

Phillips Curve with Level- k Thinking*

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Abstract

This study theoretically examines inflation dynamics in a setting where firms set their prices based on level- k thinking about their competitors' pricing behavior. Firms attempt to learn the pricing behavior of level-0 firms by observing past prices, assuming that the inflation rate at the level-0 equilibrium is persistent. They then adopt this learned level-0 behavior as the basis for their own price setting. In such an environment, the Phillips curve becomes anchored to lagged inflation, and its slope of the coefficient on the output gap is dampened. The degree of anchoring depends on the information structure, the extent of nominal price rigidities, and the degree of strategic complementarity. This study further applies the framework to account for Japan's prolonged period of low inflation during the 2000s and 2010s.

JEL Classification: E58; E61; E71

Keywords: Inflation, level- k , bounded rationality

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