

Online Appendix

Fig. A1. Announcement of the 11 January 2017 10-year German bond auction



Press release

Frankfurt am Main
3 January 2017
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Announcement of auction New 10-year Federal bond issue

As already announced in the issuance calendar for the first quarter of 2017, the Federal Government will launch a new bond issue (maturity: 15 February 2027) by auction on 11 January 2017. An issue volume (auction allotment and amount set aside for secondary market operations) of €5 billion is envisaged. Members of the Bund Issues Auction Group are entitled to bid.

Time schedule of the auction procedure:

Date of invitation to bid:	Tuesday, 10 January 2017
Bidding period:	Wednesday, 11 January 2017 from 8.00 a.m. until 11.30 a.m. Frankfurt time
Stock exchange listing:	Wednesday, 11 January 2017
Value date:	Friday, 13 January 2017

Characteristics of the Federal bond:

Maturity:	15 February 2027
Interest payment:	annually on 15 February, interest begins to accrue as of 13 January 2017
First interest payment:	15 February 2018 for 398 days
ISIN	DE0001102416

The nominal interest rate of the Federal bond will be published on the date of invitation to bid. In case of a nominal interest rate higher than zero the separate trading of registered interest and principal („stripping“) will be possible.

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Fig. A2. Announcement of the 30 January 2017 10-year Italian bond auction



Ministero dell'Economia e delle Finanze

PRESS RELEASE

Medium-Long Term Issuances

The Ministry of Economy and Finance announces the following bonds' issuance and the relative subscription calendar:

Underwriting Deadline date for the Public	Deadline date for Presentation of bids in auction strictly prior to 11.00 am	Submission of bids for the supplementary auction no later than 3.30 pm on	Settlement date
January 27, 2017	January 30, 2017	January 31, 2017	February 1, 2017

Type	CCTeu	BTP 5 year	BTP 10 year
Year residual maturity	On the Run	On the Run	On the Run
ISIN Code	IT0005218968	IT0005216491	to be assigned
Tranche	7th	9th	1st
Issue date	Aug 15, 2016	Oct 03, 2016	Feb 01, 2017
Maturity date	Feb 15, 2024	Nov 01, 2021	Jun 01, 2027
Coupon	-	0.35%	2.20%
Nominal yield	0.561%	-	-
Spread	0.75%	-	-
Current coupon	0.287%	-	-
Coupon payment date	Feb 15, 2017	May 01, 2017	Jun 01, 2017(*)
Amount Min offered (mln. €)	1,750	2,250	3,500
Amount Max offered (mln. €)	2,250	2,750	4,000
Accrued coupon days	170	92	0
Placement fee	0.25%	0.25%	0.35%
% add. amount specialists	15%	15%	30%
Amount offered to Specialists (mln. €)	337.500	412.500	1,200.000

(*) First short coupon: 0,725275% with accrual period: 1 Feb 2017 - 1 Jun 2017 (120 days in a 182 semester).
 - After the first, the ordinary cycle will be: 1 Dec - 1 Jun.

The placement mechanism for the above mentioned bonds will be that of a uniform-price (marginal) auction with discretionary determination of allotment price and issued amount within the indicated issuance range.

The issued amount will be set excluding all the bids submitted at prices deemed not to be convenient given market conditions.

The following subjects are allowed to participate in the auction: Italian, EU and non-EU banks, financial brokers and EU and non-EU investment companies as indicated in each issuance decree. They submit bids for their own property or on their clients behalf.

Any bid submitted must contain the reference price. Every dealer can submit a maximum of five bids, which can differ from each other. The minimum bid is 500,000 euro. Any bid inferior to the minimum amount won't be considered. Any bid more than the whole amount offered will be allowed only up to that amount. Bid prices can vary by at least one cent of euro and different changes will be rounded up. Medium and long-term bonds can be subscribed for a minimum amount of 1,000 euro.

They are offered through a uniform-price (marginal) auction referred to the price, without any initial price reference. Dealers' bids have to be transmitted to Bank of Italy within the deadline, described in the "subscription calendar", using the National Interbanking Network with the technical modalities indicated by Bank of Italy itself and well-known by the dealers.

Fig. A3. Press release of the 11 January 2017 10-year German bond auction results



Press release

Frankfurt am Main
11 January 2017
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Federal bond issue - Auction result -

The result of the auction of 11 January 2017 for the

0.25 % bond of the Federal Republic of Germany of 2017 (2027)
due on 15 February 2027
annual coupon date 15 February
interest begins to accrue on 13 January 2017
first interest payment on 15 February 2018 for 398 days
ISIN DE0001102416

was as follows:

Bids		€ 7,134.00 mn
Competitive bids	€ 1,570.00 mn	
Non-competitive bids	€ 5,564.00 mn	
Allotment		€ 4,017.70 mn
- Lowest accepted price	98.90 %	
- Weighted average price	98.91 %	
- Average yield	0.36 %	
- Allotment		
- for bids at the lowest accepted price	65 %	
- for non-competitive bids	55 %	
Cover ratio	1.8	
Amount set aside for secondary market operations (Own account of the Federal Government) ¹⁾		€ 982.30 mn
Issue volume		€ 5,000.00 mn

1) Placing by the German Finance Agency in the secondary market

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Fig. A4. Press release of the 30 January 2017 10-year Italian bond auction results



Ministero dell'Economia e delle Finanze

Auction Results: 10 YEAR BTP
Date: January 30, 2017 - January 31, 2017

ISIN Code	IT0005240830
Tranche	1st - 2nd
Coupon(*)	2.20%
Issue Date	February 01, 2017
Maturity Date	June 01, 2027
Auction Date	January 30, 2017
Settlement Date	February 01, 2017
Amount Max Offered	4,000.000
Amount Min Offered	3,500.000
Amount Bid	5,147.463
Amount Allotted	4,000.000
Allotment Price	98.58
Bid To Cover Ratio	1.29
Gross Yield	2.37%
Accrued Coupon Days	-
Placement Fee	0.35%
Price for Individual Investors	98.580000
Price for fiscal purpose	98.580
Amount Offered to Specialists	1,200.000
Amount Bid to Specialists	2,982.040
Amount Allotted to Specialists	1,200.000

Issue Volume

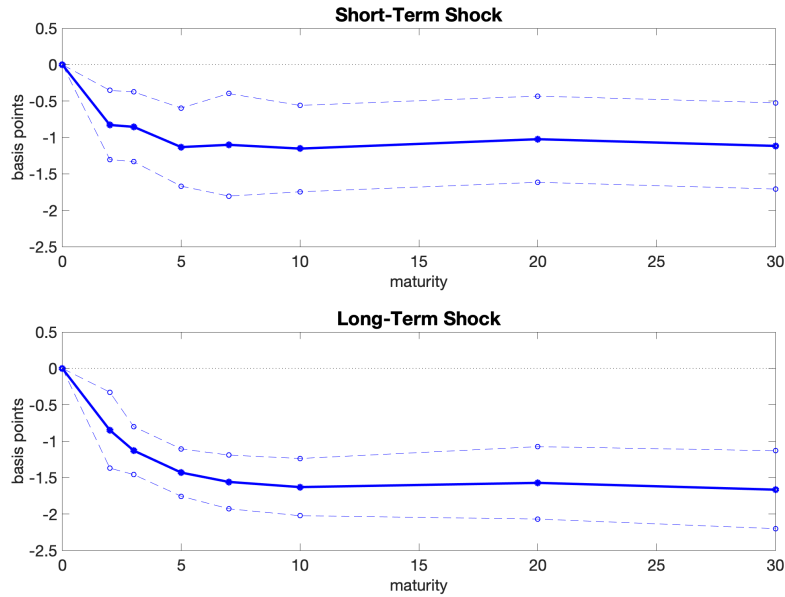
Outstanding	5,200.000
Amounts allotted to Specialists in supplementary placements and/or syndacated	1,200.000

(*) First short coupon: 0.725275% with accrual period: 1 Feb 2017 - 1 Jun 2017 (120 days) - After the first, the ordinary cycle will be: 1 Dec - 1 Jun

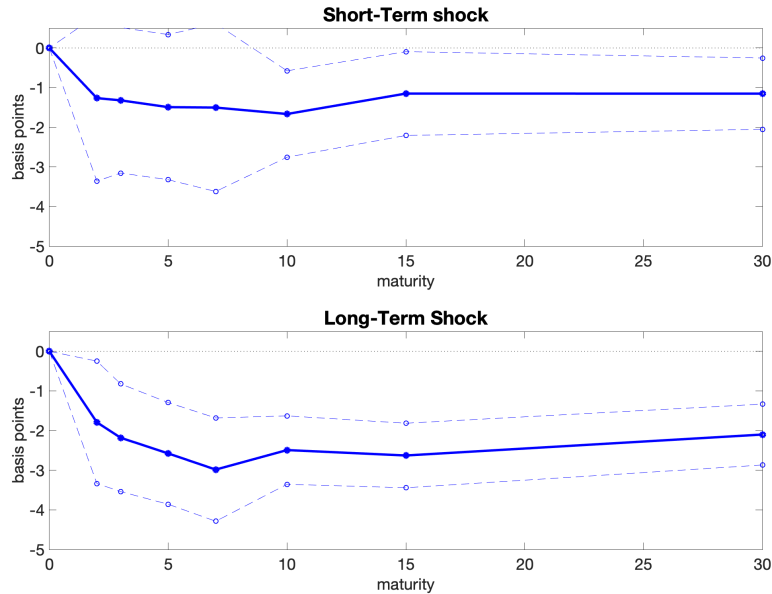
*Nominal Amounts are expressed in millions of Euros.
 Gross Yields are calculated on 365 days basis.*

Fig. A5. On impact response of the Treasury yield curve (Bid-to-cover IV regression)

Panel A: Germany



Panel B: Italy



Note: Estimated β coefficients from the equation $\Delta R_t = \alpha + \beta \hat{D}_t^{(m)} + \epsilon_t$, for $m \in \{short, long\}$. $\hat{D}_t^{(long)}$ is $D_t^{(long)}$ instrumented by 10 and 30-year auction bid-to-cover and yield gap expected and surprise values, controlling for two lags of the total bid-to-cover ratio. $\hat{D}_t^{(short)}$ is instrumented similarly, using 2 and 5-year auctions. The surprise components obtained as the residuals of univariate AR(4) models. For Italy $D_t^{(short)} = D_t^{(2Y)}$ and $D_t^{(long)} = D_t^{(10Y)}$. $\hat{D}_t^{(m)}$ is then normalized to zero mean, unit variance. Dashed lines are 90% Newey-West confidence intervals.

Table A1: Average yearly volume of Treasury markets and Treasury futures over 2010-2017 (bn EUR)

	Bond market volume	Futures market volume	Relative Market size
DE	5256	68925	1311%
ES	7065	21	0%
FR	3265	3733	114%
IT	1247	3147	252%

Source: [Brand, Ferrante, and Hubert \(2019\)](#).

Table A2: Retained volume in German auctions explained by demand

	(1)	(2)	(3)	(4)	(5)
	2 year	5 year	10 year	30 year	All
Intercept	0.214*** (0.009)	0.246*** (0.014)	0.247*** (0.012)	0.338*** (0.032)	0.243*** (0.006)
Bid-to-cover	-0.029*** (0.005)	-0.042*** (0.009)	-0.046*** (0.008)	-0.115*** (0.024)	-0.043*** (0.004)
Observations	172	142	167	59	540
R^2	0.162	0.135	0.155	0.286	0.172

Note: Regressions of total amount of bids on the retained amount, both scaled by the targeted volume. Column (1) restricts the sample to include only auctions of 2-year bonds, Column (2) restricts the sample to include only auctions of 5-year bonds, (3) restricts the sample to include only auctions of 10-year bonds, (4) restricts the sample to include only auctions of 30-year bonds. Column (5) includes auction with all maturities. Standard errors in parentheses, (*), (**) and (***) denote statistical significance at 10, 5 and 1% respectively.

Table A3: Reaction of Treasury yields and CDS spreads - German sub-sample

	Full sample	Sub-sample
Treasuries		
German 2 year	-0.941*** (0.181)	-0.787*** (0.122)
German 5 year	-1.596*** (0.146)	-1.583*** (0.164)
German 10 year	-1.780*** (0.200)	-1.994*** (0.197)
German 30 year	-1.968*** (0.200)	-2.144*** (0.223)
Italian 2 year	-0.549* (0.376)	-0.188 (0.548)
Italian 5 year	-0.616** (0.348)	-0.213 (0.514)
Italian 10 year	-0.596** (0.307)	-0.239 (0.431)
Italian 30 year	-0.569** (0.264)	-0.099 (0.366)
Treasury credit default swaps		
German 2 year	0.211* (0.135)	0.085 (0.087)
German 10 year	0.207* (0.143)	0.095 (0.109)
Italian 2 year	1.313*** (0.479)	1.426*** (0.544)
Italian 10 year	1.175*** (0.461)	1.266*** (0.526)

Note: Estimated δ coefficients from $\Delta Y_t = \mu + \delta D_t + \varsigma_t$. D_t is the first principal component of the shock measures, normalized to zero mean and unit variance. Left column shows the estimates for the full sample (1999-2017), right column displays the estimates after restricting the sample to match the Italian sample (2009-2017). Newey-West standard errors in parenthesis. (*), (**) and (***) denote statistical significance at 10, 5 and 1% respectively.

Table A4: Spillovers to other countries Treasury yields - German sub-sample

	Full sample	Sub-sample
Treasuries		
French 2 year	-0.921*** (0.171)	-0.648*** (0.164)
French 5 year	-1.388*** (0.174)	-1.274*** (0.202)
French 10 year	-1.508*** (0.195)	-1.598*** (0.209)
French 30 year	-1.655*** (0.190)	-1.723*** (0.221)
Spanish 2 year	-0.289 (0.418)	0.300 (0.596)
Spanish 5 year	-0.354 (0.391)	0.282 (0.570)
Spanish 10 year	-0.392 (0.342)	0.111 (0.478)
Spanish 30 year	-0.541** (0.313)	0.064 (0.433)
Dutch 2 year	-0.964*** (0.144)	-0.782*** (0.143)
Dutch 5 year	-1.445*** (0.391)	-1.380*** (0.570)
Dutch 10 year	-1.594*** (0.180)	-1.667*** (0.177)
Dutch 30 year	-1.877*** (0.184)	-2.008*** (0.202)

Note: See Table [A3](#).

Table A5: Reaction of equity and corporate bond indices - German sub-sample

	Full sample	Sub-sample
Equity indices		
Germany	-0.260*** (0.078)	-0.131** (0.063)
Italy	-0.300*** (0.075)	-0.267*** (0.081)
France	-0.246*** (0.077)	-0.138** (0.062)
Spain	-0.291*** (0.075)	-0.198*** (0.075)
Netherlands	-0.257*** (0.086)	-0.124** (0.059)
Euro Area	-0.266*** (0.079)	-0.152*** (0.064)
Corporate bond indices		
Germany	-1.129*** (0.209)	-1.188*** (0.216)
Italy	-1.177*** (0.310)	-1.176*** (0.434)
France	-1.355*** (0.205)	-1.387*** (0.237)
Spain	-1.091*** (0.326)	-1.195*** (0.439)
Netherlands	-1.106*** (0.269)	-1.407*** (0.176)
Euro Area	-1.254*** (0.214)	-1.325*** (0.233)

Note: See Table 6 and A3

Table A6: Reaction of Treasury yields and CDS spreads - IV regression

	Germany	Italy
Treasuries		
German 2 year	-1.039*** (0.187)	-0.182 (0.159)
German 5 year	-1.409*** (0.146)	-0.287 (0.226)
German 10 year	-1.412*** (0.198)	-0.361* (0.243)
German 30 year	-1.277*** (0.211)	-0.364* (0.250)
Italian 2 year	-0.236 (0.402)	-1.231 (1.007)
Italian 5 year	-0.355 (0.359)	-1.357* (0.873)
Italian 10 year	-0.357 (0.314)	-1.158** (0.599)
Italian 30 year	-0.204 (0.276)	-0.744** (0.447)
Treasury credit default swaps		
German 2 year	0.174 (0.136)	-0.071 (0.140)
German 10 year	0.177 (0.144)	0.011 (0.203)
Italian 2 year	1.315*** (0.487)	-0.070 (0.691)
Italian 10 year	1.309*** (0.475)	0.055 (0.649)

Note: Estimated δ coefficients from $\Delta Y_t = \mu + \delta \hat{D}_t + \varsigma_t$. \hat{D}_t is the first principal component of the high-frequency shock measures, instrumented by the surprise component of the bid-to-cover ratio and yield-gap expected and surprise components pooled together at all maturities and normalized to zero mean and unit variance. The surprise component is obtained as the residuals of a univariate AR(4) models. Newey-West standard errors in parenthesis. (*), (**) and (***) denote statistical significance at 10, 5 and 1% respectively.

Table A7: Spillovers to other countries Treasury yields - IV regression

	Germany	Italy
Treasuries		
French 2 year	-0.816*** (0.173)	-0.194 (0.191)
French 5 year	-1.159*** (0.175)	-0.238 (0.231)
French 10 year	-1.115*** (0.194)	-0.355* (0.233)
French 30 year	-1.031*** (0.201)	-0.363* (0.229)
Spanish 2 year	-0.261 (0.449)	-0.842 (0.915)
Spanish 5 year	-0.291 (0.414)	-0.808 (0.741)
Spanish 10 year	-0.281 (0.357)	-0.775* (0.597)
Spanish 30 year	-0.205 (0.341)	-0.673* (0.498)
Dutch 2 year	-0.970*** (0.145)	-0.242* (0.168)
Dutch 5 year	-1.217*** (0.414)	-0.361** (0.741)
Dutch 10 year	-1.224*** (0.176)	-0.344* (0.225)
Dutch 30 year	-1.172*** (0.193)	-0.336* (0.246)

Note: See Table [A6](#).

Table A8: Reaction of equity and corporate bond indices - IV regression

	Germany	Italy
Equity indices		
Germany	-0.259*** (0.079)	-0.101* (0.074)
Italy	-0.262*** (0.078)	-0.059 (0.089)
France	-0.231*** (0.080)	-0.082 (0.082)
Spain	-0.303*** (0.076)	-0.033 (0.085)
Netherlands	-0.255*** (0.090)	-0.053 (0.058)
Euro Area	-0.252*** (0.081)	-0.080 (0.077)
Corporate bond indices		
Germany	-0.914*** (0.209)	-0.067 (0.208)
Italy	-0.854*** (0.308)	-0.399 (0.392)
France	-1.038*** (0.204)	-0.251 (0.354)
Spain	-0.801*** (0.319)	-0.362 (0.576)
Netherlands	-0.931*** (0.273)	-0.164 (0.180)
Euro Area	-0.903*** (0.213)	-0.198 (0.276)

Note: See Table [6](#) and [A6](#)

Table A9: Reaction of Treasury yields and CDS spreads - control variables

	Germany	Italy
Treasuries		
German 2 year	-0.930*** (0.188)	0.001 (0.143)
German 5 year	-1.573*** (0.141)	-0.245 (0.226)
German 10 year	-1.759*** (0.188)	-0.368* (0.262)
German 30 year	-1.921*** (0.196)	-0.271 (0.249)
Italian 2 year	-0.373 (0.360)	-3.343*** (0.925)
Italian 5 year	-0.475* (0.329)	-3.807*** (0.808)
Italian 10 year	-0.546** (0.299)	-3.289*** (0.571)
Italian 30 year	-0.518** (0.264)	-2.106*** (0.542)
Treasury credit default swaps		
German 2 year	0.210* (0.130)	-0.282*** (0.113)
German 10 year	0.179 (0.151)	-0.508*** (0.168)
Italian 2 year	1.308*** (0.457)	-1.603** (0.757)
Italian 10 year	1.175*** (0.433)	-1.398** (0.703)

Note: Estimated δ coefficients from $\Delta Y_t = \mu + \delta D_t + controls + \varsigma_t$. D_t is the first principal component of the shock measures, normalized to zero mean and unit variance. Control variables include lagged dependent variable, lagged change in the domestic stock index, lagged change in the euro area stock index, lagged change in the domestic 10-year government bond yield, lagged change in the euro area government bond index, lagged change in the domestic corporate bond index. Newey-West standard errors in parenthesis. (*), (**), and (***) denote statistical significance at 10, 5 and 1% respectively.

Table A10: Spillovers to other countries Treasury yields - control variables

	Germany	Italy
Treasuries		
French 2 year	-0.873*** (0.176)	-0.354** (0.211)
French 5 year	-1.334*** (0.173)	-0.470** (0.238)
French 10 year	-1.476*** (0.193)	-0.685*** (0.244)
French 30 year	-1.617*** (0.185)	-0.628*** (0.236)
Spanish 2 year	-0.116 (0.397)	-2.954*** (0.734)
Spanish 5 year	-0.219 (0.398)	-3.143*** (0.706)
Spanish 10 year	-0.323 (0.333)	-2.516*** (0.647)
Spanish 30 year	-0.491* (0.308)	-1.809*** (0.623)
Dutch 2 year	-0.930*** (0.146)	-0.166 (0.166)
Dutch 5 year	-1.405*** (0.398)	-0.516*** (0.706)
Dutch 10 year	-1.569*** (0.177)	-0.655*** (0.233)
Dutch 30 year	-1.844*** (0.181)	-0.278 (0.237)

Note: See Table [A9](#).

Table A11: Reaction of equity and corporate bond indices - control variables

	Germany	Italy
Equity indices		
Germany	-0.258*** (0.077)	0.039 (0.075)
Italy	-0.291*** (0.074)	0.245*** (0.088)
France	-0.235*** (0.074)	0.071 (0.082)
Spain	-0.286*** (0.073)	0.116* (0.085)
Netherlands	-0.247*** (0.083)	0.033 (0.059)
Euro Area	-0.256*** (0.077)	0.075 (0.079)
Corporate bond indices		
Germany	-1.087*** (0.228)	-0.178 (0.224)
Italy	-1.041*** (0.282)	-0.404 (0.337)
France	-1.295*** (0.198)	-0.171 (0.343)
Spain	-0.947*** (0.303)	-0.275 (0.464)
Netherlands	-1.079*** (0.257)	-0.339** (0.180)
Euro Area	-1.164*** (0.204)	-0.226 (0.253)

Note: See Table 6 and A9

Table A12: German and Italian Treasury yields and CDS spreads (8:00, +30min window)

	Germany	Italy
Treasuries		
German 2 year	-1.183*** (0.177)	0.008 (0.175)
German 5 year	-1.969*** (0.165)	-0.124 (0.236)
German 10 year	-2.222*** (0.182)	-0.170 (0.261)
German 30 year	-2.541*** (0.194)	0.048 (0.292)
Italian 2 year	0.218 (0.411)	-4.259*** (0.786)
Italian 5 year	-0.056 (0.366)	-5.216*** (0.511)
Italian 10 year	-0.380 (0.305)	-4.253*** (0.407)
Italian 30 year	-0.739*** (0.262)	-2.843*** (0.380)
Treasury credit default swaps		
German 2 year	0.199** (0.098)	-0.462*** (0.152)
German 10 year	0.208** (0.116)	-0.603*** (0.212)
Italian 2 year	1.946*** (0.449)	-2.933*** (0.750)
Italian 10 year	1.836*** (0.423)	-2.689*** (0.700)

Note: Estimated δ coefficients from $\Delta Y_t = \mu + \delta D_t + \varsigma_t$. D_t is the first principal component of the shock measures., normalized to zero mean and unit variance. Event window for constructing the high-frequency shock is from 8:00 AM until 30-minutes after the closing the auction. Newey-West standard errors in parenthesis. (*), (**) and (***) denote statistical significance at 10, 5 and 1% respectively.

Table A13: Spillovers to other Treasury markets (8:00, +30min window)

	Germany	Italy
Treasuries		
French 2 year	-1.093*** (0.158)	-0.530** (0.235)
French 5 year	-1.660*** (0.180)	-0.811*** (0.207)
French 10 year	-1.959*** (0.175)	-0.942*** (0.205)
French 30 year	-2.184*** (0.176)	-0.801*** (0.226)
Spanish 2 year	0.280 (0.451)	-4.431*** (0.624)
Spanish 5 year	-0.118 (0.385)	-4.255*** (0.544)
Spanish 10 year	-0.217 (0.342)	-3.454*** (0.498)
Spanish 30 year	-0.620** (0.305)	-2.871*** (0.480)
Dutch 2 year	-1.230*** (0.154)	-0.165 (0.165)
Dutch 5 year	-1.732*** (0.385)	-0.432** (0.544)
Dutch 10 year	-2.048*** (0.166)	-0.495** (0.280)
Dutch 30 year	-2.401*** (0.179)	0.050 (0.299)

Note: See Table [A12](#)

Table A14: Spillovers to equity and corporate bond markets (8:00, +30min window)

	Germany	Italy
Equity indices		
Germany	-0.279*** (0.070)	0.103 (0.090)
Italy	-0.371*** (0.073)	0.297*** (0.106)
France	-0.279*** (0.069)	0.169** (0.089)
Spain	-0.360*** (0.074)	0.191** (0.110)
Netherlands	-0.271*** (0.073)	0.123** (0.071)
Euro Area	-0.310*** (0.070)	0.146* (0.092)
Corporate bond indices		
Germany	-1.671*** (0.228)	-0.309 (0.298)
Italy	-1.385*** (0.304)	-1.246*** (0.528)
France	-1.725*** (0.192)	-0.572 (0.464)
Spain	-1.198*** (0.335)	-1.258** (0.598)
Netherlands	-1.513*** (0.205)	-0.407* (0.293)
Euro Area	-1.607*** (0.191)	-0.509* (0.364)

Note: See Tables [6](#) and [A12](#)

Table A15: German and Italian Treasury yields and CDS spread (30 min event window)

	Germany	Italy
Treasuries		
German 2 year	-0.639*** (0.188)	-0.101 (0.133)
German 5 year	-1.264*** (0.174)	-0.155 (0.217)
German 10 year	-1.398*** (0.195)	-0.109 (0.236)
German 30 year	-1.554*** (0.205)	0.013 (0.267)
Italian 2 year	-0.653* (0.416)	-2.137*** (0.819)
Italian 5 year	-0.545* (0.358)	-2.147*** (0.835)
Italian 10 year	-0.554** (0.298)	-1.734*** (0.668)
Italian 30 year	-0.521** (0.242)	-0.864* (0.530)
Treasury credit default swaps		
German 2 year	0.130* (0.091)	-0.348*** (0.140)
German 10 year	0.102 (0.108)	-0.512*** (0.193)
Italian 2 year	1.236*** (0.469)	-0.491 (0.805)
Italian 10 year	1.139*** (0.446)	-0.492 (0.753)

Note: Estimated δ coefficients from $\Delta Y_t = \mu + \delta D_t + \varsigma_t$. D_t is the first principal component of the shock measures, normalized to zero mean and unit variance. Event window for constructing the high-frequency shock is from 15 minutes before to 15 minutes after the closing of the auction. Newey-West standard errors in parenthesis. (*), (**) and (***) denote statistical significance at 10, 5 and 1% respectively.

Table A16: Spillovers to other Treasury markets (30 min event window)

	Germany	Italy
Treasuries		
French 2 year	-0.747*** (0.173)	-0.436** (0.214)
French 5 year	-1.214*** (0.196)	-0.232 (0.284)
French 10 year	-1.311*** (0.187)	-0.451** (0.254)
French 30 year	-1.299*** (0.189)	-0.430* (0.298)
Spanish 2 year	-0.113 (0.456)	-1.966*** (0.673)
Spanish 5 year	-0.094 (0.402)	-1.543*** (0.632)
Spanish 10 year	-0.245 (0.339)	-1.244** (0.535)
Spanish 30 year	-0.215 (0.321)	-0.897** (0.415)
Dutch 2 year	-0.799*** (0.150)	-0.283* (0.214)
Dutch 5 year	-1.177*** (0.402)	-0.266* (0.632)
Dutch 10 year	-1.291*** (0.175)	-0.269 (0.236)
Dutch 30 year	-1.465*** (0.183)	0.066 (0.261)

Note: See Table [A16](#)

Table A17: Spillovers to equity and corporate bond market (30 min event window)

	Germany	Italy
Equity indices		
Germany	-0.156*** (0.060)	0.009 (0.078)
Italy	-0.184*** (0.069)	0.123* (0.083)
France	-0.152*** (0.059)	0.040 (0.081)
Spain	-0.188*** (0.067)	0.037 (0.081)
Netherlands	-0.172*** (0.060)	0.023 (0.062)
Euro Area	-0.168*** (0.061)	0.034 (0.076)
Corporate bond indices		
Germany	-1.036*** (0.192)	-0.006 (0.213)
Italy	-1.121*** (0.353)	0.363 (0.386)
France	-1.203*** (0.205)	0.161 (0.289)
Spain	-1.136*** (0.344)	0.482 (0.485)
Netherlands	-1.085*** (0.176)	-0.063 (0.218)
Euro Area	-1.161*** (0.200)	0.103 (0.263)

Note: See Tables [6](#) and [A16](#)

Table A18: Treasury Market I (CLIFS 65th percentile cutoff)

	Germany		Italy	
	Low Stress	High Stress	Low Stress	High Stress
Treasuries				
German 2 year	-0.898*** (0.163)	-1.040*** (0.402)	-0.696†*** (0.235)	0.237†* (0.145)
German 5 year	-1.562*** (0.169)	-1.675*** (0.274)	-1.180†*** (0.338)	0.068† (0.269)
German 10 year	-1.866*** (0.194)	-1.645*** (0.415)	-1.221†*** (0.439)	-0.077† (0.292)
German 30 year	-1.931*** (0.232)	-2.041*** (0.373)	-1.240†*** (0.475)	0.060† (0.272)
Italian 2 year	0.125† (0.346)	-1.704†*** (0.728)	-1.898*** (0.566)	-4.317*** (1.197)
Italian 5 year	0.007† (0.402)	-1.671†*** (0.581)	-3.716*** (0.547)	-4.043*** (0.996)
Italian 10 year	-0.257 (0.386)	-1.164*** (0.488)	-3.937*** (0.587)	-3.045*** (0.666)
Italian 30 year	-0.202† (0.348)	-1.187†*** (0.362)	-2.886*** (0.493)	-1.857*** (0.621)
Treasury credit default swaps				
German 2 year	0.103 (0.080)	0.423 (0.344)	0.054† (0.048)	-0.430†*** (0.160)
German 10 year	0.145 (0.114)	0.331 (0.347)	-0.054† (0.156)	-0.675†*** (0.222)
Italian 2 year	1.854*** (0.504)	0.278 (0.881)	-0.194 (0.689)	-2.068*** (0.856)
Italian 10 year	1.667*** (0.474)	0.224 (0.890)	-0.009 (0.732)	-1.862*** (0.785)

Note: Estimated $\delta^{(L)}$ and $\delta^{(H)}$ coefficients from $\Delta Y_t = C_T(\mu^{(H)} + \delta^{(H)}D_t) + (1 - C_t)(\mu^{(L)} + \delta^{(L)}D_t) + \xi_t$. D_t is the first principal component of the shock measures, normalized to zero mean and unit variance. C_t is a high financial stress dummy, indicating a CLIFS index higher than its historical 65th percentile value. Newey-West standard errors in parenthesis. (*), (**) and (***) denote statistical significance at the 10, 5 and 1% level. (†) in the test columns indicates statistically different estimates in the two regimes at the 5% level.

Table A19: Treasury Market II (CLIFS 65th percentile cutoff)

	Germany		Italy	
	Low Stress	High Stress	Low Stress	High Stress
Treasuries				
French 2 year	-0.713*** (0.170)	-1.296*** (0.338)	-0.778*** (0.293)	-0.295* (0.206)
French 5 year	-1.182*** (0.178)	-1.751*** (0.375)	-0.765*** (0.402)	-0.455* (0.278)
French 10 year	-1.523*** (0.199)	-1.487*** (0.403)	-1.131*** (0.461)	-0.603** (0.273)
French 30 year	-1.599*** (0.225)	-1.754*** (0.345)	-1.044** (0.458)	-0.525** (0.276)
Spanish 2 year	0.297† (0.493)	-1.301†** (0.637)	-1.593†*** (0.495)	-3.940†*** (1.055)
Spanish 5 year	0.073 (0.534)	-1.090*** (0.449)	-2.620*** (0.530)	-3.425*** (0.840)
Spanish 10 year	-0.130 (0.414)	-0.838* (0.579)	-2.530*** (0.590)	-2.458*** (0.721)
Spanish 30 year	-0.200 (0.380)	-1.119** (0.503)	-2.017*** (0.580)	-1.722*** (0.611)
Dutch 2 year	-0.769*** (0.158)	-1.320*** (0.264)	-0.506*** (0.209)	-0.075 (0.192)
Dutch 5 year	-1.328*** (0.177)	-1.660*** (0.288)	-1.230†*** (0.350)	-0.337†* (0.250)
Dutch 10 year	-1.610*** (0.184)	-1.578*** (0.374)	-1.341*** (0.424)	-0.455** (0.270)
Dutch 30 year	-1.863*** (0.213)	-1.912*** (0.339)	-1.168†*** (0.470)	-0.008† (0.259)

Note: See Table [A18](#)

Table A20: Corporate Markets (CLIFS 65th percentile cutoff)

	Germany		Italy	
	Low Stress	High Stress	Low Stress	High Stress
Equity indices				
Germany	-0.161*** (0.065)	-0.436*** (0.168)	0.018 (0.109)	0.043 (0.090)
Italy	-0.265*** (0.072)	-0.364*** (0.155)	0.195* (0.132)	0.252** (0.110)
France	-0.140** (0.061)	-0.430*** (0.167)	0.008 (0.119)	0.093 (0.104)
Spain	-0.241*** (0.076)	-0.381*** (0.152)	0.071 (0.127)	0.141* (0.108)
Netherlands	-0.114** (0.055)	-0.508*** (0.193)	0.031 (0.093)	0.036 (0.071)
Euro Area	-0.165*** (0.064)	-0.442*** (0.171)	0.037 (0.115)	0.085 (0.098)
Corporate bond indices				
Germany	-1.243*** (0.175)	-0.941** (0.467)	-0.901†*** (0.298)	0.034† (0.263)
Italy	-1.142*** (0.264)	-1.223** (0.711)	-0.844*** (0.337)	-0.137 (0.539)
France	-1.327*** (0.164)	-1.401*** (0.483)	-0.939†*** (0.276)	0.137† (0.446)
Spain	-1.135*** (0.342)	-1.019* (0.663)	-0.603* (0.452)	-0.059 (0.708)
Netherlands	-1.364*** (0.156)	-0.674 (0.642)	-0.994†*** (0.297)	-0.101† (0.214)
Euro Area	-1.327*** (0.165)	-1.131** (0.496)	-0.845*** (0.297)	0.004 (0.361)

Note: See Tables [6](#) and [A18](#).

Table A21: Treasury Market I (CLIFS 80th percentile)

	Germany		Italy	
	Low Stress	High Stress	Low Stress	High Stress
Treasuries				
German 2 year	-0.918*** (0.139)	-1.025* (0.756)	-0.079 (0.197)	0.139 (0.208)
German 5 year	-1.547*** (0.162)	-1.803*** (0.350)	-0.267 (0.276)	-0.268 (0.430)
German 10 year	-1.842*** (0.188)	-1.503*** (0.641)	-0.383 (0.307)	-0.380 (0.456)
German 30 year	-1.949*** (0.209)	-2.048*** (0.580)	-0.360 (0.316)	-0.122 (0.468)
Italian 2 year	-0.348 (0.433)	-1.421*** (0.593)	-2.003†*** (0.607)	-7.316†*** (2.226)
Italian 5 year	-0.451 (0.410)	-1.340** (0.600)	-2.772†*** (0.651)	-6.597†*** (1.470)
Italian 10 year	-0.481* (0.351)	-1.104** (0.653)	-2.754*** (0.516)	-4.509*** (1.038)
Italian 30 year	-0.356 (0.299)	-1.509*** (0.537)	-1.934*** (0.449)	-2.604** (1.284)
Treasury credit default swaps				
German 2 year	0.089 (0.086)	0.768* (0.517)	-0.046† (0.092)	-0.858†*** (0.217)
German 10 year	0.113 (0.108)	0.635 (0.539)	-0.186†** (0.096)	-1.221†*** (0.371)
Italian 2 year	1.661†*** (0.533)	-0.346† (0.747)	-0.452 (0.515)	-4.012** (1.769)
Italian 10 year	1.506†*** (0.514)	-0.397† (0.744)	-0.442 (0.520)	-3.430** (1.564)

Note: Estimated $\delta^{(L)}$ and $\delta^{(H)}$ coefficients from $\Delta Y_t = C_T(\mu^{(H)} + \delta^{(H)}D_t) + (1 - C_t)(\mu^{(L)} + \delta^{(L)}D_t) + \xi_t$. D_t is the first principal component of the shock measures, normalized to zero mean and unit variance. C_t is a high financial stress dummy, indicating a CLIFS index higher than its historical 80th percentile value. Newey-West standard errors in parenthesis. (*), (**) and (***) denote statistical significance at the 10, 5 and 1% level. (†) in the test columns indicates statistically different estimates in the two regimes at the 5% level.

Table A22: Treasury Market II (CLIFS 80th percentile cutoff)

	Germany		Italy	
	Low Stress	High Stress	Low Stress	High Stress
Treasuries				
French 2 year	-0.798*** (0.161)	-1.45*** (0.504)	-0.318* (0.196)	-0.634** (0.385)
French 5 year	-1.341*** (0.193)	-1.589*** (0.421)	-0.258* (0.265)	-1.136*** (0.396)
French 10 year	-1.544*** (0.189)	-1.349** (0.621)	-0.466** (0.273)	-1.359*** (0.485)
French 30 year	-1.601*** (0.200)	-1.891*** (0.532)	-0.470* (0.297)	-1.077*** (0.399)
Spanish 2 year	0.063† (0.462)	-1.830†*** (0.658)	-1.313†*** (0.392)	-7.698†*** (1.877)
Spanish 5 year	-0.063† (0.457)	-1.633†*** (0.408)	-1.905†*** (0.456)	-6.103†*** (1.455)
Spanish 10 year	-0.181 (0.388)	-1.318** (0.739)	-1.583†*** (0.451)	-4.496†*** (1.336)
Spanish 30 year	-0.201† (0.347)	-2.039†*** (0.616)	-1.328*** (0.397)	-2.857** (1.408)
Dutch 2 year	-0.860*** (0.141)	-1.409*** (0.409)	-0.275* (0.211)	0.032 (0.242)
Dutch 5 year	-1.365*** (0.163)	-1.788*** (0.419)	-0.469* (0.259)	-0.796** (0.376)
Dutch 10 year	-1.602*** (0.171)	-1.555*** (0.615)	-0.630** (0.285)	-0.832** (0.413)
Dutch 30 year	-1.879*** (0.192)	-1.864*** (0.521)	-0.432* (0.312)	-0.062 (0.444)

Note: See Table [A21](#)

Table A23: Corporate Markets (CLIFS 80th percentile cutoff)

	Germany		Italy	
	Low Stress	High Stress	Low Stress	High Stress
Equity indices				
Germany	-0.149 ^{†***} (0.063)	-0.746 ^{†***} (0.217)	0.029 (0.072)	0.057 (0.172)
Italy	-0.237 ^{***} (0.069)	-0.573 ^{***} (0.205)	0.219 ^{***} (0.090)	0.294 [*] (0.196)
France	-0.136 ^{†***} (0.058)	-0.726 ^{†***} (0.223)	0.068 (0.077)	0.081 (0.198)
Spain	-0.209 ^{***} (0.067)	-0.650 ^{***} (0.215)	0.072 (0.075)	0.247 (0.224)
Netherlands	-0.111 ^{†**} (0.055)	-0.894 ^{†***} (0.260)	0.046 (0.055)	0.015 (0.138)
Euro Area	-0.154 ^{†***} (0.061)	-0.753 ^{†***} (0.227)	0.057 (0.072)	0.112 (0.193)
Corporate bond indices				
Germany	-1.260 ^{***} (0.188)	-0.547 (0.686)	-0.339 ^{**} (0.187)	0.088 (0.569)
Italy	-1.303 ^{***} (0.348)	-0.629 (0.617)	-0.487 ^{**} (0.245)	0.040 (1.163)
France	-1.383 ^{***} (0.204)	-1.229 ^{**} (0.633)	-0.392 ^{**} (0.178)	0.403 (0.979)
Spain	-1.241 ^{***} (0.359)	-0.432 (0.685)	-0.034 (0.268)	-0.593 (1.700)
Netherlands	-1.395 ^{***} (0.165)	0.168 (1.033)	-0.371 ^{**} (0.190)	-0.259 (0.415)
Euro Area	-1.366 ^{***} (0.198)	-0.758 (0.683)	-0.348 ^{**} (0.176)	0.073 (0.805)

Note: See Tables [6](#) and [A21](#)