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Discussion of Artuç and Demiralp (2009)*

"Prevision of Liquidity through the PCF during the Financial Crisis: A Structural Analysis"

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Outline

- Policy questions addressed
- Explanatory power of the model
- Comments on:
    - the structural model
    - the estimation
    - characterization of the crisis
- Conclusions

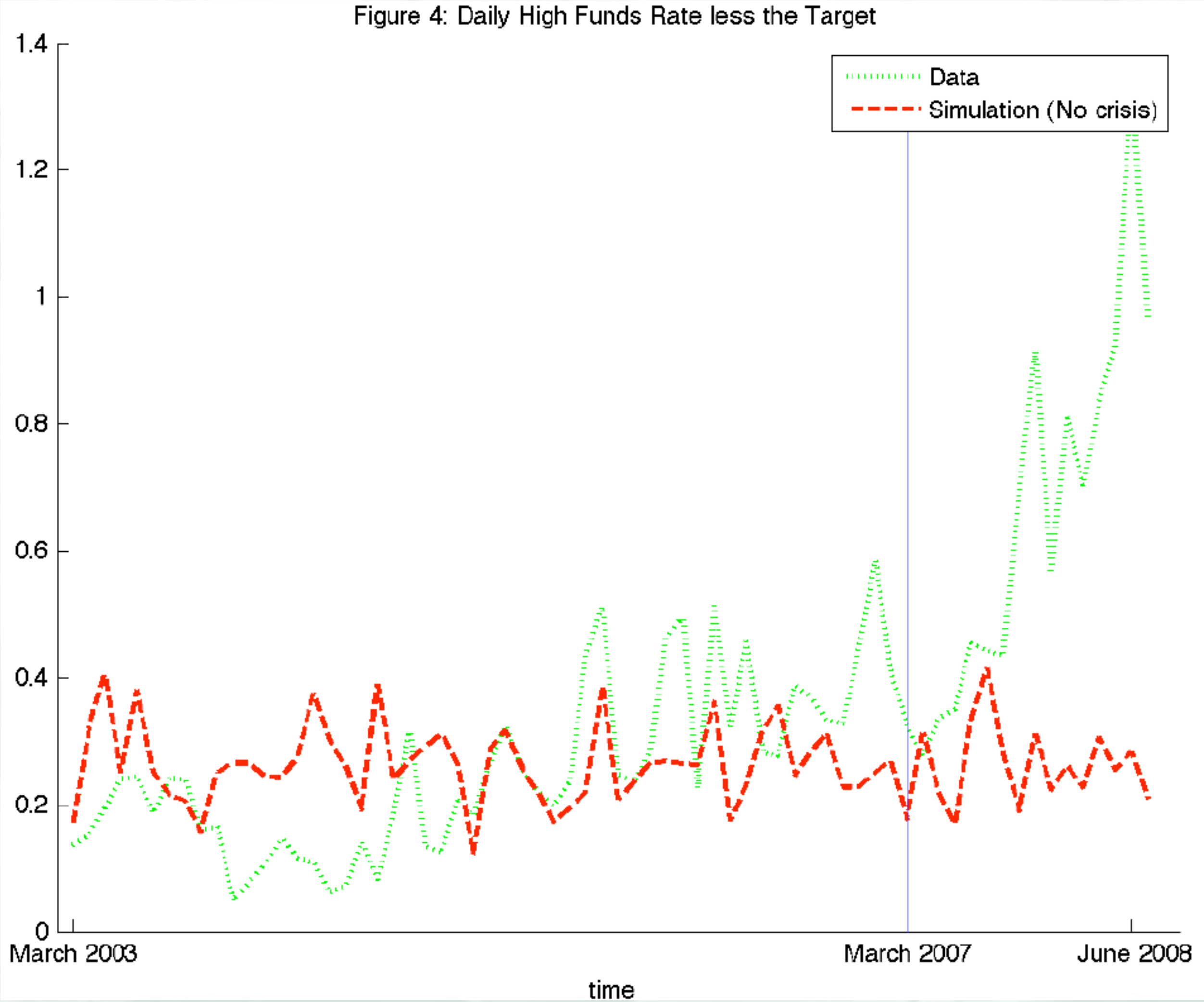
Policy questions

1. What would FF volatility and DW borrowing look like if the changes had not been made in 2003?

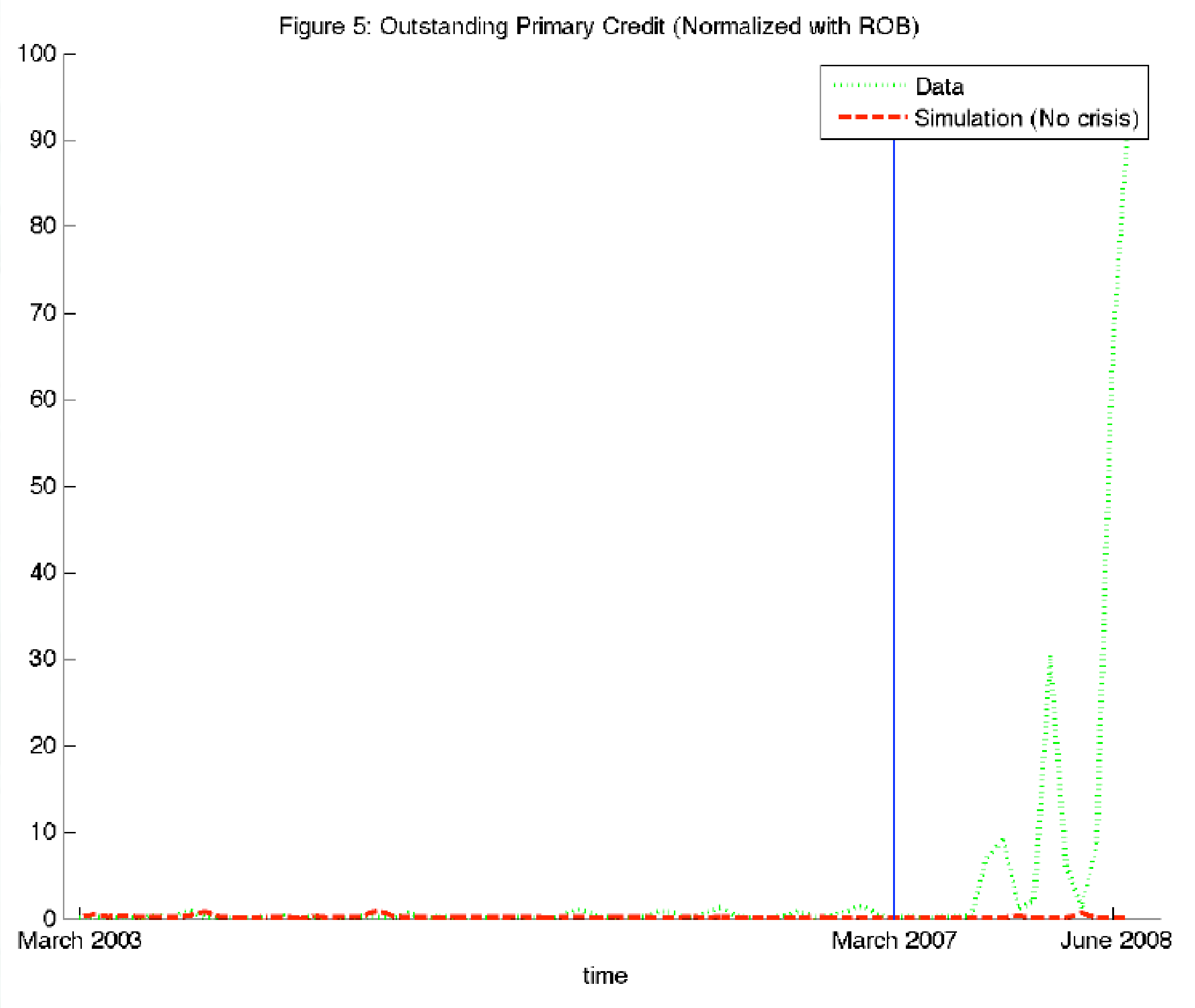
2. What are the implications for the funds market of: changes made since the onset of the crisis: a) increased terms and extended set of eligible collateral b) lowering the penalty rate?

3. What are the implications of interest payments for DW borrowing?

Explanatory power: base model



Explanatory power: base model



Comments: Structural Model

$R_t^i = R + U_t + V_t^i$

where $U_t \sim N[0, X_U]$ and $V_t^i \sim U[-X_V, X_V]$

Lender if $R_t^i > L$

Borrower if $R_t^i < L$ for $L = L_1, L_2$

Structural Model: Comments

Identification of Stigma

1) C -- Stigma versus opportunity cost of collateral?
2) X_v – Theory behind the time trend; correlation with policy question?

Static Nature of Model

1) Is every day really the same and independent? (Hamilton, 1996;Clouse and Dow, 1999)
2) What happens if stigma is endogenous?

Estimation: Comments

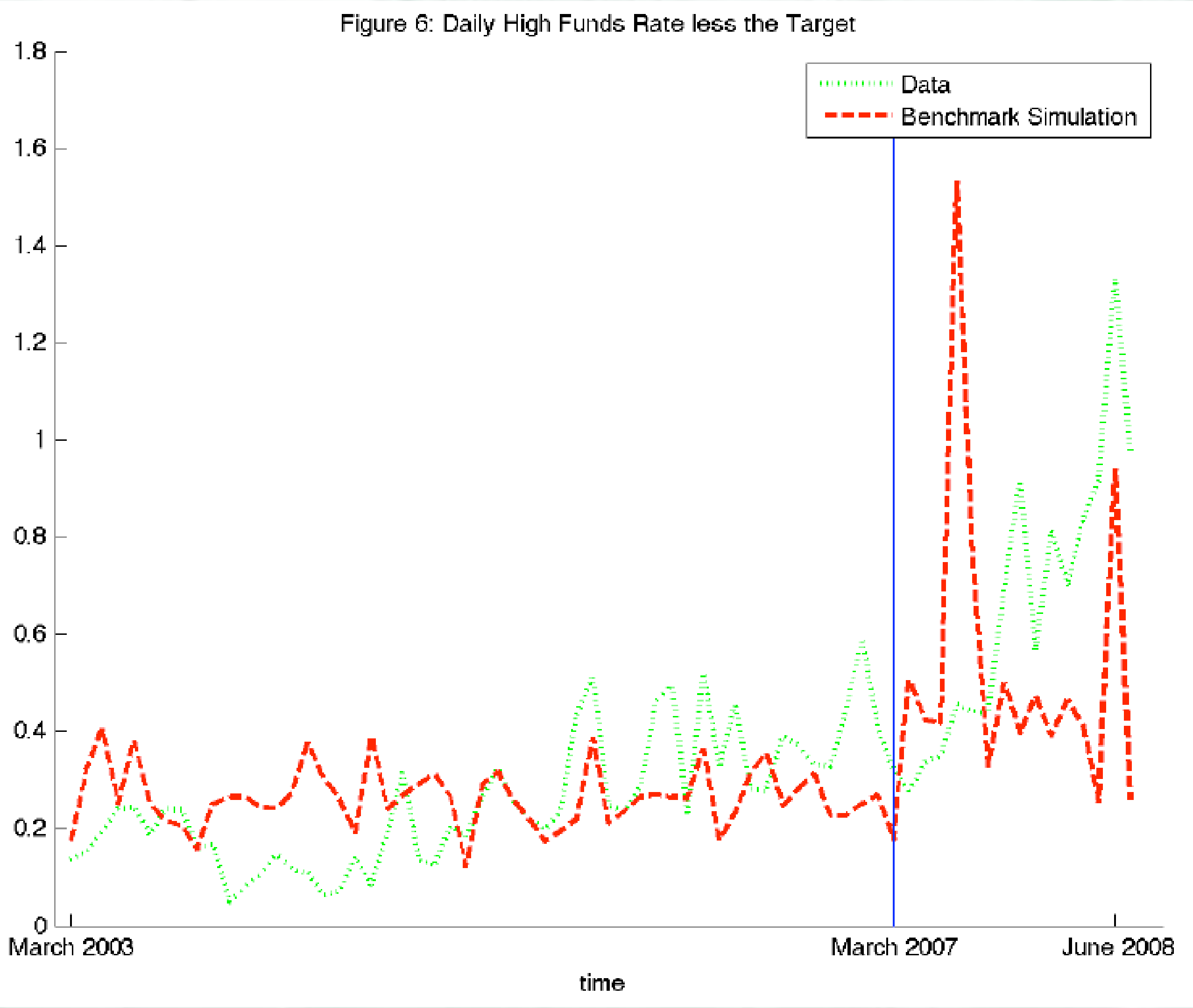
Indirect Inference relies on auxiliary model

Robustness of the results

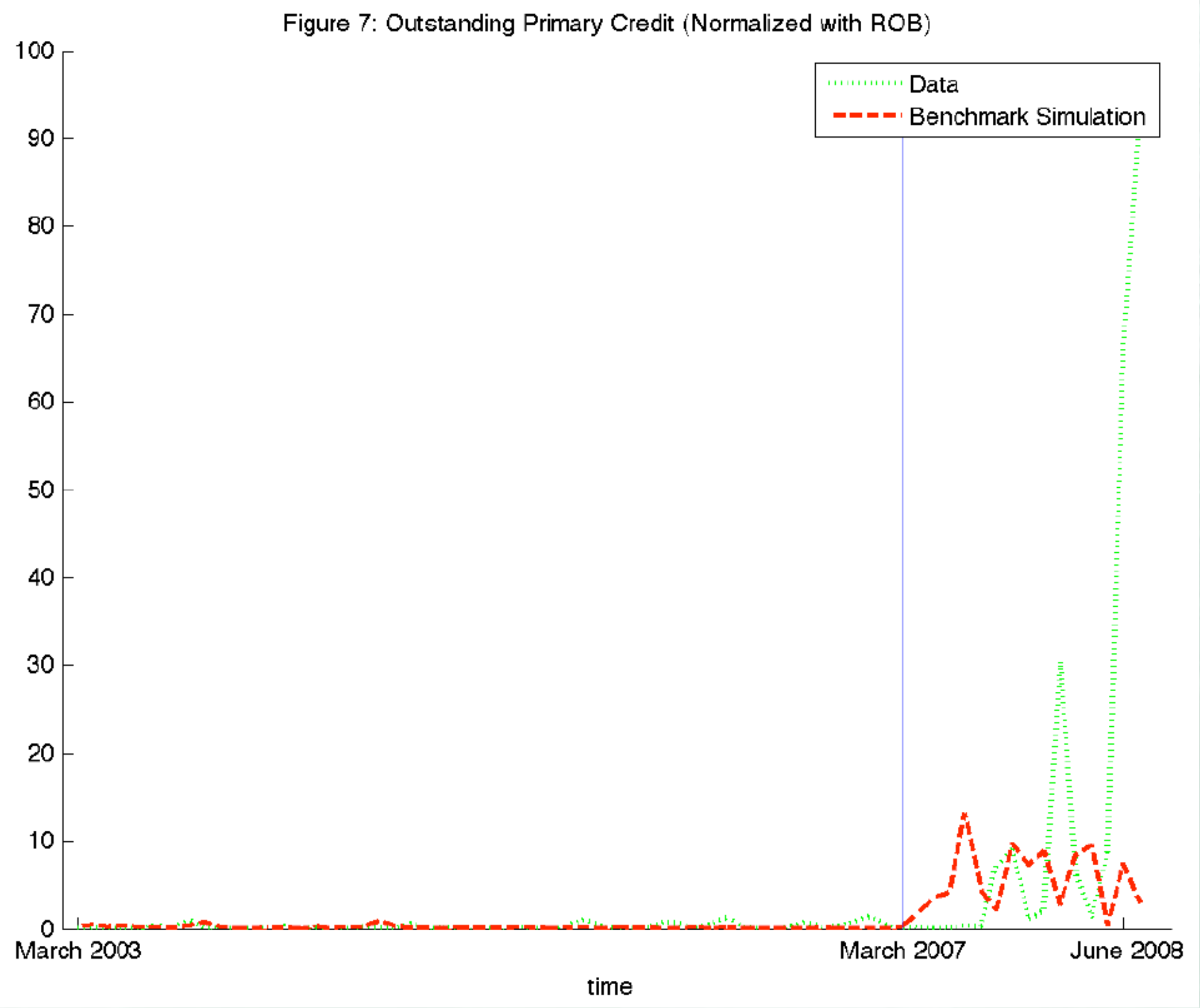
1) Is the auxiliary model a good representation of the data?

2) How does this auxiliary model compare with an alternative model (like Hamilton 1996 representation)?

Explanatory power: model with crisis effects



Explanatory power: model with crisis effects



Characterization of the Crisis

Increase in aggregate uncertainty key.

Anything else going on?

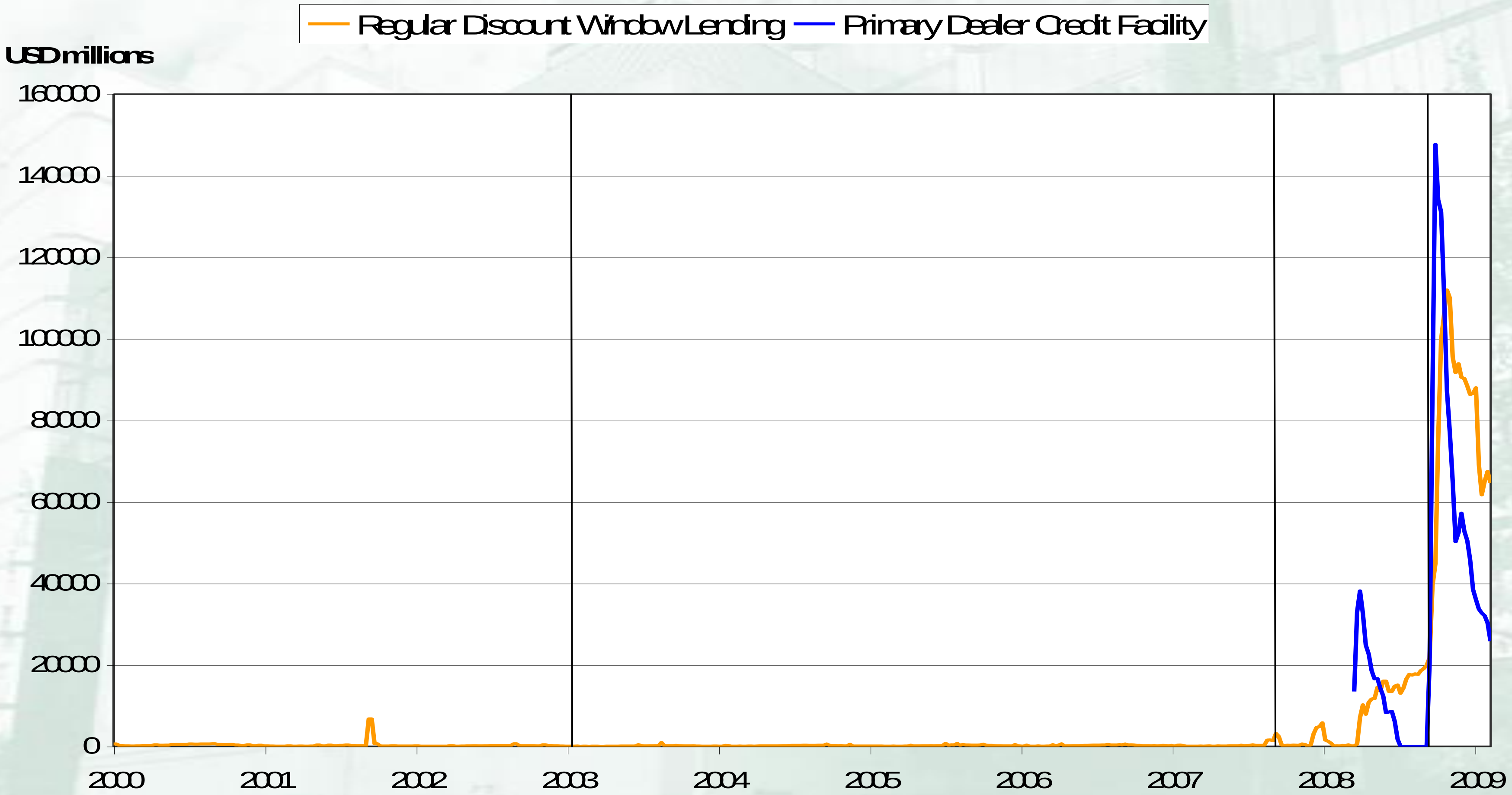
- Increase in the shadow value of excess reserves? (Clouse and Dow, 1999)
- Increase in the opportunity cost of collateral?
- Additional sources of non-market funds (e.g., TAF)?
- Safety in numbers (e.g., 22 Aug. 2007 DW publicly accessed by CITI, JP Morgan, Wachovia and BoA)

Conclusions

- Policy questions on point
- Structural approach appropriate
- Structural model – assess simplifying assumptions
- Estimation – demonstrate robustness
- Policy recommendations – context

Background Information

Federal Reserve Discount Window Lending



*Prior to January 9, 2003, values for the Discount Window Lending Facility are shown as levels outstanding as of Wednesday each week. Subsequently, the values are shown as weekly averages as of Wednesday.

US Federal Funds Rates: 2000-2009

Dates indicated: January 9, 2003 - Discount window lending programs revised
August 22, 2007 - DWF accessed by Citibank, JP Morgan Chase, Wachovia and Bank of America
October 1, 2008 - Fed begins interest payments on reserve balances