

[Optimal Inflation and the Identification of the Phillips Curve](#)

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This note explains why inflation follows a seemingly exogenous statistical process, unrelated to the output gap. In other words, it explains why it is difficult to empirically identify a Phillips curve. We show why this result need not imply that the Phillips curve does not hold – on the contrary, our conceptual framework is built under the assumption that the Phillips curve always holds. The reason is simple: if monetary policy is set with the goal of minimising welfare losses (measured as the sum of deviations of inflation from its target and output from its potential), subject to a Phillips curve, a central bank will seek to increase inflation when output is below potential. This targeting rule will impart a negative correlation between inflation and the output gap, blurring the identification of the (positively sloped) Phillips curve.