

Evaluating the effectiveness of foreign exchange intervention using counterfactual analysis: Evidence from Japanese intervention episodes, 2010-2011

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Abstract

This paper presents an empirical method of using a synthetic control method proposed by Abadie, Diamond, and Hainmueller (2010, 2015) to evaluate the effectiveness of official foreign exchange (FX) intervention. By applying the method to the data on Japanese FX intervention events in the period from September 2010 to November 2011, we estimate the treatment effect of a particular FX intervention on the yen-dollar rate. From this analysis, we report three main findings. First, FX interventions characterized by large, coordinated, and/or infrequent interventions are substantially effective in moving the yen-dollar rate in the desired direction. Second, in contrast to previous research, Japanese FX intervention has a relatively long-lasting effect on the yen-dollar rate. Third, although the intervention amount is the smallest, the lasting effect of coordinated intervention is the largest and the most powerful compared to the other single intervention events.

JEL classification: F31; F33; F37; C14; C22

Keywords: Exchange rate; Foreign exchange intervention; Yen-dollar rate; Counterfactual; Synthetic control; Treatment effect

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