

<*The Effects of Monetary Policy Announcements at the Zero Lower Bound*>

Paper Summary

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What is the question?

What are the effects of unconventional monetary policy at the zero lower bound (ZLB)? Do the effects differ from Japan to US?

Why should we care about it?

This issue has undertaken serious debates since the financial crisis in 2008, because many countries reached ZLB afterwards. The author mentions that most studies regarding the issue focus on the US economy after the crisis, while few of them pay attention to the case of Japan, which has been under ZLB for 20 years.

What is the answer?

The author finds that in the case of Japan, an expansionary policy shock at ZLB will lower the corporate bond yields, raise the stock prices in fewer cases, and cause depreciation of Japanese yen, while only the effects on bond yields are statistically significant in most cases. This contradicts the case of US, for which the policy shock results in similar effects but all in a stronger and statistically significant fashion.

How did the author get there?

The author adopts the method of identification through heteroscedasticity (Rigobon, 2003), under the assumption that the variance of policy shocks is higher on the announcement days than the days before, while the variance of other shocks is constant before and after the announcement. If the assumption is fulfilled, the difference between the variances of the announcement and non-announcement days only depends on the variance of monetary policy shocks.

The author uses the change in the interest rate and the growth rate of asset price to construct instruments, and takes advantage of the orthogonality property as the moment conditions for GMM estimation of the effects from policy shock.

The author use the method to estimate the effects of monetary policy shocks on corporate bond yields, stock prices and the exchange rate, based on daily data of Japan from April 1998 to December 2013.

A real world example

It's very interesting but also important to know what might happen to Taiwan once our interest rate reaches the zero lower bound. Will the financial policy work or not? What will be the effects of those policies to the market? This study on Japan should provide us with fruitful insights, since Taiwan and Japan have similar economic environment and trade policies.

List of common notation

Notation	Meaning
Δi_t	The change in the interest rate
ΔS_t	The growth rate of the asset price
X_t	Common exogenous shocks
α	The effect of monetary policy shocks on asset prices through the changes in the interest rate
T_A	Number of announcement days
$T_{\bar{A}}$	Number of non-announcement days
Ω_A	Conditional variance-covariance matrices in announcement days
$\Omega_{\bar{A}}$	Conditional variance-covariance matrices in non- announcement days
$\Delta\Omega$	Difference of the variances