

# Bounded Rationality in Rules of Price Adjustment and the Phillips Curve

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This paper studies the theoretical role of inflation expectations in setting inflation and output without the strict assumption of full rational expectations. Specifically, it examines an alternative microfoundation for both the sticky-price New Keynesian and the sticky-information Phillips Curve by considering a possibility where price setters are constrained by the length of the time horizon  $\kappa$  over which they can form rational expectations, and they use a combination of the central bank's inflation target and past prices as an appropriate heuristic if required. This rule of price adjustment derives a framework that allows one to analyse the behaviour of inflation and output continuously throughout the entire spectrum of rationality, from one end to the other, while varying the degree of price rigidity and frequency of

information arrival. Impulse responses to exogenous shocks reveal that deviations from rational expectations result in a longer path of return to equilibrium for both inflation and output. Under sticky-information, the path of output is no longer smooth and inflation tends to jump discontinuously, before exhibiting oscillatory dynamics. Towards the extreme where  $\kappa = 0$ , both inflation and output can potentially be a bubble. I further find that increasing the rate of information arrival while assuming a finite  $\kappa$  yields a behaviour of inflation and output as though  $\kappa$  is infinite. This is as if price setters acquire full rational expectations when information is widely available. Raising the frequency of price adjustment similarly brings one back to the full-rationality benchmark and shortens the path of return for both inflation and output.