Discussion of
Solvency and wholesale funding cost interactions
at UK banks
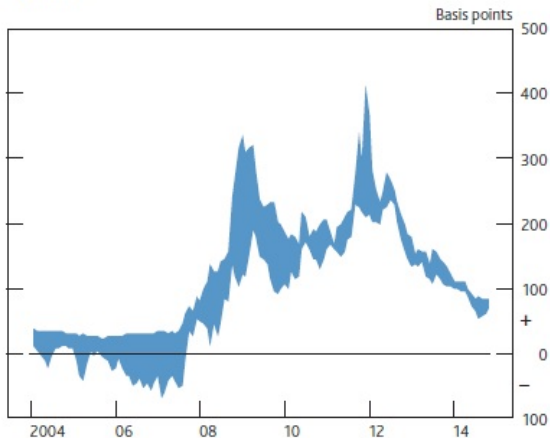### Dent, Hoke and Panagiotopoulos

Christoph Fricke [1]

[1]Deutsche Bundesbank

christoph.fricke@bundesbank.de

September 2017

The views expressed here are the authors' and do not necessarily represent the views of Deutsche Bundesbank or the Eurosystem.

Chart 1 Range of indicative measures of bank funding spreads[a]

Basis points

Sources: Bank of England, Barclays Live, Markit Group Limited and Bank calculations.

(a) The swathe includes three measures of long-term wholesale funding spreads for UK banks: the average of major UK banks' five-year euro-denominated senior CDS; quoted rates on one-year fixed-rate bonds over one-year swap rates for UK banks; and the Barclays Live 'Pan-Euro Corporate Banking: Senior – Spread' series.

Chart A Market-based capital ratios and funding costs[a][b][c][d]
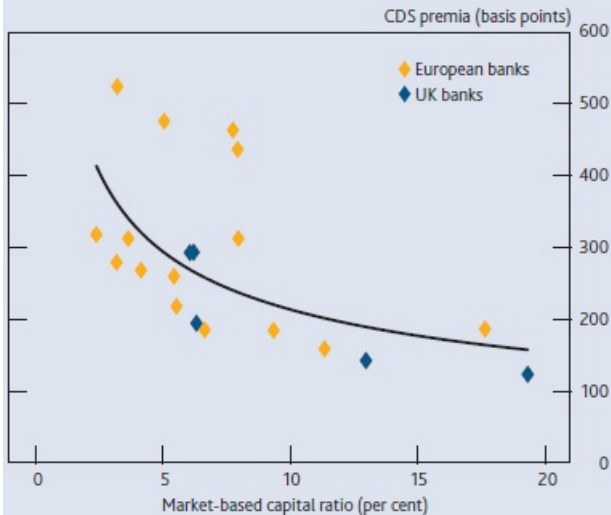
Sources: Capital IQ, Markit Group Limited, published accounts and Bank calculations.

Overview - Motivation

Is bank (default) risk reflected in funding costs?

- Before crisis: Investors might have missed systemic component
- During crisis: Repricing of risk!
  $\rightarrow$ Investors ask for a resilient banking sector
- After crisis: Regulatory initiatives

Does a vicious cycle exist?

Feedback-loops? (Brunnermeier and Petersen, 2009)

- Feedback effect from solvency to funding costs and reverse?
- Example: Deutsche Bank's 14 billion USD fee: solvency concerns
- Need by regulators to understand this channel

Econometric Approach

- Exploration of determinants for U.K. bank CDS premia changes
- Horse race of 3 econometric specifications:
  1. Panel linear model
  2. Panel threshold model
  3. Panel smooth transition model
  4. *Panel VAR with sign restrictions?*
- Econometric specifications:

  $\Delta CDS_{i,t}^{(5y)} =$

  $\alpha_i + \beta_1 \times Solvency_{i,t} + \beta_2 \times \Delta rf_{i,t}^{5y} + \beta_3 \times \Delta CDS_{i,t}^{(5y,Bid-Ask)} + \beta_4 \times \Delta \sigma(Equity)_{i,t}^{30d} + \beta_5 \times \Delta \sigma(FTSE)_{i,t} + \epsilon_{i,t}$

- $Solvency_{i,t}$ as bank i's leverage ratio $\frac{Market\ Value\ of\ Equity}{Book\ Value\ of\ Assets}$

Key Findings

Non-linear effects do exist

- Threshold models reveal better goodness-of-fit
- Threshold at 2.4%; below regulatory leverage ratio

What are the economic implications?

- Linear models underestimate effects
  Evidence for tail events?
- Threshold below regulatory leverage ratio under Basel III Did regulators either ...
    1. stabilized the banking sector, or
    2. increased the regulatory burden?

Comments I – From an econometric viewpoint

Identification

1. Persistence of CDS price (changes)?
   Control for lagged variables

2. Multicollinearity?
   Two volatility measures: Market & bank volatility
   unconditional correlation: 0.6976

Comments II – From an economic viewpoint

Identification

1. Does "market-based leverage ratio" (MBLR) solely measures solvency?

   $$MBLR = \frac{Market\ Value\ of\ Equity}{Book\ Value\ of\ Assets}$$

   $$MBLR = \frac{weekly\ data}{quarterly\ data}$$

   - *Tobin's q*: majority of fluctuations driven by share price fluctuations:
     - future earning expectations
     - discount rate
   - $\rightarrow$ Focus on discount rate / risk premia

Comments II – From an economic viewpoint

Policy implications

1. Does a feedback loop exist?

- *Solvency ↑→ CDS ↑→ Solvency ↑*

   If yes, how do banks react?
   - delay bond issuance?
   - fire-sale assets? (Greenwood et al., 2015)
   - is there a systemic risk component in their behaviour?

Thanks and good luck with the paper