## Liquidity, Asset Prices and Financial Instability\*

Monika Bucher<sup>†</sup>Diemo Dietrich<sup>‡</sup>Mich Tvede<sup>§</sup>

First draft: March 15, 2017 This draft: April 21, 2017

Please do note circulate without permission

## Abstract

This paper considers the stability of financial systems. We study a model where banks provide liquidity insurance and interact on asset markets. Coordination failures among depositors can cause simultaneous bank runs and asset market crashes. With their portfolio decisions, banks choose whether to be vulnerable to bank runs. Depositors choose where to make their deposits knowing the portfolio decisions of banks. In equilibrium both the share of banks that are vulnerable to bank runs and the volatility of asset prices are endogenous. There can be multiple equilibria and even indeterminacy. Fundamentals can be compatible with stable financial systems where no bank is vulnerable to bank runs and asset prices are stable as well as with weak financial systems where some banks or even all banks are vulnerable to bank runs and asset prices are volatile. We compare different financial systems with respect to their real economic implications.

**Keywords** Liquidity Insurance · Extrinsic Uncertainty · General Equilibrium · Bank Run · Asset Price Volatility

## **JEL Classification**

<sup>\*</sup>The paper represents the authors' personal opinions and does not necessarily reflect the views of the Deutsche Bundesbank or its staff. We thank Falko Fecht, Nicola Persico and Sergey Zhuk for helpful comments. Diemo Dietrich thanks Deutsche Bundesbank Research Centre for its hospitality.

<sup>&</sup>lt;sup>†</sup>Deutsche Bundesbank

<sup>&</sup>lt;sup>‡</sup>Corresponding author. Newcastle University, diemo.dietrich@newcastle.ac.uk

<sup>&</sup>lt;sup>§</sup>University of East Anglia