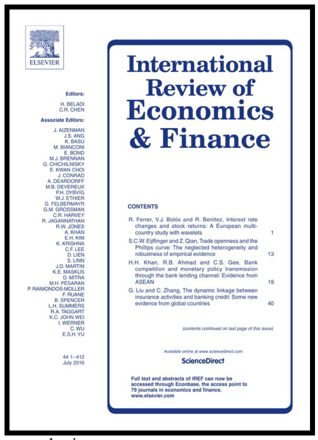
Author's Accepted Manuscript



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PII: S1059-0560(16)30357-4
DOI: http://dx.doi.org/10.1016/j.iref.2016.12.005
Reference: REVECO1335

To appear in: *International Review of Economics and Finance*

Received date: 19 May 2016
Revised date: 12 December 2016
Accepted date: 12 December 2016

Is the price path learnable under a fixed exchange rate regime?

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Abstract

The purpose of this paper is to investigate, in a small open economy, whether rational expectations equilibria (REE) prices under a system of fixed exchange rates are attainable when private agents engage in a reasonable, adaptive learning rule. This analysis highlights the crucial implications of a foreign price process on the learnability of the domestic minimum-state-variable (MSV) REE price, and shows that, under fixed exchange rates, a stationary foreign price process can generate an expectationally stable MSV REE price path in the home country. Precisely, this paper demonstrates that a price path is learnable in the expectational stability sense when the price process, which is MSV REE, responds in the same direction as the foreign price to any changes in the lagged foreign price. While, the MSV REE price is unlearnable when the domestic and foreign prices move in opposite directions in response to any changes in the lagged foreign price. The real–time simulations illustrate that introducing adaptive learning into a fixed exchange rate model can lead a learnable price process to oscillate with a smaller and bounded amplitude. These findings tell us how learning depends on the interactions between domestic and foreign price processes, which gives policy makers a valuable insight into the choice of anchor currency.

Keywords: Learning, expectational stability, minimum state variable, and fixed exchange rates.
JEL classification: E52, D84, E31.

1. Introduction

The effectiveness of mitigating the volatility of price level or average inflation rate has been a central focus of research on pegging exchange rates. According to the impossible trinity, without any restriction on capital mobility, countries under a fixed exchange rate regime would lose their monetary policy autonomy in the sense that any efforts in money supply are offset by interventions in foreign exchange rate market. In this context, domestic

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