Nonlinear Unemployment Effects of the Inflation Tax*

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Preliminary draft. Please do not circulate.
This Version: November 22, 2020

Abstract

Using panel data from the OECD, we document that the long-run relationship between anticipated inflation and unemployment is not only positive, but nonlinear: the positive relationship is stronger when unemployment is higher. Moreover, higher anticipated inflation is associated with higher unemployment volatility. We show that these correlations arise naturally in a standard monetary search model with two shocks - productivity and money growth - and frictions in labor and goods markets. Inflation lowers the surplus from a worker-firm match, in turn making it sensitive to productivity shocks or further increases in inflation. We calibrate the model to match US postwar labor market and monetary data. We show that it is quantitatively consistent with observed cross-sectional correlations and use it to conduct counterfactual experiments.

Keywords: unemployment; inflation; money; monetary policy.

JEL classification: E24, E30, E40, E50.

*The views expressed are those of the authors and do not reflect the official position of the Federal Reserve System or the Board of Governors.

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