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Tatiana Damjanovic, Šarūnas Girdėnas

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Quantitative Easing and the Loan to Collateral Value Ratio*

Tatiana Damjanovic — University of Exeter
Šarūnas Girdėnas† — University of Exeter

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Abstract

We study optimal policy in a New Keynesian model at zero bound interest rate where households use cash alongside house equity borrowing to conduct transactions. The amount of borrowing is limited by a collateral constraint. When either the loan to value ratio declines or house prices fall, we observe a decrease in the money multiplier. We argue that the central bank should respond to the fall in the money multiplier and therefore to the reduction in house prices or the loan to collateral value ratio. We also find that optimal monetary policy generates a large and persistent fall in the money multiplier in response to the drop in the loan to collateral value ratio.

Keywords: optimal monetary policy, zero lower bound, qualitative easing, money multiplier, loan to value ratio, collateral constraint, house prices

JEL classification: E44, E51, E52, E58

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†Address: Economics Department, Business School, University of Exeter, Streatham Court, Rennes Drive. EX4 4PU, UK. Email: sg325@exeter.ac.uk