

# New Keynesian Dynamic IS Curve and Weak Identification Robust Test in GMM Estimation

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## Abstract

This paper empirically examines the New Keynesian dynamic IS (hereafter DIS) curve that theoretically features the forward-looking behavior in determining current output. As the related NKPC studies argued, it is also important to identify structural parameters for the DIS. We adopt the weak identification robust test statistics in generalized method of moments to explore the empirical importance of output expectation and real rate gap. We find that using some pivotal test statistics, the role of expected output becomes clear from post war U.S. data. However, we have confirmed that most of the coefficients are sensitive to the weak identification problem. In particular, the problem can be most severe for the interest-elasticity.

*Keywords:* DIS, New Keynesian framework, Weak identification, Restrictions, GMM