

Adaptive Quantity Theory of Money

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We investigate the relationship between price level (P), money supply (M) and real output (Y) in the U.S. since 1959. It is found that the price ($\log P$) is no longer in proportion to the excess money supply ($\log(M/Y)$) after 1995, which invalidates the Quantity Theory of Money (QTM). While this confirms the results of some existing studies, we discover that the unemployment rate is able to explain the co-movement of the price and the excessive money. This leads us to propose an Adaptive Quantity Theory of Money (AQTM), which may be viewed as a version of the QTM via a non-linear function of the unemployment rate. Econometric analyses based on the US data verify the existence of the AQTM since 1995, and its robustness to econometric specification tests. In addition, the AQTM produces better inflation forecasts than the traditional QTM and other models.