Oil price, exchange rate, and Japanese stock returns

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Abstract

This paper investigates economic forces affecting Japanese stock returns paying particular attentions to economic/structural interpretations of structural shocks behind oil price and exchange rate movements, extending the framework of Kilian (2009) and Ready (2018) by including exchange rate variable in their models. The performance of the extended Ready's model is much better than the extended Kilian's model. However, we find structural interpretation for the former difficult because stock price respond positively to oil price increase due to oil supply shocks and the signs of the impact of exchange rate shocks changes in sub samples. On the other hand, statistical interpretations of two models are straightforward. In both models, the "residuals" of oil price fluctuations that cannot be explained by other explanatory variables or structural shocks have positive impacts on Japanese stock returns. They are called oil-market-specific price shocks in Kilian's model, while they are called oil supply shocks in Ready's model, because of different identification strategies.

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