Discussion of
Solvency and wholesale funding cost interactions
at UK banks
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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\(^a\)


\(^a\) 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\(^{(a)(b)(c)(d)}\)

CDS premia (basis points)

- European banks
- UK banks

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!
  → 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
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:
\[ \Delta CDS^{(5y)}_{i,t} = \alpha_i + \beta_1 \times Solvency_{i,t} + \beta_2 \times \Delta rf^{5y}_{i,t} + \beta_3 \times \Delta CDS^{(5y,Bid-Ask)}_{i,t} + \beta_4 \times \Delta \sigma(Equity)_{i,t}^{30d} + \beta_5 \times \Delta \sigma(FTSE)_{i,t} + \epsilon_{i,t} \]

Solvency\(_{i,t}\) as bank i’s leverage ratio \(\frac{\text{Market Value of Equity}}{\text{Book Value of Assets}}\)
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?
Identification

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

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

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

\[ MBLR = \frac{\text{Market Value of Equity}}{\text{Book Value of Assets}} \]

\[ MBLR = \frac{\text{weekly data}}{\text{quarterly data}} \]

- **Tobin’s q**: majority of fluctuations driven by share price fluctuations:
  - future earning expectations
  - discount rate
  → Focus on discount rate / risk premia
Policy implications

1. Does a feedback loop exist?

- Solvency $\uparrow \rightarrow CDS \uparrow \rightarrow Solvency \uparrow$

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