



The Global Association of Central Counterparties

# PUBLIC QUANTITATIVE DISCLOSURE

## PQD QUARTERLY TRENDS REPORT

2022 Q3 DATA



Dec-22

# Contents

<b>CCP PQDs</b>	3	Global CCP Initial Margin (Held) Cash	16
<b>Commentary for the quarter 2022 Q3</b>	4	Global CCP Default Fund (Held) Cash	17
<b>Headline Statistics of the Public Quantitative Disclosures</b>	5	Global CCP Initial Margin (Held) Non-Cash	18
<b>Collateral View</b>	6	Global CCP Default Fund (Held) Non-Cash	19
PQD Statistics Key	9	Selected CCPs – IM (Required) for Exchange Traded Derivatives	20
Global CCP Initial Margin & Default Fund (Required)	10	Results of backtesting IM – Achieved Coverage Level (ACL)	21
Global CCP Initial Margin & Default Fund (Held)	11	Global CCP Core System Availability & Target Recovery Time	22
Global IM Breakdown (House vs. Client) (Required)	12	<b>CCP12 Member List</b>	23
Global CCP Overcollateralization (IM & DF)	13	<b>About CCP12</b>	24
Global CCP Overcollateralization (Total)	14	<b>Contacts</b>	25
Global CCP Variation Margin	15	<b>CCP12 Members</b>	26

# CCP PQDs

The CCP12 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 clearing exposure by collecting mark-to-market losses through regular variation margin (or similar) payments.

This CCP12 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 CCP12 standardized template, carrying information stipulated in global regulatory guidance. Further details for individual CCPs can be found in links provided on the [CCP12 website](#) and page 23 of this report.

## IN THIS COLLATION FOR 2022 Q3

Data for 52 CCPs across Americas, APAC and EMEA (equivalent to 31 CCP12 members) are included in this quarter's collation<sup>†</sup>:

Americas	16
APAC	20
EMEA	16

6.1.1 Global IM (Required):	USD	1,302 B
4.1.4 Global DF (Required):	USD	118 B
Global Overcollateralization <sup>‡</sup> :	USD	510 B

For any questions, please get in touch: [question.pqd@ccp12.org](mailto:question.pqd@ccp12.org)

<sup>\*</sup>All PQD dates are forced to "quarter-end" to reflect the quarter-end exchange rates per currency, i.e., if the PQD date is "2021-06-28", then, this is adjusted to "2021-06-30", and the corresponding FX rate.

<sup>†</sup>CC&G and NCC data incorporated as non-CCP12 members. CC&G, NSE: 2022 Q2 PQD figures used in this report since these PQDs were not released as of the QTR release, with the exception of NCC where the 2021Q4 PQDs have been used each quarter due to these not being available at present. CCIL require regulatory approval of their PQD figures due to local regulations.

<sup>‡</sup>Calculated as (Total IM and DF Held PostHaircut) minus (Total IM and DF Required). Disclosures (6.2.15 + 4.3.15) – (6.1.1 + 4.1.4) = Total Overcollateralization. (Only Post-Haircut values used for Held values).

# Commentary for the quarter 2022 Q3

## Below are a few key market developments which took place in the third quarter of 2022:

- Market volatility heightened in 2022 Q3 with economic indicators deteriorating on the backdrop of the ongoing Russian invasion of Ukraine, coupled with an evolving inflationary outlook and high interest rate environment. The energy crisis exacerbated the heightened inflationary environment.
- The US dollar rose to multi-decade highs against Emerging Market Economy (“EME”) currencies. Interest rates continued to be tightened with the Fed raising rates by 150 basis points in 2022 Q3. Meanwhile, the European Central Bank’s (“ECB”) Governing Council raised the three key ECB interest rates by 75 basis points. In the UK, the GBP fell against the USD to record lows after markets looked on negatively at the UK fiscal package involving tax cuts and borrowing. In late September, the BoE said it would suspend its programme to sell gilts and instead pledged to buy long-dated bonds in an effort to stem the crisis.<sup>1,5</sup>
- The weakening European economic outlook directly affected periphery spreads to German Bunds, in addition to the Euro exchange rate. As German Bund yields dropped across June to July, Greek and Italian bond spreads remained heightened. The EME’s saw diverging developments across their economies where Latin American’s bond yields were much higher than those of Asia.<sup>1</sup>
- Across Asia, Japan saw equity markets contract by 0.8% for the quarter following suit with the rest of the world. The Yen weakened against the US dollar, reaching beyond the 140 mark for the first time in over two decades. China was also managing inflation with a weaker index market over market concerns, including that of higher interest rates. India, South Korea, Hong Kong and Singapore saw a similar weakened sentiment towards the end of 2022 Q3 – all affected by the stagnant market conditions.<sup>2</sup>
- Global commodity markets (*specifically energy*) saw negative performance, apart from higher gas prices. Gold and Silver also saw a decline. Key agricultural products continued to see price increases i.e., wheat and corn. Major disruptions in the natural gas markets increased investor concerns for the long-lasting nature of the market conditions.<sup>1,2</sup>
- For the first three quarters of 2022 compared to 2021, global futures and options trading volume grew by 2.5% to 22.1bn contracts and 66.3% to 38.6bn contracts, respectively. Open interest increased by 2.5% in total for the same period. The largest volume growth was seen in equity, currencies and interest rate contracts.<sup>4</sup>

1 [https://www.bis.org/publ/qtrpdf/r\\_qt2209.pdf](https://www.bis.org/publ/qtrpdf/r_qt2209.pdf)

2 <https://www.schroders.com/en/us/professional-investor/insights/multi-asset/quarterly-markets-review---q3-2022/>

3 <https://www.ecb.europa.eu/>

4 [https://www.fia.org/sites/default/files/2022-11/Q3%202022%20ETD%20Volume%20Trends\\_0.pdf](https://www.fia.org/sites/default/files/2022-11/Q3%202022%20ETD%20Volume%20Trends_0.pdf)

5 <https://www.ft.com/content/756e81d1-b2a6-4580-9054-206386353c4e>

# Headline Statistics of the Public Quantitative Disclosures

## 2022 Q3

### Global CCP Margin\* (USD B)

#### Global Initial Margin & Default Fund (Required):

Total Global IM Required (6.1.1)	1,302
Total Global DF Required (4.1.4)	118
Total Global CCP Collateral Required (6.1.1 + 4.1.4)	1,420

#### Global IM & DF Held (PostHaircut):

Total Global IM Held (PostHaircut) (6.2.15)	1,789
Total Global DF Held (PostHaircut) (4.3.15)	137
Total Global CCP Collateral Held (PostHaircut) (6.2.15 + 4.3.15)	1,926

#### Global Variation Margin (VM)

Sum of Total Global Average Daily VM Paid to the CCP by participants each business day (6.6.1)	45
--	----

#### Global Overcollateralization (OC)

Total Global IM Overcollateralization	489
Total Global DF Overcollateralization	21
Total Global Overcollateralization	510

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

	Disclosure	Initial Margin	Disclosure	Default Fund
<b>Cash</b>				
<i>At Central Bank</i>	(6.2.1 + 6.2.2)	20.6%	(4.3.1 + 4.3.2)	47.9%
<i>Secured Cash (incl. Reverse Repos) at Commercial Banks</i>	6.2.3	9.8%	4.3.3	11.6%
<i>Unsecured Cash at Commercial Banks</i>	6.2.4	3.9%	4.3.4	7.6%
<b>Non-Cash</b>				
<i>Sovereign Gov Bonds - Domestic</i>	6.2.5	24.1%	4.3.5	26.8%
<i>Sovereign Gov Bonds - Foreign</i>	6.2.6	15.7%	4.3.6	2.9%
<i>Agency Bonds</i>	6.2.7	0.9%	4.3.7	1.6%
<i>State/Municipal Bonds</i>	6.2.8	0.6%	4.3.8	0.2%
<i>Corporate Bonds</i>	6.2.9	7.0%	4.3.9	0.9%
<i>Equities</i>	6.2.10	10.3%	4.3.10	0.2%
<i>Commodities - Gold</i>	6.2.11	0.2%	4.3.11	0.0%
<i>Commodities - Other</i>	6.2.12	0.0%	4.3.12	0.0%
<i>Mutual Funds/UCITs</i>	6.2.13	0.4%	4.3.13	0.0%
<i>Other</i>	6.2.14	1.4%	4.3.14	0.3%

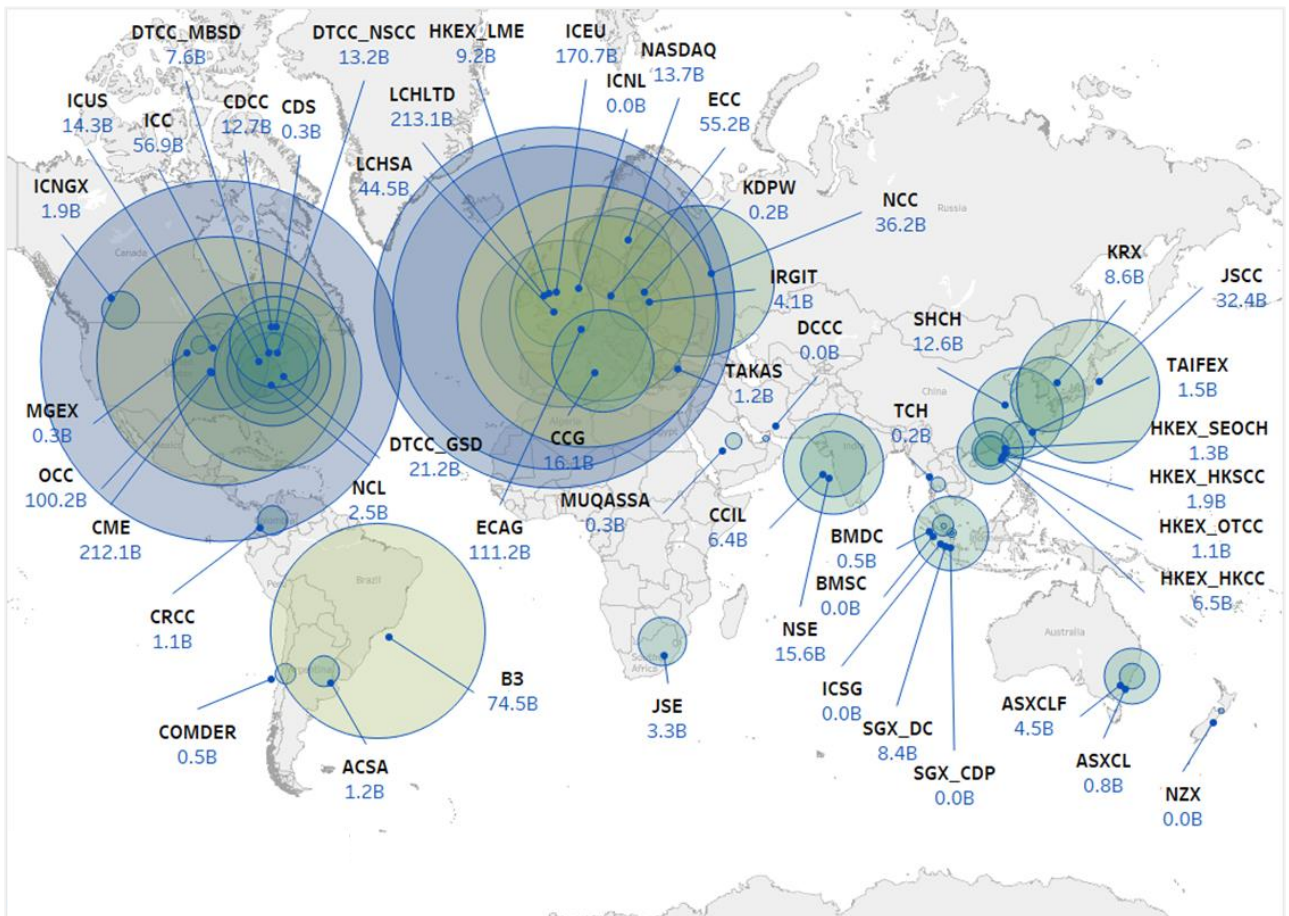
\*The sum of the % in the IM column ≠ 100% since: The sum of IM Held across 6.2.1 – 6.2.14 is slightly lower than the Total IM Held Values for 6.2.15, due to DTCC requesting that 6.2.15 figures be equivalent to 4.3.15 figures; and 4 other CCPs providing only totals for their 6.2.15 values.  
 OCC 6.2.1 – 6.2.14 House, Client and Total "PreHaircut" figures are considered "PostHaircut" values for the purpose of analysis.  
 Data has been normalized to USD equivalent, based on a conversion from FX rates provided by the ECB. Based on foreign exchange rates at the quarter-end for each PQD quarterly release.

# Collateral View

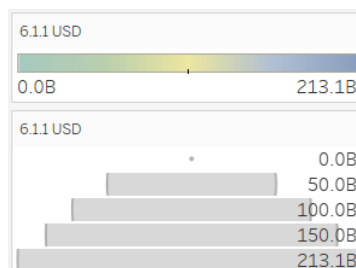
A collection of maps each quarter providing an overview of the global distribution of Initial Margin, Default Fund and Variation Margin from a global perspective.

2022 Q3

## 6.1.1: Global IM (Required) Per CCP\*



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



\*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: IM = 0 for certain quarters, since at those reporting dates, there were no open contracts and hence no IM requirement for any members.

6.1.1 IM values (not seen from map):

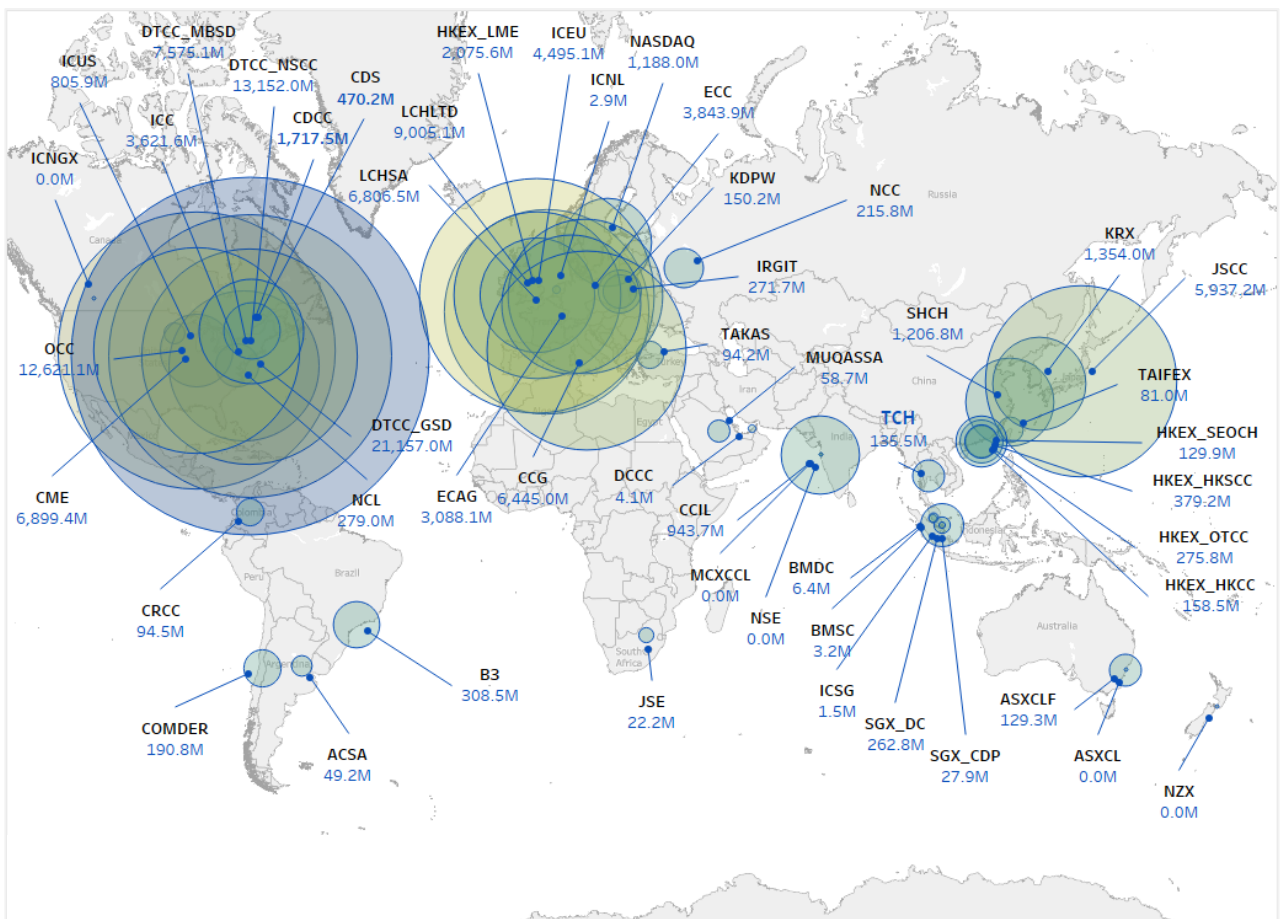
CCP	6.11USD
CCP	0.00
ICNL	629,729.40
ICSG	6,742,084.91
BMSC	6,778,375.13
NZX	12,448,111.00
DCCC	46,514,012.98
SGX_CDP	

# Collateral View

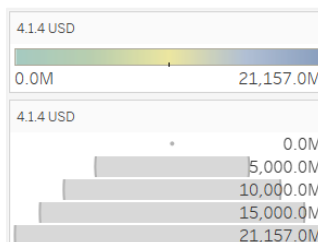
A collection of maps each quarter providing an overview of the global distribution of Initial Margin, Default Fund and Variation Margin from a global perspective.

2022 Q3

## 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.



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

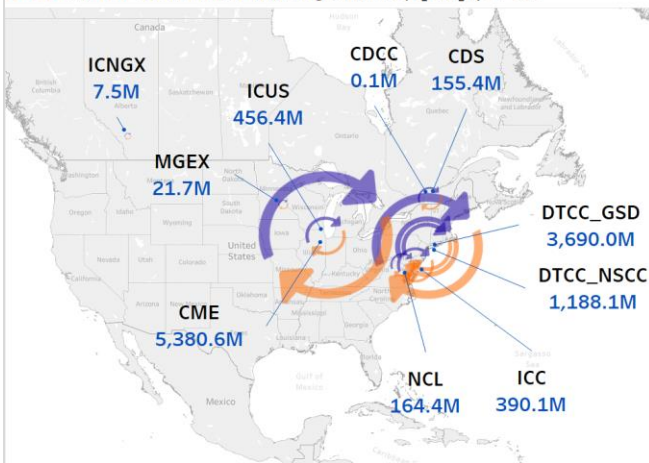
# Collateral View

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.

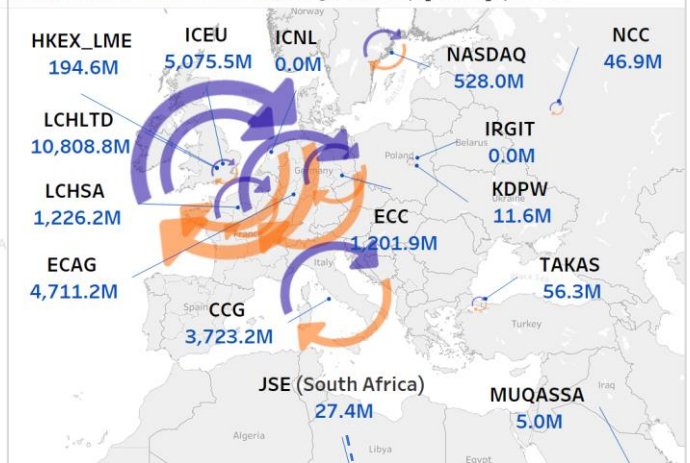
## 2022 Q3

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

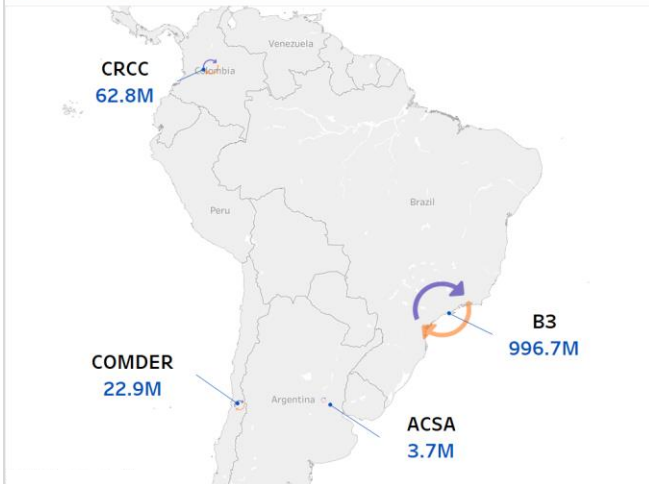
6.6.1: Sum of Total Global VM, Regional Map [U.S.], per CCP



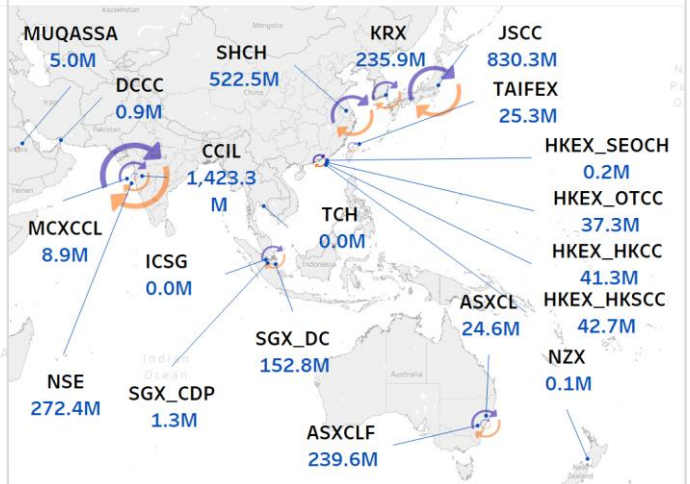
6.6.1: Sum of Total Global VM, Regional Map [EMEA], per CCP



6.6.1: Sum of Total Global VM, Regional Map [S. America], per CCP



6.6.1: Sum of Total Global VM, Regional Map [APAC], per CCP



Maps *not* to scale relative to each other.



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.

\*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 netted cash flow from a clearing member to (or from) the CCP.

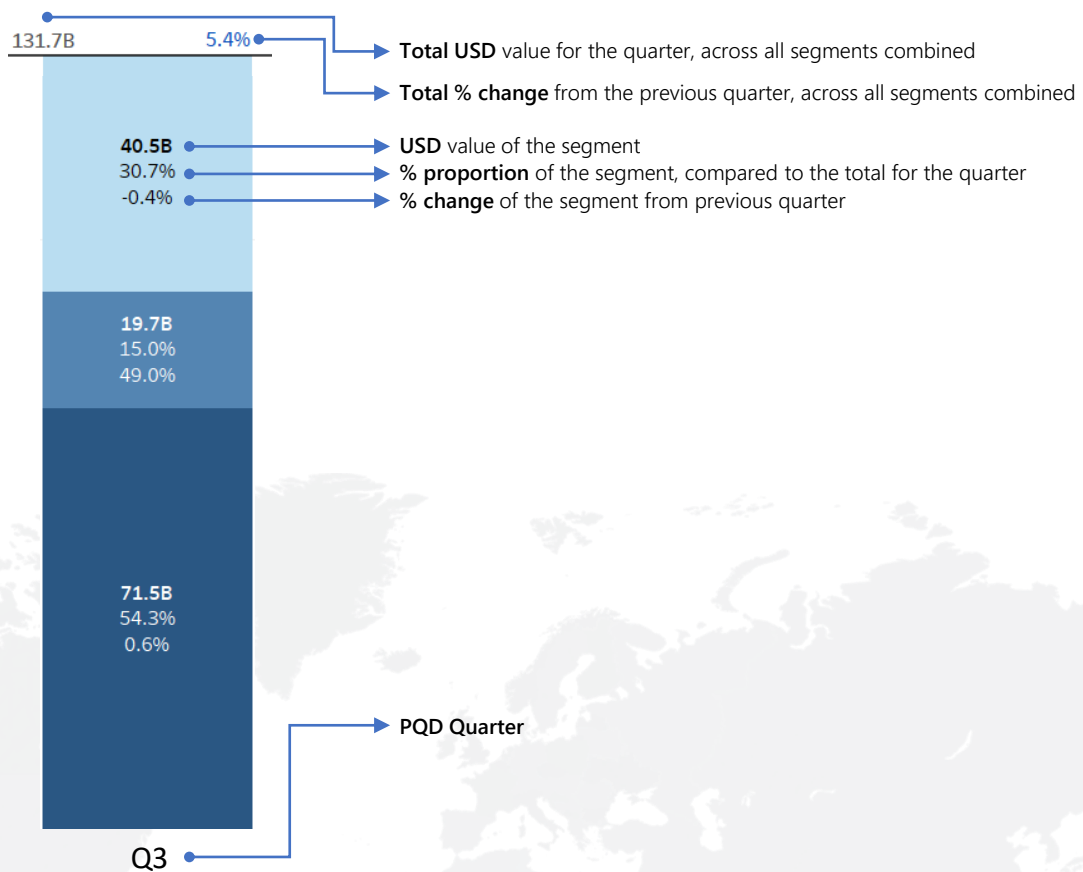
6.6.1: OCC – See PQD explanatory notes. ICNL, IRGIT, TCH values are zero, based on their respective PQDs.



# PQD Statistics Key

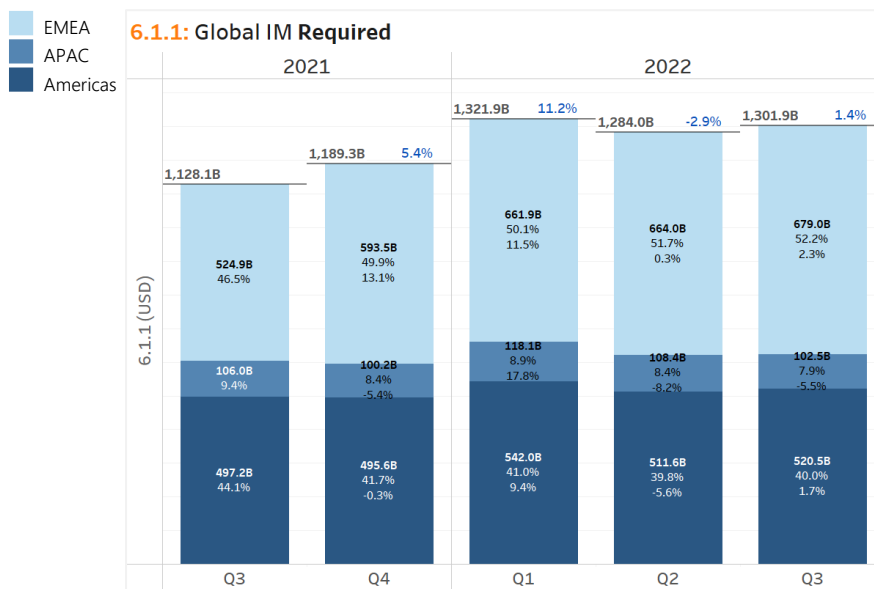
## Bar Chart Key:

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:



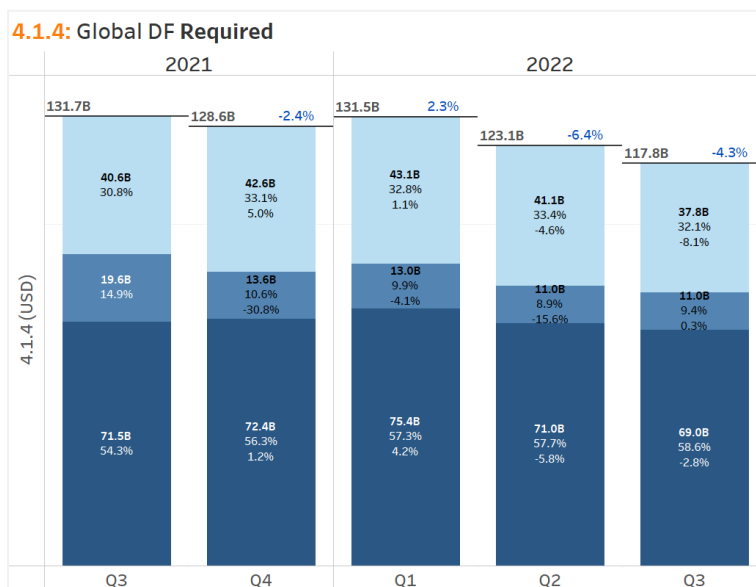
**Total IM Required** increased slightly by **+1.4%** for 2022 Q3, compared to **DF Required** decreasing by **-4.3%**. Proportion across each region has remained steady.

**Global CCP Collateral (Required) - Grand Total**  
2021 Q3 to 2022 Q3 (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.



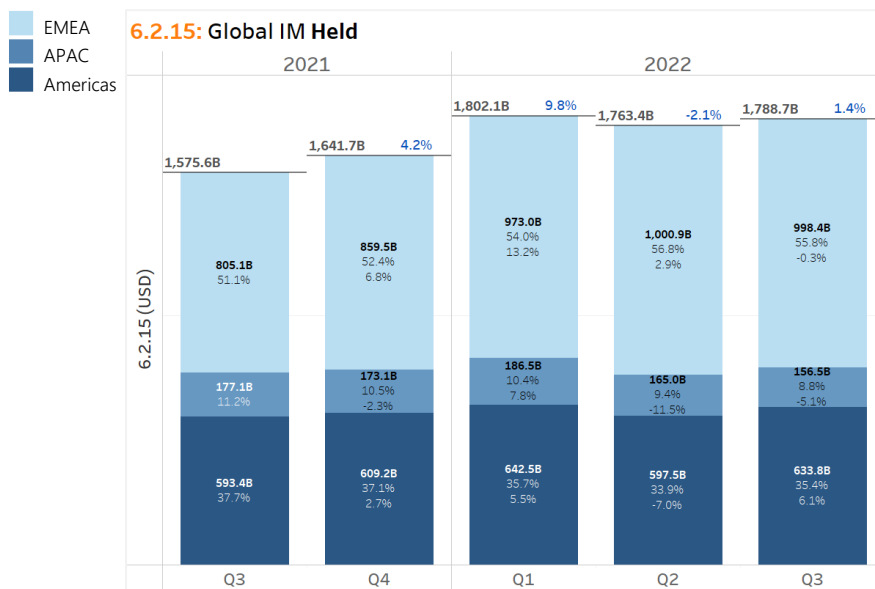
The chart opposite (4.1.4: *Global DF Required*) indicates the total amount of default fund contributions in total for the CCPs by their clearing members across the respective regions which is reported at the quarter-end under disclosure 4.1.4 in the CCP Public Quantitative Disclosures.

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.

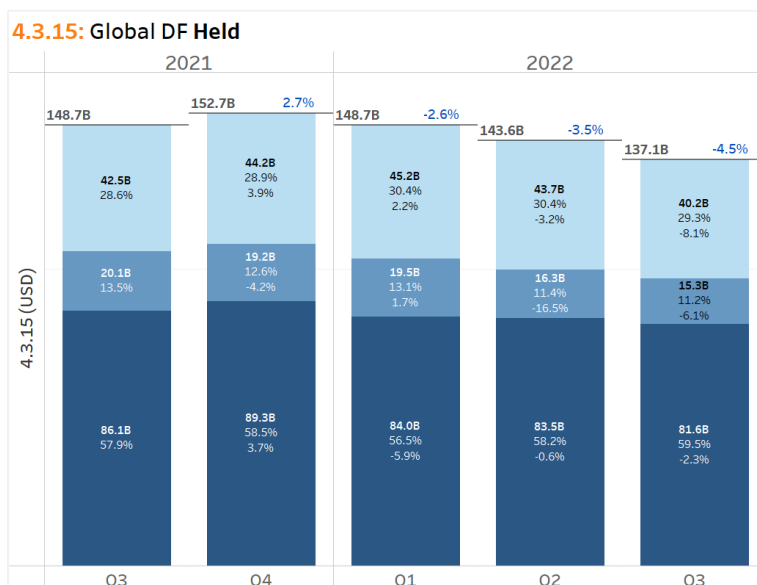
More information regarding the CCP lines of defence can be found on the CCP12 website [here](#).

**Total IM Held** increased slightly by **+1.4%** for 2022 Q3, compared to **DF Held** decreasing by **-4.5%**.  
Distribution of IM Held is consistently the largest for EMEA, followed by Americas & APAC.

**Global CCP Collateral Held (PostHaircut) - Grand Total**  
2021 Q3 to 2022 Q3 (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..



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 quarter-end under disclosure 4.3.15 in the CCP Public Quantitative Disclosures.

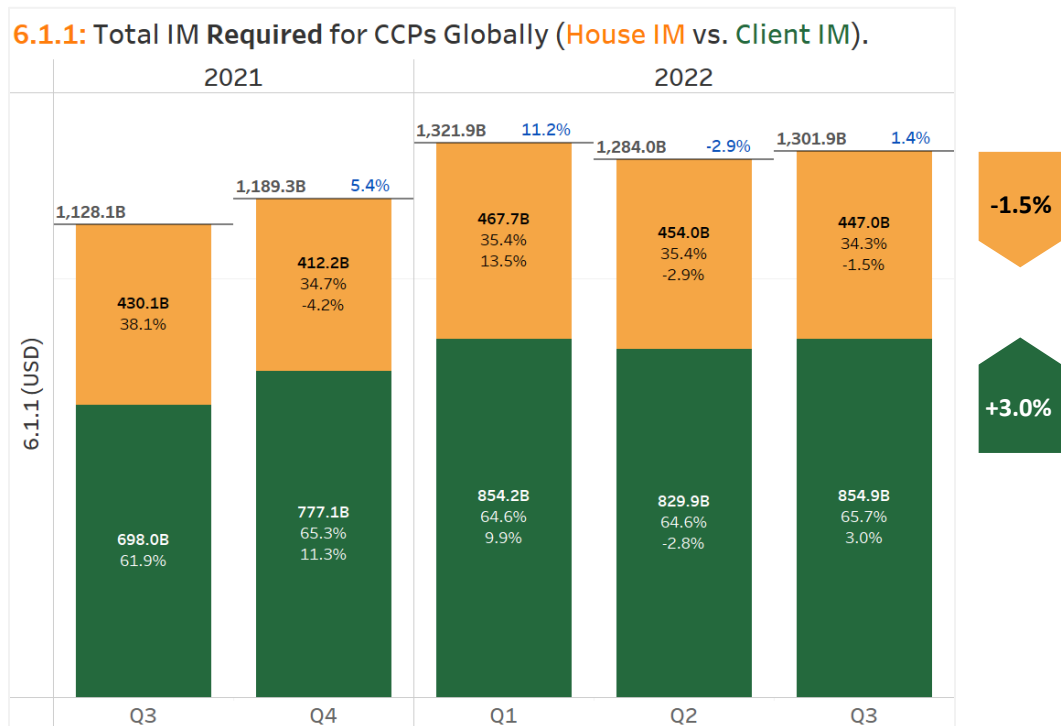
From the House IM vs Client IM split, House IM decreased by **-1.5%**, compared to Client IM which increased by **+3.0%**. House IM accounted for 34.3% of the margin requirement, compared to 65.7% for Client IM.

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

Disclosure (6.1.1):

2021 Q3 to 2022 Q3 (USD B, %)

- House IM
- Client IM



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

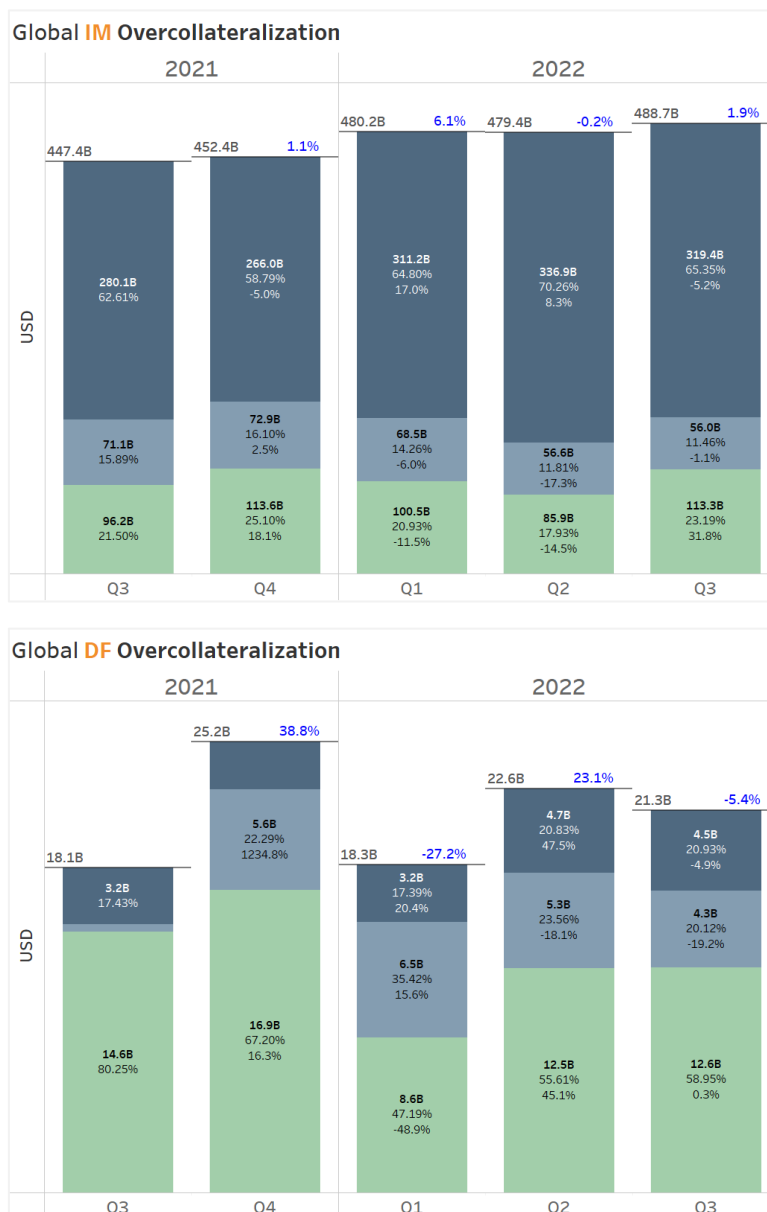
The House IM segment is the initial margin requirement for positions held by clearing members for their own portfolios, as opposed to the initial margin requirement for the clearing member's clients. House Gross/Net and Client Gross/Net are grouped together for the purpose of analysis.

\*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** was USD 488.7B for 2022 Q3, representing an increase of **+1.9%** from 2022 Q2.  
**Global DF Overcollateralization** was USD 21.3B for 2022 Q3, representing an increase of **-5.4%** from 2022 Q2.

**Global CCP IM and DF Overcollateralization\***  
**Disclosures [(6.2.15) – (6.1.1)] and [(4.3.15) – (4.1.4)]**  
**2021 Q3 to 2022 Q3 (USD B, %)**

- EMEA
- APAC
- Americas

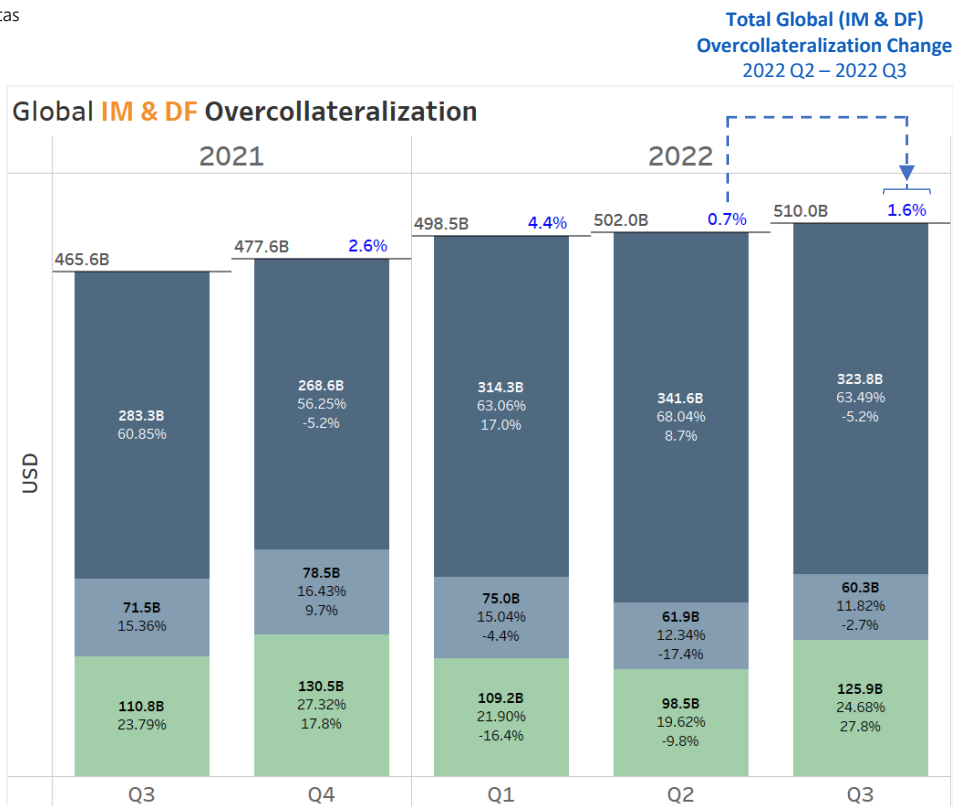


\*IM OC calculated as (6.2.15 Held PostHaircut) - (6.1.1 Required), DF OC calculated as (4.3.15 Held PostHaircut) - (4.1.4 Required). (Only Post-Haircut values used for Held values).

# Total Overcollateralization\* was USD 510.0B for 2022 Q3, representing an increase of +1.6% from 2022 Q2.

Global CCP Overcollateralization (IM & DF Held (PostHaircut) – IM & DF Required) Disclosures (6.2.15 + 4.3.15) – (6.1.1 + 4.1.4) 2021 Q3 to 2022 Q3 (USD B, %)

- EMEA
- APAC
- Americas



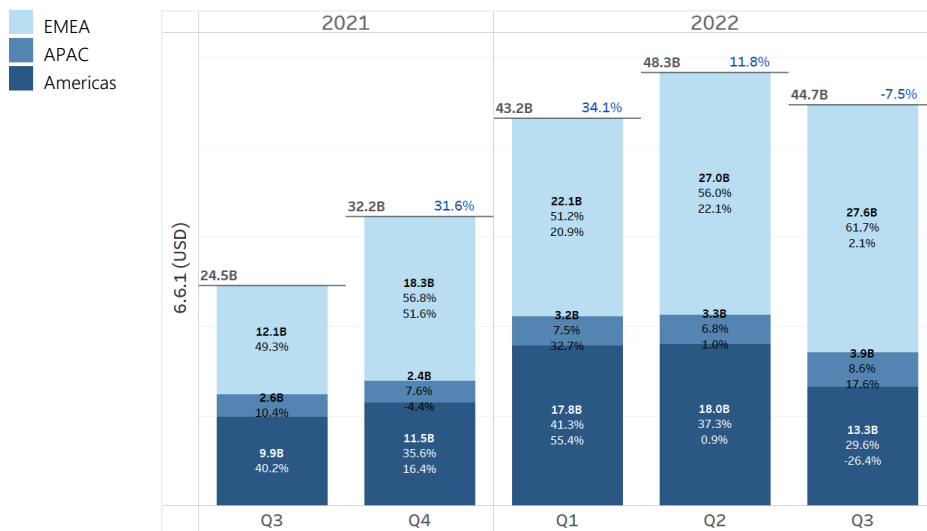
The chart above (*Global CCP Overcollateralization (IM and DF Held PostHaircut)*) indicates an overview of the IM and DF overcollateralization per region, reported at the quarter-end.

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).

\*Calculated as (Total IM and DF Held PostHaircut) minus (Total IM and DF Required) (Only PostHaircut values used for Held values). Disclosures (6.2.15 + 4.3.15) – (6.1.1 + 4.1.4) = Total Overcollateralization  
OC: Overcollateralization

## Sum of the Average Total VM Paid to the CCP by participants each business day decreased by **-7.5%** in 2022 Q3, however remains heightened at similar levels to that of 2022 Q1.

### Sum of Average Total Global VM Paid to the CCP by participants each business day<sup>†</sup> Disclosure (6.6.1) 2021 Q3 to 2022 Q3 (USD B, %)



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 which 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% vs. (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 Q1 to 2022 Q3 (% 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 CCP12 Annual Markets Review 2020 and 2021.](#)

VM: Variation Margin

\*CC: COVID-19 crisis in 2020 Q1. Global VM 6.6.1 increased 65.15%, represented by USD 40.9 B – please see the [CCP12 2020 Q1 PQD Newsflash](#).

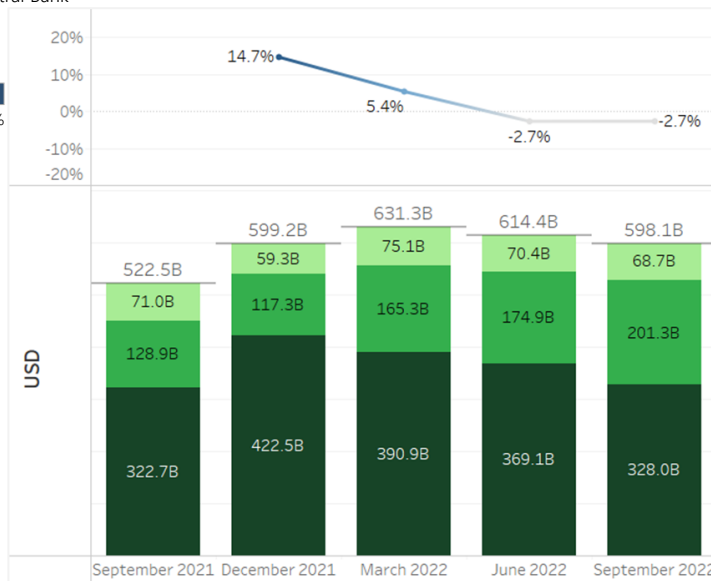
†Note: This is the sum total of the average VM paid out to the CCP by participants each business day across the respective regions. Not the average per CCP per region.

**Total Cash Held\*** for IM decreased by **-2.7%**.  
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 2021 Q3 to 2022 Q3 (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†

Total % Change QoQ  
NegΔ% PosΔ%



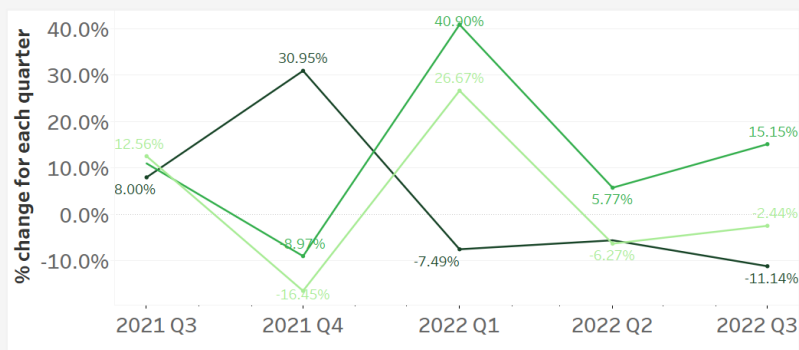
Central Bank accounts are widely agreed by the industry and regulatory community as the safest option for the safekeeping of CMs' margin. Many CCPs maintain large daily cash balances and although the CCPs continue to operate extensive collateral management functions to ensure the safety of margin that 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.

A significant proportion of IM held cash deposits have been placed in central banks and has continued to rise faster than other deposits.

- (6.2.4) Δ%
- (6.2.3) Δ%
- (6.2.1) + Δ%

**6.2.1 – 6.2.4: Global Cash IM (Held) (PostHaircut), % Difference QoQ per segment 2021 Q3 to 2022 Q3 (% 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.

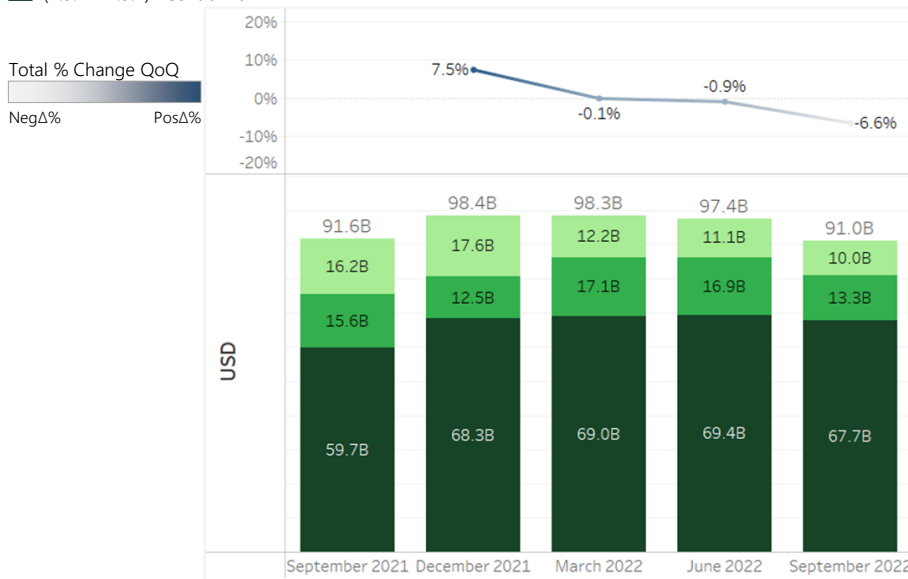
\*Figures as of quarter-end. Sum of IM Held across 6.2.1 – 6.2.14 is slightly lower than the Total IM Held Values for 6.2.15, due to: (1). DTCC have requested that 6.2.15 figures be equivalent to 4.3.15 figures, (2). For OCC 6.2.15 total > sum of 6.2.1 – 6.2.14. TCH provide the full breakdown of 6.2.15 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 grouped together within charts.  
CC: COVID-19 Crisis



**Total Cash Held\*** for DF **Held** decreased by **-6.6%** from the previous quarter. 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 2021 Q3 to 2022 Q3 (USD B, % change QoQ)**

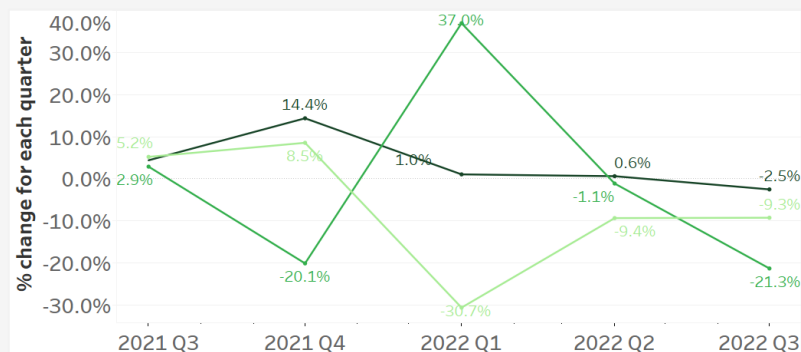
- (4.3.4) Unsecured at Commercial Banks
- (4.3.2) Secured Cash at Commercial Banks (Incl. Reverse Repos)
- (4.3.1 + 4.3.2) Central Bank†



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 2021 Q3 to 2022 Q3 (% change)**

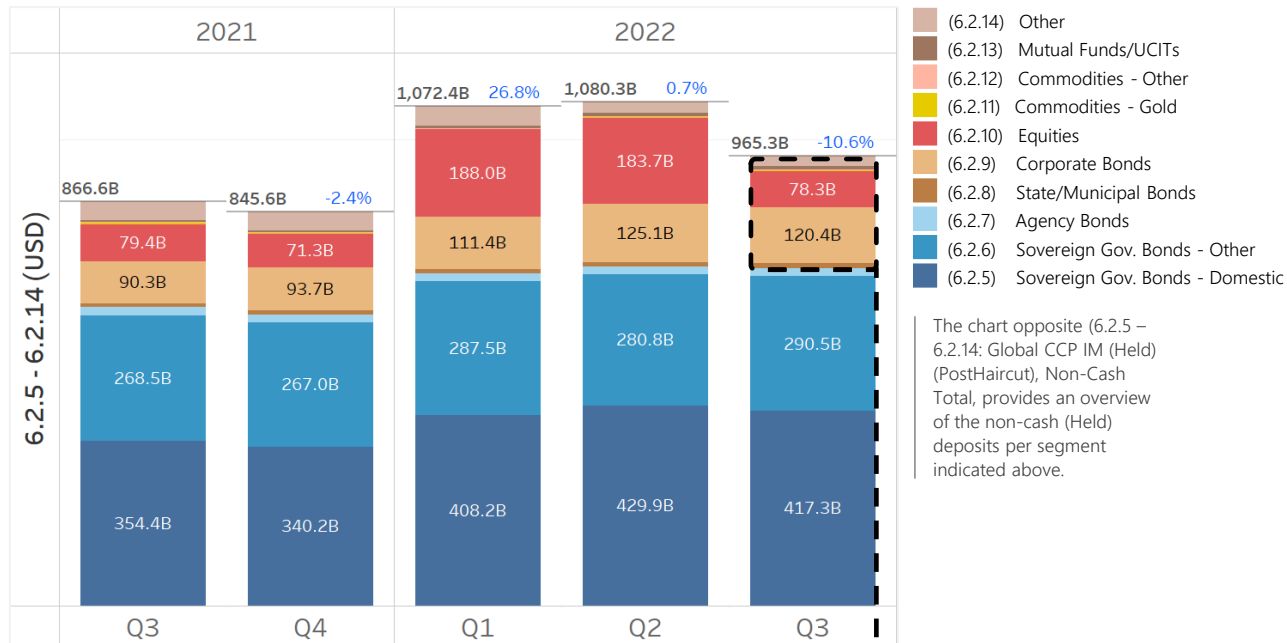


The chart opposite (4.3.1 – 4.3.4: Global Cash DF (Held), % Difference QoQ per segment) provides an overview of the quarterly change of DF (held) deposits.

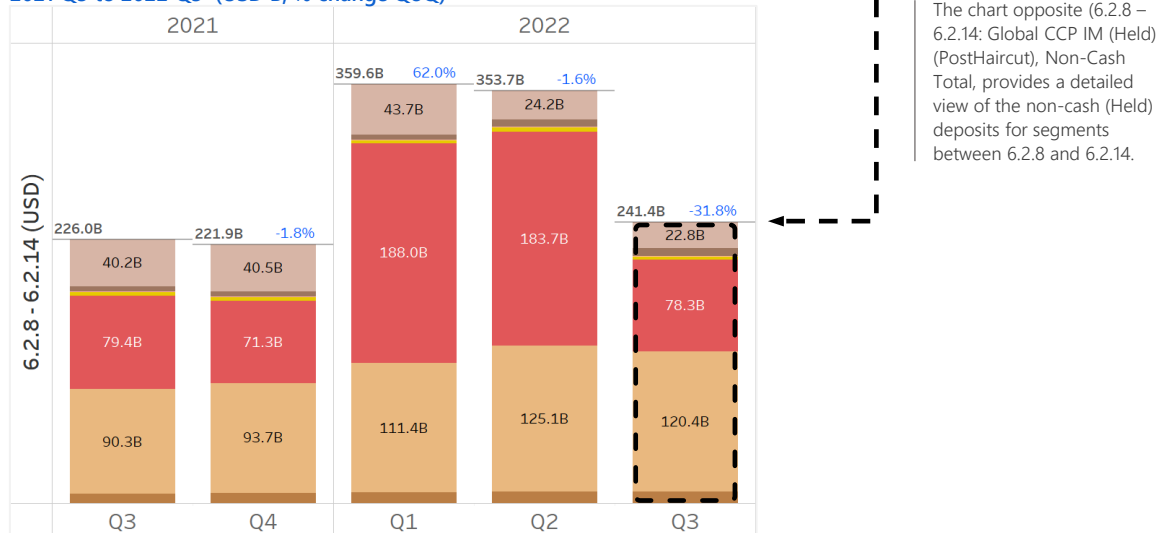
\*Figures as of quarter-end. Sum of IM Held across 6.2.1 – 6.2.14 is slightly lower than the Total IM Held Values for 6.2.15, due to: (1). DTCC have requested that 6.2.15 figures be equivalent to 4.3.15 figures, (2). For OCC 6.2.15 total > sum of 6.2.1 – 6.2.14. TCH provide the full breakdown of 6.2.15 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 grouped together within charts.  
CC: COVID-19 Crisis

During 2022 Q3, total global **Non-Cash IM Held** decreased by **-10.6%**. The split across each segment has remained similar from the previous quarter except for equities.

**6.2.5 – 6.2.14: Global CCP IM (Held) (PostHaircut), Non-Cash Total 2021 Q3 to 2022 Q3 (USD B, % change QoQ)**



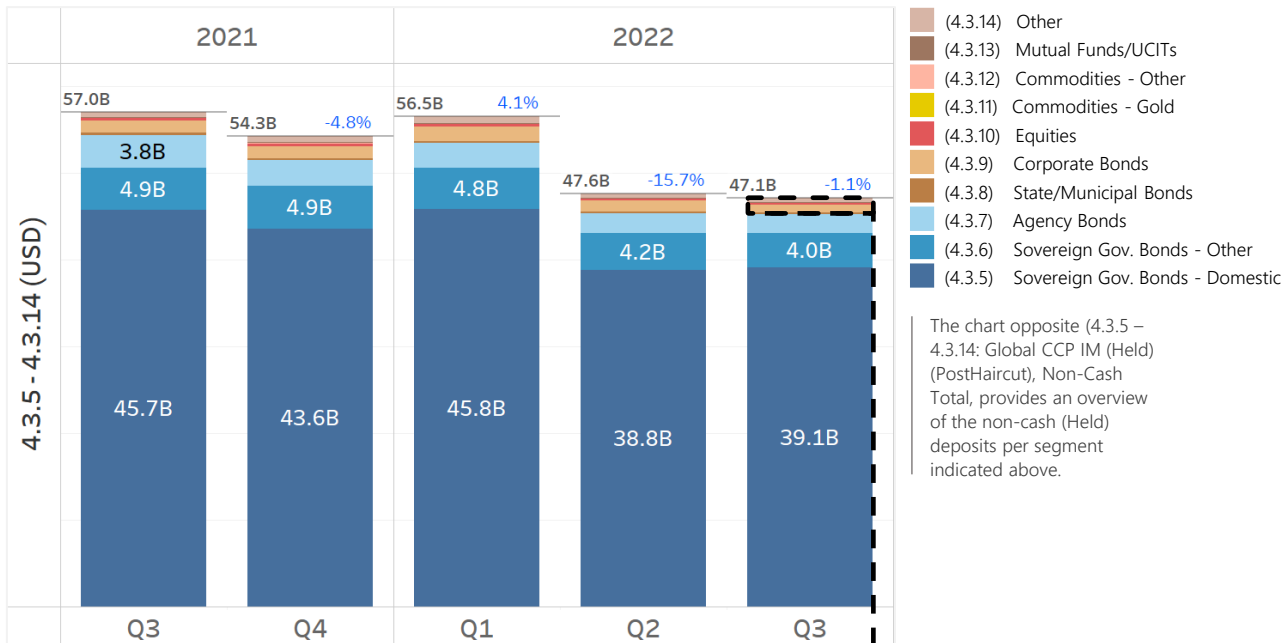
**6.2.8 – 6.2.14: Global CCP IM (Held) (PostHaircut), Non-Cash Total 2021 Q3 to 2022 Q3 (USD B, % change QoQ)**



\*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.

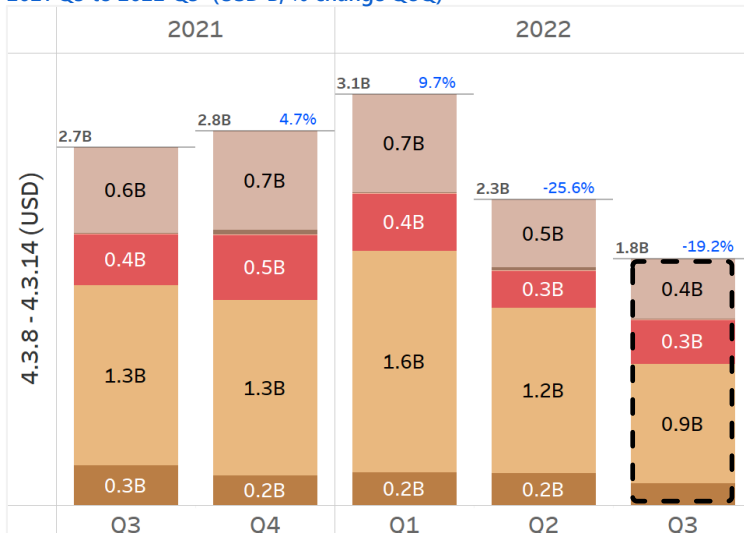
During 2022 Q3, total global **Non-Cash DF Held** decreased by **-1.1%**. The split across each segment has remained similar from the previous quarter.

**4.3.5 – 4.3.14: Global CCP DF (Held) (PostHaircut), Non-Cash Total 2021 Q3 to 2022 Q3 (USD B, % change QoQ)**



The chart opposite (4.3.5 – 4.3.14: Global CCP IM (Held) (PostHaircut), Non-Cash Total, provides an overview of the non-cash (Held) deposits per segment indicated above.

**4.3.8 – 4.3.14: Global CCP DF (Held) (PostHaircut), Non-Cash Total 2021 Q3 to 2022 Q3 (USD B, % change QoQ)**



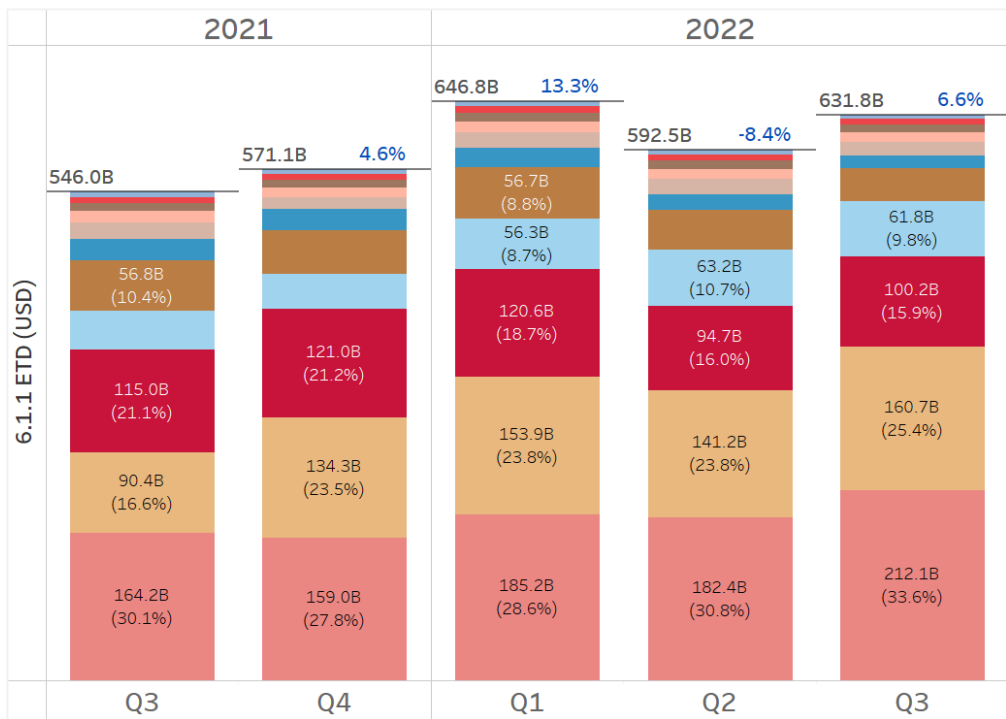
The chart opposite (4.3.8 – 4.3.14: Global CCP IM (Held) (PostHaircut), Non-Cash Total, provides a detailed view of the non-cash (Held) deposits for segments between 6.2.8 and 6.2.14.

\*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.

For 2022 Q3 the IM required for ETDs across the following selected 12 CCPs increased by **+6.6%**. Proportion of IM across each CCP has remained relatively consistent QoQ.

**Global CCP IM (Required) Collateral for ETDs across selected CCPs Disclosure (6.1.1)**  
2021 Q3 to 2022 Q3 (USD B, % change QoQ)

- HKEX\_SEOCH
- ASXCLF
- HKEX\_HKCC
- JSCC
- SGX\_DC
- LCHLTD
- ICUS
- ECAG
- LCHSA
- ICEU
- OCC
- CME

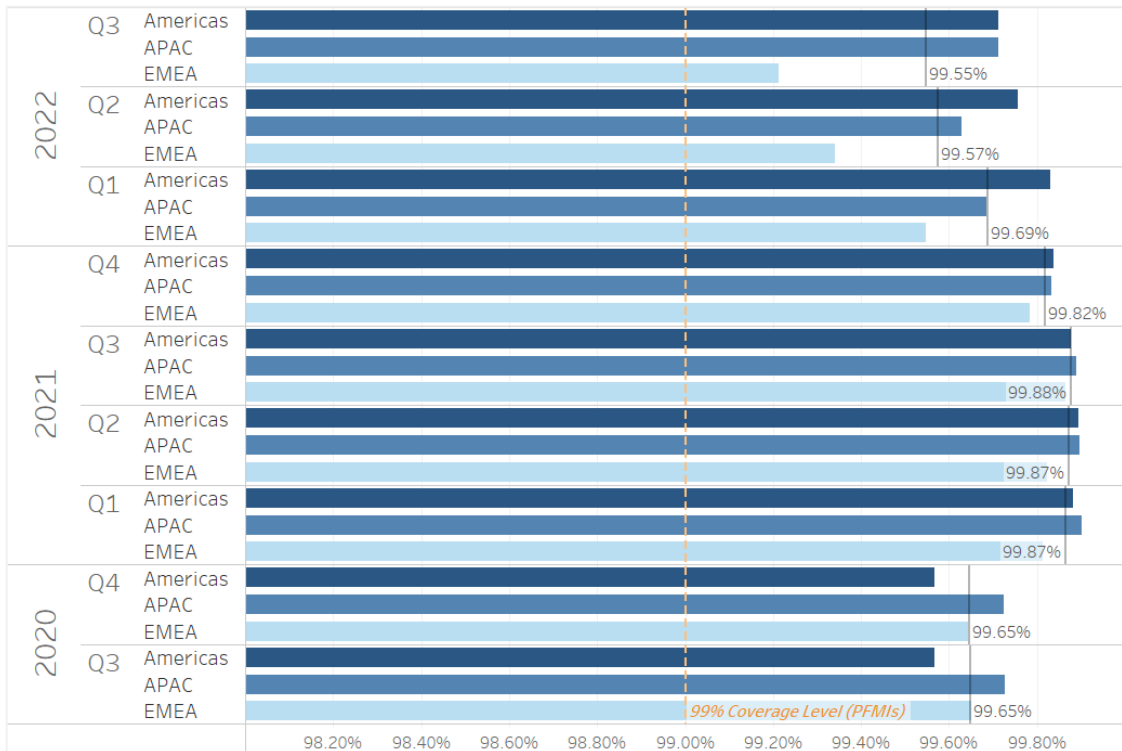


The chart above (6.1.1: Global CCP IM (Required) Collateral for ETDs across selected CCPs) provides a summary of the IM required for ETDs across a selected number of CCPs chosen for a global geographical representation.

## Results of backtesting of initial margin (ACL - Achieved Coverage Level) remained resilient for the first three quarters of 2022. ACL reached 99.55% (on average) across all regions for 2022 Q3.

### Results of backtesting of initial margin – ACL\* Disclosure (6.5.3) 2020 Q3 to 2022 Q3 (%)

- EMEA
- APAC
- Americas



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 [Principles for Financial Market Infrastructures](#), 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 [CCP12 White Paper – Primer on Initial Margin](#).

\*Average has been taken across each CCP in each respective region.

# CCPs reported a higher availability to core clearing systems of 99.97% over the previous 12-month period.\*

## Availability, Failures and Recovery Time Objectives 2022 Q3

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 back-up 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 (October 1, 2021, through September 30, 2022) across all 52 CCP PQDs was: **99.97%**

### Disclosure (17.4):

52 CCP PQDs representing 31 CCP12 Members & 2 Non-Members<sup>†</sup>

1 CCP observes a target recovery time of within:	20 mins
2 CCPs observe a target recovery time of within:	45 mins
1 CCP observes a target recovery time of within:	58 mins
1 CCP observe a target recovery time of within:	1 hr
<b>45 CCPs observe the standard target recovery time of within:</b>	<b>2 hrs</b>
2 CCPs observe a target recovery time of within:	4 hrs

According to the [Principles for Financial Market Infrastructures](#), 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, over 94% of global CCPs have a target recovery time set as two hours or shorter; with only 3 CCPs observing a slightly longer TRT based on their respective regulatory requirements.

\*For 2022 Q2, the average availability of core clearing systems over the period (July 1, 2021, through June 30, 2022) across all CCPs was 99.93%.

†All figures are based on the respective CCP’s regulatory requirements in their local jurisdiction. CC&G and NCC data is incorporated as non-CCP12 members.

## CCP12 Member List

CCP Mnemonic	CCP12 Member	Region	Country	CCP Name
ACSA	ACSA	Americas	Argentina	<a href="#">Argentina Clearing y Registro S.A.</a>
ASXCL	ASX	APAC	Australia	<a href="#">Australia Securities Exchange Clear</a>
ASXCLF	ASX	APAC	Australia	<a href="#">Australia Securities Exchange Clear Futures</a>
B3	B3	Americas	Brazil	<a href="#">Brasil, Bolsa, Balcão</a>
BMDC	BMAL	APAC	Malaysia	<a href="#">Bursa Malaysia Derivatives Clearing</a>
BMSC	BMAL	APAC	Malaysia	<a href="#">Bursa Malaysia Securities Clearing</a>
CCIL	CCIL	APAC	India	<a href="#">The Clearing Corporation of India Ltd.</a>
CME	CME	Americas	United States of America	<a href="#">Chicago Mercantile Exchange</a>
ComDer	ComDer	Americas	Chile	<a href="#">ComDer Contraparte Central S.A.</a>
CRCC	CRCC	Americas	Colombia	<a href="#">Cámara de Riesgo Central de Contraparte S.A.</a>
DCCC	DCCC	EMEA	United Arab Emirates	<a href="#">The Dubai Commodities Clearing Corporation</a>
DTCC_GSD	DTCC	Americas	United States of America	<a href="#">Depository Trust and Clearing Corporation – Government Securities Division Solutions</a>
DTCC_MBSD	DTCC	Americas	United States of America	<a href="#">Depository Trust and Clearing Corporation – Mortgage-Backed Securities Division</a>
DTCC_NSCC	DTCC	Americas	United States of America	<a href="#">Depository Trust and Clearing Corporation – National Securities Clearing Corporation</a>
ECAG	ECAG	EMEA	Germany	<a href="#">Eurex Clearing Group</a>
ECC	ECAG	EMEA	Germany	<a href="#">European Commodity Clearing</a>
NCL	ECAG	Americas	United States of America	<a href="#">Nodal Clear</a>
HKEX_HKCC	HKEX	APAC	Hong Kong	<a href="#">HKFE Clearing Corporation Limited</a>
HKEX_HKSCC	HKEX	APAC	Hong Kong	<a href="#">Hong Kong Securities Clearing Company Limited</a>
HKEX_LME	HKEX	EMEA	United Kingdom	<a href="#">The London Metal Exchange</a>
HKEX_OTCC	HKEX	APAC	Hong Kong	<a href="#">OTC Clearing Hong Kong Limited</a>
HKEX_SEOCH	HKEX	APAC	Hong Kong	<a href="#">The SEHK Options Clearing House Limited</a>
ICC	ICE	Americas	United States of America	<a href="#">ICE Clear Credit</a>
ICEU	ICE	EMEA	United Kingdom	<a href="#">ICE Clear Europe</a>
ICNGX	ICE	Americas	Canada	<a href="#">ICE Clear Canada</a>
ICNL	ICE	EMEA	Netherlands	<a href="#">ICE Clear Netherlands</a>
ICSG	ICE	APAC	Singapore	<a href="#">ICE Clear Singapore</a>
ICUS	ICE	Americas	United States of America	<a href="#">ICE Clear US</a>
IRGIT	IRGIT	EMEA	Poland	<a href="#">Izba Rozliczeniowa Gield Towarowych S.A. (IRGIT, Clearing House)</a>
JSCC	JSCC	APAC	Japan	<a href="#">Japan Securities Clearing Corporation</a>
JSE	JSE	EMEA	South Africa	<a href="#">Johannesburg Stock Exchange</a>
KDPW	KDPW	EMEA	Poland	<a href="#">KDPW CCP</a>
KRX	KRX	APAC	South Korea	<a href="#">Korea Exchange</a>
LCHLTD	LSEG	EMEA	United Kingdom	<a href="#">London Clearing House Ltd.</a>
LCHSA	LSEG	EMEA	France	<a href="#">London Clearing House S.A.</a>
MCXCCL	MCXCCL	APAC	India	<a href="#">Multi Commodity Exchange Clearing Corporation Limited</a>
MGEX	MGEX	Americas	United States of America	<a href="#">Minneapolis Grain Exchange</a>
MUQASSA	MUQASSA	EMEA	Saudi Arabia	<a href="#">Securities Clearing Center Company (Muqassa)</a>
NASDAQ	NASDAQ	EMEA	Sweden	<a href="#">Nasdaq Clearing</a>
NCC	NON-MEMBER	EMEA	Russia	<a href="#">Central Counterparty National Clearing Centre</a>
CCG	NON-MEMBER	EMEA	Italy	<a href="#">Cassa di Compensazione e Garanzia S.p.A.</a>
NSE	NSE	APAC	India	<a href="#">NSE Clearing Limited</a>
NZX	NZX	APAC	New Zealand	<a href="#">New Zealand Exchange</a>
OCC	OCC	Americas	United States of America	<a href="#">The Options Clearing Corporation</a>
SGX_CDP	SGX	APAC	Singapore	<a href="#">Singapore Exchange (Central Depository (Pte) Limited)</a>
SGX_DC	SGX	APAC	Singapore	<a href="#">Singapore Exchange (Derivatives Clearing)</a>
SHCH	SHCH	APAC	China	<a href="#">Shanghai Clearing House</a>
TAIFEX	TAIFEX	APAC	Taiwan	<a href="#">Taiwan Futures Exchange (Taifex)</a>
TAKAS	TAKAS	EMEA	Turkey	<a href="#">Takasbank</a>
TCH	TCH	APAC	Thailand	<a href="#">Thailand Clearing House Co. Ltd.</a>
CDS	TMX	Americas	Canada	<a href="#">TMX Group - Canadian Depository for Securities Limited (CDS Ltd.)</a>
CDCC	TMX	Americas	Canada	<a href="#">TMX Group - Canadian Derivatives Clearing Corporation (CDCC)</a>
VSD	VSD	APAC	Vietnam	<a href="#">Vietnam Securities Depository</a>

# About CCP12

CCP12 is the global association for CCPs, representing 40 members who operate over 60 individual central counterparties (CCPs) globally across the Americas, EMEA and the Asia-Pacific region. CCP12 promotes effective, practical, and appropriate risk management and operational standards for CCPs to ensure the safety and efficiency of the financial markets it represents.

CCP12 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@ccp12.org](mailto:office@ccp12.org) or through our website by visiting [www.ccp12.org](http://www.ccp12.org).





# Contacts



**Rishi Nagar**

**Data Lead, PQD Transparency**

Public Quantitative Disclosure Working Committee (PQDWC)

CCP12 – The Global Association of Central Counterparties

[rishi.nagar@ccp12.org](mailto:rishi.nagar@ccp12.org)



## CCP12 Members



The information, opinions and analysis detailed throughout this PQD Quarterly Trends Report (QTR) are for general information purposes only. While we attempt to keep the information up-to-date and accurate, there are no representations or warranties, expressed or implied, about the completeness, accuracy, reliability, suitability or availability with respect to the information, products, services, or related graphics contained in this PQD QTR for any purpose. This PQD QTR may not be reproduced or redistributed, in whole or in part, without the written permission of CCP12. The information contained herein does not substitute as investment advice and should not be relied upon for such purposes. CCP12 accepts no liability for any loss arising from any action taken as a result of any information within this report.

Copyright © 2022 CCP12 – The Global Association of Central Counterparties. All rights reserved.