

# Online Appendix to Business Models and Dollar Funding of Global Banks<sup>☆</sup>

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In this online appendix we provide the tables for the robustness checks discussed in the appendix of the paper. Below we list all robustness checks and the corresponding tables:

- Table 1: *Japan repo premium vis-à-vis each country.*
- Table 2: *Japan non-repo discount vis-à-vis each country.*
- Table 3: *Japan repo premium excluding US banks.*
- Table 4: *Japan non-repo discount excluding US banks.*
- Table 5: *Japan repo premium dropping JP banks, date \* fundtype FE.*
- Table 6: *Japan repo premium dropping JP banks, date \* fundtype and date \* collateral FE.*
- Table 7: *Japan repo premium dropping JP banks, overnight treasury repos.*
- Table 8: *Japan repo premium on a common sample.*
- Table 9: *Japan non-repo discount on a common sample.*
- Table 10: *No quarter end effect for JP banks in non-repo.*
- Table 11: *Japan repo premium excluding potential mis-reported trades.*
- Table 12: *Japan non-repo discount excluding potential mis-reported trades.*
- Table 13: *Japan repo premium excluding potential duplicates.*
- Table 14: *Japan non-repo discount excluding potential duplicates.*
- Table 15: *Japan repo premium excluding potential duplicates and potential mis-reported trades.*
- Table 16: *Japan non-repo discount excluding potential duplicates and potential mis-reported trades.*
- Table 17: *Relationship length with funds in the repo market.*

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<sup>☆</sup>This draft: March 19, 2018. First draft: July 25, 2017. The views expressed here are those of the authors only, and not necessarily those of the Bank for International Settlements. All errors are our own.

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Table 1: The Japan repo premium vis-à-vis each country

Sample:	(1) Repo	(2) Repo	(3) Repo	(4) Repo	(5) Repo (O/N UST coll.) <sup>†</sup>
	$Rate_{ijct}$	$Rate_{ijct}$	$Rate_{ijct}$	$Rate_{ijct}$	$Rate_{ijct}$
$Log(value_{ijct})$	-0.173 (0.228)	0.130 (0.183)	0.0637 (0.139)	0.0100 (0.151)	0.143* (0.0819)
$Rem. maturity_{ijct}$	0.448*** (0.0437)	0.346*** (0.0361)	0.351*** (0.0355)	0.351*** (0.0357)	
$Agency coll._c$		1.445*** (0.478)	1.214*** (0.449)		
$Other coll._c$		25.50*** (1.988)	25.97*** (2.036)		
$5y CDS_{it}$			0.0260*** (0.00579)	0.0249*** (0.00623)	0.00240 (0.00163)
$AU_i$	-2.709 (2.382)	-1.391 (1.149)	-1.566 (1.144)	-1.637 (1.110)	-1.345 (1.170)
$CA_i$	-5.834*** (1.470)	-4.882*** (1.707)	-4.296** (1.853)	-4.032** (1.889)	-1.385*** (0.447)
$CH_i$	0.324 (0.731)	-1.227** (0.499)	-1.014** (0.484)	-0.882 (0.569)	-1.175** (0.515)
$DE_i$	-6.066*** (1.093)	-2.677** (1.122)	-2.449** (1.079)	-2.282* (1.152)	-0.160 (0.621)
$FR_i$	-5.758*** (1.049)	-3.861*** (1.194)	-4.045*** (1.167)	-3.801*** (1.184)	-0.980** (0.466)
$GB_i$	-4.435*** (1.496)	-3.332** (1.402)	-3.547*** (1.330)	-3.219** (1.425)	-1.377*** (0.480)
$NL_i$	-7.130*** (1.155)	-5.561*** (1.522)	-6.222*** (1.630)	-5.712*** (1.664)	-1.584*** (0.443)
$US_i$	-3.213** (1.269)	-2.119* (1.159)	-2.105* (1.122)	-1.957* (1.142)	-1.656*** (0.446)
Observations	193,689	193,689	181,425	181,425	26,113
R-squared	0.814	0.865	0.868	0.872	0.946
Date*Fund Type FE	✓	✓	✓	✓	✓
Date*Collateral FE				✓	

Notes: Regressions at the contract level, the dependent variable is the interest rate (in basis points) paid by a bank when borrowing from a fund.  $Log(value_{ijct})$  refers to the logarithm of the value of the contract and  $5y CDS_{it}$  denotes the 5 year CDS spread of the borrowing bank.  $JP_i$  is a dummy which takes the value 1 if the headquarters of the bank are in Japan. The coefficients on  $Agency coll._c$  and  $Other coll._c$  capture the pricing difference compared to  $Treasury coll.$  (where the coefficient on  $Treasury coll.$  is zero). <sup>†</sup>: specification (5) represents a regression only for overnight repos with US Treasury collateral. Standard errors clustered at the fund family level are in parentheses. \*\*\*, \*\*, \* denote significance at the 1, 5 and 10% level respectively.

Table 2: The Japan non-repo discount vis-à-vis each country

Sample:	(1)	(2)	(3)
	Non-repo	Non-repo	Non-repo
	$Rate_{ijct}$	$Rate_{ijct}$	$Rate_{ijct}$
$Log(value_{ijct})$	-0.104 (0.226)	-0.127 (0.231)	0.142 (0.117)
$Rem.maturity_{ijct}$	0.0658*** (0.00634)	0.0687*** (0.00613)	0.0905*** (0.0111)
$5yCDS_{it}$		0.0484*** (0.00479)	0.00335* (0.00168)
$AU_i$	7.542*** (1.001)	7.174*** (1.003)	-2.694* (1.529)
$CA_i$	4.989*** (0.860)	5.899*** (0.798)	-2.203*** (0.730)
$CH_i$	5.568*** (0.871)	5.151*** (0.912)	-2.411*** (0.752)
$CN_i$	10.84*** (1.747)	8.089*** (1.757)	
$DE_i$	5.583*** (1.282)	4.670*** (1.268)	-1.631*** (0.328)
$ES_i$	1.752 (2.100)	-2.780 (2.041)	
$FI_i$	0.918 (2.070)	1.305 (2.044)	
$FR_i$	2.015* (1.200)	0.662 (1.041)	-2.363*** (0.566)
$GB_i$	4.735*** (0.771)	3.140*** (0.812)	-2.855*** (0.289)
$NL_i$	3.754*** (0.654)	4.547*** (0.662)	-2.102*** (0.530)
$SE_i$	-1.266 (0.959)	-0.873 (0.948)	
$US_i$	4.594*** (0.739)	4.119*** (0.760)	-2.565*** (0.518)
$BE_i$	12.53*** (2.620)		
Observations	295,842	268,966	91,922
R-squared	0.878	0.884	0.969
Date*Instrument FE	✓	✓	✓
Date*Fund FE			✓

Notes: Regressions at the contract level, the dependent variable is the interest (in basis points) paid by a bank when borrowing from a fund in non-repo contracts.  $Log(value_{ijct})$  refers to the logarithm of the value of the contract and  $5yCDS_{it}$  denotes the 5 year CDS spread of the borrowing bank. Instrument fixed effects refer to the type of non-repo contract (CP, CD, ABCP). Standard errors clustered at the fund family level are in parentheses. \*\*\*, \*\*, \* denote significance at the 1, 5 and 10% level respectively.

Table 3: The Japan repo premium excluding US banks

Sample:	(1) Repo	(2) Repo	(3) Repo	(4) Repo	(5) Repo (O/N UST coll.) <sup>†</sup>
	$Rate_{ijct}$	$Rate_{ijct}$	$Rate_{ijct}$	$Rate_{ijct}$	$Rate_{ijct}$
$Log(value_{ijct})$	-0.528*** (0.157)	-0.0796 (0.138)	-0.0938 (0.130)	-0.134 (0.132)	0.0814 (0.100)
$Rem. maturity_{ijct}$	0.409*** (0.0393)	0.333*** (0.0291)	0.351*** (0.0270)	0.351*** (0.0270)	
$Agency coll._c$		0.848* (0.504)	1.019** (0.494)		
$Other coll._c$		23.03*** (2.207)	23.88*** (2.264)		
$5y CDS_{it}$			0.0322*** (0.00765)	0.0332*** (0.00755)	0.00736*** (0.00271)
$JP_i$	5.422*** (0.951)	4.273*** (1.168)	4.079*** (1.213)	3.862*** (1.276)	1.187*** (0.432)
Observations	130,859	130,859	118,800	118,800	19,093
R-squared	0.839	0.880	0.882	0.885	0.948
Date*Fund Type FE	✓	✓	✓	✓	✓
Date*Collateral FE				✓	

Notes: Regressions at the contract level, the dependent variable is the interest rate (in basis points) paid by a bank when borrowing from a fund.  $Log(value_{ijct})$  refers to the logarithm of the value of the contract and  $5y CDS_{it}$  denotes the 5 year CDS spread of the borrowing bank.  $JP_i$  is a dummy which takes the value 1 if the headquarters of the bank are in Japan. The coefficients on  $Agency coll._c$  and  $Other coll._c$  capture the pricing difference compared to  $Treasury coll.$  (where the coefficient on  $Treasury coll.$  is zero). <sup>†</sup>: specification (5) represents a regression only for overnight repos with US Treasury collateral. Standard errors clustered at the fund family level are in parentheses. \*\*\*, \*\*, \* denote significance at the 1, 5 and 10% level respectively.

Table 4: The Japan discount in CP, CD and ABCP markets excluding US banks

Sample:	(1) Non-repo	(2) Non-repo	(3) Full	(4) Repo (Non-prime funds) <sup>†</sup>
	$Rate_{ijct}$	$Rate_{ijct}$	$Rate_{ijct}$	$Rate_{ijct}$
$Log(value_{ijct})$	-0.151 (0.233)	-0.195 (0.249)	-0.884** (0.353)	-0.000238 (0.118)
$Rem. maturity_{ijct}$	0.0626*** (0.00643)	0.0661*** (0.00614)	0.0790*** (0.00741)	0.0944*** (0.0128)
$5y CDS_{it}$		0.0350*** (0.00619)	0.0319*** (0.00243)	0.00991** (0.00383)
$JP_i$	-4.253*** (0.764)	-4.071*** (0.738)	-3.863*** (0.635)	2.341*** (0.410)
$JP_i * \gamma_c^{repo}$			6.760*** (1.452)	
Observations	263,696	238,393	356,673	65,243
R-squared	0.872	0.877	0.906	0.973
Date FE	✓	✓	NO	NO
Instrument FE	✓	✓	✓	✓
Date*Fund FE			✓	✓

Notes: Regressions at the contract level, the dependent variable is the interest rate (in basis points) paid by a bank when borrowing from a fund. Funds are restricted to prime funds, unless otherwise noted.  $Log(value_{ijct})$  refers to the logarithm of the value of the contract, while  $5y CDS_{it}$  denotes the 5 year CDS spread of the borrowing bank.  $JP_i$  is a dummy which takes the value 1 if the headquarters of the bank are in Japan. Columns (1)-(2) restrict the instrument to CP, CD and ABCP (i.e. non-repos). Column (3) considers the entire market (i.e. repos and non-repos) and interacts the  $JP_i$  dummy with a dummy for repo contracts; Date\*Instrument fixed effects in this table control separately for time-varying characteristics of ABCP, CP, CD, and the three different types of collateral within repo contracts (Treasury, Government Agency and Other), wherever applicable. <sup>†</sup>: Column (4) considers only Non-Prime funds (i.e. government or Treasury funds that can only do repos with banks). Standard errors clustered at the fund family level are in parentheses. \*\*\*, \*\*, \* denote significance at the 1, 5 and 10% level respectively.

Table 5: The Japan repo premium with sequential exclusion of JP banks - Version 1

Sample:	(1)	(2)	(3)	(4)
	Repo	Repo	Repo	Repo
	$Rate_{ijct}$	$Rate_{ijct}$	$Rate_{ijct}$	$Rate_{ijct}$
Banks dropped	-	Top1	Top2	Top3
$Log(value_{ijct})$	0.0473 (0.139)	0.0473 (0.145)	0.0726 (0.145)	0.0797 (0.144)
$Rem. maturity_{ijct}$	0.362*** (0.0349)	0.367*** (0.0384)	0.350*** (0.0363)	0.350*** (0.0363)
$Agency coll._c$		1.437*** (0.381)	1.490*** (0.421)	1.507*** (0.422)
$Other coll._c$		26.35*** (2.120)	26.15*** (2.198)	26.17*** (2.201)
$5y CDS_{it}$	0.0257*** (0.00601)	0.0260*** (0.00609)	0.0254*** (0.00604)	0.0251*** (0.00592)
$JP_i$	3.243*** (1.132)	7.334*** (1.634)	4.416*** (1.149)	6.805*** (0.744)
Observations	181,098	175,004	169,185	168,534
R-squared	0.867	0.866	0.872	0.871
Date*Fund Type FE	✓	✓	✓	✓

Notes: Regressions at the contract level, the dependent variable is the interest rate (in basis points) paid by a bank when borrowing from a fund.  $Log(value_{ijct})$  refers to the logarithm of the value of the contract and  $5y CDS_{it}$  denotes the 5 year CDS spread of the borrowing bank.  $JP_i$  is a dummy which takes the value 1 if the headquarters of the bank are in Japan. The coefficients on  $Agency coll._c$  and  $Other coll._c$  capture the pricing difference compared to  $Treasury coll.$  (where the coefficient on  $Treasury coll.$  is zero.). Standard errors clustered at the fund family level are in parentheses. \*\*\*, \*\*, \* denote significance at the 1, 5 and 10% level respectively.

Table 6: The Japan repo premium with sequential exclusion of JP banks - Version 2

Sample:	(1)	(2)	(3)	(4)
	Repo	Repo	Repo	Repo
	$Rate_{ijct}$	$Rate_{ijct}$	$Rate_{ijct}$	$Rate_{ijct}$
Banks dropped	-	Top1	Top2	Top3
$Log(value_{ijct})$	-0.00533 (0.146)	-0.00184 (0.153)	0.0284 (0.150)	0.0354 (0.149)
$Rem. maturity_{ijct}$	0.362*** (0.0352)	0.366*** (0.0386)	0.350*** (0.0360)	0.350*** (0.0360)
$5y CDS_{it}$	0.0246*** (0.00634)	0.0250*** (0.00643)	0.0245*** (0.00634)	0.0242*** (0.00622)
$JP_i$	3.027** (1.174)	7.120*** (1.696)	4.557*** (1.169)	6.893*** (0.739)
Observations	181,098	175,004	169,185	168,534
R-squared	0.871	0.870	0.875	0.875
Date*Fund Type FE	✓	✓	✓	✓
Date*Collateral FE	✓	✓	✓	✓

Notes: Regressions at the contract level, the dependent variable is the interest rate (in basis points) paid by a bank when borrowing from a fund.  $Log(value_{ijct})$  refers to the logarithm of the value of the contract and  $5y CDS_{it}$  denotes the 5 year CDS spread of the borrowing bank.  $JP_i$  is a dummy which takes the value 1 if the headquarters of the bank are in Japan. Standard errors clustered at the fund family level are in parentheses. \*\*\*, \*\*, \* denote significance at the 1, 5 and 10% level respectively.

Table 7: The Japan repo premium with sequential exclusion of JP banks -  
Version 3: overnight treasury repos

Sample:	(1) Repo $Rate_{ijct}$	(2) Repo $Rate_{ijct}$	(3) Repo $Rate_{ijct}$	(4) Repo $Rate_{ijct}$
Banks dropped	-	Top1	Top2	Top3
$Log(value_{ijct})$	0.168* (0.0882)	0.167* (0.0915)	0.158* (0.0941)	0.164* (0.0926)
$5y CDS_{it}$	0.00319 (0.00224)	0.00339 (0.00235)	0.00364 (0.00234)	0.00360 (0.00225)
$JP_i$	1.251*** (0.415)	2.281*** (0.590)	2.498*** (0.714)	3.954 (2.471)
Observations	26,112	25,744	25,336	25,143
R-squared	0.946	0.945	0.945	0.944
Date*Fund Type FE	✓	✓	✓	✓

Notes: Regressions at the contract level, the dependent variable is the interest rate (in basis points) paid by a bank when borrowing from a fund.  $Log(value_{ijct})$  refers to the logarithm of the value of the contract and  $5y CDS_{it}$  denotes the 5 year CDS spread of the borrowing bank.  $JP_i$  is a dummy which takes the value 1 if the headquarters of the bank are in Japan. Standard errors clustered at the fund family level are in parentheses. \*\*\*, \*\*, \* denote significance at the 1, 5 and 10% level respectively.

Table 8: The Japan repo premium- common sample

Sample:	(1) Repo	(2) Repo	(3) Repo	(4) Repo	(5) Repo (O/N UST coll.) <sup>†</sup>
	<i>Rate<sub>ijct</sub></i>	<i>Rate<sub>ijct</sub></i>	<i>Rate<sub>ijct</sub></i>	<i>Rate<sub>ijct</sub></i>	<i>Rate<sub>ijct</sub></i>
<i>Log(value<sub>ijct</sub>)</i>	-0.161 (0.234)	0.170 (0.186)	0.0526 (0.145)	-0.00616 (0.153)	0.159* (0.0953)
<i>Rem. maturity<sub>ijct</sub></i>	0.456*** (0.0434)	0.353*** (0.0354)	0.360*** (0.0349)	0.359*** (0.0352)	
<i>Agency coll.<sub>c</sub></i>		1.471*** (0.471)	1.522*** (0.436)		
<i>Other coll.<sub>c</sub></i>		25.81*** (1.976)	26.46*** (2.026)		
<i>5y CDS<sub>it</sub></i>			0.0316*** (0.00776)	0.0312*** (0.00792)	0.00373 (0.00276)
<i>JP<sub>i</sub></i>	4.164*** (1.013)	3.206*** (1.194)	2.929** (1.200)	2.711** (1.254)	1.019** (0.504)
Observations	180,709	180,709	168,446	168,446	24,739
R-squared	0.816	0.867	0.870	0.873	0.946
Date*Fund Type FE	✓	✓	✓	✓	✓
Date*Collateral FE				✓	

Notes: Regressions at the contract level, the dependent variable is the interest rate (in basis points) paid by a bank when borrowing from a fund. *Log(value<sub>ijct</sub>)* refers to the logarithm of the value of the contract and *5y CDS<sub>it</sub>* denotes the 5 year CDS spread of the borrowing bank. *JP<sub>i</sub>* is a dummy which takes the value 1 if the headquarters of the bank are in Japan. The coefficients on *Agency coll.<sub>c</sub>* and *Other coll.<sub>c</sub>* capture the pricing difference compared to *Treasury coll.* (where the coefficient on *Treasury coll.* is zero). <sup>†</sup>: specification (5) represents a regression only for overnight repos with US Treasury collateral. Standard errors clustered at the fund family level are in parentheses. \*\*\*, \*\*, \* denote significance at the 1, 5 and 10% level respectively.

Table 9: The Japan discount in CP, CD and ABCP markets - common sample

Sample:	(1) Non-repo	(2) Non-repo	(3) Full	(4) Repo (Non-prime funds) <sup>†</sup>
	$Rate_{ijct}$	$Rate_{ijct}$	$Rate_{ijct}$	$Rate_{ijct}$
$Log(value_{ijct})$	-0.112 (0.227)	-0.150 (0.243)	-0.313 (0.273)	0.125 (0.0995)
$Rem. maturity_{ijct}$	0.0682*** (0.00676)	0.0719*** (0.00637)	0.104*** (0.0134)	0.0880*** (0.0114)
$5y CDS_{it}$		0.0352*** (0.00579)	0.0265*** (0.00251)	0.00422 (0.00253)
$JP_i$	-4.640*** (0.726)	-4.464*** (0.714)	-4.410*** (0.648)	2.528*** (0.513)
$JP_i * \gamma_c^{repo}$			5.839*** (1.477)	
Observations	233,464	209,462	377,601	85,061
R-squared	0.882	0.888	0.907	0.970
Date*Instrument FE	✓	✓	✓	✓
Date*Fund FE			✓	✓

Notes: Regressions at the contract level, the dependent variable is the interest (in basis points) paid by a bank when borrowing from a fund. Funds are restricted to prime funds, unless otherwise noted.  $Log(value_{ijct})$  refers to the logarithm of the value of the contract, while  $5y CDS_{it}$  denotes the 5 year CDS spread of the borrowing bank.  $JP_i$  is a dummy which takes the value 1 if the headquarters of the bank are in Japan. Columns (1)-(2) restrict the instrument to CP, CD and ABCP (i.e. non-repos). Column (3) considers the entire market (i.e. repos and non-repos) and interacts the  $JP_i$  dummy with a dummy for repo contracts; Date\*Instrument fixed effects in this table control separately for time-varying characteristics of ABCP, CP, CD, and the three different types of collateral within repo contracts (Treasury, Government Agency and Other), wherever applicable. <sup>†</sup>: Column (4) considers only Non-Prime funds (i.e. government or Treasury funds that can only do repos with banks). Standard errors clustered at the fund family level are in parentheses. \*\*\*, \*\*, \* denote significance at the 1, 5 and 10% level respectively.

Table 10: No quarter end effect for non-repo

Sample:	(1)	(2)
	Non-Repo $Rate_{ijct}$	Non-Repo $Rate_{ijct}$
$Log(value_{ijct})$	-0.111 (0.229)	-0.145 (0.241)
$Rem. maturity_{ijct}$	0.0626*** (0.00655)	0.0655*** (0.00629)
$5y CDS_{it}$		0.0354*** (0.00505)
$JP_i$	-4.255*** (0.770)	-4.028*** (0.776)
$JP_i * QE_t$	-0.128 (0.245)	-0.141 (0.246)
Observations	295,842	268,966
R-squared	0.873	0.878
Date FE	✓	✓
Instrument FE	✓	✓

Notes: Regressions at the contract level, the dependent variable is the interest  $Rate_{ijct}$  (in basis points) paid by a bank when borrowing from a fund.  $Log(value_{ijct})$  refers to the logarithm of the value of the contract, while  $5y CDS_{it}$  denotes the 5 year CDS spread of the borrowing bank.  $JP_i$  is a dummy which takes the value 1 if the headquarters of the bank are in Japan. Columns (1)-(2) restrict the instrument to CP, CD and ABCP (i.e. non-repos).  $QE_t$  is 1 if the observation is at a quarter-end. Standard errors clustered at the fund family level are in parentheses. \*\*\*, \*\*, \* denote significance at the 1, 5 and 10% level respectively.

Table 11: The Japan repo premium - Exclude observations which are identical except for the interest rates (potential mis-reporting)

Sample:	(1) Repo	(2) Repo	(3) Repo	(4) Repo	(5) Repo (O/N UST coll.) <sup>†</sup>
	$Rate_{ijct}$	$Rate_{ijct}$	$Rate_{ijct}$	$Rate_{ijct}$	$Rate_{ijct}$
$Log(value_{ijct})$	-0.173 (0.220)	0.148 (0.172)	0.0464 (0.137)	-0.00572 (0.144)	0.172* (0.0878)
$Rem. maturity_{ijct}$	0.463*** (0.0423)	0.354*** (0.0344)	0.361*** (0.0336)	0.360*** (0.0339)	
$Agency coll._c$		1.384*** (0.471)	1.367*** (0.441)		
$Other coll._c$		25.54*** (1.987)	26.17*** (2.039)		
$5y CDS_{it}$			0.0255*** (0.00605)	0.0244*** (0.00636)	0.00328 (0.00223)
$JP_i$	4.479*** (0.951)	3.265*** (1.113)	3.025*** (1.125)	2.814** (1.171)	1.255*** (0.414)
Observations	193,225	193,225	180,979	180,979	26,113
R-squared	0.815	0.866	0.869	0.873	0.946
Date*Fund Type FE	✓	✓	✓	✓	✓
Date*Collateral FE				✓	

Notes: Regressions at the contract level, the dependent variable is the interest rate (in basis points) paid by a bank when borrowing from a fund.  $Log(value_{ijct})$  refers to the logarithm of the value of the contract and  $5y CDS_{it}$  denotes the 5 year CDS spread of the borrowing bank.  $JP_i$  is a dummy which takes the value 1 if the headquarters of the bank are in Japan. The coefficients on  $Agency coll._c$  and  $Other coll._c$  capture the pricing difference compared to  $Treasury coll.$  (where the coefficient on  $Treasury coll.$  is zero). <sup>†</sup>: specification (5) represents a regression only for overnight repos with US Treasury collateral. Standard errors clustered at the fund family level are in parentheses. \*\*\*, \*\*, \* denote significance at the 1, 5 and 10% level respectively.

Table 12: The Japan discount in CP, CD and ABCP markets - Exclude observations which are identical except for the interest rates (potential mis-reporting)

Sample:	(1) Non-repo	(2) Non-repo	(3) Full	(4) Repo (Non-prime funds) <sup>†</sup>
	$Rate_{ijct}$	$Rate_{ijct}$	$Rate_{ijct}$	$Rate_{ijct}$
$Log(value_{ijct})$	-0.134 (0.203)	-0.169 (0.212)	-0.523 (0.324)	0.149 (0.0973)
$Rem. maturity_{ijct}$	0.0609*** (0.00590)	0.0639*** (0.00574)	0.0864*** (0.0117)	0.0905*** (0.0119)
$5y CDS_{it}$		0.0332*** (0.00521)	0.0258*** (0.00324)	0.00250 (0.00262)
$JP_i$	-4.412*** (0.649)	-4.195*** (0.644)	-3.942*** (0.568)	2.329*** (0.482)
$JP_i * \gamma_c^{repo}$			5.316*** (1.302)	
Observations	279,266	253,763	434,455	91,842
R-squared	0.879	0.884	0.898	0.969
Date FE	✓	✓		
Instrument FE	✓	✓	✓	✓
Date*Fund FE			✓	✓

Notes: Regressions at the contract level, the dependent variable is the interest (in basis points) paid by a bank when borrowing from a fund. Funds are restricted to prime funds, unless otherwise noted.  $Log(value_{ijct})$  refers to the logarithm of the value of the contract, while  $5y CDS_{it}$  denotes the 5 year CDS spread of the borrowing bank.  $JP_i$  is a dummy which takes the value 1 if the headquarters of the bank are in Japan. Columns (1)-(2) restrict the instrument to CP, CD and ABCP (i.e. non-repos). Column (3) considers the entire market (i.e. repos and non-repos) and interacts the  $JP_i$  dummy with a dummy for repo contracts; Date\*Instrument fixed effects in this table control separately for time-varying characteristics of ABCP, CP, CD, and the three different types of collateral within repo contracts (Treasury, Government Agency and Other), wherever applicable. <sup>†</sup>: Column (4) considers only Non-Prime funds (i.e. government or Treasury funds that can only do repos with banks). Standard errors clustered at the fund family level are in parentheses. \*\*\*, \*\*, \* denote significance at the 1, 5 and 10% level respectively.

Table 13: The Japan repo premium - Excluding potential duplicates

Sample:	(1) Repo	(2) Repo	(3) Repo	(4) Repo	(5) Repo (O/N UST coll.) <sup>†</sup>
	<i>Rate<sub>ijct</sub></i>	<i>Rate<sub>ijct</sub></i>	<i>Rate<sub>ijct</sub></i>	<i>Rate<sub>ijct</sub></i>	<i>Rate<sub>ijct</sub></i>
<i>Log(value<sub>ijct</sub>)</i>	-0.127 (0.243)	0.176 (0.182)	0.0735 (0.145)	0.0227 (0.151)	0.176* (0.0902)
<i>Rem. maturity<sub>ijct</sub></i>	0.456*** (0.0423)	0.347*** (0.0347)	0.351*** (0.0342)	0.350*** (0.0341)	
<i>Agency coll.<sub>c</sub></i>		1.433*** (0.410)	1.315*** (0.407)		
<i>Other coll.<sub>c</sub></i>		25.11*** (2.025)	25.70*** (2.063)		
<i>5y CDS<sub>it</sub></i>			0.0251*** (0.00576)	0.0241*** (0.00604)	0.00294 (0.00220)
<i>JP<sub>i</sub></i>	4.315*** (1.094)	3.412*** (1.240)	3.244** (1.249)	3.076** (1.305)	1.344*** (0.438)
Observations	177,501	177,501	167,395	167,395	25,205
R-squared	0.812	0.863	0.866	0.870	0.944
Date*Fund Type FE	✓	✓	✓	✓	✓
Date*Collateral FE				✓	

Notes: Regressions at the contract level, the dependent variable is the interest rate (in basis points) paid by a bank when borrowing from a fund. *Log(value<sub>ijct</sub>)* refers to the logarithm of the value of the contract and *5y CDS<sub>it</sub>* denotes the 5 year CDS spread of the borrowing bank. *JP<sub>i</sub>* is a dummy which takes the value 1 if the headquarters of the bank are in Japan. The coefficients on *Agency coll.<sub>c</sub>* and *Other coll.<sub>c</sub>* capture the pricing difference compared to *Treasury coll.* (where the coefficient on *Treasury coll.* is zero). <sup>†</sup>: specification (5) represents a regression only for overnight repos with US Treasury collateral. Standard errors clustered at the fund family level are in parentheses. \*\*\*, \*\*, \* denote significance at the 1, 5 and 10% level respectively.

Table 14: The Japan discount in CP, CD and ABCP markets - Excluding trades that are potential duplicates

Sample:	(1) Non-repo	(2) Non-repo	(3) Full	(4) Repo (Non-prime funds) <sup>†</sup>
	$Rate_{ijct}$	$Rate_{ijct}$	$Rate_{ijct}$	$Rate_{ijct}$
$Log(value_{ijct})$	-0.0905 (0.227)	-0.121 (0.237)	-0.489 (0.323)	0.172* (0.0966)
$Rem. maturity_{ijct}$	0.0629*** (0.00678)	0.0660*** (0.00654)	0.0866*** (0.0102)	0.0911*** (0.0123)
$5y CDS_{it}$		0.0352*** (0.00524)	0.0266*** (0.00344)	0.00188 (0.00198)
$JP_i$	-4.226*** (0.754)	-4.009*** (0.751)	-3.770*** (0.622)	2.102*** (0.414)
$JP_i * \gamma_c^{repo}$			5.869*** (1.421)	
Observations	285,398	259,712	426,822	84,228
R-squared	0.875	0.880	0.901	0.968
Date FE	✓	✓		
Instrument FE	✓	✓	✓	✓
Date*Fund FE			✓	✓

Notes: Regressions at the contract level, the dependent variable is the interest (in basis points) paid by a bank when borrowing from a fund. Funds are restricted to prime funds, unless otherwise noted.  $Log(value_{ijct})$  refers to the logarithm of the value of the contract, while  $5y CDS_{it}$  denotes the 5 year CDS spread of the borrowing bank.  $JP_i$  is a dummy which takes the value 1 if the headquarters of the bank are in Japan. Columns (1)-(2) restrict the instrument to CP, CD and ABCP (i.e. non-repos). Column (3) considers the entire market (i.e. repos and non-repos) and interacts the  $JP_i$  dummy with a dummy for repo contracts; Date\*Instrument fixed effects in this table control separately for time-varying characteristics of ABCP, CP, CD, and the three different types of collateral within repo contracts (Treasury, Government Agency and Other), wherever applicable. <sup>†</sup>: Column (4) considers only Non-Prime funds (i.e. government or Treasury funds that can only do repos with banks). Standard errors clustered at the fund family level are in parentheses. \*\*\*, \*\*, \* denote significance at the 1, 5 and 10% level respectively.

Table 15: The Japan repo premium - Excluding potential duplicates and potential mis-reported trades

Sample:	(1) Repo	(2) Repo	(3) Repo	(4) Repo	(5) Repo (O/N UST coll.) <sup>†</sup>
	$Rate_{ijct}$	$Rate_{ijct}$	$Rate_{ijct}$	$Rate_{ijct}$	$Rate_{ijct}$
$Log(value_{ijct})$	-0.0658 (0.269)	0.221 (0.183)	0.105 (0.144)	0.0582 (0.146)	0.194** (0.0920)
$Rem. maturity_{ijct}$	0.454*** (0.0435)	0.340*** (0.0357)	0.344*** (0.0352)	0.343*** (0.0353)	
$Agency coll._c$		1.297*** (0.402)	1.161*** (0.396)		
$Other coll._c$		25.19*** (2.107)	25.77*** (2.138)		
$5y CDS_{it}$			0.0257*** (0.00592)	0.0244*** (0.00621)	0.00280 (0.00207)
$JP_i$	4.592*** (1.199)	3.769*** (1.339)	3.610*** (1.357)	3.435** (1.410)	1.390*** (0.463)
Observations	157,123	157,123	148,865	148,865	24,147
R-squared	0.811	0.863	0.866	0.870	0.943
Date*Fund Type FE	✓	✓	✓	✓	✓
Date*Collateral FE				✓	

Notes: Regressions at the contract level, the dependent variable is the interest rate (in basis points) paid by a bank when borrowing from a fund.  $Log(value_{ijct})$  refers to the logarithm of the value of the contract and  $5y CDS_{it}$  denotes the 5 year CDS spread of the borrowing bank.  $JP_i$  is a dummy which takes the value 1 if the headquarters of the bank are in Japan. The coefficients on  $Agency coll._c$  and  $Other coll._c$  capture the pricing difference compared to  $Treasury coll.$  (where the coefficient on  $Treasury coll.$  is zero). <sup>†</sup>: specification (5) represents a regression only for overnight repos with US Treasury collateral. Standard errors clustered at the fund family level are in parentheses. \*\*\*, \*\*, \* denote significance at the 1, 5 and 10% level respectively.

Table 16: The Japan discount in CP, CD and ABCP markets - Excluding potential duplicates and mis-reported trades

Sample:	(1) Non-repo	(2) Non-repo	(3) Full	(4) Repo (Non-prime funds) <sup>†</sup>
	$Rate_{ijct}$	$Rate_{ijct}$	$Rate_{ijct}$	$Rate_{ijct}$
$Log(value_{ijct})$	-0.125 (0.199)	-0.157 (0.207)	-0.549* (0.321)	0.192** (0.0807)
$Rem. maturity_{ijct}$	0.0611*** (0.00615)	0.0642*** (0.00603)	0.0818*** (0.00929)	0.0904*** (0.0122)
$5y CDS_{it}$		0.0327*** (0.00552)	0.0257*** (0.00355)	0.00197 (0.00180)
$JP_i$	-4.357*** (0.674)	-4.146*** (0.664)	-3.838*** (0.585)	1.930*** (0.392)
$JP_i * \gamma_c^{repo}$			6.382*** (1.543)	
Observations	266,657	242,484	391,055	75,923
R-squared	0.881	0.886	0.901	0.969
Date FE	✓	✓		
Instrument FE	✓	✓	✓	✓
Date*Fund FE			✓	✓

Notes: Regressions at the contract level, the dependent variable is the interest (in basis points) paid by a bank when borrowing from a fund. Funds are restricted to prime funds, unless otherwise noted.  $Log(value_{ijct})$  refers to the logarithm of the value of the contract, while  $5y CDS_{it}$  denotes the 5 year CDS spread of the borrowing bank.  $JP_i$  is a dummy which takes the value 1 if the headquarters of the bank are in Japan. Columns (1)-(2) restrict the instrument to CP, CD and ABCP (i.e. non-repos). Column (3) considers the entire market (i.e. repos and non-repos) and interacts the  $JP_i$  dummy with a dummy for repo contracts; Date\*Instrument fixed effects in this table control separately for time-varying characteristics of ABCP, CP, CD, and the three different types of collateral within repo contracts (Treasury, Government Agency and Other), wherever applicable. <sup>†</sup>: Column (4) considers only Non-Prime funds (i.e. government or Treasury funds that can only do repos with banks). Standard errors clustered at the fund family level are in parentheses. \*\*\*, \*\*, \* denote significance at the 1, 5 and 10% level respectively.

Table 17: Relationship length and maturity

Sample:	(1) Repo	(2) Repo	(3) Repo
	<i>Rem. maturity<sub>ijct</sub></i>	<i>Rem. maturity<sub>ijct</sub></i>	<i>Rem. maturity<sub>ijct</sub></i>
<i>Rel. length<sub>ijt</sub><sup>repo</sup></i>	0.0348 (0.0749)	0.0261 (0.0999)	-0.0449 (0.0842)
<i>JP<sub>i</sub> * Rel. length<sub>ijt</sub><sup>repo</sup></i>	0.160** (0.0705)	0.130** (0.0614)	0.296 (0.230)
Observations	124,239	123,691	132,502
R-squared	0.398	0.441	0.464
Controls	✓	✓	✓
Date*Fund Type FE	✓	✓	✓
Date*Collateral FE	✓	✓	✓
Date*Fund FE		✓	✓
Date*Bank FE			✓
Bank*Fund FE	✓	✓	✓

Notes: Regressions at the contract level, the dependent variable is the remaining maturity of the contract (proxying for maturity at origination). *Rel. length<sub>ijt</sub><sup>repo</sup>* refers to the length of the relationship between a fund in the repo market measured in months at a given date. *JP<sub>i</sub>* is a dummy which takes the value 1 if the headquarters of the bank are in Japan. Controls include  $\text{Log}(\text{value}_{ijct})$ ,  $5yCDS_{it}$ . We restrict the sample to repos between January 2012 and October 2016 (due to the US MMF reform potentially causing a structural change in the market). Standard errors clustered at the fund family level in parentheses. \*\*\*, \*\*, \* denote significance at the 1, 5 and 10% level respectively. The coefficient on *JP<sub>i</sub>* is absorbed in the fixed effects.