Referee Report on "New Evidence on News-Driven Business Cycles" (MS89)

The current version of the paper has made the following major revision:

- Check if the structural shocks can generate positive comovement of macro variables in a tri-variate system. To check the comovement results, the authors construct four tri-variate systems, each of which include a third variable, such as output, consumption, investment, and hours. The authors then plot the impulse responses of the third variable under each tri-variate system and use them to analyze the comovement of different macro variables.

- Check the contribution of such shocks to forecast error variance of macro variables. The authors compute the share of variance explained by ε_2 and $\widetilde{\varepsilon}_1$ and the variance of the third shocks.

I now focus my comment on each of these two exercises, including methodologies used and the interpretation of the results.

Exercise for comovement. The analysis of comovement based on impulse responses of a third variable under different tri-variate systems is problematic. This is because the same series of ε_2 (similar for $\widetilde{\varepsilon}_1$) obtained in different tri-variate systems with different macro variables may probably be very different, unless in real economy the pure demand shocks for different macro variables are all the same. To check comovement, it is desirable to compare the impulse responses of the variables in a single tri-variate system. For example, in a system with consumption as the third variable, the impulse responses of other variables to ε_2 could be obtained from the estimated coefficients by regressing their percentage changes against the computed ε_2 and ε_1 series (or $\widetilde{\varepsilon}_2$ and $\widetilde{\varepsilon}_1$ series) with appropriately chosen lags.

Exercise for quantitative importances of news. A comparison of forecast error variance of the same macro variable contributed by ε_2 and $\widetilde{\varepsilon}_1$ casts doubt on the paper's conclusion that news are quantitatively important driving forces of German business cycles. For example, both Table 1 and 2 show that the contribution of ε_2 to the variance of output within the first eight quarters is just 9%. Instead, shocks that affect current TFP can explain 76% of variance of output within the same horizon. Similar results hold for the contribution of ε_2 to the variance of other macro variables. This is in sharp contrast to the findings of Beaudry and Portier (2006) for the U.S. business cycles, which shows that the contribution of ε_2 to variance of output is about 40% within the same time horizon.

Another evidence that undermines the quantitative importance of news for German business cycles is the significant contribution of $\widetilde{\varepsilon}_1$ to the variance of different macro variables. As in Table 1 and 2, the contribution of $\widetilde{\varepsilon}_1$ to the variance of output is more than 50% within eight quarters. This implies that shocks that affect long run TFP are quantitatively much more important in driving German business cycles than shocks that have no short run impact on TFP. A possible reason for this disparity is that in German none-fundamental factors, such as bubbles, which are uncorrelated with long-run technology improvement, play important roles in driving the fluctuation of stock prices.

Robustness Check. It is noted that both the above two exercises can be conducted in a bi-variate system, with changes in macro variables regressed against ε_2 and ε_1 series (or $\widetilde{\varepsilon}_2$ and $\widetilde{\varepsilon}_1$ series), as mentioned above. Therefore, it is desirable to check the robustness of the results obtained under tri-variate systems in a bi-variate system.