Credit and Capital Markets, Volume 52, Issue 4, pp. 573–617
Scientific Papers

Optimal Sticky Prices Under Rational Inattention*

Bartosz Maćkowiak** and Mirko Wiederholt***

Abstract

This paper presents a model in which price setting firms decide what to pay attention to, subject to a constraint on information flow. When idiosyncratic conditions are more variable or more important than aggregate conditions, firms pay more attention to idiosyncratic conditions than to aggregate conditions. When we calibrate the model to match the large average absolute size of price changes observed in micro data, prices react fast and by large amounts to idiosyncratic shocks, but only slowly and by small amounts to nominal shocks. Nominal shocks have strong and persistent real effects.

An optimizing trader will process those prices of most importance to his decision problem most frequently and carefully, those of less importance less so, and most prices not at all. Of the many sources of risk of importance to him, the business cycle and aggregate behavior generally is, for most agents, of no special importance, and there is no reason for traders to specialize their own information systems for diagnosing general movements correctly.

– *Robert E. Lucas (1977, 21)*

Keywords: Rational Inattention: Sticky Prices, Real Effects of Nominal Shocks

JEL Classification: D21, D83, E31, E52

---

* First printed in The American Economic Review (June, 2009), pp. 769–803 (published by The American Economic Association).

** Prof. Dr. Bartosz Maćkowiak, European Central Bank, Monetary Policy Research, Kaiserstrasse 29, D-60311 Frankfurt am Main. Email: bartosz.mackowiak@ecb.europa.eu

*** Prof. Dr. Mirko Wiederholt, Northwestern University, Department of Economics, 2001 Sheridan Road, Evanston, IL 60208, USA. Email: m-wiederholt@northwestern.edu

For helpful comments, we thank Mark Gertler, three anonymous referees, Klaus Adam, Gianluca Benigno, Michael Burda, Larry Christiano, Giancarlo Corsetti, Wouter Den Haan, Martin Eichenbaum, Andrea Gerali, Bob Gordon, Oleksiy Kryvtsov, John Leahy, Emi Nakamura, Aviv Nevo, Alessandro Pavan, Giorgio Primiceri, Federico Ravenna, Chris Sims, Frank Smets, Harald Uhlig, Laura Veldkamp, David Vestin, Michael Woodford, and seminar participants at various institutions. This research was supported by the Deutsche Forschungsgemeinschaft through the Collaborative Research Center 649 *Economic Risk*. The views expressed in this paper are solely those of the authors and do not necessarily reflect the views of the European Central Bank