A REGIME-SWITCHING SVAR ANALYSIS OF THE ZERO-INTEREST RATE POLICY

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Abstract

Central banks of major market economies have in recent years embarked on the ZIRP (zero-interest-rate policy) of maintaining the policy rate at a very low level, with a supply of large amounts excess bank reserves. We develop a regime-switching SVAR (structural vector autoregression) in which the regime, chosen by the central bank, is endogenous and observable. The model can incorporate the exit condition, imposed on itself by the central bank, of not ending the ZIRP. We then apply the model to Japan, a country that has accumulated, by our count, 130 months under three spells of the ZIRP regime as of December 2012. Our impulse response analysis, which takes into account the regime endogeneity, yields two findings. First, an excess reserve shock when the current regime is ZIRP raises inflation and output. Second, a regime shock of terminating the ZIRP has the opposite effect. However, these is considerable uncertainty about these findings because of relatively wide error bands.

Keywords: zero-interest-rate policy, structural VAR, observable regimes, Taylor rule, impulse responses, Bank of Japan.