Robot Adoption and Inflation Dynamics

Abstract

We leverage variation in robot adoption across U.S. metropolitan areas and document that automation reduces the sensitivity of inflation to unemployment. To rationalize this finding, we build a New Keynesian model with search frictions in which low-frequency movements in automation flatten the Phillips curve. The key channel is the option value of automation: the threat of automating labor tasks alters workers' bargaining power, muting the wage sensitivity to unemployment. We validate the relevance of this channel in the data by showing that robot adoption reduces relatively more the sensitivity of inflation to unemployment in highly unionized metropolitan areas.

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