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Guillaume Chevillon, Sophocles Mavroeidis

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Perpetual Learning and Apparent Long Memory*

Guillaume Chevillon† ESSEC Business School

Sophocles Mavroeidis‡ University of Oxford

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Abstract

This paper studies the low frequency dynamics in forward looking models where expectations are formed using perpetual learning such as constant gain least squares. We show that if the coefficient on expectations is sufficiently close to unity, perpetual learning induces strong persistence that is empirically indistinguishable from long memory. We apply this result to present value models of stock prices and exchange rates and find that perpetual learning can explain the long memory observed in the data.

JEL Codes: C1, E3;

Keywords: Long Memory, Consistent Expectations, Perpetual Learning, Present-Value Models.

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†ESSEC Business School, Department of Information Systems, Decision Sciences and Statistics, Avenue Bernard Hirsch, BP50105, 95021 Cergy-Pontoise cedex, France. Email: guillaume.chevillon@essec.edu.

‡Department of Economics and INET at Oxford, University of Oxford, Manor Road, Oxford, OX1 3UQ, United Kingdom. Email: sophocles.mavroeidis@gmail.com.

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