2006/07) reveals that "recreation, reading, and education" and "transportation and communications" groups underwent the highest price fluctuations. In the same period, the lowest deviation of inflation from the mean was related to "clothing and footwear" group. During the years following the 1st Plan until the second quarter of 1385 (2006/07), "food, beverages, and tobacco" group, with a dispersion coefficient of 5.53, experienced the highest deviation in relative prices. In contrast, "health and medical care" and "miscellaneous goods and services", with lowest deviation, had the lowest fluctuations.

Estimation of inflation model based on seasonal time series for 1360 through 1385 and ARCH methodology indicates a positive relationship between inflation and conditional variance. This means inflation uncertainties of past periods could lead to higher inflation in the future. Instability in various economic policies during the past years led to inflationary shocks which put positive effect on inflation variance. In other words, increased uncertainty makes entrepreneurs adjust the price of goods and services overtime.

Study of the relative price dispersion indicates that inflation variability, with a time lag, increases relative price changes. Findings reveal that unexpected inflation, more than other exogenous variables, raises relative price dispersion noticeably. Therefore, inflation shocks do not leave similar effects on relative price dispersion in various economic sectors and the hypothesis on symmetric role of positive and negative unexpected inflation is being disproved.

Classifying unexpected inflation into two instances of positive and negative, Iranian entrepreneurs with considering the negative instance of unexpected inflation reduced price adjustments of goods and services, thus leading to reduction in relative price dispersion in all sectors. Nevertheless, with the contagion of positive inflationary shocks, positive unexpected inflation leads to price adjustments, causing economic firms to change their prices over time in an attempt to offset the negative influence of shocks.