Quantitative easing, supply shock and inflation: Evidence from a structural VAR for Japan

Siyu Zhang
Graduate School of Economics, Meiji Gakuin University

Abstract

This paper attempts to investigate the evolution of moderate inflation under Japan's quantitative easing policies.

To this end, the permanent and transitory technology shock could lead to different responses during inflation. We develop a DSGE model, after noting this, to show that supply shocks can affect long-term government bond demand in the economy, and *vice versa*.

Based on the model, we apply sign restrictions, and then estimated a structural VAR using post-1999 data from Japan.

We find that under QE policies, the reductions in banks' bond holdings and bond yields both promoted inflation; while the transitory technology shock produced downward pressure on inflation.

We therefore conclude that the positive effects on inflation from quantitative easing have been offset by a transitory technology shock.

Our estimation results suggest that when performing analysis about quantitative easing's effects on inflation, its effect on other economic sectors should also be considered.

Keywords: Quantitative easing, inflation, supply shock, DSGE, structural VAR.
JEL classification: E32; E44; E52