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Christophe Amat, Tomasz Michalski, Gilles Stoltz

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Fundamentals and exchange rate forecastability with simple machine learning methods[☆]

Christophe Amat[a], Tomasz Michalski[b,*], Gilles Stoltz[c]

[a] *Ecole Polytechnique, Palaiseau, France*
[b] *HEC Paris – GREGHEC, Jouy-en-Josas, France*
[c] *HEC Paris – CNRS, Jouy-en-Josas, France*

Abstract

Using methods from machine learning we show that fundamentals from simple exchange rate models (PPP or UIRP) or Taylor-rule based models lead to improved exchange rate forecasts for major currencies over the floating period era 1973–2014 at a 1-month forecast horizon which beat the no-change forecast. Fundamentals thus contain useful information and exchange rates are forecastable even for short horizons. Such conclusions cannot be obtained when using rolling or recursive OLS regressions as used in the literature. The methods we use – sequential ridge regression and the exponentially weighted average strategy, both with discount factors – do not estimate an underlying model but combine the fundamentals to directly output forecasts.

JEL Classification: C53, F31, F37

Keywords: exchange rates, forecasting, machine learning, purchasing power parity, uncovered interest rate parity, Taylor-rule exchange rate models

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[*]Corresponding author

Email addresses: christophe.amat@polytechnique.edu (Christophe Amat), michalski@hec.fr (Tomasz Michalski), stoltz@hec.fr (Gilles Stoltz)