



EUROPEAN CENTRAL BANK
EUROSYSTEM

Discussion of “*Outages in Sovereign Bond Markets*”

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The opinions in this presentation do not necessarily reflect those of the ECB, the SSM or the Eurosystem.

1 Introduction

- **Links between derivatives and cash market = fundamental topic in asset pricing**
 - Price discovery e.g. for “safe asset”
 - Cost of trading and resilience of market liquidity
 - Arbitrage
- **Long list of papers: Active research since futures markets took off in 1990s**
 - First Treasury bond futures were launched by CME in US in 1976
 - Common stylised fact: “***Tail wagging the dog***” (Upper & Werner, 2002) = Bond future leads cash
 - Recently confirmed by Jappelli, Lucke and Pelizzon (2022)

2 Context: Market structure, Dealer intermediation and market “speed”

	<u>US Treasuries off-the-run</u>	<u>Bunds</u>	<u>US Treasuries on-the-run</u>	<u>Bund & UST Futures</u>
Notional size	\$ 15 trn	\$ 2 trn	< \$ 2 trn	\$ 34 trn
Trade costs	> 10 BP	> 5 BP	< 1 BP	< 1 BP
Electronic trading	Medium	Low	High	All (CLOB)
Role of Dealers	High	High	Medium	Low (PTFs)
Role of CCPs	Medium	None	Medium	High

Higher dealer
intermediation
(‘**slow markets**’)



Lower dealer
intermediation
(‘**fast markets**’)

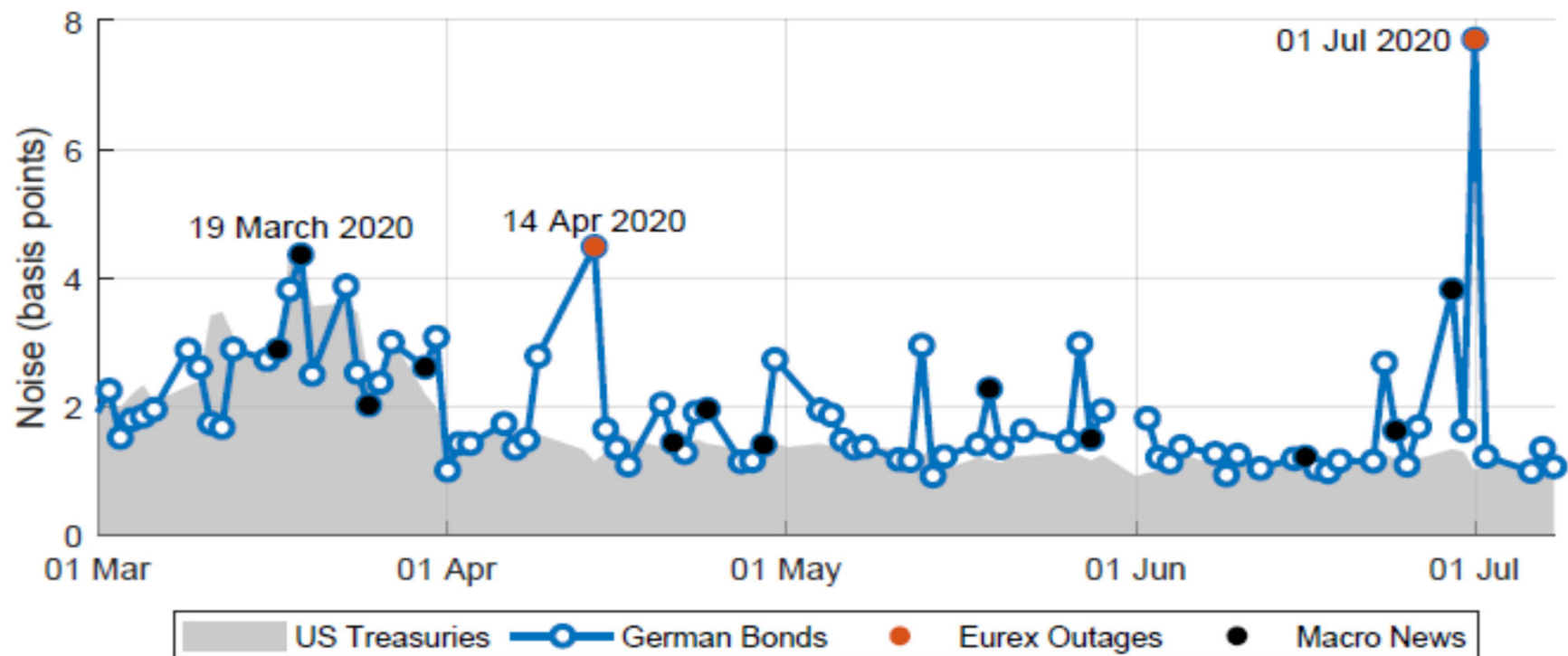
3 Overview of the paper

- **Methodology: Event study of two Eurex outages in spring 2020 (plus 12 previous events for robustness)**
 - **Outage on Eurex futures exchange => trading in cash bonds falls, cash bond liquidity evaporates and Bund transaction prices deviate significantly from fundamental values (i.e. yield curve noise rises, but who trades?)**
 - **In contrast, small impact of outages on cash trading platforms**
 - **No international spillovers (US CME)**

3 Comments on the paper: **What explains the dominance of futures?**

- **Why is Bund future the most important Euro fixed income instrument?**
 - Central Limit Order Book at Eurex and “all to all” trading?
 - Central clearing = lower counterparty risk
 - Derivatives cheaper to trade than cash: Margin requirements generate leverage whereas cash market needs full payment
 - Traders in Eurex better informed (eg PTFs)?
 - Derivatives more liquid (**circular**)
- **Note:** US Treasury trading (cash = “on the runs”) is very active (ADV > \$ 500 BN) and fully electronic with CLOB and PTFs

4 Comments on the paper: **What is the economic significance?**



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- **What is macro impact of a Eurex outage?**
 - Compare outage with other stress episodes (e.g. Bund tantrum, GFC, EUR crisis)
 - Who pays off-market prices and what is their cost?
 - What happens in **repo**? Vital nowadays for bank funding (\$2trn); Still active?
 - What happens with bond **ETFs**? Vital nowadays for AMs
 - Spillovers to **stock market**: Trading equity risk without a safe asset?
 - **Arbitrage** between futures and bonds: Vital channel: Not only helping price discovery but also mechanism to provide liquidity (cf. US Treasury dislocation in March 2020) => **When / how does it resume?**