

TO: Clearing Member Firms

Chief Financial Officers Back Office Managers Margin Managers

FROM: CME Clearing

SUBJECT: Performance Bond Requirements, ChAdv 22-455

DATE: Thursday, December 1, 2022

To receive advanced notification of Performance Bond (margin) changes, through our free automated mailing list, go to

http://www.cmegroup.com/newsletter/web2lead/web2sf-old.html

and subscribe to the Performance Bond Rates Advisory Notice listserver.

As per the normal review of market volatility to ensure adequate collateral coverage, the Chicago Mercantile Exchange Inc., Clearing House Risk Management staff approved the performance bond requirements for the following products listed below. Please email any questions to Clearing.RiskManagement@cmegroup.com.

The rates will be effective after the close of business on

Friday, December 2, 2022.

Current rates as of:

Thursday, December 1, 2022.

In this current advisory there are changes to the Short Option Minimum and/or the Volatility Scan Range. Below are descriptions of what each change affects:

The Short Option Minimum (SOM) is a charge that is applied only to portfolios concentrated in short options that do not generate a minimum margin requirement level when margins are calculated using the normal 16 SPAN scenarios. The SOM charge per short calls or short puts is a percentage of the outright margin on one underlying futures contract.

The volatility scan range is the change in implied volatility that is used in each of SPAN's 16 scenarios.

CC	Rate Type	Description	Change	ISO	Current Initial	Current Maintenance	New Initial	New Maintenance
Outri	ght Rates							
			I	FX - Outı	right Rates			
IICR	O CHF/USD FUT	URES (MSF)						
/ISF	Non-HRP	Month 1-3	Increase	USD	410	410	450	450
ИSF	HRP	Month 1-3	Increase	USD	451	410	495	450
ИSF	Non-HRP	Months 4+	Increase	USD	410	410	450	450
/ISF	HRP	Months 4+	Increase	USD	451	410	495	450
IICR	O USD/JPY FUT	JRES (M6J)						
l6J	Non-HRP	Month 1-3	Increase	JPY	64,000	64,000	72,000	72,000
/16J	HRP	Month 1-3	Increase	JPY	70,400	64,000	79,200	72,000
/16J	Non-HRP	Months 4+	Increase	JPY	64,000	64,000	72,000	72,000
16J	HRP	Months 4+	Increase	JPY	70,400	64,000	79,200	72,000
WIS	S FRANC FUTUR	RES (SF)						
F	Non-HRP	Month 1-3	Increase	USD	4,100	4,100	4,500	4,500
F	HRP	Month 1-3	Increase	USD	4,510	4,100	4,950	4,500
F	Non-HRP	Months 4+	Increase	USD	4,100	4,100	4,500	4,500
F	HRP	Months 4+	Increase	USD	4,510	4,100	4,950	4,500
FDC	SELINDS DATES	FUTURES GERM			S - Outright F	14100		
RFD	Non-HRP	Month 1	New	EUR			2,000	2,000
RFD	HRP	Month 1	New	EUR			2,200	2,000
RFD	Non-HRP	Month 2	New	EUR			2,000	2,000
RFD	HRP	Month 2	New	EUR			2,200	2,000
RFD	Non-HRP	Month 3	New	EUR			2,000	2,000
RFD	HRP	Month 3	New	EUR			2,200	2,000
FD	Non-HRP	Month 4	New	EUR			2,000	2,000
FD	HRP	Month 4	New	EUR			2,200	2,000
FD	Non-HRP	Month 5	New	EUR			2,000	2,000
FD	HRP	Month 5	New	EUR			2,200	2,000
FD	Non-HRP	Month 6	New	EUR			2,000	2,000
FD	HRP	Month 6	New	EUR			2,200	2,000
FD	Non-HRP	Month 7	New	EUR			2,000	2,000
FD	HRP	Month 7	New	EUR			2,200	2,000
FD	Non-HRP	Month 8	New	EUR			2,000	2,000
FD	HRP	Month 8	New	EUR			2,200	2,000
FD	Non-HRP	Month 9	New	EUR			2,000	2,000
RFD	HRP	Month 9	New	EUR			2,200	2,000
RFD	Non-HRP	Month 10	New	EUR			2,000	2,000

СС	Rate Type	Description	Change	ISO	Current Initial	Current Maintenance	New Initial	New Maintenance
Outrig	jht Rates							
RFD	HRP	Month 10	New	EUR			2,200	2,000
RFD	Non-HRP	Month 11	New	EUR			2,000	2,000
RFD	HRP	Month 11	New	EUR			2,200	2,000
RFD	Non-HRP	Month 12	New	EUR			2,000	2,000
RFD	HRP	Month 12	New	EUR			2,200	2,000
RFD	Non-HRP	Months 13+	New	EUR			2,000	2,000
RFD	HRP	Months 13+	New	EUR			2,200	2,000
REPO	FUNDS RATES	FUTURES ITAL (RFI)					
RFI	Non-HRP	Month 1	New	EUR			2,000	2,000
RFI	HRP	Month 1	New	EUR			2,200	2,000
RFI	Non-HRP	Month 2	New	EUR			2,000	2,000
RFI	HRP	Month 2	New	EUR			2,200	2,000
RFI	Non-HRP	Month 3	New	EUR			2,000	2,000
RFI	HRP	Month 3	New	EUR			2,200	2,000
RFI	Non-HRP	Month 4	New	EUR			2,000	2,000
RFI	HRP	Month 4	New	EUR			2,200	2,000
RFI	Non-HRP	Month 5	New	EUR			2,000	2,000
RFI	HRP	Month 5	New	EUR			2,200	2,000
RFI	Non-HRP	Month 6	New	EUR			2,000	2,000
RFI	HRP	Month 6	New	EUR			2,200	2,000
RFI	Non-HRP	Month 7	New	EUR			2,000	2,000
RFI	HRP	Month 7	New	EUR			2,200	2,000
RFI	Non-HRP	Month 8	New	EUR			2,000	2,000
RFI	HRP	Month 8	New	EUR			2,200	2,000
RFI	Non-HRP	Month 9	New	EUR			2,000	2,000
RFI	HRP	Month 9	New	EUR			2,200	2,000
RFI	Non-HRP	Month 10	New	EUR			2,000	2,000
RFI	HRP	Month 10	New	EUR			2,200	2,000
RFI	Non-HRP	Month 11	New	EUR			2,000	2,000
RFI	HRP	Month 11	New	EUR			2,200	2,000
RFI	Non-HRP	Month 12	New	EUR			2,000	2,000
RFI	HRP	Month 12	New	EUR			2,200	2,000
RFI	Non-HRP	Months 13+	New	EUR			2,000	2,000
RFI	HRP	Months 13+	New	EUR			2,200	2,000

СС	Rate Type	Description	Change	ISO	Current Initial	Current Maintenance	New Initial	New Maintenance
Outrig	jht Rates							
REPO	FUNDS RATES	SPREAD FUTUR	ES ITA (RSI)					
RSI	Non-HRP	Month 1	New	EUR			1,050	1,050
RSI	HRP	Month 1	New	EUR			1,155	1,050
RSI	Non-HRP	Month 2	New	EUR			1,050	1,050
RSI	HRP	Month 2	New	EUR			1,155	1,050
RSI	Non-HRP	Month 3	New	EUR			1,050	1,050
RSI	HRP	Month 3	New	EUR			1,155	1,050
RSI	Non-HRP	Month 4	New	EUR			1,050	1,050
RSI	HRP	Month 4	New	EUR			1,155	1,050
RSI	Non-HRP	Month 5	New	EUR			1,050	1,050
RSI	HRP	Month 5	New	EUR			1,155	1,050
RSI	Non-HRP	Month 6	New	EUR			1,050	1,050
RSI	HRP	Month 6	New	EUR			1,155	1,050
RSI	Non-HRP	Month 7	New	EUR			1,050	1,050
RSI	HRP	Month 7	New	EUR			1,155	1,050
RSI	Non-HRP	Month 8	New	EUR			1,050	1,050
RSI	HRP	Month 8	New	EUR			1,155	1,050
RSI	Non-HRP	Month 9	New	EUR			1,050	1,050
RSI	HRP	Month 9	New	EUR			1,155	1,050
RSI	Non-HRP	Months 10+	New	EUR			1,050	1,050
RSI	HRP	Months 10+	New	EUR			1,155	1,050

СС	Rate Type	Description	Change	ISO	Current Initial	Current Maintenance	New Initial	New Maintenance
Outrig	ht Rates							
REPO	FUNDS RATES	SPREAD GER F	UT (RSD)					
RSD	Non-HRP	Month 1	New	EUR			1,050	1,050
RSD	HRP	Month 1	New	EUR			1,155	1,050
RSD	Non-HRP	Month 2	New	EUR			1,050	1,050
RSD	HRP	Month 2	New	EUR			1,155	1,050
RSD	Non-HRP	Month 3	New	EUR			1,050	1,050
RSD	HRP	Month 3	New	EUR			1,155	1,050
RSD	Non-HRP	Month 4	New	EUR			1,050	1,050
RSD	HRP	Month 4	New	EUR			1,155	1,050
RSD	Non-HRP	Month 5	New	EUR			1,050	1,050
RSD	HRP	Month 5	New	EUR			1,155	1,050
RSD	Non-HRP	Month 6	New	EUR			1,050	1,050
RSD	HRP	Month 6	New	EUR			1,155	1,050
RSD	Non-HRP	Month 7	New	EUR			1,050	1,050
RSD	HRP	Month 7	New	EUR			1,155	1,050
RSD	Non-HRP	Month 8	New	EUR			1,050	1,050
RSD	HRP	Month 8	New	EUR			1,155	1,050
RSD	Non-HRP	Month 9	New	EUR			1,050	1,050
RSD	HRP	Month 9	New	EUR			1,155	1,050
RSD	Non-HRP	Months 10+	New	EUR			1,050	1,050
RSD	HRP	Months 10+	New	EUR			1,155	1,050

СС	Rate Type	Description	Change	ISO	Current Initial	Current Maintenance	New Initial	New Maintenance
Intra S	Spreads							
			INTERE	ST RAT	ES - Intra Sp	reads		
Germa	an Repo Basis In	tra (REPO FUNDS	S RATES SP	READ G	ER FUT)			
RSD	Non-HRP		New	EUR			375	375
RSD	HRP		New	EUR			413	375
Germa	an Repo Futures	Intra (REPO FUN	DS RATES F	UTURE	S GERMANY	′)		
RFD	Non-HRP		New	EUR			700	700
RFD	HRP		New	EUR			770	700
Italy R	Repo Basis Intra (REPO FUNDS RA	TES SPRE	AD FUTU	IRES ITA)			
RSI	Non-HRP		New	EUR			375	375
RSI	HRP		New	EUR			413	375
Italy R	Repo Futures Intra	a (REPO FUNDS	RATES FUT	URES IT	AL)			
RFI	Non-HRP		New	EUR	750	750	700	700
RFI	HRP		New	EUR	750	750	770	700

Rate Type	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
Inter-commodity Sprea	ad Rates					
	INTER	EST RATES - In	ter-commodity	Spread Rates		
THREE-MONTH BLOO 1-3	MBERG SHORT-T	ERM FUTURE (I	BSB) Contracts	1 vs EURODOL	LAR FUTURE (ED) Contracts
Spread Credit Rate	Increase	+1:-1	45%	45%	70%	70%
THREE-MONTH BLOO 4-8	MBERG SHORT-T	ERM FUTURE (I	BSB) Contracts	1 vs EURODOL	LAR FUTURE (ED) Contracts
Spread Credit Rate	Increase	+1:-1	45%	45%	65%	65%
THREE-MONTH BLOO 9-12	MBERG SHORT-T	ERM FUTURE (I	BSB) Contracts	1 vs EURODOL	LAR FUTURE (ED) Contracts
Spread Credit Rate	Increase	+1:-1	40%	40%	45%	45%
THREE-MONTH BLOO Contracts 1	MBERG SHORT-T	ERM FUTURE (I	BSB) Contracts	1 vs THREE MC	ONTH SOFR FU	TURE (SR3)
Spread Credit Rate	Increase	+1:-1	30%	30%	70%	70%
THREE-MONTH BLOO Contracts 2	MBERG SHORT-T	ERM FUTURE (BSB) Contracts	1 vs THREE MC	ONTH SOFR FU	TURE (SR3)
Spread Credit Rate	Increase	+1:-1	50%	50%	65%	65%
THREE-MONTH BLOO Contracts 3	MBERG SHORT-T	ERM FUTURE (I	BSB) Contracts	1 vs THREE MC	ONTH SOFR FU	TURE (SR3)
Spread Credit Rate	Increase	+1:-1	45%	45%	75%	75%
THREE-MONTH BLOO Contracts 2	MBERG SHORT-T	ERM FUTURE (I	BSB) Contracts	12-16 vs THRE	E MONTH SOFR	R FUTURE (SR3)
Spread Credit Rate	Increase	+1:-1	35%	35%	45%	45%
THREE-MONTH BLOO Contracts 2	MBERG SHORT-T	ERM FUTURE (I	BSB) Contracts	17+ vs THREE	MONTH SOFR F	FUTURE (SR3)
Spread Credit Rate	Increase	+1:-1	35%	35%	75%	75%
THREE-MONTH BLOO 1-3	MBERG SHORT-T	ERM FUTURE (I	BSB) Contracts	2-3 vs EURODO	DLLAR FUTURE	(ED) Contracts
Spread Credit Rate	Increase	+1:-1	40%	40%	75%	75%
THREE-MONTH BLOO 13-16	MBERG SHORT-T	ERM FUTURE (I	BSB) Contracts	2-3 vs EURODO	DLLAR FUTURE	(ED) Contracts
Spread Credit Rate	Increase	+1:-1	35%	35%	65%	65%
THREE-MONTH BLOO 17-20	MBERG SHORT-T	ERM FUTURE (I	BSB) Contracts	2-3 vs EURODO	DLLAR FUTURE	(ED) Contracts
Spread Credit Rate	Increase	+1:-1	30%	30%	60%	60%
THREE-MONTH BLOO 21-24	MBERG SHORT-T	ERM FUTURE (I	BSB) Contracts	2-3 vs EURODO	DLLAR FUTURE	(ED) Contracts
Spread Credit Rate	Increase	+1:-1	30%	30%	55%	55%
THREE-MONTH BLOO 25-28	MBERG SHORT-T	ERM FUTURE (I	BSB) Contracts	2-3 vs EURODO	DLLAR FUTURE	(ED) Contracts
Spread Credit Rate	Increase	+1:-1	35%	35%	55%	55%

Rate Type	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
Inter-commodity Spre	ad Rates					
THREE-MONTH BLOC 29-32	MBERG SHORT-T	ERM FUTURE (BSB) Contracts	2-3 vs EURODO	OLLAR FUTURE	(ED) Contracts
Spread Credit Rate	Increase	+1:-1	35%	35%	55%	55%
THREE-MONTH BLOC 33-36	MBERG SHORT-T	ERM FUTURE (BSB) Contracts	2-3 vs EURODO	OLLAR FUTURE	(ED) Contracts
Spread Credit Rate	Increase	+1:-1	35%	35%	55%	55%
THREE-MONTH BLOC 37-40	MBERG SHORT-T	ERM FUTURE (BSB) Contracts	2-3 vs EURODO	OLLAR FUTURE	(ED) Contracts
Spread Credit Rate	Increase	+1:-1	35%	35%	55%	55%
THREE-MONTH BLOC 41+	MBERG SHORT-T	ERM FUTURE (BSB) Contracts	2-3 vs EURODO	OLLAR FUTURE	(ED) Contracts
Spread Credit Rate	Increase	+1:-1	35%	35%	55%	55%
THREE-MONTH BLOC 4-8	MBERG SHORT-T	ERM FUTURE (BSB) Contracts	2-3 vs EURODO	OLLAR FUTURE	(ED) Contracts
Spread Credit Rate	Increase	+1:-1	45%	45%	80%	80%
THREE-MONTH BLOC 9-12	MBERG SHORT-T	ERM FUTURE (BSB) Contracts	2-3 vs EURODO	OLLAR FUTURE	(ED) Contracts
Spread Credit Rate	Increase	+1:-1	45%	45%	75%	75%
THREE-MONTH BLOC Contracts 1	MBERG SHORT-T	ERM FUTURE (BSB) Contracts	2-3 vs THREE I	MONTH SOFR F	UTURE (SR3)
Spread Credit Rate	Increase	+1:-1	30%	30%	75%	75%
THREE-MONTH BLOC Contracts 13-16	MBERG SHORT-T	ERM FUTURE (BSB) Contracts	2-3 vs THREE I	MONTH SOFR F	UTURE (SR3)
Spread Credit Rate	Increase	+1:-1	35%	35%	55%	55%
THREE-MONTH BLOC Contracts 2	MBERG SHORT-T	ERM FUTURE (BSB) Contracts	2-3 vs THREE I	MONTH SOFR F	UTURE (SR3)
Spread Credit Rate	Increase	+1:-1	50%	50%	80%	80%
THREE-MONTH BLOC Contracts 3	MBERG SHORT-T	ERM FUTURE (BSB) Contracts	2-3 vs THREE I	MONTH SOFR F	UTURE (SR3)
Spread Credit Rate	Increase	+1:-1	55%	55%	75%	75%
THREE-MONTH BLOC Contracts 4-5	MBERG SHORT-T	ERM FUTURE (BSB) Contracts	2-3 vs THREE I	MONTH SOFR F	UTURE (SR3)
Spread Credit Rate	Increase	+1:-1	45%	45%	65%	65%
THREE-MONTH BLOC Contracts 6-8	MBERG SHORT-T	ERM FUTURE (BSB) Contracts	2-3 vs THREE I	MONTH SOFR F	UTURE (SR3)
Spread Credit Rate	Increase	+1:-1	50%	50%	60%	60%
THREE-MONTH BLOC	MBERG SHORT-T	ERM FUTURE (BSB) Contracts	2-3 vs THREE I	MONTH SOFR F	UTURE (SR3)
Contracts 9-12						

Rate Type	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
Inter-commodity Spre	ad Rates					
THREE-MONTH BLOC 1-3	OMBERG SHORT-T	ERM FUTURE (I	BSB) Contracts	4-5 vs EURODO	LLAR FUTURE	(ED) Contracts
Spread Credit Rate	Increase	+1:-1	40%	40%	65%	65%
THREE-MONTH BLOC 13-16	OMBERG SHORT-T	ERM FUTURE (I	BSB) Contracts	4-5 vs EURODO	LLAR FUTURE	(ED) Contracts
Spread Credit Rate	Increase	+1:-1	35%	35%	70%	70%
THREE-MONTH BLOC 17-20	OMBERG SHORT-T	ERM FUTURE (I	BSB) Contracts	4-5 vs EURODO	LLAR FUTURE	(ED) Contracts
Spread Credit Rate	Increase	+1:-1	35%	35%	65%	65%
THREE-MONTH BLOC 21-24	OMBERG SHORT-T	ERM FUTURE (I	BSB) Contracts	4-5 vs EURODO	LLAR FUTURE	(ED) Contracts
Spread Credit Rate	Increase	+1:-1	35%	35%	60%	60%
THREE-MONTH BLOC 25-28	OMBERG SHORT-T	ERM FUTURE (I	BSB) Contracts	4-5 vs EURODO	LLAR FUTURE	(ED) Contracts
Spread Credit Rate	Increase	+1:-1	35%	35%	60%	60%
THREE-MONTH BLOC 29-32	OMBERG SHORT-T	ERM FUTURE (I	BSB) Contracts	4-5 vs EURODO	LLAR FUTURE	(ED) Contracts
Spread Credit Rate	Increase	+1:-1	35%	35%	60%	60%
THREE-MONTH BLOC 33-36	OMBERG SHORT-T	ERM FUTURE (I	BSB) Contracts	4-5 vs EURODO	LLAR FUTURE	(ED) Contracts
Spread Credit Rate	Increase	+1:-1	35%	35%	60%	60%
THREE-MONTH BLOC 37-40	OMBERG SHORT-T	ERM FUTURE (I	BSB) Contracts	4-5 vs EURODO	LLAR FUTURE	(ED) Contracts
Spread Credit Rate	Increase	+1:-1	35%	35%	60%	60%
THREE-MONTH BLOC	OMBERG SHORT-T	ERM FUTURE (I	BSB) Contracts	4-5 vs EURODO	LLAR FUTURE	(ED) Contracts
41+						•
	Increase	+1:-1	35%	35%	60%	
41+ Spread Credit Rate THREE-MONTH BLOC 4-8						60%
Spread Credit Rate THREE-MONTH BLOC 4-8						60% (ED) Contracts
Spread Credit Rate THREE-MONTH BLOC 4-8 Spread Credit Rate THREE-MONTH BLOC	OMBERG SHORT-T	ERM FUTURE (I +1:-1	BSB) Contracts	4-5 vs EURODO	DLLAR FUTURE	60% (ED) Contracts
Spread Credit Rate THREE-MONTH BLOC 4-8 Spread Credit Rate THREE-MONTH BLOC 9-12	OMBERG SHORT-T	ERM FUTURE (I +1:-1	BSB) Contracts	4-5 vs EURODO	DLLAR FUTURE	60% (ED) Contracts 80% (ED) Contracts
Spread Credit Rate THREE-MONTH BLOC 4-8 Spread Credit Rate THREE-MONTH BLOC 9-12 Spread Credit Rate THREE-MONTH BLOC	Increase Increase Increase Increase	+1:-1 ERM FUTURE (I +1:-1 +1:-1	60% BSB) Contracts 55%	4-5 vs EURODO 60% 4-5 vs EURODO 55%	80% PLLAR FUTURE 75%	60% (ED) Contracts 80% (ED) Contracts
Spread Credit Rate THREE-MONTH BLOC 4-8 Spread Credit Rate THREE-MONTH BLOC 9-12 Spread Credit Rate THREE-MONTH BLOC Contracts 1	Increase Increase Increase Increase	+1:-1 ERM FUTURE (I +1:-1 +1:-1	60% BSB) Contracts 55%	4-5 vs EURODO 60% 4-5 vs EURODO 55%	80% PLLAR FUTURE 75%	60% (ED) Contracts 80% (ED) Contracts 75% UTURE (SR3)
Spread Credit Rate THREE-MONTH BLOC	Increase OMBERG SHORT-T Increase OMBERG SHORT-T Increase OMBERG SHORT-T	+1:-1 ERM FUTURE (I +1:-1 ERM FUTURE (I +1:-1 ERM FUTURE (I	60% BSB) Contracts 55% BSB) Contracts 30%	4-5 vs EURODO 60% 4-5 vs EURODO 55% 4-5 vs THREE M	80% PLLAR FUTURE 75% MONTH SOFR F	60% (ED) Contracts 80% (ED) Contracts 75% UTURE (SR3)

Rate Type	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
Inter-commodity Spre	ad Rates					
THREE-MONTH BLOC Contracts 2)MBERG SHORT-T	ERM FUTURE (BSB) Contracts	4-5 vs THREE I	MONTH SOFR F	UTURE (SR3)
Spread Credit Rate	Increase	+1:-1	50%	50%	80%	80%
THREE-MONTH BLOC Contracts 3)MBERG SHORT-T	ERM FUTURE (E	BSB) Contracts	4-5 vs THREE I	MONTH SOFR F	UTURE (SR3)
Spread Credit Rate	Increase	+1:-1	60%	60%	75%	75%
THREE-MONTH BLOC Contracts 4-5)MBERG SHORT-T	ERM FUTURE (BSB) Contracts	4-5 vs THREE I	MONTH SOFR F	UTURE (SR3)
Spread Credit Rate	Increase	+1:-1	55%	55%	70%	70%
THREE-MONTH BLOC Contracts 6-8	MBERG SHORT-T	ERM FUTURE (BSB) Contracts	4-5 vs THREE I	MONTH SOFR F	UTURE (SR3)
Spread Credit Rate	Increase	+1:-1	60%	60%	65%	65%
THREE-MONTH BLOC Contracts 9-12)MBERG SHORT-T	ERM FUTURE (BSB) Contracts	4-5 vs THREE I	MONTH SOFR F	UTURE (SR3)
Spread Credit Rate	New	+1:-1			60%	60%
THREE-MONTH BLOC 1-3)MBERG SHORT-T	ERM FUTURE (E	BSB) Contracts	6-7 vs EURODO	OLLAR FUTURE	(ED) Contracts
Spread Credit Rate	Increase	+1:-1	40%	40%	60%	60%
THREE-MONTH BLOC 13-16)MBERG SHORT-T	ERM FUTURE (BSB) Contracts	6-7 vs EURODO	OLLAR FUTURE	(ED) Contracts
Spread Credit Rate	Increase	+1:-1	40%	40%	75%	75%
THREE-MONTH BLOC 17-20)MBERG SHORT-T	ERM FUTURE (E	BSB) Contracts	6-7 vs EURODO	OLLAR FUTURE	(ED) Contracts
Spread Credit Rate	Increase	+1:-1	35%	35%	70%	70%
THREE-MONTH BLOC 21-24)MBERG SHORT-T	ERM FUTURE (E	BSB) Contracts	6-7 vs EURODO	OLLAR FUTURE	(ED) Contracts
Spread Credit Rate	Increase	+1:-1	45%	45%	65%	65%
Spread Credit Rate THREE-MONTH BLOC 25-28						
THREE-MONTH BLOC 25-28						(ED) Contracts
THREE-MONTH BLOC 25-28 Spread Credit Rate THREE-MONTH BLOC	DMBERG SHORT-T	+1:-1	BSB) Contracts	6-7 vs EURODO	OLLAR FUTURE	(ED) Contracts
THREE-MONTH BLOC 25-28 Spread Credit Rate THREE-MONTH BLOC 29-32	DMBERG SHORT-T	+1:-1	BSB) Contracts	6-7 vs EURODO	OLLAR FUTURE	(ED) Contracts 65% (ED) Contracts
THREE-MONTH BLOC 25-28 Spread Credit Rate THREE-MONTH BLOC 29-32 Spread Credit Rate THREE-MONTH BLOC	Increase OMBERG SHORT-T Increase Increase	+1:-1 ERM FUTURE (E +1:-1	40% BSB) Contracts 40%	40% 6-7 vs EURODO 40%	OLLAR FUTURE 65% OLLAR FUTURE 65%	65% (ED) Contracts
THREE-MONTH BLOC 25-28 Spread Credit Rate THREE-MONTH BLOC 29-32 Spread Credit Rate THREE-MONTH BLOC 33-36	Increase OMBERG SHORT-T Increase Increase	+1:-1 ERM FUTURE (E +1:-1	40% BSB) Contracts 40%	40% 6-7 vs EURODO 40%	OLLAR FUTURE 65% OLLAR FUTURE 65%	65% (ED) Contracts 65% (ED) Contracts
· THREE-MONTH BLOC	Increase OMBERG SHORT-T Increase OMBERG SHORT-T Increase OMBERG SHORT-T	+1:-1 ERM FUTURE (E +1:-1 ERM FUTURE (E +1:-1	40% BSB) Contracts 40% BSB) Contracts 40% BSB) Contracts	40% 6-7 vs EURODO 40% 40% 6-7 vs EURODO 40% 40%	OLLAR FUTURE 65% OLLAR FUTURE 65% OLLAR FUTURE	65% (ED) Contracts 65% (ED) Contracts 65% (ED) Contracts

Rate Type	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
Inter-commodity Spre	ad Rates					
THREE-MONTH BLOC 41+	MBERG SHORT-T	ERM FUTURE (I	BSB) Contracts	6-7 vs EURODO	LLAR FUTURE	(ED) Contracts
Spread Credit Rate	Increase	+1:-1	40%	40%	55%	55%
THREE-MONTH BLOC 4-8	MBERG SHORT-T	ERM FUTURE (I	BSB) Contracts	6-7 vs EURODO	LLAR FUTURE	(ED) Contracts
Spread Credit Rate	Increase	+1:-1	55%	55%	75%	75%
THREE-MONTH BLOC 9-12	MBERG SHORT-T	ERM FUTURE (I	BSB) Contracts	6-7 vs EURODO	LLAR FUTURE	(ED) Contracts
Spread Credit Rate	Increase	+1:-1	60%	60%	75%	75%
THREE-MONTH BLOC Contracts 1	MBERG SHORT-T	ERM FUTURE (BSB) Contracts	6-7 vs THREE N	MONTH SOFR F	UTURE (SR3)
Spread Credit Rate	Increase	+1:-1	30%	30%	60%	60%
THREE-MONTH BLOC Contracts 13-16	MBERG SHORT-T	ERM FUTURE (BSB) Contracts	6-7 vs THREE N	MONTH SOFR F	UTURE (SR3)
Spread Credit Rate	Increase	+1:-1	50%	50%	65%	65%
THREE-MONTH BLOC Contracts 2	MBERG SHORT-T	ERM FUTURE (BSB) Contracts	6-7 vs THREE N	MONTH SOFR F	UTURE (SR3)
Spread Credit Rate	Increase	+1:-1	45%	45%	75%	75%
THREE-MONTH BLOC Contracts 3	MBERG SHORT-T	ERM FUTURE (BSB) Contracts	6-7 vs THREE N	MONTH SOFR F	UTURE (SR3)
Spread Credit Rate	Increase	+1:-1	55%	55%	75%	75%
THREE-MONTH BLOC Contracts 4-5	MBERG SHORT-T	ERM FUTURE (I	BSB) Contracts	6-7 vs THREE N	MONTH SOFR F	UTURE (SR3)
Spread Credit Rate	Increase	+1:-1	60%	60%	75%	75%
THREE-MONTH BLOC Contracts 6-8	MBERG SHORT-T	ERM FUTURE (I	BSB) Contracts	6-7 vs THREE N	MONTH SOFR F	UTURE (SR3)
Spread Credit Rate	Increase	+1:-1	60%	60%	70%	70%
THREE-MONTH BLOC Contracts 9-12	MBERG SHORT-T	ERM FUTURE (BSB) Contracts	6-7 vs THREE N	MONTH SOFR F	UTURE (SR3)
Spread Credit Rate	Increase	+1:-1	60%	60%	65%	65%
THREE-MONTH BLOC 1-3	MBERG SHORT-T	ERM FUTURE (BSB) Contracts	8-11 vs EUROD	OLLAR FUTUR	E (ED) Contracts
Spread Credit Rate	Increase	+1:-1	30%	30%	50%	50%
THREE-MONTH BLOC 13-16	MBERG SHORT-T	ERM FUTURE (BSB) Contracts	8-11 vs EUROD	OLLAR FUTUR	E (ED) Contracts
Spread Credit Rate	Increase	+1:-1	65%	65%	70%	70%
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THREE-MONTH BLOC 17-20	MBERG SHORT-T	ERM FUTURE (I	BSB) Contracts	8-11 vs EUROD	OLLAR FUTUR	E (ED) Contract

Rate Type	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
Inter-commodity Spre	ead Rates					
THREE-MONTH BLOG 21-24	OMBERG SHORT-T	ERM FUTURE (BSB) Contracts	8-11 vs EUROD	OLLAR FUTUR	E (ED) Contracts
Spread Credit Rate	Increase	+1:-1	55%	55%	65%	65%
THREE-MONTH BLOG 25-28	OMBERG SHORT-T	ERM FUTURE (BSB) Contracts	8-11 vs EUROD	OLLAR FUTUR	E (ED) Contracts
Spread Credit Rate	Increase	+1:-1	55%	55%	65%	65%
THREE-MONTH BLOG 29-32	OMBERG SHORT-T	ERM FUTURE (BSB) Contracts	8-11 vs EUROD	OLLAR FUTUR	E (ED) Contracts
Spread Credit Rate	Increase	+1:-1	50%	50%	65%	65%
THREE-MONTH BLOG 33-36	OMBERG SHORT-T	ERM FUTURE (BSB) Contracts	8-11 vs EUROD	OLLAR FUTUR	E (ED) Contracts
Spread Credit Rate	Increase	+1:-1	50%	50%	65%	65%
THREE-MONTH BLOG 37-40	OMBERG SHORT-T	ERM FUTURE (BSB) Contracts	8-11 vs EUROD	OLLAR FUTUR	E (ED) Contracts
Spread Credit Rate	Increase	+1:-1	45%	45%	65%	65%
THREE-MONTH BLOG 41+	OMBERG SHORT-T	ERM FUTURE (BSB) Contracts	8-11 vs EUROD	OLLAR FUTUR	E (ED) Contracts
Spread Credit Rate	Increase	+1:-1	45%	45%	55%	55%
THREE-MONTH BLOG 4-8	OMBERG SHORT-T	ERM FUTURE (BSB) Contracts	8-11 vs EUROD	OLLAR FUTUR	E (ED) Contracts
Spread Credit Rate	Increase	+1:-1	35%	35%	70%	70%
THREE-MONTH BLOG 9-12	OMBERG SHORT-T	ERM FUTURE (BSB) Contracts	8-11 vs EUROD	OLLAR FUTUR	E (ED) Contracts
Spread Credit Rate	Increase	+1:-1	60%	60%	75%	75%
THREE-MONTH BLOG Contracts 1	OMBERG SHORT-T	ERM FUTURE (BSB) Contracts	8-11 vs THREE	MONTH SOFR I	FUTURE (SR3)
Spread Credit Rate	Increase	+1:-1	30%	30%	50%	50%
THREE-MONTH BLOC Contracts 13-16	OMBERG SHORT-T	ERM FUTURE (BSB) Contracts	8-11 vs THREE	MONTH SOFR I	FUTURE (SR3)
Spread Credit Rate	Increase	+1:-1	55%	55%	65%	65%
THREE-MONTH BLOC Contracts 2	OMBERG SHORT-T	ERM FUTURE (BSB) Contracts	8-11 vs THREE	MONTH SOFR I	FUTURE (SR3)
Spread Credit Rate	Increase	+1:-1	45%	45%	70%	70%
THREE-MONTH BLOG Contracts 3	OMBERG SHORT-T	ERM FUTURE (BSB) Contracts	8-11 vs THREE	MONTH SOFR I	FUTURE (SR3)
Spread Credit Rate	Increase	+1:-1	45%	45%	75%	75%
THREE-MONTH BLOC Contracts 4-5	OMBERG SHORT-T	ERM FUTURE (BSB) Contracts	8-11 vs THREE	MONTH SOFR I	FUTURE (SR3)
Spread Credit Rate	Increase	+1:-1	55%	55%	70%	70%

Rate Type	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
Inter-commodity Sprea	nd Rates					

THREE-MONTH BLOOMBERG SHORT-TERM FUTURE (BSB)) Contracts 8-11 vs THREE MONTH SOFR FUTURE (SR3)
Contracts 6-8	,

Spread Credit Rate Increase +1:-1 60% 60% 65% 65%