Comments on “Segmentation in the U.S. Dollar Money Markets During the Financial Crisis

By

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Motivation of this paper

- The U.S. dollar unsecured money market consists of two segments, Eurodollar deposits and federal funds purchases and sales.
- The two market segments were highly integrated in normal times.
- Were the two market segments highly integrated during the Financial Crisis?

Two types of Eurodollar rates

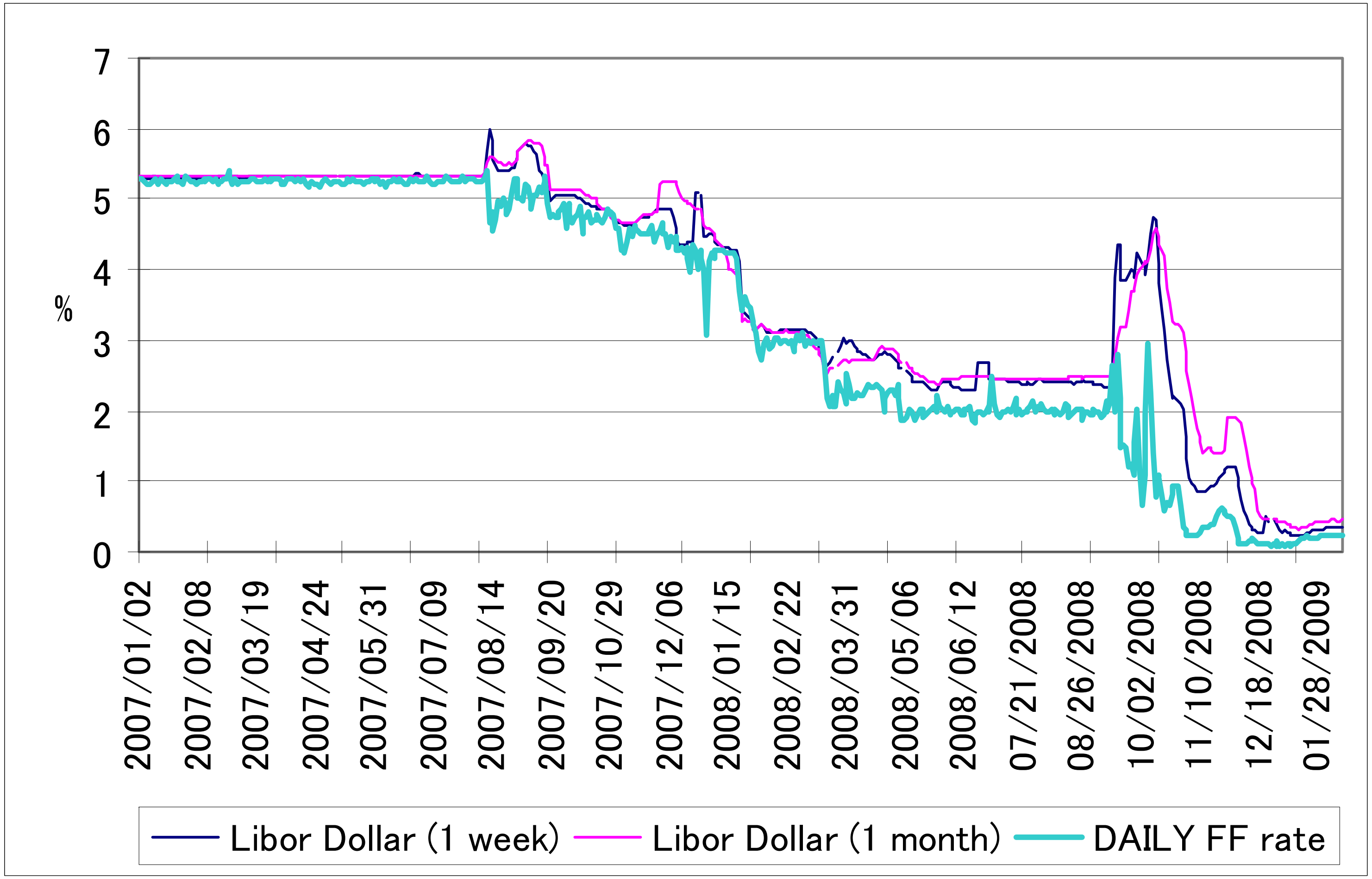
- (1) Libor rate reflecting rates in London during the London trading session.
- (2) Eurodollar rate reflecting trades arranged in New York during its trading session.
- This paper tracks the different behavior of the New York and London Eurodollar market.

Main results

- The crisis period caused significant dis-integration of the market segments, especially in the post Lehman Brothers Bankruptcy period.
- In the Eurodollar deposits, the New York market is more closely integrated with the federal funds market segment than the London market, especially during crisis periods.

$\Rightarrow$ Very important contributions!

Divergence between Libor and FF rate



Why disintegration between New York and London?

(1) The time zone mismatch.

- Different shocks for different time zones.
- Especially, the implementation of US dollar open market operations only during the trading day in NY.
- This would have the effect of lowering New York session rates, both Euro and federal funds during the crisis.

Why disintegration between New York and London?

(2) The greater geographic distance to London

- The greater distance may impede the formation of relationships and the revelation of information conductive to trading.
- Bigger uncertainty and larger noise traders in London.

Why disintegration between New York and London?

(3) Different counterparties in the different geographic areas.

- Different risk premiums
- Different liquidity risks

divergence within the federal funds market segment

- But we also need to note that there have been heterogeneity even within the federal funds market segment.
- Before the crisis, the divergence was small within the federal funds market segment.
- The crisis period caused significant divergence of interest rates even within the federal funds market segment.

Two reasons of heterogeneity in intraday FF rates

(1) different transaction timings.

- Reflecting unanticipated news, the market interest rates change every second during the day.

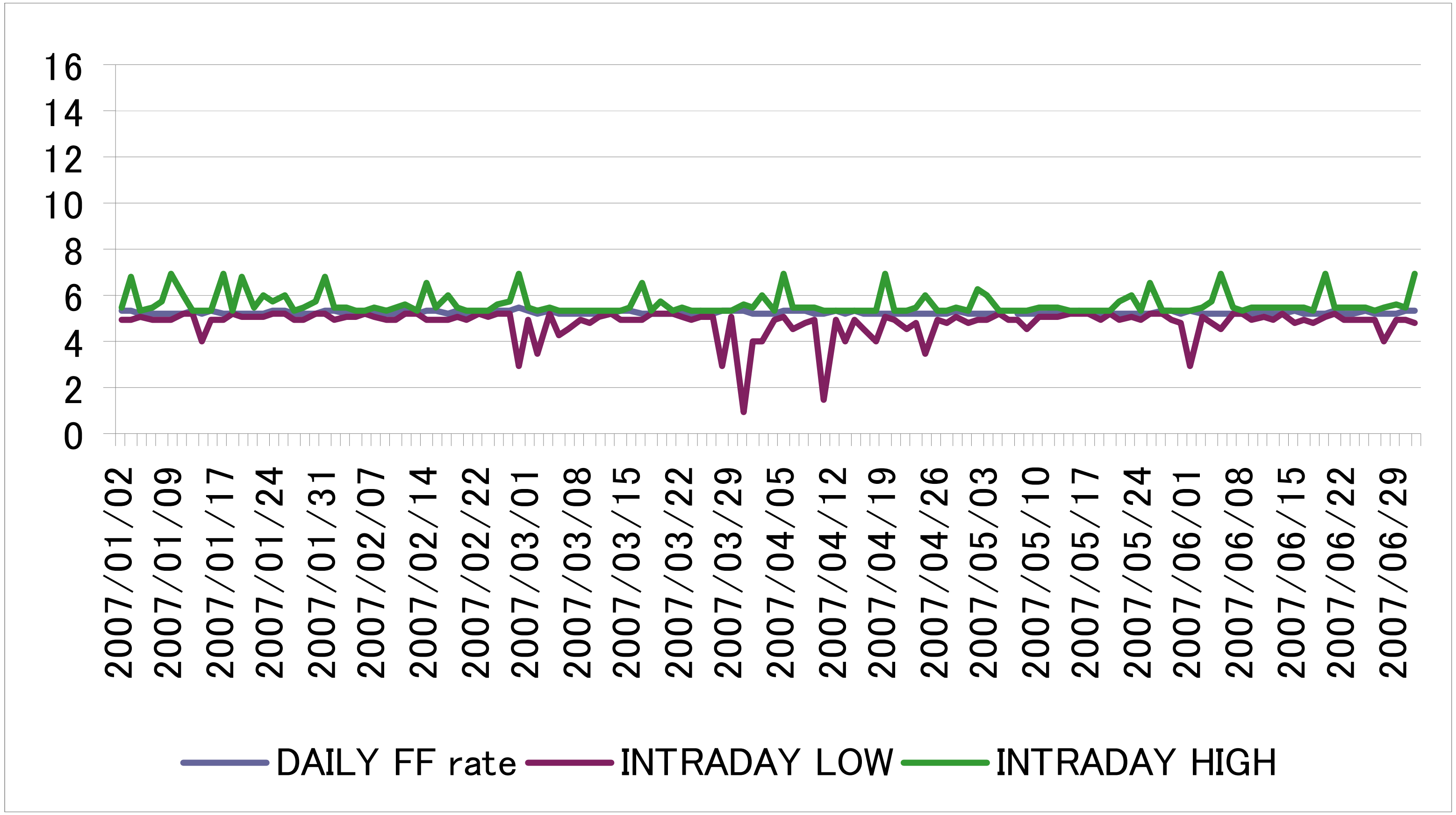
$\Rightarrow$Different FF rates are realized at different times.

(2) heterogeneous market participants.

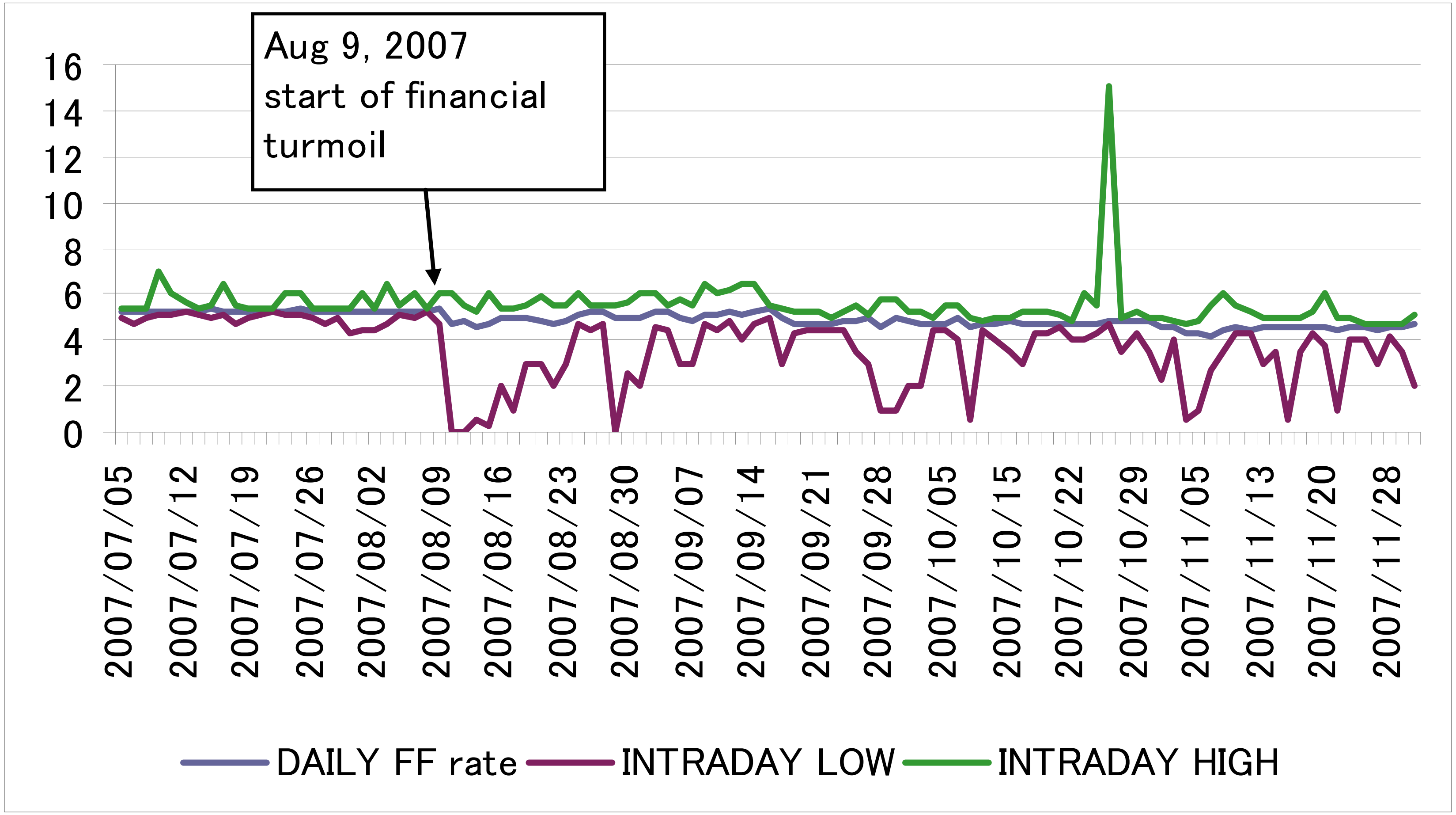
- Different market participants may face different risk premiums.

$\Rightarrow$ Different FF rates are realized even if they make transactions at the same time.

Before the crisis



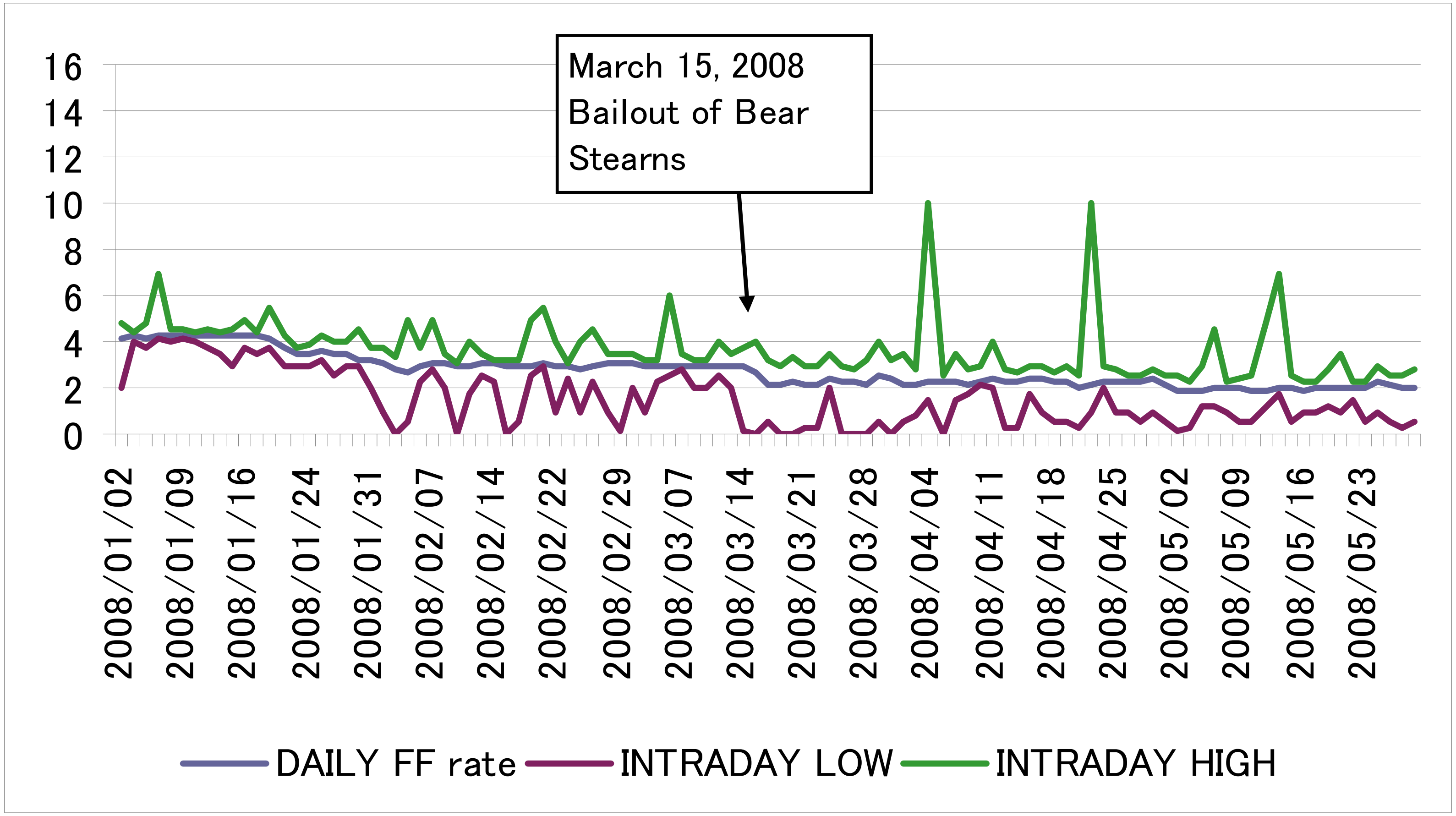
After August 9th 2007



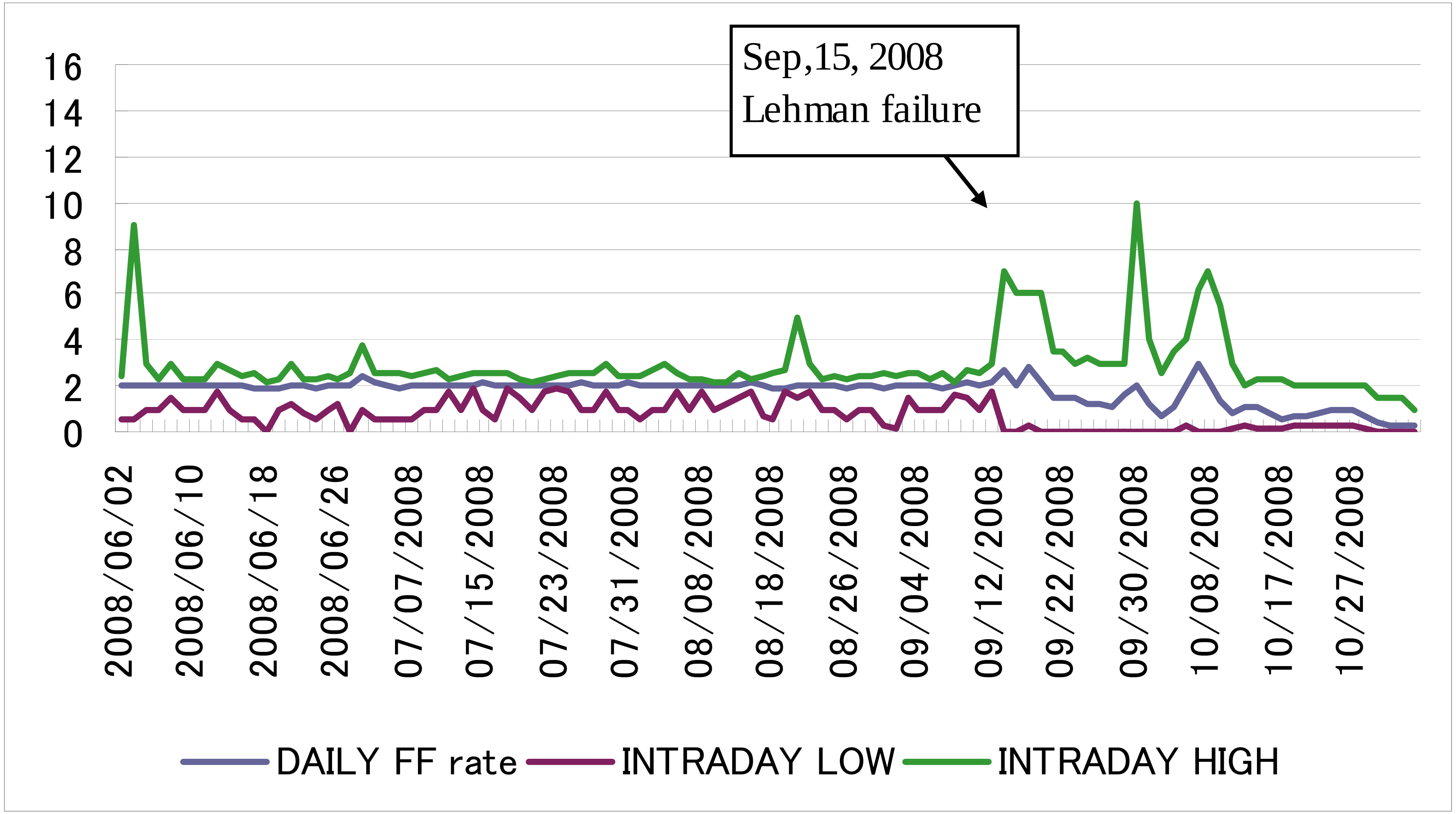
divergence in intraday FF rates

- After August 9th, 2007, downward divergence became conspicuous.
- In the first half of 2008, frequent upward spikes as well as persistent downward divergence happened.
- After the Lehman failure, large persistent upward divergence as well as persistent downward divergence became conspicuous.

In the first half of 2008



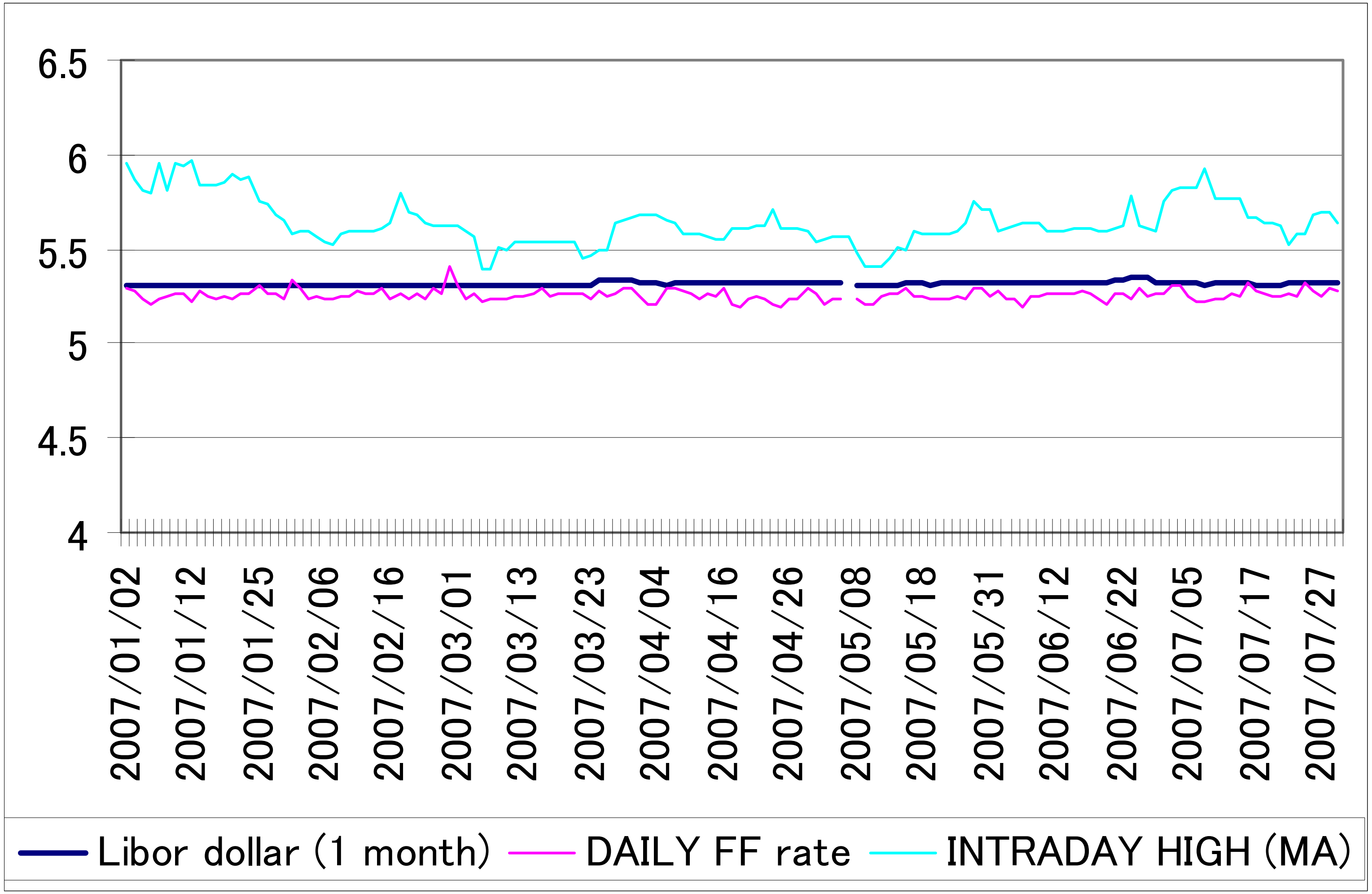
Before and after the Lehman failure



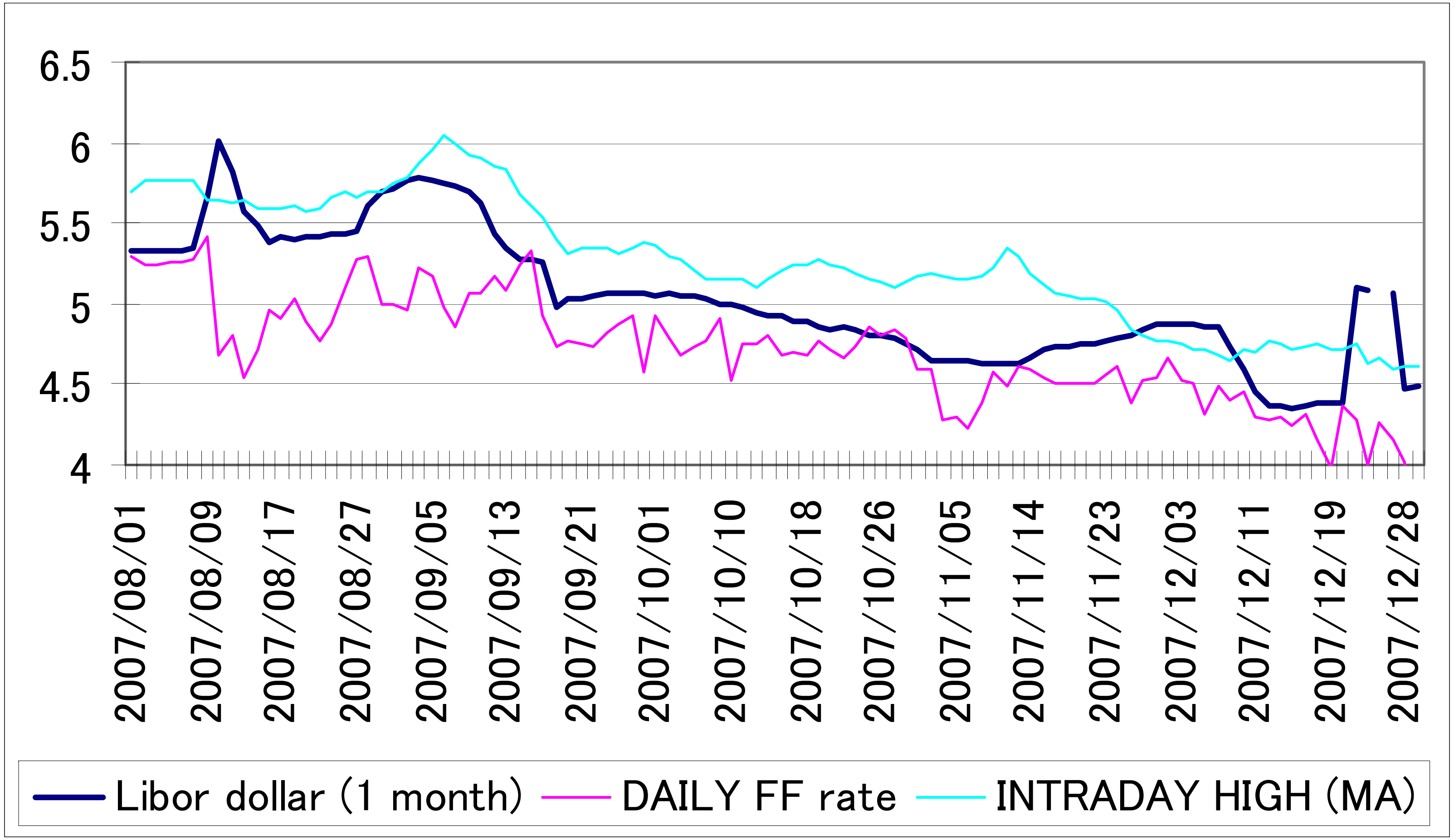
Some similarities between FF rate and Libor before and after the crisis

- Before the crisis, Libor was very similar to daily average of FF rate.
- After August 2007, Libor became larger than daily average of FF rate but was still lower than intraday highest FF rate.
- After March 2008, Libor became very similar to intraday highest FF rate (10 day moving average of intraday highest rate after removing some spikes).

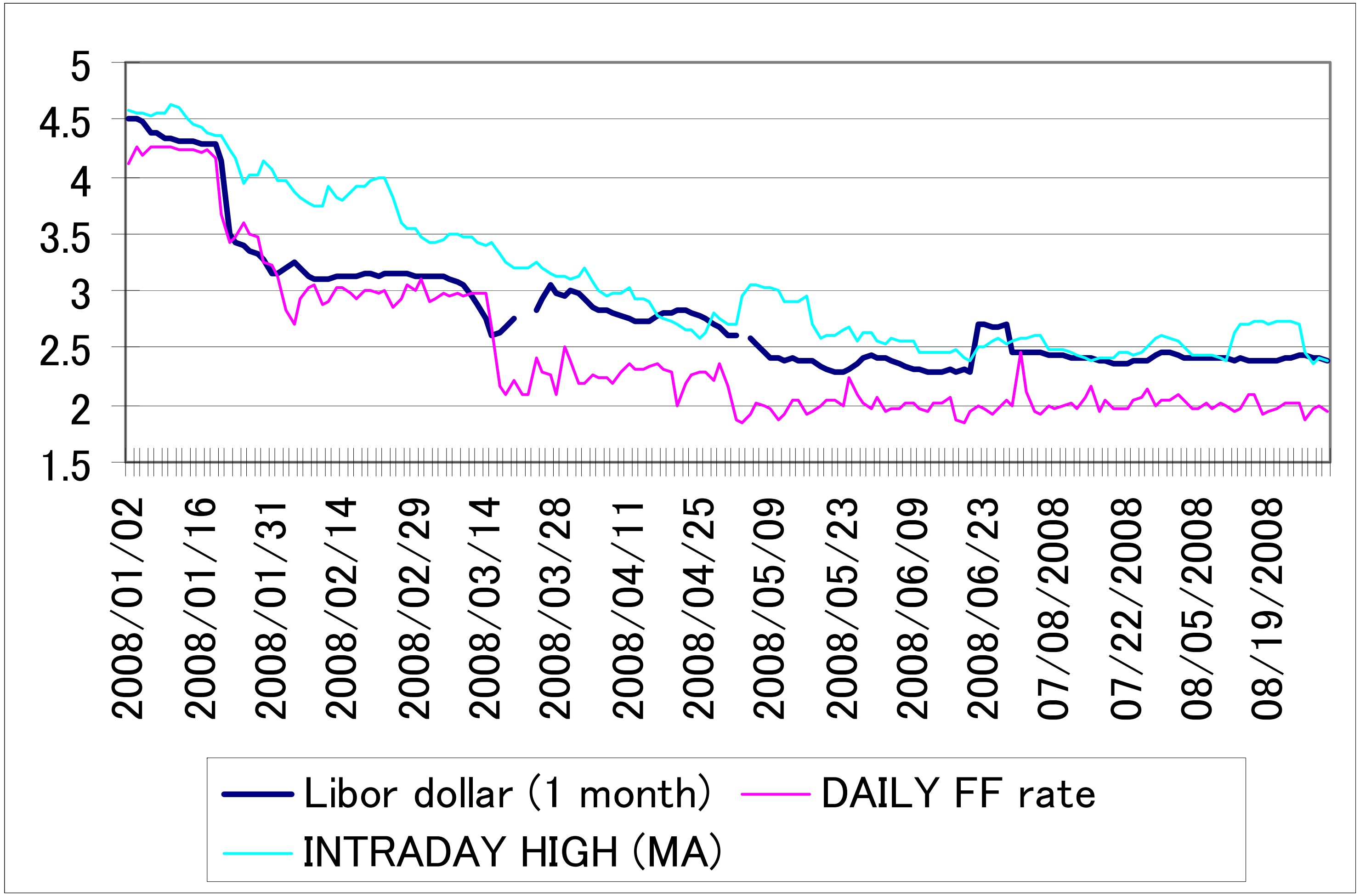
Before the crisis



After August 2007



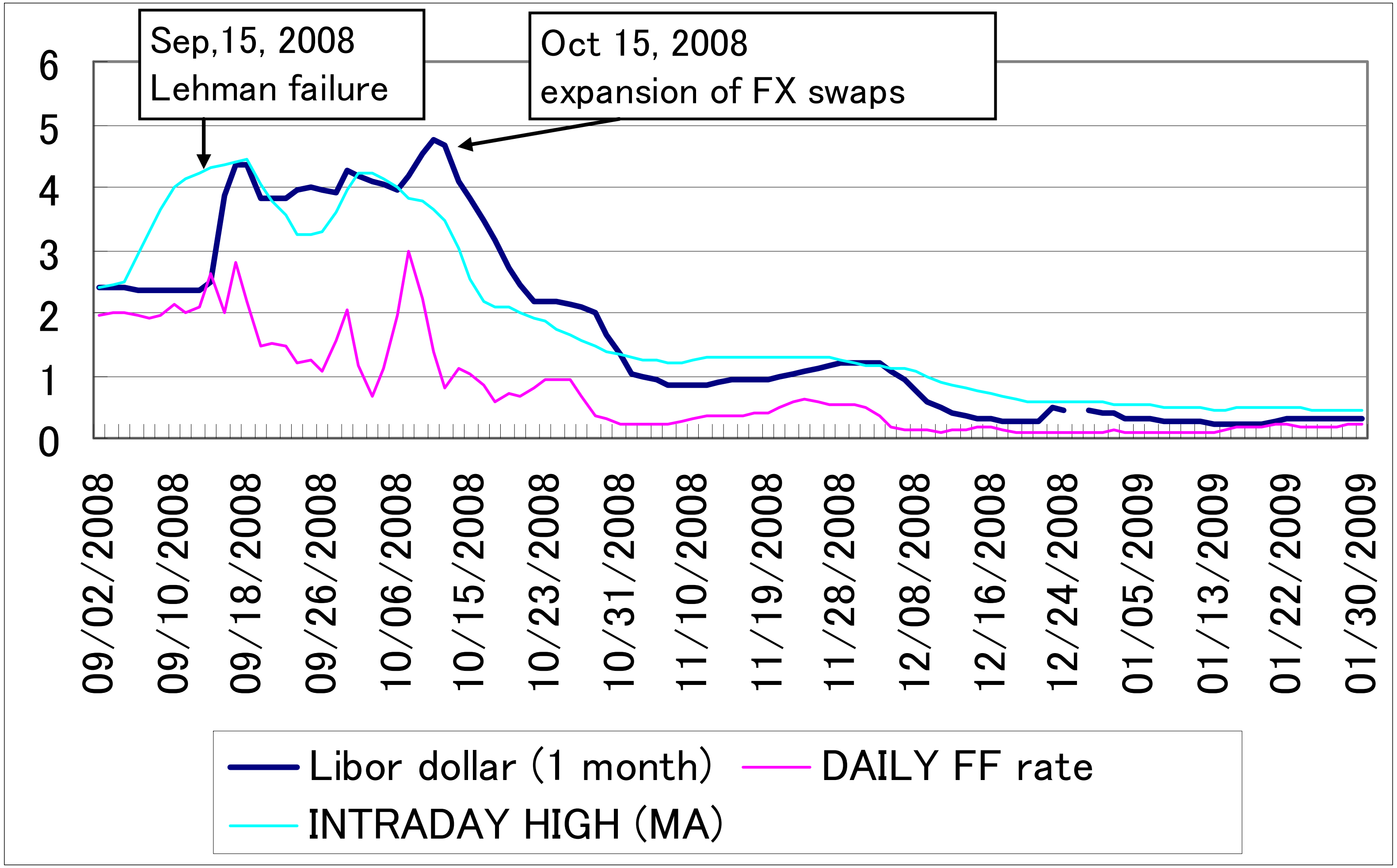
In the first half of 2008



Some similarities between FF rate and Libor after the crisis

- After the Lehman failure, Libor temporarily exceeded intraday highest FF rate (10 day moving average).
- Since early November 2008, Libor became lower than intraday highest FF rate. The expansion of FX swaps in October 2008 might have helped in improving US dollar liquidity in London.

Before and after the Lehman failure



Some tentative conjectures

- Before the crisis, average counterparty risk in Libor dollar was similar to average counterparty risk in FF rate.
- The crisis made average counterparty risk in Libor dollar larger than average in FF rate.
- Since March 2008, average counterparty in Libor dollar market became close to the riskiest counterparty in FF market segment.
- The expansion of FX swaps in October 2008 might have helped in improving average counterparty risk in Libor dollar.