

# **Public Quantitative Disclosure**

## **Standards for Central Counterparties**

### **Thailand Clearing House**

**As of Quarter 3/2022**

Responding institution: **Thailand Clearing House Co. Ltd. (TCH)**

Jurisdiction (s) in which the FMI operates: **Thailand**

Authority (ies) regulating, supervising or overseeing the FMI: **The Securities and Exchange Commission (SEC) and Bank of Thailand (BOT)**

The date of this disclosure is 26 October 2022

This disclosure can also be found at **[www.set.or.th/tch](http://www.set.or.th/tch)**

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No.	Disclosure Description	Disclosure Data	
		Derivatives	Securities
<b>Principle 4 Credit Risk</b>			
4.1	Total value of default resources (excluding initial and retained variation margin), split by clearing service if default funds are segregated by clearing service		
	(a) Pre-funded default resources	4,413.07	6,755.04
	i. Own capital that forms part of the default waterfall (further split by whether used before, alongside, or after, member contributions)		
4.1.1	I Prefunded - Own Capital Before	40.00	60.00
4.1.2	I Prefunded - Own Capital Alongside	-	-
4.1.3	I Prefunded - Own Capital After	2,359.83	3,588.75
4.1.4	ii. Aggregate participant contributions (both amount required and post-haircut amount posted, where different)	2,013.24	3,106.29
4.1.5	Prefunded - Aggregate Participant Contributions - Post-Haircut Posted; Reported as at quarter end	-	-
4.1.6	iii. Other	-	-
4.1.7	Committed - Own/parent funds that are committed to address a participant default (or round of participant defaults)	-	-

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No.	Disclosure Description	Disclosure Data (Unit: million THB)	
		Derivatives	Securities
4.1.8	Committed - Aggregate participant commitments to address an initial participant default (or initial round of participant defaults)	1,685.98	N/A
4.1.9	Committed - Aggregate participant commitments to replenish the default fund to deal with a subsequent participant default (or round of participant defaults) after the initial participant default (or round of participant defaults) has been addressed	N/A	N/A
4.1.10	Committed - Other	-	-
4.2.1	KCCP Kccp need only be reported by those CCPs which are, or seek to be, a "qualifying CCP" under relevant law.	BCBS 227 (CEM): THB 2,435,072.00 BCBS 282 (SA-CCR): THB 29,283,866.38  (Data as of 30 September, 2022)	0.00
	C-Factor (%)	BCBS 227 (CEM) :0.320% BCBS 282 (SA-CCR):0.716%	0.00
4.3.1	Value of pre-funded default resources (excluding initial and retained variation margin) held for each clearing service, in total and split by Cash deposited at a central bank of issue of the currency concerned; Reported as at quarter end; Pre-Haircut and Post-Haircut		
4.3.2	Cash deposited at other central banks; Reported as at quarter end; Pre-Haircut and Post-Haircut		

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No.	Disclosure Description	Disclosure Data (Unit: million THB)	
		Derivatives	Securities
4.3.3	Secured cash deposited at commercial banks (including reverse repo); Reported as at quarter end; Pre-Haircut and Post-Haircut		
4.3.4	Unsecured cash deposited at commercial banks; Reported as at quarter end; Pre-Haircut and Post-Haircut		
4.3.5	Non-Cash Sovereign Government Bonds - Domestic; Reported as at quarter end; Pre-Haircut and Post-Haircut		
4.3.6	Non-Cash Sovereign Government Bonds - Other; Reported as at quarter end; Pre-Haircut and Post-Haircut		
4.3.7	Non-Cash Agency Bonds; Reported as at quarter end; Pre-Haircut and Post-Haircut		
4.3.8	Non-Cash State/municipal bonds; Reported as at quarter end; Pre-Haircut and Post-Haircut		
4.3.9	Non-Cash Corporate bonds; Reported as at quarter end; Pre-Haircut and Post-Haircut		
4.3.10	Non-Cash Equities; Reported as at quarter end; Pre-Haircut and Post-Haircut		

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No.	Disclosure Description	Disclosure Data (Unit: million THB)	
		Derivatives	Securities
4.3.11	Non-Cash Commodities - Gold; Reported as at quarter end; Pre-Haircut and Post-Haircut		
4.3.12	Non-Cash Commodities - Other; Reported as at quarter end; Pre-Haircut and Post-Haircut		
4.3.13	Non-Cash Commodities - Mutual Funds / UCITs; Reported as at quarter end; Pre-Haircut and Post-Haircut		
4.3.14	Non-Cash Commodities - Other; Reported as at quarter end; Pre-Haircut and Post-Haircut		
4.3.15	In total. Reported as at quarter end; Pre-Haircut and Post-Haircut		
4.4.1	State whether the CCP is subject to a minimum “Cover 1” or “Cover 2” requirement in relation to total pre-funded default resources.	Cover 2	Cover 2
4.4.2	For each clearing service, state the number of business days within which the CCP assumes it will close out the default when calculating credit exposures that would potentially need to be covered by the default fund.	1 day	3 - 5 days Depend on securities type

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No.	Disclosure Description	Disclosure Data (Unit: million THB)	
		Derivatives	Securities
4.4.3	For each clearing service, the estimated largest aggregate stress loss (in excess of initial margin) that would be caused by the default of any single participant and its affiliates (including transactions cleared for indirect participants) in extreme but plausible market conditions; Peak day amount in the previous 12 months and mean average over the previous 12 months	N/A	N/A
4.4.4	Report the number of business days, if any, on which the above amount (4.4.3) exceeded actual pre-funded default resources (in excess of initial margin).	N/A	N/A
4.4.5	The amount in 4.4.3 which exceeded actual pre-funded default resources (in excess of initial margin)	N/A	N/A
4.4.6	For each clearing service, the actual largest aggregate credit exposure (in excess of initial margin) to any single participant and its affiliates (including transactions cleared for indirect participants); Peak day amount in the previous 12 months and mean average over the previous 12 months	N/A	N/A

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No.	Disclosure Description	Disclosure Data (Unit: million THB)	
		Derivatives	Securities
4.4.7	For each clearing service, the estimated largest aggregate stress loss (in excess of initial margin) that would be caused by the default of any two participants and their affiliates (including transactions cleared for indirect participants) in extreme but plausible market conditions; Peak day amount in the previous 12 months and mean average over the previous 12 months	N/A	N/A
4.4.8	Number of business days, if any, on which the above amount (4.4.7) exceeded actual pre-funded default resources (in excess of initial margin) and by how much.	N/A	N/A
4.4.9	The amount in 4.4.7 which exceeded actual pre-funded default resources (in excess of initial margin)	N/A	N/A
4.4.10	For each clearing service, what was the actual largest aggregate credit exposure (in excess of initial margin) to any two participants and their affiliates (including transactions cleared for indirect participants) Description: PeakDayAmountInPrevious12Months; MeanAverageOverPrevious12Months	N/A	N/A
<b>Principle 5 Collateral</b>			
5.1.1	Assets eligible as initial margin and the respective haircuts applied.	Please refer to the information disclosed at TCH website <a href="http://www.set.or.th/tch/en/derivatives/news.html">http://www.set.or.th/tch/en/derivatives/news.html</a>	Please refer to the information disclosed at TCH website <a href="http://www.set.or.th/tch/en/equity/equity_announcement.html">http://www.set.or.th/tch/en/equity/equity_announcement.html</a>



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No.	Disclosure Description	Disclosure Data (Unit: million THB)	
		Derivatives	Securities
5.2.1	Assets eligible for pre-funded participant contributions to the default resources and the respective haircuts applied (if different from 5.1).	Same as 5.1	Same as 5.1
5.3.1	Confidence interval targeted through the calculation of haircuts	N/A	N/A
5.3.2	Assumed holding/liquidation period for the assets accepted	N/A	N/A
5.3.3	Look-back period used for testing the haircuts	N/A	N/A
5.3.4	Number of days during the look-back period on which the fall in value during the assumed holding/liquidation period exceeded the haircut on an asset.	N/A	N/A
<b>Principle 6 Margin</b>			
6.1.1	For each clearing service, total initial margin required, split by house and client		
	- House	1,447.76	-
	- Client	6,512.21	-
6.2	Total initial margin held, split by house and client		
6.2.1	Cash deposited at a central bank of issue of the currency concerned; Total split by House and Client; Pre-Haircut and Post Hair-cut		

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No.	Disclosure Description	Disclosure Data (Unit: million THB)	
		Derivatives	Securities
6.2.2	Cash deposited at other central banks; Total split by House and Client; Pre-Haircut and Post-Haircut - House		
6.2.2	Cash deposited at other central banks; Total split by House and Client; Pre-Haircut and Post-Haircut - Client		
6.2.3	Secured cash deposited at commercial banks (including reverse repo); Total split by House and Client; Pre-Haircut and Post-Haircut		
6.2.4	Unsecured cash deposited at commercial banks; Total split by House and Client; Pre-Haircut and Post Hair-cut - House (THB Pre = Post Haircut)	4,598.35	16.24
	Unsecured cash deposited at commercial banks; Total split by House and Client; Pre-Haircut and Post Hair-cut - Client (THB Pre = Post Haircut)	12,420.49	-
	Unsecured cash deposited at commercial banks; Total split by House and Client; Pre-Haircut and Post Hair-cut - Client : USD pre haircut	USD 55.51 m	-

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No.	Disclosure Description	Disclosure Data (Unit: million THB)	
		Derivatives	Securities
	Unsecured cash deposited at commercial banks; Total split by House and Client; Pre-Haircut and Post Hair-cut - Client (USD Post Haircut)	USD 54.12 m	-
	Unsecured cash deposited at commercial banks; Total split by House and Client; Pre-Haircut and Post Hair-cut - Client : EUR pre haircut	-	-
	Unsecured cash deposited at commercial banks; Total split by House and Client; Pre-Haircut and Post Hair-cut - Client : EUR Post haircut	-	-
6.2.5	Non-Cash Sovereign Government Bonds - Domestic; Total split by House and Client;Pre-Haircut and Post Hair-cut		
6.2.6	Non-Cash Sovereign Government Bonds - Other; Total split by House and Client;Pre-Haircut and Post Hair-cut		
6.2.7	Non-Cash Agency Bonds; Total split by House and Client;Pre-Haircut and Post Hair-cut		
6.2.8	Non-Cash State/municipal bonds; Total split by House and Client; Pre-Haircut and Post Hair-cut		

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No.	Disclosure Description	Disclosure Data (Unit: million THB)	
		Derivatives	Securities
6.2.9	Non-Cash Corporate bonds; Total split by House and Client; Pre-Haircut and Post Hair-cut		
6.2.10	Non-Cash Equities; - House • Non-Cash Equities; pre haircut	104.12	-
	Non-Cash Equities; - House • Non-Cash Equities; Post haircut	81.22	-
	Non-Cash Equities; - Client • Non-Cash Equities; pre haircut	8.11	-
	Non-Cash Equities; - Client • Non-Cash Equities; Post haircut	6.32	-
6.2.11	Non-Cash Commodities - Gold; Description: HouseIM_PreHaircut, HouseIM_PostHaircut, ClientIM_PreHaircut, ClientIM_PostHaircut, TotalIM_PreHaircut, TotalIM_PostHaircut		

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No.	Disclosure Description	Disclosure Data (Unit: million THB)	
		Derivatives	Securities
6.2.12	Non-Cash Commodities - Other; Total split by House and Client; Pre-Haircut and Post Hair-cut		
6.2.13	Non-Cash - Mutual Funds / UCITs; Total split by House and Client; Pre-Haircut and Post Hair-cut		
6.2.14	Non-Cash - Other; Total split by House and Client; Pre-Haircut and Post Hair-cut		
6.2.15	For each clearing service, total initial margin held, split by house and client (if segregated).		
	total initial margin (PreHaircut)	19,174.15	-
	total initial margin (PostHaircut)	19,098.38	-
6.3.1	Initial margin rates on individual contracts, where the CCP sets such rates.	Please refer to the information disclosed at TCH website <a href="https://classic.set.or.th/rulebook/#/regulation/tree/38">https://classic.set.or.th/rulebook/#/regulation/tree/38</a>	Please refer to the information disclosed at TCH website <a href="https://classic.set.or.th/rulebook/#/regulation/tree/26">https://classic.set.or.th/rulebook/#/regulation/tree/26</a>
6.4.1	Type of initial margin model used (e.g. portfolio simulation or risk aggregation) for each clearing service and the key model design parameters for each initial margin model applied to that clearing service.		

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No.	Disclosure Description	Disclosure Data (Unit: million THB)	
		Derivatives	Securities
6.4.2	Type of IM Model Change Effective Date		
6.4.3	IM Model Name		
6.4.4	IM Model Name Change Effective Date		
6.4.5	i. Single-tailed confidence level targeted	0.99	0.99
6.4.6	Single Tailed Confidence Level Change Effective Date		
6.4.7	look-back period for calibrating the model	At least 250 days	At least 250 days
6.4.8	Look Back Period Change Effective Date		
6.4.9	Adjustments or scalars or weighting, if any, applied to historical data	-	-
6.4.10	Adjustments Change Effective Date		
6.4.11	iv. Close-out/holding periods by product (or, if varying, contract type)	1 day	3 - 5 days Depend on securities type
6.4.12	Close out period change Effective Date		

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No.	Disclosure Description	Disclosure Data (Unit: million THB)	
		Derivatives	Securities
6.4.13	IM Rates Link		
6.4.14	Frequency of Parameter Review		
6.4.15	vi. The frequency of parameter reviews Change Effective Date	Monthly	Daily
6.5.1.1	(a) Number of times over the past twelve months that margin coverage held against any account fell below the actual marked-to-market exposure of that member account.	-	-
6.5.1.2	Frequency of daily back-testing result measurements.	-	-
6.5.1.3	Time of daily back-testing result if measured once a day.	-	-
6.5.2	(b) Number of observations (i.e. number of accounts multiplied by number of days covered in the back test)	-	-
6.5.3	(c) Achieved coverage level, i.e. [(b) – (a)]/(b)	-	-
6.5.4	Where breaches of initial margin coverage (as defined in 6.5(a)) have occurred, report on size of uncovered exposure; Peak size	-	-
6.5.5	Where breaches of initial margin coverage (as defined in 6.5(a)) have occurred, report on size of uncovered exposure; Average Size	-	-

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No.	Disclosure Description	Disclosure Data (Unit: million THB)	
		Derivatives	Securities
6.6.1	Average total variation margin paid to the CCP by participants each business day.	N/A	N/A
6.7.1	Maximum total variation margin paid to the CCP on any given business day over the period		
6.8.1	Maximum aggregate initial margin call on any given business day over the period		
<b>Principle 7 Liquidity Risk</b>			
7.1.1	State whether the clearing service maintains sufficient liquid resources to 'Cover 1' or 'Cover 2'.	Cover 2	Cover 2
7.1.2	Size and composition of qualifying liquid resources for each clearing service (or at aggregate CCP level if not managed at clearing service level) – for each relevant currency – split by: (a) Cash deposited at a central bank of issue of the currency concerned	NA	NA
7.1.3	(b) Cash deposited at other central banks	-	-
7.1.4	(c) Secured cash deposited at commercial banks (including reverse repo)	-	-



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No.	Disclosure Description	Disclosure Data (Unit: million THB)	
		Derivatives	Securities
7.1.5	(d) Unsecured cash deposited at commercial banks	-	-
7.1.6	(e) Secured committed lines of credit (ie those for which collateral/security will be provided by the CCP if drawn) including committed foreign exchange swaps and committed repos;	-	-
7.1.7	(f) Unsecured committed lines of credit (ie which the CCP may draw without providing collateral/security)	-	-
7.1.8	(g) Highly marketable collateral held in custody and investments that are readily available and convertible into cash with prearranged and highly reliable funding arrangements even in extreme but plausible market conditions.	-	-
7.1.9	(h) Other (please specify).State whether the CCP has routine access to central bank liquidity or facilities.	-	-
7.1.10	State whether the CCP has routine access to central bank liquidity or facilities.	-	-
7.1.11	Details regarding the schedule of payments or priority for allocating payments, if such exists, and any applicable rule, policy, procedure, and governance arrangement around such decision making.	-	-
7.2.1	Size and composition of any supplementary liquidity risk resources for each clearing service above those qualifying liquid resources above.	24,211.45	10,521.28

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No.	Disclosure Description	Disclosure Data (Unit: million THB)	
		Derivatives	Securities
7.3.1	Estimated largest same-day and, where relevant, intraday and multiday payment obligation in total that would be caused by the default of any single participant and its affiliates (including transactions cleared for indirect participants) in extreme but plausible market conditions.	N/A	N/A
7.3.2	Report the number of business days, if any, on which the above amount exceeded its qualifying liquid resources (identified as in 7.1, and available at the point the breach occurred), and by how much.	N/A	N/A
7.3.3	Number of business days, if any, on which the above amount exceeded its qualifying liquid resources (identified as in 7.1, and available at the point the breach occurred), and by how much; Amount of excess on each day	N/A	N/A
7.3.4	Actual largest intraday and multiday payment obligation of a single participant and its affiliates (including transactions cleared for indirect participants) over the past twelve months; Peak day amount in previous twelve months	N/A	N/A
7.3.5	Estimated largest same-day and, where relevant, intraday and multiday payment obligation in each relevant currency that would be caused by the default of any single participant and its affiliates (including transactions cleared for indirect participants) in extreme but plausible market conditions.	N/A	N/A

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No.	Disclosure Description	Disclosure Data (Unit: million THB)	
		Derivatives	Securities
7.3.6	Number of business days, if any, on which the above amounts exceeded its qualifying liquid resources in each relevant currency (as identified in 7.1 and available at the point the breach occurred), and by how much	N/A	N/A
7.3.7	Report the number of business days, if any, on which the above amounts exceeded its qualifying liquid resources in each relevant currency (as identified in 7.1 and available at the point the breach occurred), and by how much.	N/A	N/A
<b>Principle 12 Exchange of value settlement systems</b>			
12.1.1	Percentage of settlements by value effected using a DvP settlement mechanism	-	DVP 100%
12.1.2	Percentage of settlements by value effected using a DvD settlement mechanism		
12.1.3	Percentage of settlements by value effected using a Pvp settlement mechanism		
12.2.1	Percentage of settlements by volume effected using a DvP settlement mechanism	-	DVP 100%
12.2.2	Percentage of settlements by volume effected using a DvD settlement mechanism		
12.2.3	Percentage of settlements by volume effected using a Pvp settlement mechanism		

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No.	Disclosure Description	Disclosure Data (Unit: million THB)	
		Derivatives	Securities
<b>Principle 13 Default rules and procedures</b>			
13.1.1	Quantitative information related to defaults; Amount of loss versus amount of initial margin	N/A	N/A
13.1.2	Quantitative information related to defaults; Amount of other financial resources used to cover losses	N/A	N/A
13.1.3.1	Quantitative information related to defaults; Proportion of client positions closed-out	N/A	N/A
13.1.3.2	Quantitative information related to defaults; Proportion of client positions ported	N/A	N/A
13.1.4	Quantitative information related to defaults; Appropriate references to other published material related to the defaults	N/A	N/A
<b>Principle 14 Segregation and portability</b>			
14.1.1	Total Client Positions held in individually segregated accounts	N/A	N/A
14.1.2	Total Client Positions held in omnibus client-only accounts, other than LSOC accounts	N/A	N/A
14.1.3	Total Client Positions held in legally segregated but operationally comingled (LSOC) accounts	N/A	N/A
14.1.4	Total Client Positions held in comingled house and client accounts	N/A	N/A
<b>Principle 15 General business risk</b>			
15.1.1	Value of liquid net assets funded by equity	<a href="https://classic.set.or.th/tch/en/derivatives/tch_factsheet.html">https://classic.set.or.th/tch/en/derivatives/tch_factsheet.html</a>	
15.1.2	Six months of current operating expenses	<a href="https://www.set.or.th/tch/en/derivatives/tch_factsheet.html">https://www.set.or.th/tch/en/derivatives/tch_factsheet.html</a>	

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No.	Disclosure Description	Disclosure Data (Unit: million THB)	
		Derivatives	Securities
15.2.1	Total Revenue	939.57	
15.2.2	Total Expenditure	598.34	
15.2.3	Profits	267.46	
15.2.4	Total Assets	29218.96	
15.2.5	Total Liabilities	27685.90	
15.2.6	Explain if collateral posted by clearing participants is held on or off the CCP's balance sheet		
15.2.7	Additional items as necessary		
15.3.1	Percentage of total income that comes from fees related to provision of clearing services		
15.3.2	Percentage of total income that comes from the reinvestment (or rehypothecation) of assets provided by clearing participants		
<b>Principle 16 Custody and investment risks</b>			
16.1.1	Total cash (but not securities) received from participants, regardless of the form in which it is held, deposited or invested, received as initial margin		
	- Initial Margin (THB)	THB 17018.85M	0.00
	- Initial Margin (USD)	USD 54.12M	
	- Initial Margin (EURO)	EUR 0.00M	
	- Initial Margin (JPY)	JPY 0.00M	

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No.	Disclosure Description	Disclosure Data (Unit: million THB)	
		Derivatives	Securities
16.1.2	Total cash (but not securities) received from participants, regardless of the form in which it is held, deposited or invested, received as default fund contribution	2013.24	3106.29
16.2	How the total cash received from participants (ie the combined total of initial margin and default fund contributions in 16.1) is held/deposited/invested.		
16.2.1	Percentage of total participant cash held as cash deposits (including through reverse repo)	65.02%	0.56%
16.2.2	Percentage of total participant cash held as cash deposits (including through reverse repo); as cash deposits at central banks of issue of the currency deposited	0.00%	0.00%
16.2.3	Percentage of total participant cash held as cash deposits (including through reverse repo); as cash deposits at other central banks	0.00%	0.00%
16.2.4	Percentage of total participant cash held as cash deposits (including through reverse repo); as cash deposits at commercial banks (Secured, including through reverse repo)	0.00%	0.00%
16.2.5	Percentage of total participant cash held as cash deposits (including through reverse repo); as cash deposits at commercial banks (Unsecured)	65.02%	0.56%
16.2.6	Percentage of total participant cash held as cash deposits (including through reverse repo); in money market funds	0.00%	0.00%

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No.	Disclosure Description	Disclosure Data (Unit: million THB)	
		Derivatives	Securities
16.2.7	Percentage of total participant cash held as cash deposits (including through reverse repo); in other forms	0.00%	0.00%
16.2.8	Percentage of total participant cash held as cash deposits (including through reverse repo); percentage split by currency of these cash deposits (including reverse repo) and money market funds by CCY; Specify local currency in comments	THB : 55.550 % USD : 9.475 % EUR : 0.000 %	THB 100%
16.2.9	Percentage of total participant cash held as cash deposits (including through reverse repo); weighted average maturity of these cash deposits (including reverse repo) and money market funds	N/A	N/A
16.2.10	Percentage of total participant cash invested in securities; Domestic sovereign government bonds	34.98%	99.44%
16.2.11	Percentage of total participant cash invested in securities; Other sovereign government bonds	0.00%	0.00%
16.2.12	Percentage of total participant cash invested in securities; Agency Bonds	0.00%	0.00%
16.2.13	Percentage of total participant cash invested in securities; State/municipal bonds	0.00%	0.00%
16.2.14	Percentage of total participant cash invested in securities; Other instruments	0.00%	0.00%

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No.	Disclosure Description	Disclosure Data (Unit: million THB)	
		Derivatives	Securities
16.2.15	Percentage of total participant cash invested in securities; percentage split by currency of these securities; Specify local currency in comments;	0.00%	0.00%
16.2.16	Weighted average maturity of securities	N/A	0.00%
16.2.17	Provide an estimate of the risk on the investment portfolio (excluding central bank and commercial bank deposits) (99% one-day VaR, or equivalent)	N/A	0.00%
16.2.18	State if the CCP investment policy sets a limit on the proportion of the investment portfolio that may be allocated to a single counterparty, and the size of that limit.	25.00%	25.00%
16.2.19	State the number of times over the previous quarter in which this limit has been exceeded.	0.00%	0.00%
16.2.20	Percentage of total participant cash held as securities.	0.00%	0.00%
16.3.1	Total value of participant non-cash rehypothecated (Initial margin)		
16.3.2	Total value of participant non-cash rehypothecated (Default fund)		
16.3.3	Rehypothecation of participant assets (ie non-cash) by the CCP where allowed; initial margin; over the following maturities: Overnight/one day; one day and up to one week; One week and up to one month; One month and up to one year; One year and up to two years; Over two years	Not Applicable	Not Applicable



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No.	Disclosure Description	Disclosure Data (Unit: million THB)	
		Derivatives	Securities
16.3.4	Rehypothecation of participant assets (ie non-cash); default fund; over the following maturities: Overnight/one day; one day and up to one week; One week and up to one month; One month and up to one year; One year and up to two years; Over two years	Not Applicable	Not Applicable
<b>Principle 17 Operational risk</b>			
17.1.1	Operational availability target for the core system(s) involved in clearing (whether or not outsourced) over specified period for the system (e.g. 99.99% over a twelve-month period)	100	100
17.2.1	Actual availability of the core system(s) over the previous twelve month period	100	100
17.3.1	Total number of failures and duration affecting the core system(s) involved in clearing over the previous twelve month period	0:00:00	0:00:00
17.4.1	Recovery time objective(s) (e.g. within two hours)	0 - 2 Hours	0 - 2 Hours
<b>Principle 18 Access and participation requirements</b>			
18.1.1.1	Number of general clearing members	40	40
18.1.1.2	Number of direct clearing members		
18.1.1.3	Number of others category (Describe in comments)		
18.1.2.1	Number of central bank participants		
18.1.2.2	Number of CCP participants		
18.1.2.3	Number of bank participants		

PFMI Quantitative Disclosure

As of Quarter 3/2022



No.	Disclosure Description	Disclosure Data (Unit: million THB)	
		Derivatives	Securities
18.1.2.4	Number of other participants (Describe in comments)		
18.1.3.1	Number of domestic participants		
18.1.3.2	Number of foreign participants		
18.2.1	For each clearing service with ten or more members, but fewer than 25 members; Percentage of open positions held by the largest five clearing members, including both house and client, in aggregate; Average and Peak over the quarter		
18.2.2	For each clearing service with 25 or more members; Percentage of open positions held by the largest five clearing members, including both house and client, in aggregate; Average and Peak over the quarter		
18.2.3	For each clearing service with 25 or more members; Percentage of open positions held by the largest ten clearing members, including both house and client, in aggregate; Average and Peak over the quarter		
18.3.1	For each clearing service with ten or more members, but fewer than 25 members; Percentage of initial margin posted by the largest five clearing members, including both house and client, in aggregate; Average and Peak over the quarter	N/A	

PFMI Quantitative Disclosure

As of Quarter 3/2022



No.	Disclosure Description	Disclosure Data (Unit: million THB)	
		Derivatives	Securities
18.3.2	For each clearing service with 25 or more members; Percentage of initial margin posted by <b>the largest five clearing members</b> , including both house and client, in aggregate; Average and Peak over the quarter	50.91%	100.00 %
18.3.3	For each clearing service with 25 or more members; Percentage of initial margin posted by <b>the largest ten clearing members</b> , including both house and client, in aggregate; Average and Peak over the quarter	69.42%	100.00 %
18.4.1	For each segregated default fund with ten or more members, but fewer than 25 members; Percentage of participant contributions to the default fund contributed by largest five clearing members in aggregate		
18.4.2	For each segregated default fund with 25 or more members; Percentage of participant contributions to the default fund contributed by largest five clearing members in aggregate	39.41%	24.98 % (five)
18.4.3	For each segregated default fund with 25 or more members; Percentage of participant contributions to the default fund contributed by largest ten clearing members in aggregate	58.63%	43.68 % (ten)
<b>Principle 19 Tiered participation arrangements</b>			
19.1.1	Number of clients (if known)	NA	NA
19.1.2	Number of direct members that clear for clients	NA	NA

PFMI Quantitative Disclosure

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No.	Disclosure Description	Disclosure Data (Unit: million THB)	
		Derivatives	Securities
19.1.3.1	Percent of client transactions attributable to the top five clearing members (if CCP has 10+ clearing members) - Peak	NA	NA
19.1.3.2	Percent of client transactions attributable to the top five clearing members (if CCP has 10+ clearing members) - Average	NA	NA
19.1.4.1	Percent of client transactions attributable to the top ten clearing members (if CCP has 25+ clearing members) - Peak	NA	NA
19.1.4.2	Percent of client transactions attributable to the top ten clearing members (if CCP has 25+ clearing members) - Average	NA	NA
<b>Principle 20 FMI Links</b>			
20.1.1	Value of trades cleared through each link – as a share of total trade values/total notional values cleared	NA	NA
20.2.1	Initial margin or equivalent financial resources provided to each linked CCP by the CCP to cover the potential future exposure of the linked CCP on contracts cleared across link	NA	NA
20.3.1	Initial margin or equivalent financial resources collected from each linked CCP to cover potential future exposure to the linked CCP on contracts cleared across link (at market value and post haircut)	NA	NA

PFMI Quantitative Disclosure

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No.	Disclosure Description	Disclosure Data (Unit: million THB)	
		Derivatives	Securities
20.4.1.1	Number of times over the past twelve months that coverage provided by margin and equivalent financial resources held against each linked CCP fell below the actual marked-to-market exposure to that linked CCP – based on daily back testing results; Intraday or Continuous or Once-a-day	NA	NA
20.4.1.2	Back-testing results frequency - state if measured intraday/continuously/once a day	NA	NA
20.4.1.3	If 20.4.1.2 is 'once a day' then the time of day measure is taken, otherwise blank	NA	NA
20.4.2	Number of observations (i.e. number of accounts multiplied by number of days covered in the back test); Intraday or Continuous or Once-a-day	NA	NA
20.4.3	Achieved coverage level	NA	NA
20.5.1.1	Additional pre-funded financial resources (if any) beyond initial margin and equivalent financial resources provided to each linked CCP, that are available to the linked CCP to cover exposures to the CCP	NA	NA
20.5.1.2	Whether part of, additional to, or separate from the standard default fund	NA	NA
20.6.1.1	Additional pre-funded financial resources (if any) beyond initial margin and equivalent financial resources collected from each linked CCP, that are available to the linked CCP to cover exposures to the CCP	NA	NA

PFMI Quantitative Disclosure

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No.	Disclosure Description	Disclosure Data (Unit: million THB)	
		Derivatives	Securities
20.6.1.2	Whether part of, additional to, or separate from the standard default fund	NA	NA
20.7.1	Value of trades subject to cross margining, by clearing service, as a percentage of total trade values/total notional values cleared	NA	NA
20.7.2	Reduction in total initial margin held by the CCP as a result of cross margining, as a percentage of total initial margin that would otherwise have been held.	NA	NA

**Principle 23 Disclosure of rules, key procedures, and market data**

23.1.1	Average Daily Volumes by Asset Class, Instrument, CCY and Over-the-Counter(OTC) or Exchange Traded (ETD)	<a href="http://www.tfex.co.th/tfex/dailyMarketReport.html?locale=en_US">http://www.tfex.co.th/tfex/dailyMarketReport.html?locale=en_US</a>	<a href="https://marketdata.set.or.th/mkt/marketsummary.do?language=en&amp;country=US">https://marketdata.set.or.th/mkt/marketsummary.do?language=en&amp;country=US</a>
23.1.2	Average Notional Value of trades cleared by Asset Class, CCY and Over-the-Counter(OTC) or Exchange Traded (ETD)	<a href="http://www.tfex.co.th/tfex/dailyMarketReport.html?locale=en_US">http://www.tfex.co.th/tfex/dailyMarketReport.html?locale=en_US</a>	<a href="https://marketdata.set.or.th/mkt/marketsummary.do?language=en&amp;country=US">https://marketdata.set.or.th/mkt/marketsummary.do?language=en&amp;country=US</a>
23.2.1	Gross notional outstanding/total settlement value of novated but not-yet settled securities transactions by Asset Class, Instrument, CCY and Over-the-Counter(OTC) or Exchange Traded (ETD)		
23.2.2	Defines the Asset Class for volumes reported in Disclosure References 23.1.1, 23.1.2 and 23.2.1		
23.2.3	Defines the Product Type for volumes reported in Disclosure References 23.1.1, 23.1.2 and 23.2.1		
23.2.4	Defines the Product Code for volumes reported in Disclosure References 23.1.1, 23.1.2 and 23.2.1		

PFMI Quantitative Disclosure

As of Quarter 3/2022



No.	Disclosure Description	Disclosure Data (Unit: million THB)	
		Derivatives	Securities
23.3.1	Average daily volumes submitted by Execution facility or matching/confirmation venue	<a href="http://www.tfex.co.th/tfex/dailyMarketReport.html?locale=en_US">http://www.tfex.co.th/tfex/dailyMarketReport.html?locale=en_US</a>	<a href="https://marketdata.set.or.th/mkt/marketsummary.do?language=en&amp;country=US">https://marketdata.set.or.th/mkt/marketsummary.do?language=en&amp;country=US</a>
23.3.2	Notional contract values submitted by Execution facility or matching/confirmation venue		