## Quasi-Bayesian Model Selection\*

Atsushi Inoue † Mototsugu Shintani<sup>‡</sup>

Southern Methodist University Vanderbilt University

December 2013

## Abstract

In this paper we establish the consistency of the model selection criterion based on the quasi-marginal likelihood obtained from Laplace-type estimators (LTE). We consider cases in which parameters are strongly identified, weakly identified and partially identified. Our Monte Carlo results confirm our consistency results. Our proposed procedure is applied to select among monetary macroeconomic models using US data.

<sup>\*</sup>We thank Matias Cattaneo, Larry Christiano, Lutz Kilian and Vadim Marmer for helpful discussions and Mathias Trabandt for providing the data and code. We also thank the seminar and conference participants for helpful comments at the Bank of Canada, Gakushuin University, Kyoto University, University of Michigan, Texas A&M University, Vanderbilt University, and the FRB Philadelphia/NBER Workshop on Methods and Applications for DSGE Models.

<sup>&</sup>lt;sup>†</sup>Department of Economics, Southern Methodist University, 3300 Dyer Street, Suite 301, Umphrey Lee Center, Dallas, TX 75275-0496. Email: ainoue@smu.edu.

<sup>&</sup>lt;sup>‡</sup>Department of Economics, Vanderbilt University, VU Box 351819 Station B, 2301 Vanderbilt Place, Nashville, TN 37235-1819. Email: mototsugu.shintani@vanderbilt.edu.