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The Faculty of Management
The Department of Knowledge and Information Management
Invites you to attend a seminar

Forecasting exchange rates: a robust regression approach

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Department of Economics and Business Administration, Ariel University

Monday, January 30th at 12:00 pm
Jacobs Building, room no. 506

Abstract

The least squares estimation method as well as other ordinary estimation methods for regression models can be severely affected by a small number of outliers, thus providing poor out-of-sample forecasts. This paper suggests a robust regression approach, based on the S-estimation method, to construct forecasting models that are less sensitive to data contamination by outliers. A robust linear autoregressive (RAR) and a robust neural network (RNN) model are estimated to study the predictability of two exchange rates at the 1-, 3- and 6-month horizons. We compare the predictive ability of the robust models to those of the random walk (RW), the standard linear autoregressive (AR) and neural networks (NN) models in terms of forecast accuracy and sign predictability measures. We find that robust models tend to improve the forecasting accuracy of the AR and of the NN at all time horizons, and even of the RW for forecasts carried out at the 1-month horizon. Robust models are also shown to have significant market timing ability at all forecast horizons.

Keywords: Exchange rates; Forecasting; Neural networks; Outliers; Robust regression approach; S-estimation.

JEL classification: F31, C45, C53.

All Are Welcome

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