

Internet Appendix to

“OTC Premia”

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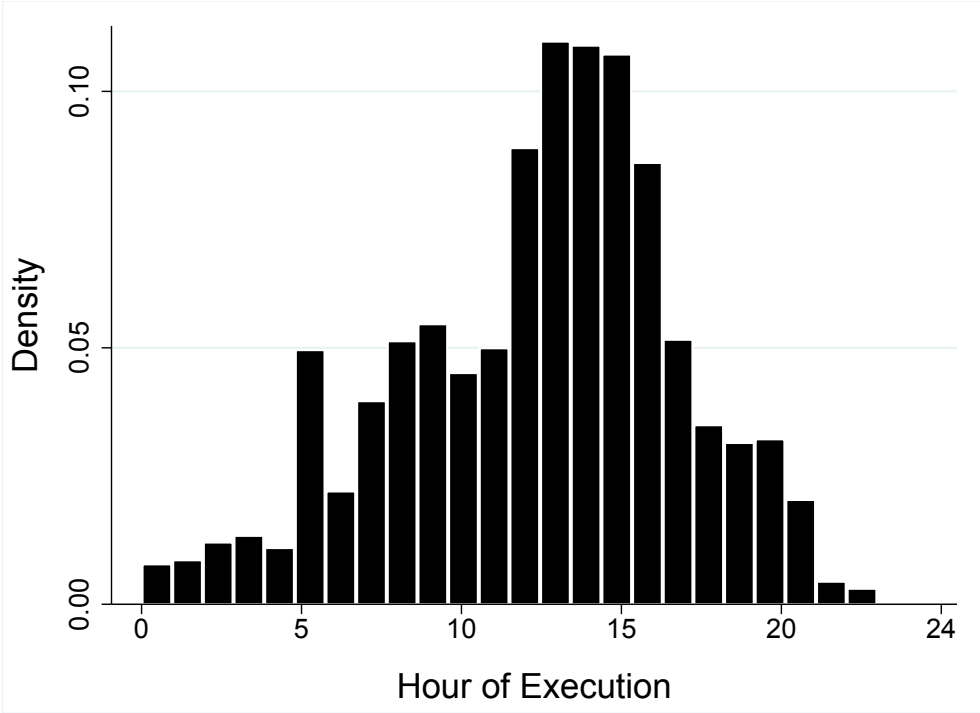
(not for publication)

Abstract

This appendix presents supplementary results not included in the main body of the paper.

Fig. A.1. Intraday distribution of transactions. The chart displays the empirical distribution of bilateral and centrally cleared transactions grouped in hourly baskets. Hours are indicated in Coordinated Universal Time (UTC). The sample covers every USD-denominated spot vanilla interest rate swap by non-US-based counterparties, which was reported to DTCC between December 1, 2014 and February 19, 2016.

(a) Non-centrally cleared.



(b) Centrally cleared.

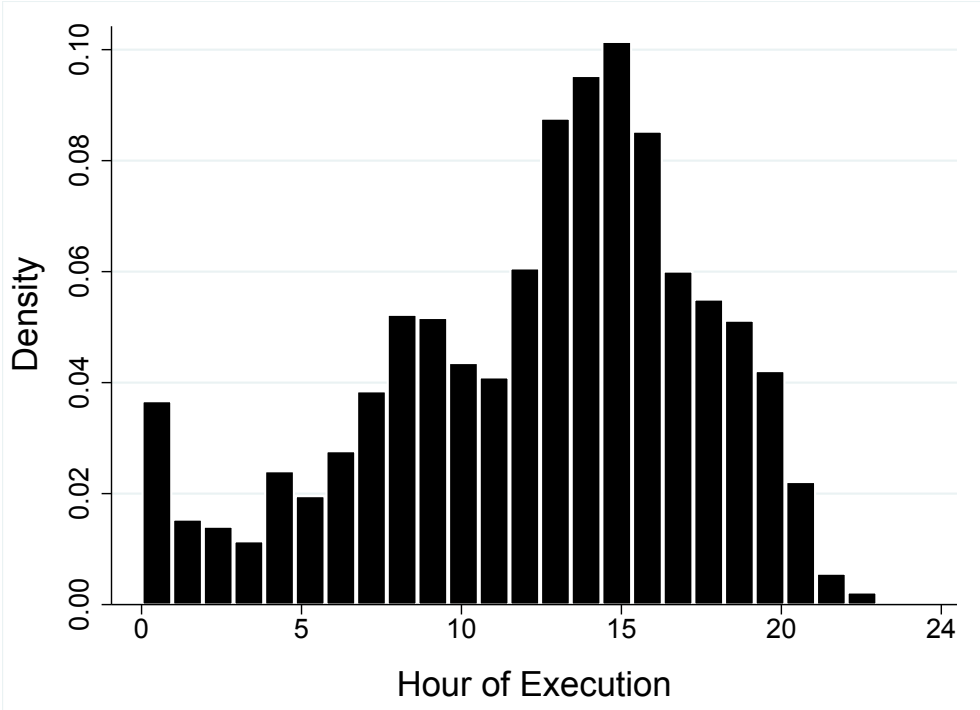


Table A.1

Trading activity by counterparty location.

The sample covers every USD-denominated spot vanilla interest rate swap which was reported to DTCC between December 1, 2014 and February 19, 2016. Transactions with an identifiable US-based counterparty are excluded. Percentages may not add up to 100 because of rounding.

Location	Transactions		Notional	
	Number	Percent	USD millions	Percent
United Kingdom	103,247	51%	8,477,820	57%
France	26,807	13%	1,807,937	12%
Germany	17,973	9%	1,289,611	9%
Cayman Islands	11,109	5%	1,152,110	8%
Canada	4,825	2%	388,458	3%
Switzerland	4,284	2%	325,517	2%
Japan	3,891	2%	188,035	1%
Hong Kong	1,850	1%	123,025	1%
Australia	2,799	1%	100,373	1%
Other Countries	15,329	8%	608,705	4%
Unclassified	9,988	5%	479,433	3%

Table A.2
Ratings conversion.

Rating			Conversion Scale
S&P	Moody's	Fitch	
AAA	Aaa	AAA	20
AA+	Aa1	AA+	19
AA	Aa2	AA	18
AA-	Aa3	AA-	17
A+	A1	A+	16
A	A2	A	15
A-	A3	A-	14
BBB+	Baa1	BBB+	13
BBB	Baa2	BBB	12
BBB-	Baa3	BBB-	11
BB+	Ba1	BB+	10
BB	Ba2	BB	9
BB-	Ba3	BB-	8
B+	B1	B+	7
B	B2	B	6
B-	B3	B-	5
CCC+	Caa1	CCC+	4
CCC	Caa2	CCC	3
CCC-	Caa3	CCC-	2
CC	Ca	CC	1
C	Ca	C	0.5
	C	DDD	0
D		DD	0
		D	0

Table A.3

Determinants of (de)centralised clearing — counterparty credit risk, excluding counterparties that do not have access to central clearing services.

This table reports the results of a probit regression, where the dependent variable is one for non-centrally cleared trades and zero otherwise. We exclude from the data counterparties that do not have access to central clearing services. The regression is run at the trade and counterparty level (columns 1 to 4). Log-notional is the logarithm of the dollar amount on which the contract's exchanged interest payments are based. Maturity refers to the number of years between the effective and maturity date of the swap contract. Credit rating is the counterparty's credit rating from three different sources (S&P, Moody's, and Fitch). It has been converted to a scale from 0 to 20, where 0 denotes the worst rating and 20 the maximum rating (see Table A.2 in the Internet Appendix). The sample covers every USD-denominated spot vanilla interest rate swap by non-US-based counterparties, which was reported to DTCC between December 1, 2014 and February 19, 2016. Robust t -statistics are shown in brackets. *, **, *** denote significance at 1%, 5%, and 10% confidence level, respectively.

	(1)	(2)	(3)	(4)
Log-notional	-0.286*** (-80.29)	-0.285*** (-80.11)	-0.286*** (-80.36)	-0.286*** (-80.36)
Maturity	-0.029*** (-41.80)	-0.029*** (-41.60)	-0.029*** (-41.93)	-0.029*** (-41.93)
Credit rating	-0.008** (-2.10)			
$0 \leq \text{Rating} < 11$		0.766*** (10.17)		
$11 \leq \text{Rating} < 15$			0.062*** (7.08)	
$15 \leq \text{Rating} \leq 20$				-0.071*** (-8.12)
Constant	3.986*** (49.08)	3.862*** (61.81)	3.854*** (61.61)	3.920*** (62.43)
Pseudo R^2	0.088	0.089	0.088	0.089
Obs	160935	160935	160935	160935

Table A.4

OTC premium in dealer-to-client segment, controlling for hour fixed effects.

The table reports the results of trade-level panel regressions of the swap return on the Non-CCP dummy that equals one for non-CCP trades and zero otherwise, and a number of other variables and controls. We only include trades executed in the dealer-to-client segment. The swap return is defined as the difference (in bps) between the transaction-level swap rate and the mid-quote of the Bloomberg benchmark rate at the end of the previous business day. Non-CCP with IM is a dummy that equals one for non-centrally cleared trades that involve the exchange of initial margin by the two counterparties and zero otherwise. The rest of the variables are defined in Eqs. (1) and (2) in the main text. Columns 1–4 show the results when the dealer sells interest rate protection (receives fixed), while Columns 5–8 show the results when the dealer buys protection (pays fixed). The sample covers every USD-denominated spot vanilla interest rate swap by non-US-based counterparties reported to DTCC between December 1, 2014 and February 19, 2016. All specifications include time, buyer ID, and seller ID fixed effects. We report t -statistics calculated using clustered standard errors (by quarter and dealer ID) in parentheses. *, **, *** denote significance at 1%, 5%, and 10% confidence level, respectively.

	Dealer receiving fixed		Dealer paying fixed	
	(1)	(2)	(3)	(4)
Non-CCP dummy	8.241*** (2.63)	8.322*** (2.91)	1.599 (0.77)	6.089 (1.43)
Log-notional	0.074 (0.48)	-0.049 (-0.24)	-0.332 (-1.54)	-0.197 (-0.60)
Maturity	0.017 (0.65)	0.016 (0.47)	0.023 (0.85)	0.058 (1.46)
Credit rating of buyer	0.318 (0.89)	0.538 (0.89)	-0.132 (-0.22)	0.188 (0.21)
Credit rating of seller	0.570 (1.14)	0.795 (1.11)	0.270 (1.03)	0.547 (0.75)
CR of dealer (payer)				-0.991*** (-4.57)
CR of dealer (receiver)		-0.102 (-0.55)		
LR of dealer (payer)				0.259 (1.00)
LR of dealer (receiver)		0.253 (1.54)		
Hour, Day, Buyer ID, Seller ID FE	Yes	Yes	Yes	Yes
\bar{R}^2	0.194	0.182	0.281	0.294
Obs	12092	7119	16193	8093

Table A.5

OTC premium in dealer-to-client segment, when clients are not banks, excluding entities with unclassified location.

The table reports the results of trade-level panel regressions of the swap return on the Non-CCP dummy that equals one for non-centrally cleared trades and zero otherwise, and a number of other variables and controls. We only include trades executed in the dealer-to-non-bank-client segment and exclude trades with entities with unclassified location. Non-banks consist of hedge funds, asset managers, insurance and non-financial firms. The swap return is defined as the difference (in bps) between the transaction-level swap rate and the mid-quote of the Bloomberg benchmark rate at the end of the previous business day. The rest of variables are defined in Eqs. (1) and (2). Columns 1–2 show the results when the dealer sells interest rate protection (receives fixed), while Columns 3–4 show the results when the dealer buys protection (pays fixed). The sample covers every USD-denominated spot vanilla interest rate swap by non-US-based counterparties (excluding entities with unclassified location), which was reported to DTCC between December 1, 2014 and February 19, 2016. All specifications include time, buyer ID, and seller ID fixed effects. We report t -statistics calculated using clustered standard errors (by quarter and dealer ID) in parentheses. *, **, *** denote significance at 1%, 5%, and 10% confidence level, respectively.

	Dealer receiving fixed		Dealer paying fixed	
	(1)	(2)	(3)	(4)
Non-CCP dummy	6.918*** (3.20)	7.767** (2.33)	1.332 (1.37)	-1.032 (-0.52)
Log-notional	0.406* (1.80)	0.183 (0.53)	0.207 (0.75)	-0.171 (-0.45)
Maturity	0.029 (0.80)	0.025 (0.43)	0.031 (0.42)	0.160*** (2.95)
Credit rating of buyer				-2.149 (-1.31)
Credit rating of seller		1.413 (1.16)		
CR of dealer (buyer)				-0.192 (-0.28)
CR of dealer (seller)		0.325 (0.63)		
LR of dealer (buyer)				0.197 (0.70)
LR of dealer (seller)		0.271 (1.25)		
Day, Buyer ID, Seller ID FE	Yes	Yes	Yes	Yes
\bar{R}^2	0.153	0.169	0.258	0.355
Obs	13095	7922	10092	4229