Yield Expectations and the Effects of Macroeconomy and Monetary Policy - the Case of Japan -

Ryo Hasumi^a and Hideaki Hirata^b

^aGraduate School of Business & Commerce, Keio University 2-15-45 Mita, Minato-ku, Tokyo 108-8345, Japan hasumi@jcer.or.jp

^bDepartment of Business Administration, Hosei University 2 Fujimi, Chiyoda-ku, Tokyo 102-8160, Japan h-hirata@hosei.ac.jp

This article investigates whether the public's views on the long-term interest rates (JGB yields) path have been affected by macroeconomic and policy factors by using the monthly QUICK's QSS surveys. Private agents' forecasts of ten-year yields on the JGB stand proxy for the public's views.

Looking at the average of the individual forecasts, we can find they have upper bias against the actual data over time (from 1996 to 2008). Assessing forecast accuracy using RMSE of the forecast errors, the simple flat (no-change) forecasts outperform the private agents' forecasts. Those results imply that the agents' forecasts are not very useful as predictors of the future JGB yields. Rather, the continuously positive forecast errors indicate the private agents have rising yield expectations during the sample period.

Letting r_t^f denote the survey forecasts of the JGB yields and r_{t-h}^a denote the actual JGB yields at the time when r_t^f is forecasted with h-month forecast horizon, we define $r_t^f - r_{t-h}^a$ as "yield expectations" and we ask whether yield expectations are influenced by macroeconomic and policy factors (Note that the "forecast errors" are defined as $r_t^f - r_t^a$). The survey provides useful set of forecasters' views on macroeconomic and policy factors influencing on yield expectations. Those factors include business cycles, prices, monetary policy, exchange rates, and foreign interest rates. In the survey, forecasters answer that booming, price increase, stock price hike, increase in short-term interest rates, and yen's depreciation are expected to lead to the higher JGB yields. They also answer that the transparent statements about the future direction of short-term interest rates are expected to be effective on controlling the JGB yields. To quantitatively confirm those answers, just regressing average yield expectations on the corresponding economic variables, we find some inconsistency between the average survey answers and the actual quantitative impact of economic variables. This result suggests the necessity of micro-econometric investigations.

Next, we regress the individual yield expectations on (1) the individual views on each factor and (2) the cross terms of the forecasters' views and the corresponding economic variables. We find the yield expectations are strongly influenced by monetary policy including the quantitative monetary easing policy and yen/dollar exchange rates. Those findings show some evidence that transparent monetary policy has strong impact on formulating public's expectations. In addition, those findings imply forecasters believe that Japanese economy still depends upon external demands.

Keywords

expectations, survey forecasts, professional forecasts, long-term interest rates, yields, JGB

References

- [1] Ball, L. and Croushore, D., "Expectations and the Effects of Monetary Policy," *Journal of Money, Credit, and Banking*, V. 35, pp. 473-484, 2003.
- [2] Bauer A., Eisenbeis, R., Waggoner D. F., and Zha, T., "Forecast evaluation with cross-sectional data: The Blue Chip Surveys," *FRB of Atlanta Economic Review*, V. 88, pp. 17-31, 2003.
- [3] Bauer A., Eisenbeis, R., Waggoner D. F., and Zha, T., "Transparency, expectations, and forecasts," *FRB of Atlanta Economic Review*, V. 91, pp. 1-25, 2006.
- [4] Hsiao, C. and Zhao Z., "Combining opinion surveys with time-series data to forecast the Japanese economy," *Japan Economic Review*, V. 51, pp. 155-169, 2000.
- [5] Ito, T., "Foreign exchange rate expectations: Micro survey data,." *American Economic Review*, V. 80, pp. 434-449, 1990.