A Macroeconomic Model of Liquidity, Wholesale Funding and Banking Regulation*

Corinne Dubois† Luisa Lambertini‡
EPFL EPFL

December 4, 2017

Abstract

We develop a model with regulated banks and a hedge fund to analyze the behavior of wholesale funding and the macroeconomic consequences of liquidity regulation. Banks raise deposits and subordinated wholesale funding from the hedge fund. Wholesale funding amplifies shocks: it is curtailed in economic downturns to avoid levering up and risk-taking by banks, further depressing credit and economic activity. By making banks safer, liquidity regulation increases wholesale funding at the steady state. Flat liquidity regulation, as in Basel III, increases volatility while cyclically adjusted regulation is stabilizing and welfare-improving. Our empirical tests suggest that banks with higher liquidity ratios suffer milder contractions in wholesale funding and loans during times of liquidity stress.

Keywords: Banking; DSGE model; Liquidity; Financial Crisis; Financial Stability; Banking regulation.

JEL Classification: E44. E58, G21, G23

---

*We gratefully acknowledge financial support from the Swiss National Science Foundation grant 100010_157114. We thank seminar and conference participants at Boston University, the Federal Reserve Bank of New York, the Federal Reserve Bank of St. Louis, University of Lausanne, University of Zurich, EEA 2016, CEF 2016 and T2M for useful comments.

†École Polytechnique Fédérale de Lausanne, Chair of International Finance, Station 5, CH-1015 Lausanne, Switzerland; E-mail: corinne.dubois@epfl.ch.

‡École Polytechnique Fédérale de Lausanne, Chair of International Finance, Station 5, CH-1015 Lausanne, Switzerland; E-mail: luisa.lambertini@epfl.ch.