## Research Working Papers

# Negative Nominal Interest Rates Can Worsen Liquidity Traps

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A workhorse macroeconomic model predicts that negative interest rates would likely deepen a recession caused by self-fulfilling pessimism about aggregate demand.

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Can central banks use negative nominal interest rates to overcome the adverse effects of the zero lower bound? I show that negative rates are likely to be counterproductive in an expectations-driven liquidity trap. In a liquidity trap, firms expect low demand and cut prices, which leads the central bank to reduce nominal rates to their lower bound. If the resulting decline in real rates is not enough to stabilize demand, then the pessimism of price setters is fulfilled. Theoretically, the effect of a negative nominal rate is non-monotonic: a marginally negative rate is not enough to escape the liquidity trap, but allows for more pessimistic expectations and deflation, while a sufficiently negative rate eliminates the trap altogether. However, plausible estimates of the cost and benefits of price adjustments in the U.S. suggest that negative rates are contractionary in a liquidity trap, even at −100 percent.

JEL Classification: E50, E52, E58

### Article Citations

- Glover, Andrew. 2019. “Negative Nominal Interest Rates Can Worsen Liquidity Traps.” Federal Reserve Bank of Kansas City, Research Working Paper no. 19-07, October. Available at https://doi.org/10.18651/RWP2019-07

### Related Research


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Andrew Glover is a research and policy advisor in the economic research department at the Federal Reserve Bank of Kansas City. His research studies labor and credit markets from a macroeconomic perspective. Prior to joining the Federal Reserve of Kansas City, Mr. Glover was an assistant professor of economics at the University of Texas at Austin. He earned his PhD from the University of Minnesota in 2011.