

GSD Public Calculator

DTCC Public (White)

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VaR Public Calculator

The Fixed Income Clearing Corporation ("FICC") Government Securities Division ("GSD") VaR Public Calculator allows market participants to obtain estimates of potential margin and Clearing Fund Requirements obligations associated with membership at FICC GSD.

Value at Risk (or "VaR") is the primary component of GSD's Clearing Fund the GSD VaR Public Calculator provides estimates of potential margin requirements associated with simulated portfolios, consisting of eligible Bond U.S Treasury and MBS Pool positions, based on GSD's VaR methodology. The GSD VaR Public Calculator uses sensitivities data and haircuts to derive the estimated VaR charge. Details on the GSD VaR methodology can be found in the <u>FICC GSD</u> <u>Clearing Fund Methodology</u>.

Once logged in, please review the User Acknowledgement. Once reviewed, select the "I Agree" checkbox and then click the 'SUBMIT' button to proceed.

User Acknowledgement
The Public VaR and CCLF® Calculators ("Public Calculators") are provided by Fixed Income Clearing Corporation ("FICC") for informational purposes only. The Public Calculators are tools intended for market participants interested in obtaining estimates of potential Clearing Fund and liquidity obligations associated with membership in FICC's Government Securities Division ("GSD"). Use of the Public Calculators and the use of the information generated by or derived therefrom is governed by DTCC's Terms of Use (https://www.dtcc.com/terms). Any estimated obligations are not binding, and FICC GSD members are ultimately responsible for satisfying Clearing Fund, CCLF and other financial resource obligations as calculated and reported by FICC pursuant to the GSD Rulebook.
I Agree
CLOSE SUBMIT

GSD VaR Calculator Home Page

Select the "VaR" tab to use GSD VaR Public Calculator.

CCLF VaR REPO Cross Margining

The GSD VaR Public Calculator provides the following features:

UPLOAD

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(UDIOAD	
	-	UPLOAD	
			1

- The GSD VaR Public Calculator upload feature will provide the user with the ability to upload data using a CSV/XLSX template. A Sample template button is located on top right of the screen to assist users with the bulk upload.
- This method will require users to use a specific formatting of the data for the calculator to work.
- The GSD VaR Public Calculator requires the following mandatory fields for calculation. Every row that has data will require all the columns mentioned below to be filled in. All additional data that is left blank will be auto populated by the calculator once a calculation is run.
 - o Portfolio Name: Alphanumeric portfolio Name.
 - o CUSIP: Alphanumeric code for financial securities cleared by GSD.

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- o Market Value: Netted Value of specified financial security.
- The Upload feature will allow users to upload data, with a maximum entry of up to 10,000 rows.

SAMPLE TEMPLATE

SAMPLE TEMPLATE								
*asterisk implies co	mment row							
*Portfolio Name, CU	SIP, Market Value	e are mandatory fields						
Portfolio Name*	CUSIP*	CUSIP Description	Market Value*	VaR	VaR Type			
Portfolio1	912810TV0		710,195,196.00					
Portfolio1	912810TZ1		(54,851,610.00)					
Portfolio1	3132DWMY6		705,593,750.00					
Portfolio2	3140GVZ73		148,284,600.00					
Portfolio2	91282CLW9		336,000,000.00					
Portfolio2	912810QV3		287,062,500.00					
Portfolio2	912833Y20		276,000,000.00					
Portfolio2	91282CFU0		(99,496,000.00)					

Note: If there are errors in the upload file, an error log file will be generated containing details including Row No. and error message. (See below)

Warning!	
There are errors in the uploaded file. Ple	ease refer the upload error log file
CLOSE	
CLOSE VaR Calculator Error Message	
CLOSE VaR Calculator Error Message Row No	Error Message
CLOSE VaR Calculator Error Message Row No 4	Error Message Cusip is required.
CLOSE VaR Calculator Error Message Row No 4 6	Error Message Cusip is required. Market Value is required.

ADD ROW - This feature will allow users to modify position level details directly on the user interface. *Indicates mandatory fields. If a required field is missing, the following warning will be displayed.



DOWNLOAD – This feature allows users to download the VaR output of the portfolio, including VaR Type assessed and CUSIP level contributions, to an Excel file once the VaR calculation has been completed.



RESET – Pressing this button clears the data input fields of any data filled in the Portfolio section and the graph.



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SEARCH - Enables user to search CUSIP or portfolio in Portfolio data grid.

Search Q

CALCULATE -

- Once the User clicks on the Calculate button; VaR, VaR Type and CUSIP Description will be auto populated.
- Executing the calculator provides a breakdown of the VaR in table and bar chart format.
- The calculator will provide VaR contribution by each position at CUSIP level, and the type
 of method used to calculate the VaR (i.e. sensitivity, sensitivity + basis, haircut, and FRN
 haircut). Minimum Margin Amount (MMA) is incorporated into the VaR Floor to supplement
 the VaR model and enhance its responsiveness to extreme market volatility. MMA (if
 applicable) is presented in graphs and within the table at portfolio level. While VaR is
 calculated and assessed on the portfolio level, the calculator shows VaR contribution by
 each CUSIP based on its contribution to the overall P&L under the selected VaR scenario.
- Once the calculation is completed, users have the option to download the result using the download button on the right side.



 Users also have the option to recalculate VaR by adding additional rows using the "ADD ROW" button and delete rows by using the delete symbol. Once modifications are made, users can click the "CALCULATE" button again to recalculate VaR.



• When an invalid CUSIP is entered, the calculator will compute VaR based on the most conservative haircut, i.e. U.S Treasury 20+yr bucket.

VaR by Portfolio

 The VaR by Portfolio graph will show Portfolio level VaR with different VaR charge breakdowns. Details on the GSD VaR methodology can be found in the <u>FICC GSD</u> <u>Clearing Fund Methodology</u>.



• If a user recalculates VaR by editing the data, the Re-Calculated VaR will be presented in the below graphical form

VaR Calculation						
70.0	68.95MM					
60.0						
50.0		45.18MM				
툴 40.0						
gg 30.0 ───						
20.0						
10.0						
0.0						
	VaR	Re-Calculated VaR				

• The table will display a CUSIP level breakdown which includes the VaR Type (Sensitivity, Sensitivity + Basis, Haircut, FRN haircut) and MMA (if applicable), grouped by Portfolio.

Portfolio*								
)			Search		٩	*
Row No.	Portfolio Name*/	CUSIP*	CUSIP Description	Market Value*	Total VaR	VaR Type	1	Delete
	Total	8		2,808,788,436	88,279,068			Û
2	Portfolio1	912810QV3	0.750-TIPSBD-2042-02-15	500,000,000	16,383,313	Sensitivity		Û
3	Portfolio1	912810TV0	4.750-TBOND-2053-11-15	710,195,196	29,219,220	Sensitivity		Û
4	Portfolio1	912810TZ1	4.500-TBOND-2044-02-15	(54,851,610)	(1,858,182)	Sensitivity		Û
9	Portfolio1	3132DWMY6	5.500-FHL-2054-11-01	705,593,750	13,261,021	Sensitivity + Basis		Û
	Portfolio1			0	2,350,395	MMA		Û
1	Portfolio2	3140GVZ73	4.000-FNM-2047-12-01	148,284,600	1,920,885	Haircut		Û
5	Portfolio2	91282CLW9	4.250-TNOTE-2034-11-15	336,000,000	5,832,046	Sensitivity		Û
6	Portfolio2	912810QV3	0.750-TIPSBD-2042-02-15	287,062,500	12,092,601	Sensitivity		Û
7	Portfolio2	912833Y20	0.000-STRIPS-2036-05-15	276,000,000	7,418,717	Sensitivity		Û
8	Portfolio2	91282CFU0	4.125-TNOTE-2027-10-31	(99,496,000)	(245,431)	Sensitivity		Û
	Portfolio2			0	1,904,484	MMA		Û

Session Expiry

If the session is inactive/idle for 15 minutes, it will expire with the following warning:



REPO CHARGE PUBLIC CALCULATOR

FICC/GSD guarantees that the borrower in a Repo trade receives their Repo collateral back at the close of the Repo transaction while the lender receives the start amount paid on the Repo inception date plus interest. The market risk of the underlying collateral is assessed with the VaR Calculator in the above sections, depending on the type of collateral. The remaining risk is the interest component on a Repo which is subject to the interest rate movement. Repo interest volatility risk is managed with a haircut-based approach. The Repo Volatility Charge is calculated based on the following steps: 1) apply the corresponding haircut rate to each Repo interest position based on whether it is long or short; 2) sum up the amounts derived from step 1 for the position within each risk bucket, then take the absolute value thereof to obtain the charge for that

risk bucket; 3) sum up the charges from all Repo interest risk buckets to obtain the Repo interest volatility charge for the portfolio.

Treasury Bills, Notes, Bonds and generic CUSIPs are eligible for the Repo Volatility Charge. Pool CUSIPs are not eligible for the Repo Volatility Charge computation in the Repo Public Calculator.

REPO Home Page

Once logged in, select the "REPO" tab to use the Repo Public Calculator.

B	TCC	Pl	JBLIC CALCULATOR
CCLF	VaR	REPO	Cross Margining

The Repo Public Calculator provides the following features:

UPLOAD

- The Repo Public Calculator upload feature will provide the user with the ability to upload data using a CSV/XLSX template.
- This method will require users to use a specific formatting of the data for the calculator to work.
- The Repo Public Calculator requires the following mandatory fields for calculation. Every row that has data will require all the columns mentioned below to be filled in. All additional data that is left blank will be auto populated by the calculator once a calculation is run.
 - Portfolio Name: Alphanumeric portfolio Name.
 - CUSIP: Alphanumeric code for financial securities cleared by GSD.
 - Market Value: Netted Value of specified financial security.
 - Repo Start Date and Repo Settlement Date: Please note that the Repo Start Date can only be a current or future date and the Repo Settlement Date can only be a future date.
- The Upload feature will allow users to upload data, with a maximum entry of up to 10,000 rows.
 - Users may either replace or append data to perform the calculation. A bar graph on the right side will show the original calculation of the first upload and recalculated Repo interest volatility for a subsequent upload.
 - Please note Repos and buy transactions should be represented in positive terms, while Reverse Repo and sell transactions should be represented in negative terms.

SAMPLE TEMPLATE

• A sample template is provided and located by clicking the "SAMPLE TEMPLATE" button to assist users with bulk upload.



• Use the "UPLOAD" button to replace or append a portfolio, using a sample CSV/XLSX template.

Portfolio Bulk Upload	
File size cannot exceed 10,000 Rows.	
Sample Upload	
Upload File	
p = = = = = = = = = = = = = = = = = = =	
BROWSE FILE Drag and Drop File(s) to Upload
Supported file types include: CSV and XLSX	
O Replace	
O Append	
CLOSE	

*indicates mandatory fields

Portfolio Name*	CUSIP*	CUSIP Description	Market Value*	Repo Start Date*	Repo Settlement Date*	Repo Interest Volatility
P10042024	912810QZ4		(294,036,622.95)	10/8/2025	10/15/2025	
P10042024	91282CJY8		907,209.00	10/11/2025	10/18/2025	
P10042024	91282CJY8		1,501,934.90	10/11/2025	11/15/2025	
P10042024	91282CFV8		(52,012,855.98)	10/11/2025	11/15/2025	
P10042024	91282CEE7		(47,380,049.45)	10/9/2025	12/11/2025	
P10042024	371487AL3		(49,546,500.75)	10/8/2025	10/15/2025	
P10042024	371487AQ2		(48,492,965.77)	10/11/2025	10/18/2025	
P10042024	371487AE9		(5,629,075.42)	10/11/2025	11/15/2025	
P10042024	371487AQ2		(427,399.31)	10/8/2025	11/15/2025	
P10042024	371487AM1		150,358,000.00	10/8/2025	10/9/2025	
P10042024	371487AF6		60,358,750.00	10/8/2025	10/15/2025	
P10042024	371487AG4		98,700,844.00	10/11/2025	10/18/2025	
P10042024	84910LAA4		97,733,862.00	10/11/2025	11/15/2025	
P10042024	84910LAC0		(98,929,572.00)	10/8/2025	11/15/2025	
P10042024	84910LAF3		(23,806,852.00)	10/8/2025	10/9/2025	
P10042024	84910LAE6		(23,867,054.00)	10/8/2025	10/15/2025	
P10042024	84910LAG1		98,211,552.00	10/11/2025	10/18/2025	
P10042024	84910LAH9		(48,492,965.77)	10/11/2025	11/15/2025	

• Once the template is uploaded without any warning errors, the user should be able to click the "CALCULATE" button to compute the Repo interest volatility.

120.0 100.0 & 80.0 & 80.0 20.0 0.0	101.22K P10842024 Repo Charge					R 1000	epo Charges Calculation 101.22K Orginal
idicates Req	uired Fields						
Portfolio	*						
±u;		LCULATE				Search	۵ 🕹
Row No	o. Portfolio Name*	CUSIP*	CUSIP Description	Market Value*	Repo Start Date*	Repo Settlement Date*	Repo Interest Volatility Delete
	Total	16		(184,849,761)			101,223
1	P10042024	912810QZ4	2 125-TROND-2042-02-15				0
2	D10040004		5.125 10000 2045 02 15	(294,036,623)	10/08/2025	10/15/2025	32,978 🔟
	F10042024	91282CJY8	1.750-TIPSNT-2034-01-15	(294,036,623) 907,209	10/08/2025 10/11/2025	10/15/2025 10/18/2025	32,978 🔟 (102) 🔟
3	P10042024	91282CJY8 91282CJY8	1.750-TIPSNT-2034-01-15 1.750-TIPSNT-2034-01-15	(294,036,623) 907,209 1,501,935	10/08/2025 10/11/2025 10/11/2025	10/15/2025 10/18/2025 11/15/2025	32,978 (1) (102) (1) (597) (1)
3 4	P10042024 P10042024 P10042024	91282CJY8 91282CJY8 91282CFV8	1.750-TIPSNT-2034-01-15 1.750-TIPSNT-2034-01-15 4.125-TNOTE-2032-11-15	(294,036,623) 907,209 1,501,935 (52,012,856)	10/08/2025 10/11/2025 10/11/2025 10/11/2025	10/15/2025 10/18/2025 11/15/2025 11/15/2025	32,978 11 (102) 11 (597) 11 20,687 11
3 4 5	P10042024 P10042024 P10042024 P10042024	91282CJY8 91282CJY8 91282CFV8 91282CFV8 91282CEE7	1.750-TIPSNI20340115 1.750-TIPSNI20340115 4.125-TINOTE-2032-11-15 2.375-TINOTE-2032-03-31	(294,036,623) 907,209 1,501,935 (52,012,856) (47,380,049)	10/08/2025 10/11/2025 10/11/2025 10/11/2025 10/09/2025	10/15/2025 10/18/2025 11/15/2025 11/15/2025 12/11/2025	32,978 (1) (102) (1) (597) (1) 20,687 (1) 39,907 (1)
3 4 5 6	P10042024 P10042024 P10042024 P10042024 P10042024 P10042024 P10042024	91282CJY8 91282CJY8 91282CFV8 91282CEE7 371487AL3	1.750 TERNIT203401-15 1.750 TERNIT203401-15 1.750 TERNIT203401-15 4.125 TINOTE-2032-11-15 2.375 TINOTE-2029-03.31 FAINNIE MAE & FREDUE MAC FIXED RATE	(294036,623) 907,209 1,501,935 (52,012,856) (47,380,049) (49,546,501)	10/08/2025 10/11/2025 10/11/2025 10/11/2025 10/17/2025 10/09/2025 10/08/2025	10/15/2025 10/18/2025 11/15/2025 11/15/2025 12/11/2025 10/15/2025	32,978 前 (102) 前 (197) 前 20.687 前 39,907 前 5,557 前
3 4 5 6 7	P10042024 P10042024 P10042024 P10042024 P10042024 P10042024	91282CJY8 91282CJY8 91282CFV8 91282CEE7 371487AL3 371487AQ2	1.575 TENNE 2034-01-15 1.750 TENNE 2034-01-15 1.750 TENNE 2034-01-15 4.125 TNOTE-2032-01-15 2.375 TNOTE-2029-03-31 FANNE KAR'S REPODE NACE FIXED RATE GOCF GOVERNMENT NATIONAL MORTGAGE	(294036,623) 907,209 1,501,935 (52,012,856) (47,380,049) (49,546,501) (48,492,966)	10/08/2025 10/11/2025 10/11/2025 10/11/2025 10/08/2025 10/08/2025 10/11/2025	10/15/2025 10/18/2025 11/15/2025 11/15/2025 12/11/2025 12/15/2025 10/15/2025	22,978 前 (102) 前 (977) 前 20,887 前 39,907 前 5,557 前 5,439 前
3 4 5 6 7 8	P10042024 P10042024 P10042024 P10042024 P10042024 P10042024 P10042024 P10042024	91282CJV8 91282CJV8 91282CFV8 91282CEE7 371487AL3 371487AQ2 371487AE9	1.30 TEN TRANS 103 1.30 1.750 TEN TRANS 1040-15 1.750 TEN TRANS 1040-15 1.750 TEN TRANS 1040-15 4.125 THOTE 2039-0131 4.125 THOTE 2029-0131 FAINIE MAR & R FREDIE MAC FIXED RATE GOF GOVERNMENT NATIONAL MORTGAGE U.S. TREAS LESS 30 YR MATURITY	(29408623) 907209 1.501,935 (52,012,856) (47,380,049) (49,546,501) (48,452,565) (5,529,075)	10/08/2025 10/11/2025 10/11/2025 10/11/2025 10/09/2025 10/08/2025 10/12025 10/11/2025	10/15/2025 10/18/2025 11/15/2025 11/15/2025 12/11/2025 10/15/2025 10/18/2025 11/15/2025	22,978 III (102) III (997) III 20,687 III 99,907 III 5,537 III 5,439 III 2,239 III
3 4 5 6 7 8 9	P10042024 P10042024 P10042024 P10042024 P10042024 P10042024 P10042024 P10042024 P10042024	91282CJY8 91282CJY8 91282CFV8 91282CEE7 371487AL3 371487AQ2 371487AQ2 371487AQ2	1.750 TENNE 2034-01-15 1.750 TENNE 2034-01-15 1.750 TENNE 2034-01-15 4.125 TINOTE-2032 11-15 2.375 TINOTE-2032 98-331 FANNIE MAE & FREDRIE MAC FIXED RATE GCF GOVERNMENT NATIONAL MORTGAGE U.S. TREAS LESS ON MATURY GCF GOVERNMENT NATIONAL MORTGAGE	(28408623) 907,209 1,501,935 (52,012,856) (47,380,049) (43,545,501) (48,492,966) (5,529,075) (427,399)	10/08/2025 10/11/2025 10/11/2025 10/11/2025 10/08/2025 10/08/2025 10/11/2025 10/08/2025	10/15/2025 10/18/2025 11/15/2025 11/15/2025 12/11/2025 10/18/2025 10/18/2025 11/15/2025 11/15/2025	32,978 100 (02) 100 (997) 100 20,687 100 39,907 100 5,557 100 8,439 100 2,239 100 185 100
3 4 5 6 7 8 9 10	P10042024 P10042024 P10042024 P10042024 P10042024 P10042024 P10042024 P10042024 P10042024 P10042024	91282CJY8 91282CJY8 91282CFV8 91282CEF7 371487AL3 371487AQ2 371487AQ2 371487AQ2 371487AQ2 371487AQ2	1.350 TENDRE LEGO 15 1.750 TENRE 2034-01-15 1.750 TENRE 2034-01-15 4.125 THOTE-2029-01-15 4.125 THOTE-2029-03-31 FANNE MAE & FREDIE MAC FIXED RATE 057 EOVERNMENT NATIONAL MORTGAGE U.S. TREAS LESS 30 YE MATURITY 057 EOVERNMENT NATIONAL MORTGAGE FANNE MAE & FREDIE MAC ADJUSTABLE.	(\$440,8623) 907,209 1,501,935 (\$2,012,856) (47,380,049) (46,546,501) (48,492,966) (48,7299) (49,7399) (150,358,000	10/08/2025 10/11/2025 10/11/2025 10/11/2025 10/08/2025 10/08/2025 10/11/2025 10/08/2025 10/08/2025	10/15/0225 10/18/2025 11/15/2025 12/11/2025 12/11/2025 10/15/2025 10/15/2025 11/15/2025 10/15/2025 10/09/2025	22,978 III (102) III 20,687 III 39,907 III 5,557 III 5,439 III 1155 III (2,409) III
3 4 5 6 7 8 9 10 11	P10042024 P10042024 P10042024 P10042024 P10042024 P10042024 P10042024 P10042024 P10042024 P10042024 P10042024	91282CJY8 91282CJY8 91282CFV8 91282CFF7 371487AL3 371487AQ2 371487AQ2 371487AQ2 371487AQ2 371487AQ4 371487AP6	1.50 TENNE 2034-01-15 1.750 TENNE 2034-01-15 1.750 TENNE 2034-01-15 4.125 TNOTE-2029-03-31 FANIE MAR & FREDDIE MAC FIXED RATE GOF GOVERNMENT NATIONAL MORTGAGE U.S. TREAS LESS 30 YR MATURITY GOF GOVERNMENT NATIONAL MORTGAGE FANIE MAR & FREDDIE MAC ADJUSTABLE STRIPS	(\$440,6623) 907,209 1,501,85 (\$2,012,856) (47,360,049) (48,452,956) (48,472,956) (48,472,956) (48,472,956) (427,397) 150,384,000 60,358,750	10/08/2025 10/11/2025 10/11/2025 10/11/2025 10/08/2025 10/08/2025 10/11/2025 10/08/2025 10/08/2025 10/08/2025	10/15/2025 10/18/2025 11/15/2025 11/15/2025 12/11/2025 10/15/2025 10/15/2025 11/15/2025 11/15/2025 10/05/2025 10/15/2025	32,970 III (102) III (937) III 20,687 III 39,907 III 5,557 III 6,439 III 2,229 III 185 III (2,049) III (6,770) III

• Below are the examples of errors which users may receive with respect to Repo Start Date and Repo Settlement Dates. An "Upload Error log" file will be downloaded to pinpoint the error row number and message to explain the error.

DILL POBLIC CALCOLATOR	Warning		
CCLF VaR REPO Cross Margining	warning		
REPO CHARGE CALCULATOR	There are errors in the uploaded file. Please refer the upload error log file		
Repo Charge by Portfolio	CLOSE		
*Indicates Required Fields			
Portfolio"			
(AUPLOAD) ADD ROW RESET DYCAUGULATE			
Row No. Portfolio Name* CUSIP* CUSIP Description	Market Value* Repo Start Date*		

Repo Calc	ulator Error	Message			
Row No	Error Mess	age			
7	Repo Start	Date can	only be cu	rrent date a	nd future dates
8	Repo Start	Date can	only be cur	rrent date ar	nd future dates

Repo Calc	ulator Error Message
Row No	Error Message
4	Repo Settlement Date can only be future dates

• Once the calculation is completed, users have the option to download the results using the Download button on the right side.



 The User also has an option to recalculate the Repo interest volatility by adding additional rows using the "ADD ROW" button and to delete rows using the "Delete" symbol. Once modifications are made, the user can click the "CALCULATE" button again to recalculate the Repo interest volatility.

	Delete
	Û

• If a user recalculates Repo interest volatility, the original charge and the recalculated charge will be presented in the graphical form below.

Repo Charges Calculation							
250.0		208 27%					
200.0		200.27K					
운 150.0							
u 100.0	105.14K						
50.0							
0.0							
	Original	Recalculated					

Generic CUSIPs

• The below chart reflects the GCF Generic CUSIPs and Security Types with eligible collateral description.

Generic Security Type	GCF CUSIP Number	Description
TU10	371487AD1	U.S. TREAS < 10 YR MATURITY
TU30	371487AE9	U.S. TREAS < 30 YR MATURITY
AGCY	371487AH2	NON-MORTGAGE BACKED U.S. AGENCY SECURITIES
FFFIX	371487AL3	FANNIE MAE & FREDDIE MAC FIXED RATE MORTGAGE BACKED SECURITIES
GNMA	371487AQ2	GOVERNMENT NATIONAL MORTGAGE ASSOCIATION FIXED RATE MBS
FFARM	371487AM1	FANNIE MAE & FREDDIE MAC ADJUSTABLE RATE MORTGAGE SECURITIES
GNARM	371487AR0	GNMA ADJUSTABLE RATE MORTGAGE BACKED SECURITES
TIPS	371487AG4	U.S. TREASURY INFLATION PROTECTION SECURITIES
STRP	371487AF6	SEPARATE TRADING OF REGISTERED INTEREST AND PRINCIPAL SECURITIES

• The below chart reflects the GC Generic CUSIPs and Security Types with eligible collateral.

Generic	GC CUSIP						
Security Type	Number	Description					
TU10	84910LAB2	U.S. TREAS < 10 YR MATURITY					
TU30	84910LAA4	U.S. TREAS < 30 YR MATURITY					
AGCY	84910LAC0	NON-MORTGAGE BACKED U.S. AGENCY SECURITIES					
FFFIX	84910LAD8	FANNIE MAE & FREDDIE MAC FIXED RATE MORTGAGE BACKED SECURITIES					
GNMA	84910LAF3	GOVERNMENT NATIONAL MORTGAGE ASSOCIATION FIXED RATE MBS					
FFARM	84910LAE6	FANNIE MAE & FREDDIE MAC ADJUSTABLE RATE MORTGAGE SECURITIES					
GNARM	84910LAG1	GNMA ADJUSTABLE RATE MORTGAGE BACKED SECURITES					
TIPS	84910LAH9	U.S. TREASURY INFLATION PROTECTION SECURITIES					
STRP	84910LAJ5	SEPARATE TRADING OF REGISTERED INTEREST AND PRINCIPAL SECURITIES					

Cross-Margining¹ Public Calculator

The Cross Margining Public Calculator is a tool used to calculate the potential Cross Margining benefits user might receive based on a sample portfolio containing both GSD positions and Cross Margining Positions. The calculator will generate information based solely on FICC's Cross Margining methodology, as FICC is unable to determine outputs based on CME's Cross Margining calculation.

Cross Margining Home Page

Once logged in, select the "Cross Margining" tab to use the Cross Margining Public Calculator.

	С Р	UBLIC C	ALCULA	TOR		
CCLF VaR	REPO	Cross N	largining			
CLF VaR REPO Cross Margining						
ROSS MARGINING CALCULATOR				L SAMPLE TEN	IPLATE - CROSS MARGINING FUTUR	ES & SAMPLE TEMPLATE - G
	Curr	rent	VaR Model			
	Refore Reduction	After Reduction				
	Derere recurcion					
IC Initial VaR						
CC Initial VaR CC Non Cross Margining Eligible VaR	*					
ICC Initial VaR CC Non Cross Margining Eligible VaR CC Cross Margining Eligible VaR	-					
CC Initial Walt CC Non Cross Margining Eligible Valt CC Dross Margining Eligible Valt CC Futures Valt	2 2 2 2 2 2 2					
FICC Institut WaR FICC Non Dross Margining Eligible WaR FICC Cross Margining Eligible VaR FICC Futures VaR Continent VaR (VM rightle cash & Futures)						
tellal VaR Non Coos Margining Eligible VaR Cross Margining Eligible VaR Futures VaR Index VaR (Margible cash & Fukres) cudated VaR don tactor (FICC estimate) set refer to eligible Cross Margiating Futures o						

Cross Margining Calculator Fields

- FICC Initial VaR: VaR without Cross Margining
- FICC Non Cross Margining Eligible VaR: VaR on Non Cross Margining eligible portion of the portfolio. Treasuries with less than 1year to maturity, and agency pools are not eligible for Cross Margining.
- FICC Cross Margining Eligible VaR: VaR for Treasury Bonds and Notes with greater than 1 year to maturity.
- FICC Futures VaR: FICC standalone VaR estimate for Cross Margining Futures.
- **Combined VaR (XM Eligible Cash & Futures):** Cross Margining eligible VaR and Futures VaR combined.
- **Recalculated VaR**: Estimated VaR with FICC reduction.

¹ https://www.dtcc.com/~/media/Files/Downloads/legal/rules/ficc_cme_crossmargin_agreement.pdf Financial Markets. Forward. ™

 Reduction Factor (FICC Estimate): (1- combined VaR/ (FICC Cross Margining VaR + Futures VaR))

The Cross Margining Public Calculator provides the following features:

UPLOAD

The Cross Margining Public Calculator's upload feature will provide the user with the ability to upload data using a CSV/XLSX template.

- This method will require users to use specific formatting of the data for the calculator to work.
- The Cross Margining Public Calculator will require two levels of data input, each with their own dedicated input tab:

 GSD Positions
 - CME Cross Margining Eligible Futures ("CROSS MARGINING FUTURES")
- The Cross Margining Public Calculator requires the following mandatory fields for calculation. Every row that has data will require all the columns mentioned below to be filled in. All additional data that is left blank will be auto populated by the calculator once a calculation is run.
 - GSD Positions:

Π

- CUSIP
 - Market Value
- CME Cross Margining Eligible Futures ("CROSS MARGINING FUTURES"):
 - Contract Code
 - Contract Period
 - Quantity
- The Upload feature will allow users to upload data, with a maximum entry of up to 10,000 rows.
 - Users may either replace or append data to run the Cross Margining Public Calculator.
 - A sample template button is provided to assist users with the bulk uploads.
 - There are templates for both GSD Positions and CME Cross Margining eligible Futures.

CROSS MARGINING CALCULATOR

🛓 SAMPLE TEMPLATE - CROSS MARGINING FUTURES) 🛓 SAMPLE TEMPLATE - GSD POSITIONS) USER GUIDE

ADD ROW

The user has the option to manually upload and edit data in the calculator as well. The "ADD ROW" button provides users with the functionality to individually edit and add line items to the calculator, without having to upload an entirely new portfolio.

- For GSD Positions:
 - The data field will generate a new line item consistent with the formatting above, the only fields that are required to be filled out are:
 - CUSIP
 - I Market Value

GSD Public Calculator

CROSS M	ARGINING FUTURES GSD POSITIC	DNS							
(& UPLO	AD ADD ROW RESET	CALCULATE					Search	٩)	쇼
Row No.	CUSIP*	CUSIP Description	Cross Margining Eligible%	Market Value*	VaR Type	Non Cross Margining Va	R Cross Margining VaR	Delete	
1	912828294			(94,983)				Ű	1
2	91282CJW2			33,999,789				Ĺ	1
3	91282CHA2			200,711,652				ť	Ì
4	912810SQ2			3,163				t	Ì
5	912828550			57,600,000				ť	Ì
6	91282CFE6			604,422,884				ť	1
7	912828P46			3,232,590				Ľ	Ì
8	912828XL9			229,468,750				Ĺ	Ì
9	91282CGT2			291,879,243				ť	Ì
10	9128285W6			(61,320,859)				ť	1
11	912810EV6			13,663,601				ť	Ĵ
12	9128285M8			(49,187,500)				ť	1
	51000000							Y.	h *

- For CME Cross Margining Eligible Futures:
 - The calculator will prompt a dialogue box.
 - In this dialogue box, you will be able to enter the information relevant to the CME Cross Margining Eligible Future position that you would like to use in the calculation consistent with the formatting above, the only fields that are required to be filled out are:
 - Contract Code
 - Contract Period
 - Quantity

Contract code*	
Select Confract code	\sim
Contract code is required	
Contract period*	
Select Contract period	~
Contract period is required	
Generic Future	
Contract Factor	
Conversion Factor	
Last Settle Px of CTD	
Quantity*	
Quantity is required	
Market Value	

• A list of eligible futures contracts can be downloaded from the CME Cross Margining Eligible Futures data input tab.

- The first advisory statement contains a hyperlink that will prompt the download of a list of eligible CME Cross Margining Eligible Future Contracts.
- Eligible securities include:
 - o Treasury Futures
 - Federal Funds Futures
 - SOFR Futures
- Please note that FICC uses Globex ticker notation when referencing Futures Contract codes. To help translate these codes to fit other services, please follow the ticker identifiers below:
 - By using the download button, the user will be able to extract current eligible contract codes from the Cross Margining Calculator.

Clearing Ticker	Refinitiv Ticker	Bloomberg Ticker	Globex Ticker
41	FF	FF	ZQ
SR1	S1R	SER	SR1
SR3	SRA	SFR	SR3
26	TU	TU	ZT
3YR	YR	3Y	Z3N
25	FV	FV	ZF
21	TY	TY	ZN
17	US	US	ZB
TN	TN	UXY	ТN
UBE	AUL	WN	UB
TWE	TWE	TWE	TWE

CALCULATE

Once all data has been properly input in the calculator, the user can utilize the calculate button to generate the Margin Reductions based on FICC's calculation.

CROSS MARGINING CALCULATOR			
	Cur	rent	VaR Model
	Before Reduction	After Reduction	
FICC Initial VaR	6,142,935,667.64	-	SVAR Applied
FICC Non Cross Margining Eligible VaR	5,493,640,615.28	5,493,640,615.28	SVAR Applied
FICC Cross Margining Eligible VaR	691,731,273.63	330,232,510.03	SVAR Applied
FICC Futures VaR	364,297,284.17	-	
Combined VaR (XM eligible cash & Futures)	504,161,428.66	-	SVAR Applied
Recalculated VaR	-	5,823,873,125.31	
Reduction factor (FICC estimate)	-	52.26%	

• Please refer to eligible Cross Margining Futures contract code/Contract period here

· Maximum potential reduction under cross margining is 80%. Results reflect reduction estimate (if applicable) calculated by FICC.

Portfolio Recalculation

The Cross Margining Calculator provides the user with the ability to compare two different portfolios.

CROSS MARGINING CALCULATOR								
	Pre	vious	VaR Model		Cur	rrent	VaR Model	
	Before Reduction	After Reduction			Before Reduction	After Reduction		
FICC Initial VaR	6,116,665,558.04	-	SVAR Applied	FICC Initial VaR	6,021,193,556.35		SVAR Applied	
FICC Non Cross Margining Eligible VaR	5,486,633,716.51	5,486,633,716.51	SVAR Applied	FICC Non Cross Margining Eligible VaR	5,485,882,986.24	5,485,882,986.24	SVAR Applied	
FICC Cross Margining Eligible VaR	675,669,760.98	314,726,974.67	SVAR Applied	FICC Cross Margining Eligible VaR	566,835,751.97	241,982,182.51	SVAR Applied	
FICC Futures VaR	364,297,284.17			FICC Futures VaR	364,297,284.17			
Combined VaR (XM eligible cash & Futures)	484,420,574.27		SVAR Applied	Combined VaR (XM eligible cash & Futures)	397,474,871.75		SVAR Applied	
Recalculated VaR		5,801,360,691.18		Recalculated VaR		5,727,865,168.75		
Reduction factor (FICC estimate)		53.42%		Reduction factor (FICC estimate)		57.31%		

- By either uploading a new portfolio, or adding/deleting individual rows, the user can evaluate a new set of data against the initial portfolio that was calculated.
- Once a new portfolio is updated, press the "CALCULATE" button again, and a secondary table will generate, showcasing the potential benefits received from the new portfolio. The initial table will continue to display the first sample portfolio that was calculated.
- If the new portfolio does not provide reduction benefits (as the recalculated VaR exceeds the Initial VaR), a message will be displayed below the summary table noting this result.

CROSS MARGINING CALCULATOR			
	Current		VaR Model
	Before Reduction	After Reduction	
FICC Initial VaR	598,152,562.57	598,152,562.57	SVAR Applied
FICC Non Cross Margining Eligible VaR	300,145,726.01	-	SVAR Applied
FICC Cross Margining Eligible VaR	325,602,982.61	-	MMA Applied
FICC Futures VaR	204,563,920.45	-	
Combined VaR (XM eligible cash & Futures)	524,249,561.15	-	MMA Applied
Recalculated VaR	-	598,152,562.57	
Reduction factor (FICC estimate)	-	0.00%	
Please refer to elinible Cross Margining Futures contract code/Contract period here			

- Maximum potential reduction under cross margining is 80%. Results reflect reduction estimate (if applicable) calculated by FICC.
- No reduction applied as Recalculated VaR exceeds Initial VaR