

PUBLIC QUANTITATIVE DISCLOSURE

PQD QUARTERLY TRENDS REPORT

2024 Q2 DATA





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CCP PQDs

The CCP Global PQD Quarterly Trends Report provides an overview of the risk management provided by CCPs across the globe. It complements existing public statistics, such as the BIS derivatives statistics, by providing a summary of key indicators which provides market participants an overview of the CCP ecosystem. The publication underlines the scope and scale of risk mitigation provided by central clearing:

- CCPs exposure to credit risk is collateralized through high-quality and liquid collateral;
- CCPs risk-manage their actual clearing exposure by collecting *mark-to-market* losses through regular variation margin (or similar) payments, and their potential future exposure by collecting initial margin.

This CCP Global PQD Quarterly Trends Report helps to inform market participants, authorities, and the general public of key features, the scale and nature of financial market infrastructure risk management. The data is aggregated directly from the CCPs themselves according to the CCP Global standardized template, carrying information stipulated in global regulatory guidance. Further details for individual CCPs can be found in links provided on the CCP Global website and page 23 of this report.

PQD UPDATES FOR 2024 Q2

- CCP Global released an interim update to the <u>PQD FAQ Guide</u> which includes a PQD retention policy and a PQD inquiry policy. CCPs should ensure that their publicly available PQDs are accessible on their websites for a minimum of 5-years, once published. Internally, CCPs should retain PQDs in accordance with their applicable retention policy.
- As practices and standards change and due to evolving CCP methodologies, CCPs would be available to provide responses to PQD questions only within the last 3-years of PQD publications.

KEY STATISTICS FOR 2024 Q2 (USD)*

60 CCPs across Americas (17), APAC (24), and EMEA (19). Equivalent to 38 CCP Global members included in this quarter's collation[†]:

6.1.1 GLOBAL IM (REQUIRED)

1,238B

▼ -1.3%

6.2.15 GLOBAL IM (HELD)

1,699B

4.1.4 GLOBAL DF (REQUIRED)

155B

+3.5%

4.3.15 GLOBAL DF (HELD)

181B

+5.7%

6.6.1 GLOBAL VM FLOW

37B

4 +4 3%

TOTAL (IM & DF) GLOBAL OVERCOLLATERALIZATION[‡]

486B

+ 1.6%

% change from the previous quarter

For any questions, please get in touch: $\underline{\text{question.pqd@ccp-global.org}}$

*Data has been normalized to USD equivalent, based on a conversion from quarter-end FX rates provided by the <u>FCB</u>. All figures have been rounded up to the nearest billion in charts and tables.

*Euronext Clearing (CCAG), IRGIT and NCC PQD figures are incorporated as non-CCP Global members, NCC - 2024Q1 PQD figures were used in this report since these PQDs were not available as of date.

CCPG undertakes periodic improvements to the data quality of the PQD aggregation for the QTR on a quarterly basis and thus changes to previous figures may incur as a result of enhancing data accuracy and reliability of how the data is calculated on an aggregate basis.

^{*}Total OC = $(IM_{Held} + DF_{Held}) - (IM_{Required} + DF_{Required})$ = Disclosures (6.2.15 + 4.3.15) - (6.1.1 + 4.1.4). Only PostHaircut values are used for Held values.



Commentary for the quarter: 2024 Q2

Key market developments which took place in 2024 Q2:

- Entering the second quarter of 2024, strength in some Asian markets helped emerging market equities outperform developed markets. Stocks related to the artificial intelligence (AI) theme continued to perform strongly. Sticky inflation kept major central banks on hold.¹
- Central banks were firmly in the spotlight. In the US, June's Federal Open Market Committee meeting struck a relatively hawkish tone. The Fed kept the interest rate steady between 5.25% to 5.5%, with the outlook dimming for interest rate cuts against a backdrop of stubbornly high inflation. The ECB cut interest rates by 25 basis points to 4.25% in early June. The Bank of England (BoE) kept rates at 5.25%. The Bank of Japan (BoJ) kept its short-term interest rates to 0% to 0.1%.²
- The annual inflation rate in the US fell for a third straight month to 3% in June 2024, the lowest since June 2023, compared to 3.3% in May. Euro area annual inflation was 2.5% in June, down from 2.6% in May. Annual inflation in UK fell back to 2.0% in May, hitting the BoE target for the first time since July 2021.³
- Global government bond markets diverged during the quarter. Following an initial sharp sell-off in US Treasuries, yields peaked towards the end of April and subsequently trended lower. The US 10-year Treasury increased from 4.21% at the end of Q1 to 4.69% at the end of April, and slightly dropped to 4.48% at the end of Q2. The UK 10-year gilt yield rose from 3.94% at the end of Q1 to 4.28% at the end of Q2, while the German 10-year bond yield rose from 2.29% to 2.60%.
- The S&P GSCI Index achieved a modest gain in the second quarter. Industrial metals and precious metals were the strongest components of the index, while agriculture was the weakest component. Within industrial metals, the price of zinc rose sharply in the quarter. In precious metals, the price of silver achieved strong gains, while the increase in the price of gold was more muted. The energy component achieved a modest gain over the quarter, with a robust price gain for natural gas. Within agriculture, a significant price gain for coffee, and cocoa reached a peak in April.⁴
- Total global volumes of ETD contracts reached 16.98 billion in June. Options volumes reached 14.57 billion contracts, while futures volumes reached 2.41 billion.⁵

¹ https://www.morningstar.com/markets/q2-review-q3-2024-market-outlook

² https://data.bis.org

³ https://tradingeconomics.com/

⁴ https://www.schroders.com/en-gb/uk/individual/insights/quarterly-markets-review---q2-2024/

https://www.fia.org/fia/etd-tracker



Headline Statistics of the Public Quantitative Disclosures

2024 Q2

Global CCP Margin* (USD B)		
Global Initial Margin & Default Fund (Required):		
Total Global IM Required (6.1.1)	1,238	
Total Global DF Required (4.1.4)	155	
Total Global CCP Collateral Required (6.1.1 + 4.1.4)	1,394	
Global IM & DF Held (PostHaircut):		
Total Global IM Held (PostHaircut) (6.2.15)	1,699	
Total Global DF Held (PostHaircut) (4.3.15)	181	
Total Global CCP Collateral Held (PostHaircut) (6.2.15 + 4.3.15)	1,879	
Global Variation Margin (VM)		
Sum of Total Global Average Daily VM Paid to the CCP by participants		
each business day (6.6.1)	37	
Global Overcollateralization (OC)†		
Total Global IM Overcollateralization	460	
Total Global DF Overcollateralization	25	
Total Global Overcollateralization	486	

Total Global CCP Collateral (Held) (PostHaircut) in form of*:

Cash At Central Bank Secured Cash (incl. Reverse Repos) at Commercial Banks	Disclosure (6.2.1 + 6.2.2) 6.2.3	Initial Margin 12.5% 8.0%	Disclosure (4.3.1 + 4.3.2) 4.3.3	Default Fund 42.7% 7.8%
Unsecured Cash at Commercial Banks	6.2.4	4.8%	4.3.4	6.9%
Non-Cash	/ >-			
Sovereign Gov Bonds - Domestic	6.2.5	28.9%	4.3.5	35.6%
Sovereign Gov Bonds – Foreign	6.2.6	19.2%	4.3.6	1.9%
Agency Bonds	6.2.7	1.2%	4.3.7	3.6%
State/Municipal Bonds	6.2.8	1.4%	4.3.8	0.2%
Corporate Bonds	6.2.9	6.7%	4.3.9	0.8%
Equities	6.2.10	14.7%	4.3.10	0.2%
Commodities – Gold	6.2.11	0.2%	4.3.11	0.0%
Commodities – Other	6.2.12	0.0%	4.3.12	0.0%
Mutual Funds/UCITs	6.2.13	0.6%	4.3.13	0.0%
Other	6.2.14	1.4%	4.3.14	0.3%

across these data points. This is also due to the following: 1). DTCC have requested that 6.2.15 figures be equivalent to 4.3.15 figures, therefore no breakdown for 6.2.1 – 6.2.14 is provided, and 2), OCC 6.2.15 total > sum of 6.2.1 – 6.2.14. As of 2023 Q3, all OCC "PreHaircut" figures for Client/House IM are considered "PostHaircut", thus a clearer view of the proportions of IM held for 6.2.1 – 6.2.14 can be observed. Four other CCPs only provide totals for their 6.2.15 values. Data has been normalized to USD equivalent, based on a conversation from quarter-end FX rates provided by the ECB.

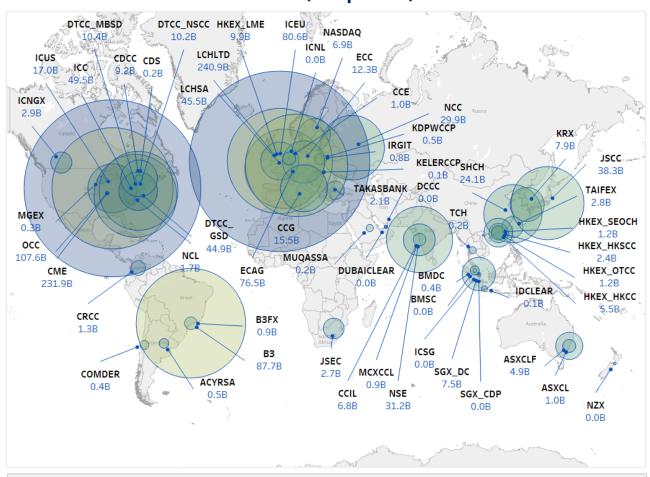


Collateral View

A collection of maps each quarter providing an overview of the global distribution of Initial Margin, Default Fund, and Variation Margin from a global perspective.

2024 Q2

6.1.1: Global IM (Required) Per CCP*



Note: 6.1.1 amounts which are less than USD 0.1B are not observable in the map. Please see the table below for the figures.



The coloured disks indicate the size of the IM (Required) (according to the key, opposite), from a geographical perspective.

6.1.1 USD		~
	-	
0.0B		240.9B
6.1.1 USD		
		0.0B
		50.0B
		100.0B
		150.0B
		200.0B
		240.9B

6.1.1 livi values (not seen from map				
CCP	6.1.1 USD			
ICNL	0.00			
ICSG	284,703.18			
DCCC	3,141,220.00			
NZX	6,229,507.62			
DUBAICLEAR	24,832,507.66			
BMSC	30,351,508.38			
SGX_CDP	35,852,392.01			
KELERCCP	59,303,411.83			

*Based on the CCP's city location. For CCPs that are from the same city location, they are hidden behind the larger transparent disks.

Muqassa: In some cases, the IM (Required) = 0 for certain quarters. This is due to certain reporting dates where there are no open contracts and hence no IM requirement for any members.

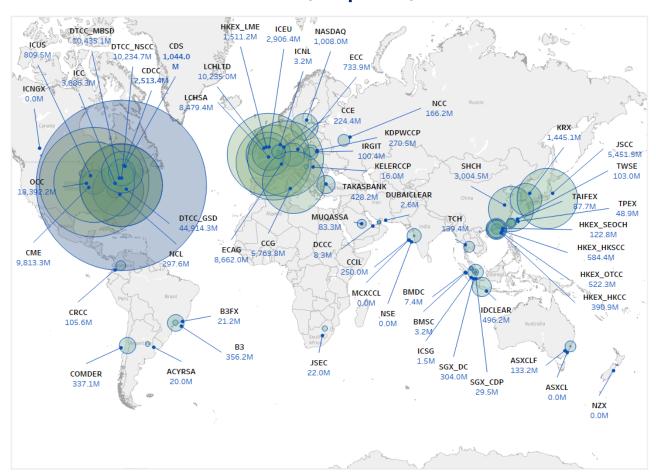


Collateral View

A collection of maps each quarter providing an overview of the global distribution of Initial Margin, Default Fund and Variation Margin from a global perspective.

2024 Q2

4.1.4: Global DF (Required) Per CCP*





The coloured disks indicate the size of the DF fund (Required) per CCP (according to the key, opposite), from a geographical perspective.

4.1.4 USD	
0.014	44.044.014
0.0M	44,914.3M
4.1.4 USD	
	• 0.0M
	10,000.0M
	20,000.0M
	30,000.0M
	44,914.3M

^{*}Based on the CCP's city location. For CCPs that are from the same city location, they are hidden/overlayed behind the larger transparent disk 4.1.4 DF (Required) is zero in the PQDs for ASXCL, ICNGX, MCXCCL, NSE, NZX. For further details, please see the respective CCP's PQD.

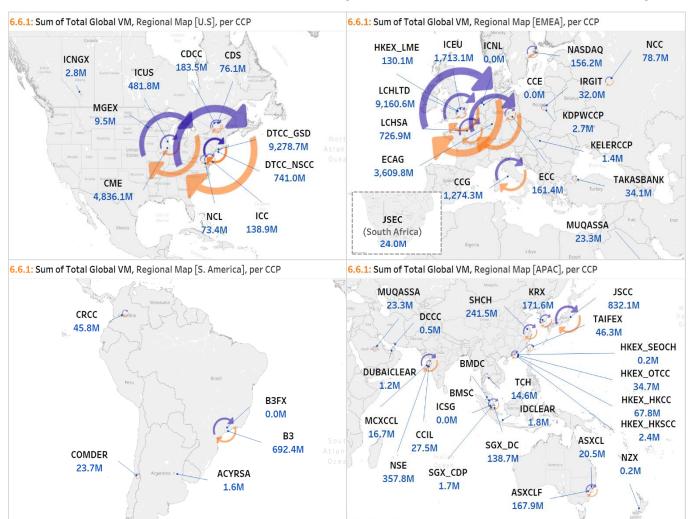


Collateral View

A collection of maps each quarter providing an overview of the global distribution of Initial Margin, Default Fund and Variation Margin from a global perspective.

2024 Q2

6.6.1: Total VM Paid to the CCP by participants each business day*



Note: 6.6.1 amounts which are less than USD 0.1M are not observable in the map. Please see the table opposite.



The double arrows indicate the size of the variation margin (VM) flow from a geographical perspective*. Please see the footnote below and page 15 for details about VM.

Maps not to scale relative to each other 6.6.1 values < USD 100,000 (not seen from map) B3FX 0.00 BMDO 0.00 BMSC 0.00 occ 0.00 TPEX 0.00 TWSF 0.00 0.00 3.212.28

*CCPs collect VM from clearing members for losses on positions and pay the gains with finality to those clearing members with positions that have a net increase in value based on marked-to-market prices. VM is not paid directly from any specific clearing member or customer counterparty to another as a pass-through transfer, VM is a <u>netted cash flow</u> from a clearing member to (or from) the CCP. 6.6.1: OCC – See PQD explanatory notes. For values which are zero, these are based on the respective PQDs.

CCPG PQD QUARTERLY TRENDS – 2024 Q2

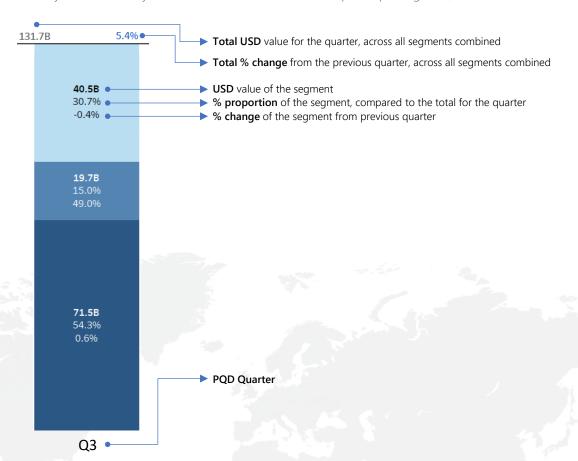
8



PQD Statistics Key

Bar Chart Key:

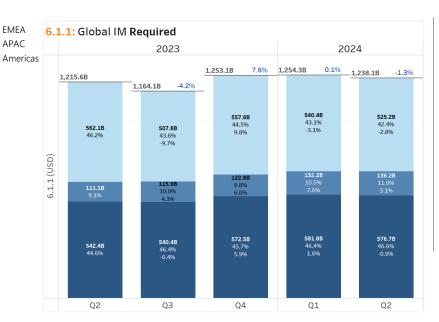
The key below provides details on how to interpret statistics in the subsequent charts of this report. The key is used for only charts where there are three data points per segment, as shown below:





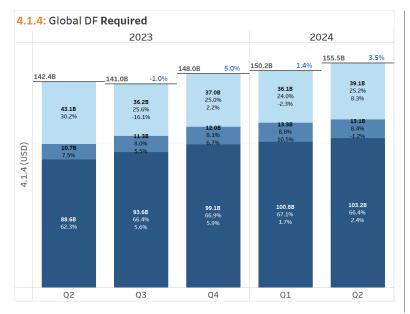
Total IM Required decreases -1.3% for 2024 Q2. DF Required increased by +3.5% over the quarter.

Global CCP Collateral (Required) - Grand Total 2023 Q2 to 2024 Q2 (USD B, %)



The chart opposite (6.1.1: Global IM Required) indicates the total amount of initial margin in total for the CCPs by their clearing members across the respective regions which is reported at the quarter-end under disclosure 6.1.1 in the CCP Public Quantitative Disclosures.

The initial margin collateral posted by clearing members functions as one of the initial lines of defence to cover the potential losses incurred if that clearing member was to default. CCPs are therefore able to have a very high level of resilience in the form of liquidity and low risk exposure.



The chart opposite (4.1.4: Global DF Required) indicates the total amount of default fund contributions in total for the CCPs by their clearing members across the respective regions which is reported at the quarterend under disclosure 4.1.4 in the CCP Public Quantitative Disclosures.

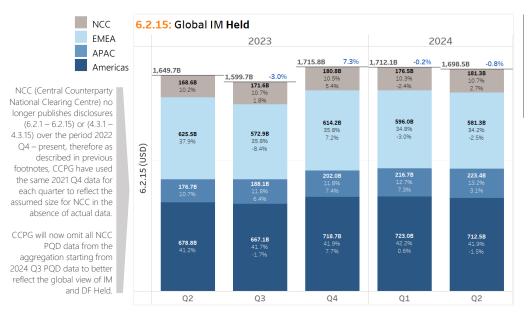
The purpose of the mutualized CCP default fund is to provide the necessary funds in case the losses from a clearing member's default exceeds the clearing member's margin collateral and individual default fund contributions. It is part of the risk management incentives framework in central clearing.

More information regarding the CCP lines of defence can be found on the CCP Global website here.

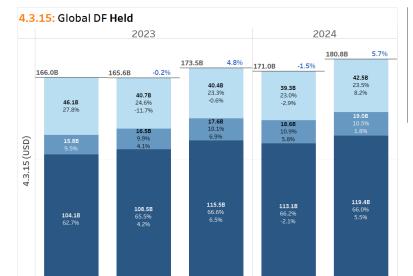


Total IM Held remains constant with a subtle decrease of -0.8% for 2024 Q2. DF Held increased by +5.7%. Distribution of IM Held is consistently the largest for EMEA, followed by Americas & APAC.

Global CCP Collateral (Held) (PostHaircut) - Grand Total 2023 Q2 to 2024 Q2 (USD B, %)



The chart opposite (6.2.15: Global IM Held) indicates the total amount of initial margin in total for the CCPs by their clearing members across the respective regions which is reported at the quarter-end under disclosure 6.2.15 in the CCP Public Quantitative Disclosures..



03

The chart opposite (4.3.15: Global DF Held) indicates the total amount of default fund contributions in total for the CCPs by their clearing members across the respective regions which is reported at the quarterend under disclosure 4.3.15 in the CCP Public Quantitative Disclosures.



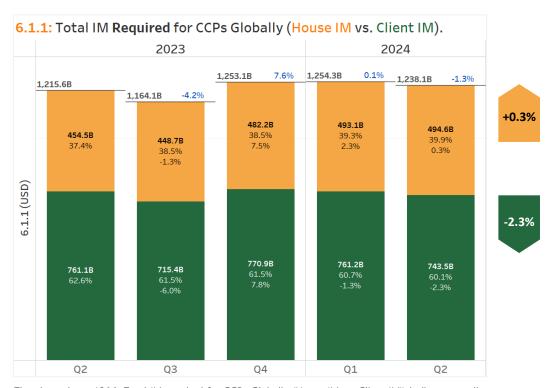
From the House IM vs Client IM split, House IM increased by +0.3%. Client IM decreased by -2.3%. House IM accounted for 39.9% of the margin requirement, compared to 60.1% for Client IM.

Global IM breakdown: House IM vs. Client IM (Required)

Disclosure (6.1.1):

2023 Q2 to 2024 Q2 (USD B, %)

House IM
Client IM



The chart above (6.1.1: Total IM required for CCPs Globally (House IM vs. Client IM)) indicates a split between House and Client IM which is reported at the quarter-end under disclosure 6.1.1.

The House IM segment is the initial margin requirement for positions held by clearing members for their own portfolios, as opposed to the initial margin requirement for the clearing member's clients. House Gross/Net and Client Gross/Net are grouped for the purpose of analysis.

Sep-24

^{*}The sum of IM Required is slightly lower than the Total IM Required (previous page), due to no breakdown of House/Client IM Required for HKEX HKSCC, HKEX OTCC, and NSE. As a result, these are assumed House IM.

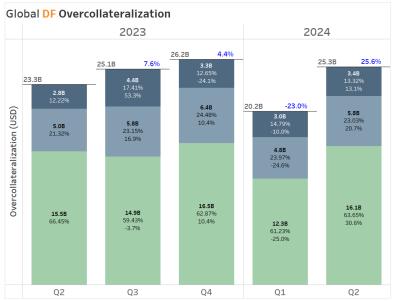


Global IM Overcollateralization ("OC") was USD 460.4B for 2024 Q2, representing an increase of +0.4% from the previous quarter. Global DF OC was USD 25.3B for 2024 Q2, representing an increase of +25.6%.

Global CCP IM and DF Overcollateralization*

Disclosures IM OC: (6.2.15) – (6.1.1) Disclosures DF OC: (4.3.15) – (4.1.4) 2023 Q2 to 2024 Q2 (USD B, %)





*IM OC calculated as = (IM_{Held} – IM_{Required}), (6.2.15 Held PostHaircut) - (6.1.1 Required). DF OC = (DF_{Held} – DF_{Required}), (4.3.15 Held PostHaircut) - (4.1.4 Required). (Only PostHaircut values used for Held values). OC: "Overcollateralization".

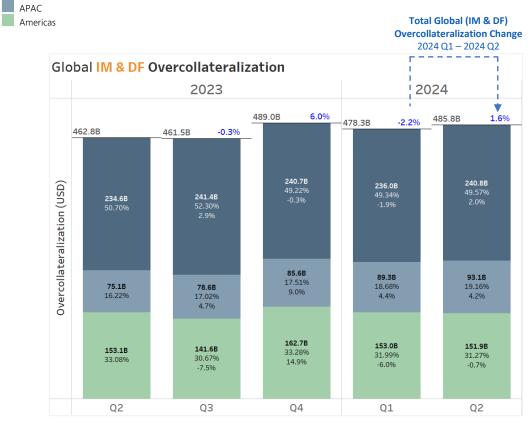
Sep-24 CCPG PQD QUARTERLY TRENDS – 2024 Q2 1



EMEA

Total Overcollateralization* was USD 485.8B for 2024 Q2, representing an increase of +1.6% from the previous quarter.

Global CCP Overcollateralization (IM & DF <u>Held (PostHaircut)</u> – IM & DF <u>Required</u>) Disclosures Total OC: (6.2.15 + 4.3.15) – (6.1.1 + 4.1.4) 2023 Q2 to 2024 Q2 (USD B, %)



The chart above (Global CCP Overcollateralization (IM and DF Held PostHaircut) indicates an overview of the IM and DF overcollateralization per region, reported at the quarter-end.

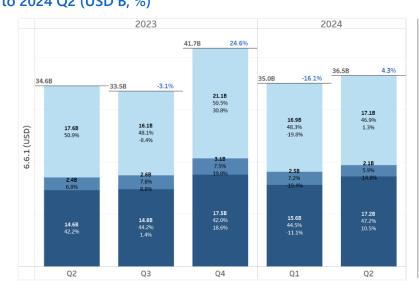
Global CCP Overcollateralization provides a sense of how a CCP is collateralized when comparing the held amounts against the required amounts. The Total Global CCP Overcollateralization calculation is equivalent to PQD disclosures (6.2.15+4.3.15) – (6.1.1+4.1.4).



Sum of the Average Total VM Paid to the CCP by participants each business day in 2024 Q2 was USD 36.5B, representing an increase of +4.3%.

Sum of Average Total Global VM Paid to the CCP by participants each business day[†] Disclosure (6.6.1) 2023 Q2 to 2024 Q2 (USD B, %)

EMEA
APAC
Americas

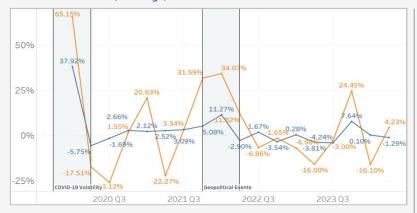


The chart opposite, (6.6.1: Sum of Average Total Global VM Paid to the CCP by Participants Each Business Day) indicates the sum total flow of the average variation margin through global CCPs split by region.

Variation margin payments are usually made daily (in cash) or intra-day from the party whose position has reduced in value to the party that has increased in value.

These daily mark-to-market payments prevent the unnecessary build-up of large losses over time and are one of the many different aspects of a CCP's lines of defence.

(6.6.1) Total Δ% (6.1.1) Total Δ% 6.6.1 vs. 6.1.1: Sum of Total Global VM Paid to the CCP by participants each business day vs. Total IM (Required), % Change QoQ[†] 2019 Q4 to 2024 Q2 (% change)



The chart opposite, 6.6.1 vs. 6.1.1: % Difference QoQ, provides a summary of the % change of the Total Global VM Paid to the CCP by participants each business day and the Total IM (Required).

It is important to note that during extreme volatility periods such as the CC* or 2022 Q1 geopolitical turmoil, global volatility indices (e.g., VIX, VSTOXX, and NIKKEI VI), have seen much higher increases in comparison. Please see the CCP Global Annual Markets Review in Central Counterparty Clearing.

VM: Variation Margir

*CC: COVID-19 crisis in 2020 Q1. Global VM 6.6.1 increased 65.15%, represented by USD 40.9 B – please see the CCP Global 2020 Q1 PQD Newsflash.

*Note: This is the sum total of the average VM paid out to the CCP by participants each business day across the respective regions. Not the average per CCP per region.

*CCPG PQD QUARTERLY TRENDS – 2024 Q2



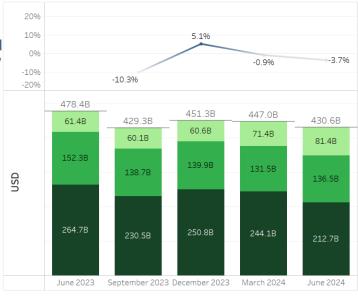
Total Cash Held* for IM decreased by -3.7% for 2024 Q2. Majority of all cash resources have continued to be deposited at Central Banks[†].

6.2.1 – 6.2.4: Global CCP IM (Held) (PostHaircut), Cash Total 2023 Q2 to 2024 Q2 (USD B, % change QoQ)

(6.2.4) Unsecured at Commercial Banks
(6.2.3) Secured Cash at Commercial Banks (Incl. Reverse Repos)
(6.2.1 + 6.2.2) Central Bank†



Central Bank accounts are widely agreed by the industry and regulatory community as the safest option for the safekeeping of CMs' margin. Many CCPs maintain large daily cash balances and although the CCPs continue to operate extensive collateral management functions to ensure the safety of the margin that they receive, direct access to a central bank account would only enhance this security further.

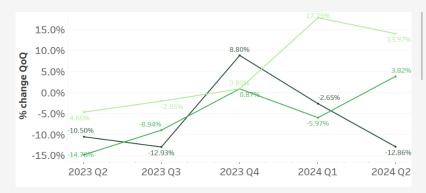


The chart opposite, (6.2.1 – 6.2.4: Global CCP IM (Held) (PostHaircut), Cash Total) provides an overview of the split of IM (Held) deposits at central banks and commercial banks under disclosures 6.2.1 – 6.2.4.



PQD Insight 🛞

6.2.1 – 6.2.4: Global Cash IM (Held) (PostHaircut), % Difference QoQ per segment 2023 Q2 to 2024 Q2 (% change)



The chart opposite (6.2.1 – 6.2.4: Global Cash IM (Held) (PostHaircut), % Difference QoQ per segment) provides an overview of the quarterly change of IM (Held) deposits.

^{*}Figures as of quarter-end. Sum of IM Held across 6.2.1 – 6.2.14 is slightly lower than the Total IM Held Values for 6.2.15, due to: (1). DTCC have requested that 6.2.15 figures be equivalent to 4.3.15 figures, (2). For OCC 6.2.15 total > sum of 6.2.1 – 6.2.14. TCH provide the full breakdown of 6.2.15 plit across 6.2.1 – 6.2.14 as of 2020 Q2. **Cash deposited at **Other** Central Bank of Issue** (IM: 6.2.2, DF: 4.3.2) makes up <0.5% of the total cash collateral for IM and <0.5% for the DF. Therefore, **Central Bank of Issue** (IM: 6.2.2, DF: 4.3.2) makes up <0.5% of the total cash collateral for IM and <0.5% for the DF. Therefore, **Central Bank of Issue** (IM: 6.2.2, DF: 4.3.2) makes up <0.5% of the total cash collateral for IM and <0.5% for the DF. Therefore, **Central Bank of Issue** (IM: 6.2.2, DF: 4.3.2) makes up <0.5% of the total cash collateral for IM: 6.2.15% (IM: 6.2.2, DF: 4.3.2) makes up <0.5% of the total cash collateral for IM: 6.2.15% (IM: 6.2.2, DF: 4.3.2) makes up <0.5% of the total cash collateral for IM: 6.2.15% (IM: 6.2.2, DF: 4.3.2) makes up <0.5% of the total cash collateral for IM: 6.2.15% (IM: 6.2.2, DF: 4.3.2) makes up <0.5% of the total cash collateral for IM: 6.2.15% (IM: 6.2.2, DF: 4.3.2) makes up <0.5% of the total cash collateral for IM: 6.2.15% (IM: 6.2.2, DF: 4.3.2) makes up <0.5% of the total cash collateral for IM: 6.2.15% (IM: 6.2.2, DF: 4.3.2) makes up <0.5% of the total cash collateral for IM: 6.2.15% (IM: 6.2.2, DF: 4.3.2) makes up <0.5% of the total cash collateral for IM: 6.2.15% (IM: 6.2.2, DF: 4.3.2) makes up <0.5% of the total cash collateral for IM: 6.2.15% (IM: 6.2.2, DF: 4.3.2) makes up <0.5% of the total cash collateral for IM: 6.2.15% (IM: 6.2.2, DF: 4.3.2) makes up <0.5% of the total cash collateral for IM: 6.2.15% (IM: 6.2.2, DF: 4.3.2) makes up <0.5% of the total cash collateral for IM: 6.2.15% (IM: 6.2.2, DF: 4.3.2) makes up <0.5% of the total cash collateral for IM: 6.2.15% (IM: 6.2.2, DF: 4.3.2) makes up <0.5% of the total cash collateral for IM: 6.2.15% (IM

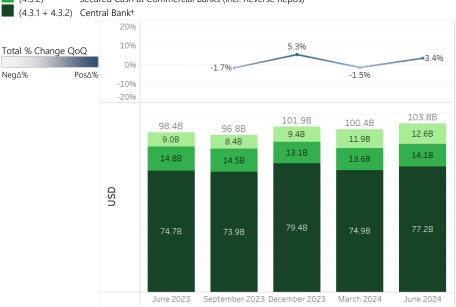




Total Cash Held* for DF increased by +3.4% for 2024 Q2. Majority of all cash resources have continued to be deposited at Central Banks[†].

4.3.1 – 4.3.4: Global CCP DF (Held) (PostHaircut), Cash Total 2023 Q2 to 2024 Q2 (USD B, % change QoQ)

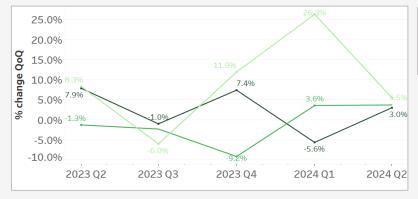




The chart opposite, (4.3.1 – 4.3.4: Global CCP DF (Held) (PostHaircut), Cash Total) provides an overview of the split of DF (Held) deposits at central banks and commercial banks under disclosures 4.3.1 – 4.3.4.

(4.3.4) Δ% (4.3.3) Δ% (4.3.1)+ Δ%

4.3.1 – 4.3.4: Global Cash DF (Held), % Difference QoQ per segment 2023 Q2 to 2024 Q2 (% change)



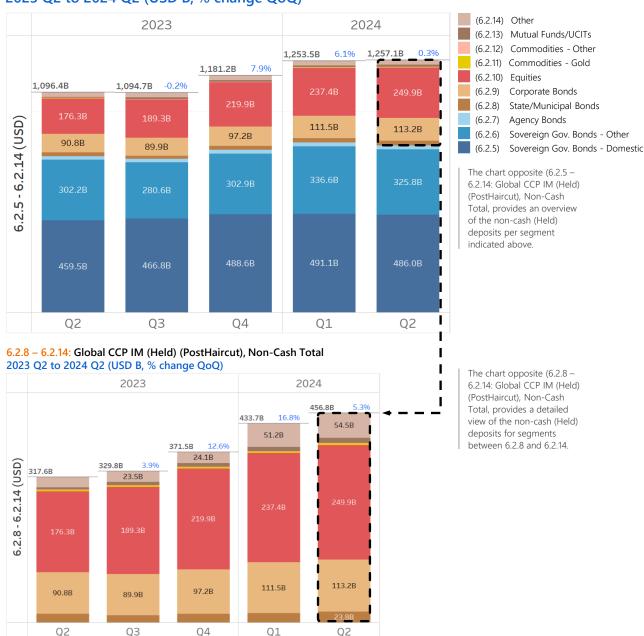
The chart opposite (4.3.1 – 4.3.4: Global Cash DF (Held), % Difference QoQ per segment) provides an overview of the quarterly change of DF (Held) deposits.

^{*}Figures as of quarter-end. The sum of IM Held across 6.2.1 – 6.2.14 is slightly lower than the Total IM Held Values for 6.2.15, due to: (1). DTCC has requested that 6.2.15 figures be equivalent to 4.3.15 figures, (2). For OCC 6.2.15 total > sum of 6.2.1 – 6.2.14. TCH provides the full breakdown of 6.2.15 split across 6.2.1 - 6.2.14 as of 2020 Q2. +Cash deposited at "Other Central Bank of Issue" (IM: 6.2.2, DF: 4.3.2) makes up <0.5% of the total cash collateral for IM and <0.5% for the DF. Therefore, "Central Bank of Issue" and "Other Central Bank" Cash deposits are grouped together within charts.



During 2024 Q2, total global Non-Cash IM Held increased by +0.3%. The split across each segment has remained similar from the previous quarter.

6.2.5 – 6.2.14: Global CCP IM (Held) (PostHaircut), Non-Cash Total 2023 Q2 to 2024 Q2 (USD B, % change QoQ)



*Figures as of quarter end. The sum of IM Held across 6.2.1 – 6.2.14 is lower than the Total IM Held Values for 6.2.15, due to certain PQDs not providing a breakdown of the IM held across these data points. This is also due to the following: 1), DTCC has requested that 6.2.15 figures be equivalent to 4.3.15 figures, therefore no breakdown for 6.2.1 – 6.2.14 is provided, and 2). OCC 6.2.15 total > sum of 6.2.1 – 6.2.14. As of 2023 Q3 all OCC "PreHaircut" figures for Client/House IM are considered "PostHaircut", thus a clearer view of the proportions of IM held for 6.2.1 – 6.2.14 can be observed. TCH provides the full breakdown of 6.2.15 split across 6.2.1 - 6.2.14 as of 2020 Q2.

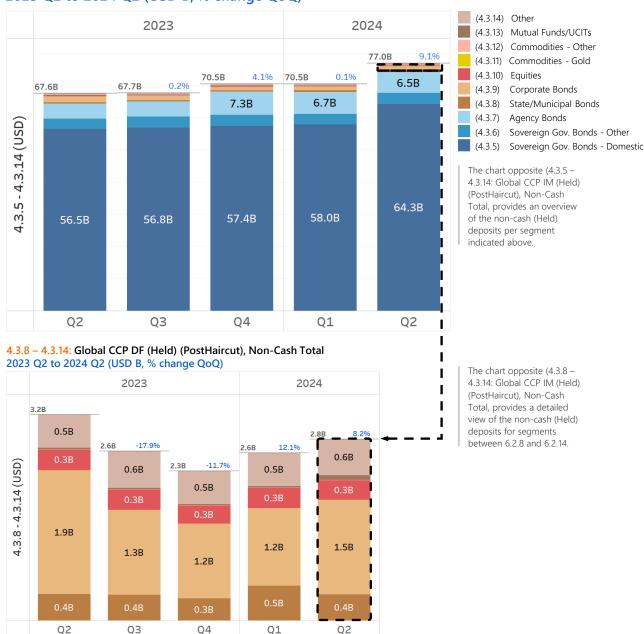
Sep-24

CCPG PQD QUARTERIY TRENDS – 2024 Q2



During 2024 Q2, total global Non-Cash DF Held increased by +9.1%. The split across each segment has remained similar from the previous quarter.

4.3.5 – 4.3.14: Global CCP DF (Held) (PostHaircut), Non-Cash Total 2023 Q2 to 2024 Q2 (USD B, % change QoQ)



^{*}Figures as of quarter end. Sum of IM Held across 6.2.1 – 6.2.14 is slightly lower than the Total IM Held Values for 6.2.15, due to 1). DTCC have requested that 6.2.15 figures be equivalent to 4.3.15 figures, and 2). OCC 6.2.15 total > sum of 6.2.1 – 6.2.14. TCH provide the full breakdown of 6.2.15 split across 6.2.1 - 6.2.14 as of 2020 Q2. †Disclosures 4.3.8 – 4.3.14 constitute on average <1.5% of total non-cash collateral per quarter.

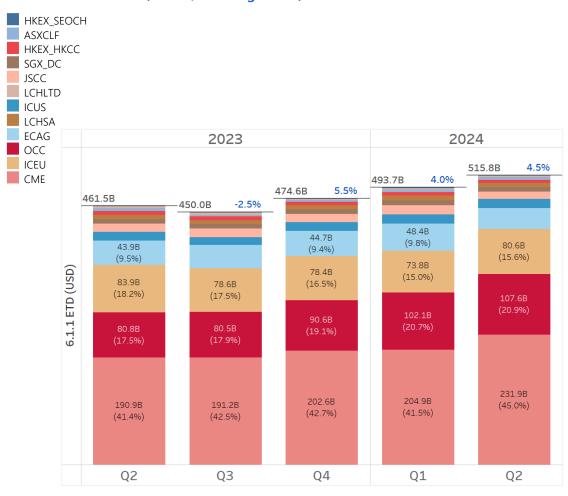
Sep-24 CCPG PQD QUARTERLY TRENDS – 2024 Q2 19



For 2024 Q2 the IM required for ETDs across the following selected 12 CCPs increased by +4.5%. Proportion of IM across each CCP has remained consistent QoQ.

Global CCP IM (Required) Collateral for ETDs across selected CCPs Disclosure (6.1.1)





The chart above (6.1.1: Global CCP IM (Required) Collateral for ETDs across selected CCPs) provides a summary of the IM required for ETDs across a number of selected CCPs chosen for a global geographical representation.

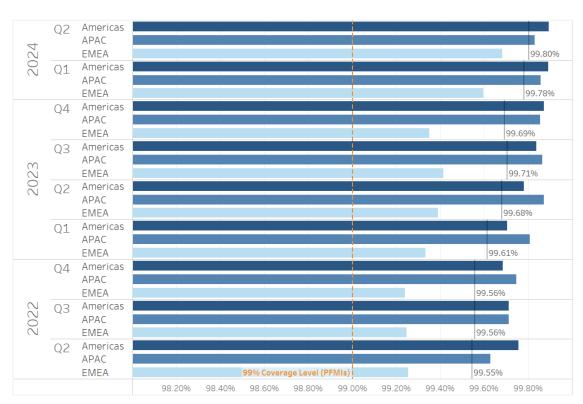


Results of backtesting of initial margin (ACL - Achieved Coverage Level) reached 99.80% (on average) across all regions for 2024 Q2, higher than the previous quarter.

Results of backtesting of initial margin – ACL* Disclosure (6.5.3)

2022 Q2 to 2024 Q2 (%)





The chart above (Results of backtesting of Initial Margin – Achieved Coverage Level). Backtesting is an important technique that a CCP utilizes to ensure that its initial margin model is performing as expected and that the assumptions within the model are valid. A CCP should assess its initial margin coverage by performing an ex-post comparison of observed profit and loss moves of a given portfolio against the initial margin collected.

According to the <u>Principles for Financial Market Infrastructures</u>, a 99.00% coverage of backtesting is used as a benchmark to assess the efficiency of the initial margin model, however, a CCP may use a higher (percentile) benchmark. As can be seen from the above metrics, global CCPs on average have achieved above 99.00% in all instances from recent years.

For further information, please see the CCP Global White Paper – Primer on Initial Margin.

*Average has been taken across all CCPs within each respective region.



CCPs reported availability to core clearing systems of 99.98% over the previous 12-month period, higher than last quarter*

Availability, Failures and Recovery Time Objectives 2024 Q2

CCPs report the quantity and duration of operational failures affecting their core clearing systems over the previous 12-months on a quarterly basis:

- **Core Systems:** Within clearing, systems enable the acceptance and novation of trades, and provide the calculation of margin and settlement obligations;
- Loss of Availability: An incident that results in an interruption to the CCP's ability to perform its own functions in relation to trade acceptance and novation, or calculation of margin and settlement obligations. An incident that compromises the CCP's ability to correctly perform the aforementioned functions is also considered a 'loss of availability', even if there is no actual outage. Failure to a backup site without interruption to services would not count as a loss of availability.

Disclosure (17.2):

The average actual core clearing system availability over the previous twelve-month period (July 1, 2023, through June 30, 2024) across CCP PQDs this quarter was: **99.98**%

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Disclosure (17.4):

60 CCP PQDs representing 38 CCP Global Members & 3 Non-Members				
1 CCP	Target recovery time within:	35 mins		
2 CCPs	Target recovery time within:	45 mins		
5 CCPs	Target recovery time within:	60 mins		
48 CCPs	Observe the standard target recovery time of within:	120 mins		
2 CCP	Target recovery time within:	240 mins		
2 CCPs	Target recovery time within:	12 hrs		

According to the <u>Principles for Financial Market Infrastructures</u>, the objectives of a CCP's business continuity plan should detail the system's target recovery time ("TRT") and recovery point information. Based on the PFMI's, a CCP should aim to be able to resume operations within two hours following a disruptive event(s); however, backup systems should preferably commence processing immediately upon such a disruption.

As seen from the above table, the majority of global CCPs have a target recovery time set as two hours or shorter; with only four CCPs observing a slightly longer TRT based on their respective regulatory requirements.

*For 2024 Q1, the average availability of core clearing systems over the period (April 1, 2023, through to March 31, 2024) across all CCPs was 99.96%.
†All figures are based on the respective CCP's regulatory requirements in their local jurisdiction. CC&G, IRGIT and NCC data are incorporated as non-CCP Global members.



CCP Global Member List*

CCPG Member	CCP Mnemonic	Region	Country	CCP Name & PQD Hyperlink
ACYRSA	ACYRSA	Americas	Argentina	Argentina Clearing y Registro S.A.
ASX	ASXCL	APAC	Australia	Australia Securities Exchange Clear
				
ASX	ASXCLF	APAC	Australia	Australia Securities Exchange Clear Futures
B3	B3	Americas	Brazil	Brasil, Bolsa, Balcão (BM&FBOVESPA Clearinghouse)
B3	B3FX	Americas	Brazil	Brasil, Bolsa, Balcão (Foreign Exchange Clearinghouse)
BMAL	BMDC	APAC	Malaysia	Bursa Malaysia Derivatives Clearing
BMAL	BMSC	APAC	Malaysia	Bursa Malaysia Securities Clearing
CBOECLEAR	CCE	EMEA	Netherlands	Cboe Clear Europe N.V. (Cboe Clear)
CCIL	CCIL	APAC	India	The Clearing Corporation of India Ltd.
CME	CME	Americas	United States of America	Chicago Mercantile Exchange
COMDER	COMDER	Americas	Chile	ComDer Contraparte Central S.A.
CRCC	CRCC	Americas	Colombia	Cámara de Riesgo Central de Contraparte S.A.
DCCC	DCCC	EMEA	United Arab Emirates	The Dubai Commodities Clearing Corporation
DUBAICLEAR	DUBAICLEAR	EMEA	United Arab Emirates	<u>Dubai Clear</u>
DTCC	DTCC_GSD	Americas	United States of America	Depository Trust and Clearing Corporation – Government Securities Division Solutions
DTCC	DTCC_MBSD	Americas	United States of America	Depository Trust and Clearing Corporation – Mortgage-Backed Securities Division
DTCC	DTCC NSCC	Americas	United States of America	Depository Trust and Clearing Corporation – National Securities Clearing Corporation
ECAG	ECAG	EMEA	Germany	Eurex Clearing Group
ECAG	ECC	EMEA	Germany	European Commodity Clearing
ECAG	NCL	Americas	United States of America	Nodal Clear
HKEX	HKEX_HKCC	APAC	Hong Kong	HKFE Clearing Corporation Limited
HKEX	HKEX_HKSCC	APAC	Hong Kong	Hong Kong Securities Clearing Company Limited
HKEX	HKEX_LME	EMEA	United Kingdom	The London Metal Exchange
HKEX	HKEX_CTCC	APAC	Hong Kong	OTC Clearing Hong Kong Limited
HKEX	HKEX_SEOCH	APAC	Hong Kong	The SEHK Options Clearing House Limited
ICE	ICC	Americas	United States of America	ICE Clear Credit
ICE	ICEU	EMEA	United Kingdom	ICE Clear Europe
ICE	ICNGX	Americas	Canada	ICE Clear Canada
ICE	ICNU	EMEA	Netherlands	ICE Clear Netherlands
ICE	ICSG	APAC	Singapore	ICE Clear Singapore
ICE	ICUS	Americas	United States of America	ICE Clear US
IDCLEAR	IDCLEAR	APAC	Indonesia	ID Clear
NON-MEMBER*	IRGIT	EMEA	Poland	Izba Rozliczeniowa Giełd Towarowych S.A. (IRGIT, Clearing House)
JSCC JSCC	JSCC	APAC		
JSE	JSEC	EMEA	Japan South Africa	Japan Securities Clearing Corporation
KASE	KASE			Johannesburg Stock Exchange
		EMEA	Kazakhstan	Kazakhstan Stock Exchange JSC
KELER	KELERCCP	EMEA	Hungary	KELER CCP
KDPWCCP KRX	KDPWCCP KRX	EMEA APAC	Poland South Korea	KDPW CCP
LSEG				Korea Exchange
LSEG	LCHLTD	EMEA	United Kingdom	London Clearing House Ltd.
		EMEA	France	London Clearing House S.A.
MCXCCL	MCXCCL	APAC	India	Multi Commodity Exchange Clearing Corporation Limited
MGEX	MGEX	Americas	United States of America	Minneapolis Grain Exchange
MUQASSA	MUQASSA	EMEA	Saudi Arabia	Securities Clearing Center Company (Muqassa)
NASDAQ	NASDAQ	EMEA	Sweden	Nasdaq Clearing
NON-MEMBER*	NCC	EMEA	Russia	Central Counterparty National Clearing Centre
NON-MEMBER*	CCG	EMEA	Italy	Cassa di Compensazione e Garanzia S.p.A.
NSE	NSE	APAC	India	NSE Clearing Limited
NZX	NZX	APAC	New Zealand	New Zealand Exchange
OCC	OCC	Americas	United States of America	The Options Clearing Corporation
SGX	SGX_CDP	APAC	Singapore	Singapore Exchange (Central Depository (Pte) Limited)
SGX	SGX_DC	APAC	Singapore	Singapore Exchange (Derivatives Clearing)
SHCH	SHCH	APAC	China	Shanghai Clearing House
TAIFEX	TAIFEX	APAC	Taiwan	Taiwan Futures Exchange (Taifex)
TAKASBANK	TAKASBANK	EMEA	Turkey	<u>Takasbank</u>
TCH	TCH	APAC	Thailand	Thailand Clearing House Co. Ltd.
TMX	CDS	Americas	Canada	TMX Group - Canadian Depository for Securities Limited (CDS Ltd.)
TMX	CDCC	Americas	Canada	TMX Group - Canadian Derivatives Clearing Corporation (CDCC)
TPEX	TPEX	APAC	Taiwan (R.O.C.)	<u>TPEX</u>
TWSE	TWSE	APAC	Taiwan (R.O.C.)	TWSE
VSD	VSDC	APAC	Vietnam	<u>Vietnam Securities Depository</u>

^{*}CCP Global non-members included in the CCP Global PQD Quarterly Trends Report analysis are clearly indicated

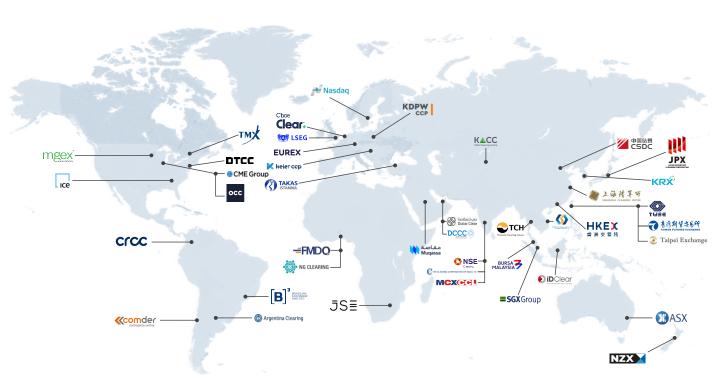


About CCP Global

CCP Global is the global association for CCPs, representing 42 members who operate over 60 individual central counterparties (CCPs) globally across the Americas, EMEA, and the Asia-Pacific region. CCP Global promotes effective, practical, and appropriate risk management and operational standards for CCPs to ensure the safety and efficiency of the financial markets it represents.

CCP Global leads and assesses global regulatory and industry initiatives that concern CCPs to form consensus views, while also actively engaging with regulatory agencies and industry constituents through consultation responses, forum discussions, and position papers.

For more information, please contact the office by e-mail at office@ccp-global.org or through our website by visiting www.ccp-global.org.





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CCP Global Members























































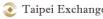






























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