Discussion: Limits to arbitrage in sovereign bonds
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ECB workshop on money markets

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Overview

> Contribution of the paper

> Comments

   – Data

   – Variables and models

   – Results and policy context

The contribution of the paper (1/2)

Focus

Liquidity (and price) discovery in cash and futures markets

Data

Intraday data on bond (MTS) and futures trading (EUREX) -
trades and quotes for ca. 1.5 years

Methodology

VARs / regressions with price and liquidity variables

Main findings

The futures market leads the cash market in price discovery,
the cash market leads the futures market in liquidity discovery

The contribution of the paper (2/2)

Focus

A very relevant topic analysed for an interesting market, i.e. Italy during the sovereign crisis

Data

A very comprehensive high-frequency dataset for two markets

Methodology

A rich set of models for joint pricing and liquidity dynamics

Main findings

Very interesting and offering some policy-relevant insights

Intraday data: A comprehensive tick dataset for two markets!

Comment: Use the high frequency of the dataset

> Highest frequency used in the regressions: 5 minutes

> We know that new information is being incorporated in the markets within seconds

> Useful to increase the frequency to capture relevant patterns in info dissemination across markets

> References to algorithmic trading could be dropped

Comments: Data (2/6)

Example: Trading in Bund futures around news

> Reaction of bid-ask spread (lhs) and trading volume (rhs)
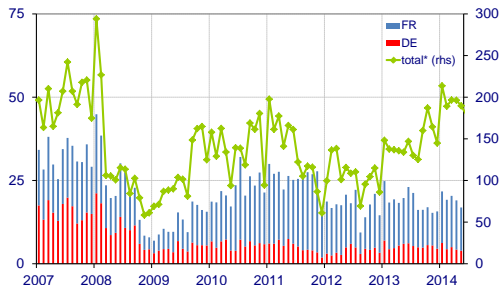> 10-second intervals from 3 min before to 3 min after the news
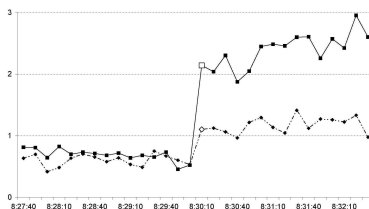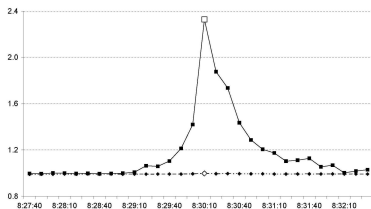
SOURCE: Grothe (2010), ECB WP 1177.

Comments: Data (3/6)

Intraday data: Joint coverage of cash and futures markets!

Comment: The issue of OTC trading in the cash market

> While bond futures are traded mostly on electronic platforms, bonds are traded mostly in OTC markets

> e.g., for Germany and France only a small part traded on MTS

> In the crisis, trading shifts from electronic platforms to OTC

> It would be good to add a discussion on the reliability of the liquidity measures based on data from electronic platforms for the cash market during the periods of market tensions
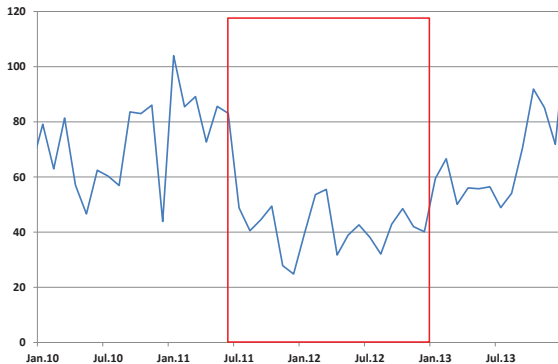
Comments: Data (4/6)

Example: Trading volume of sovereign bonds on MTS

Comments: Data (5/6)

Example: Trading volume of Italian bonds on MTS
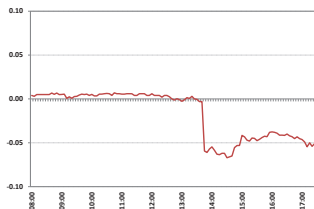
Comments: Data (6/6)

Other comments:

> Intraday patterns in liquidity

> Italian bond futures market relatively new - trends in liquidity?

> Computation of the intraday cash-future basis uses daily repo rates, but money market rates react to intraday news

> e.g., forward OIS rate on a day of the recent ECB's rate cut:

Source: Bloomberg and ECB.

Comments: Variables and models (1/2)

Variables: Bid-ask and 'lambda' as main variables for liquidity

Comment: Several liquidity measures for both markets

> Good to cross-check for several trading-based liquidity measures

> i.e., add Amihud measure, trading frequency, trading volume, quoted volume

> Including the volume dimension is interesting, since the focus is on the crisis period

> 'Lambda' computed only for the cash market - why not add this variable for the futures market?

Comments: Variables and models (2/2)

Models: A set of models: VARs / regressions, daily / intraday

Comment: Empirical analysis is very rich

> It is difficult for the reader to digest the results (levels vs. changes / lag length / VAR vs. regressions)

> It could be useful to introduce a robustness section

Comments: Results and policy context (1/3)

Result: *'Cash market leads the futures market in liquidity discovery'*

Comment: Result surprising (as pointed out in the paper as well)

$>$ The result is surprising: cash market is by far less liquid than the futures market

$>$ e.g., average bid-ask spread: for cash 0.3%, for futures 0.03%

$>$ e.g., total number of trades: for cash 23, for futures 3788

$>$ e.g., total volume (EUR mn): for cash 107, for futures 1288

Comments: Results and policy context (2/3)

Result: *'Cash market leads the futures market in liquidity discovery'*

Comment: Explain more what the mechanism is

> To understand the microstructure of the effect better, it would be good to conduct an event study of tick-by-tick trading in both markets around major policy and economic data announcements

> It would be interesting to cross-check in a non-crisis sample / other markets (e.g. Germany)

> A more intuitive formulation of the result, e.g. *'impaired liquidity in the cash market during the crisis affects the futures market liquidity'*

ECB's policies: A set of channels affecting the sovereign bond market liquidity

Comment: A more precise formulation in some points:

> 'open-market asset-repurchase actions, such as SMP, OMT, LTRO'

> '[OMT] has not been formally adopted until today'

> '[form of ECB's monetary intervention] injection of liquidity into the major banks in the Euro-zone'

> The sample split only for the LTRO

> Why not analyse high-frequency announcement effects?

> A very interesting and topical paper ...

> ... based on a nice high-frequency dataset for two markets

> Possibility to explore the higher frequency, with examples for some particular events in the market?

THANK YOU FOR YOUR ATTENTION