

Public Quantitative Disclosure

# CCP12 Newsflash

## 2021 Q4 Data

April 2022



# CCP12 PQDs



- The CCP12 Public Quantitative Disclosure Newsflash provides an overview of the risk management provided by CCPs around 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 Newsflash 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](#).
- **PQD updates this quarter:**
  - The following PQDs have been added to this quarter's aggregation: The Canadian Depository for Securities Limited (CDS Ltd.)
  - *As of April 2022, over 90% of all CCP12 members are publishing PQDs and further members are due to publish in 2022 H2.*

## In this collation for 2021 Q4\*:

### Data for 52 CCPs (equivalent to 31 CCP12 members) are included<sup>†</sup>:

- Americas 16
- APAC 20
- EMEA 16

6.1.1 Initial Margin (Required):	USD 1,188 Billion
4.1.4 Default Fund Resources (Required):	USD 129 Billion
Global CCP Overcollateralization <sup>‡</sup> :	USD 477 Billion

\*All dates within CCP PQDs are forced to "end-of-quarter dates" to reflect the end-of-quarter exchange rate for each PQD. i.e., if the dates in the PQDs are "2021-09-28", then, these are adjusted to "2021-09-30", and the corresponding FX rate for 2021-09-30 is used. CDS data added retroactively for 2021 Q3.

<sup>†</sup>CC&G data is incorporated as a non-CCP12 member. NCC (MOEX) have been suspended as a CCP12 member.

<sup>‡</sup>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

# Commentary on the quarter for 2021 Q4

Below are a few key market developments which took place in the fourth quarter of 2021:

- From a macro perspective 2021 Q4 saw an increase money supply against the backdrop of volatile gas prices, continued supply chain disruptions thereby seeing inflation reach a record increase not seen since the 2008 Global Financial Crisis.<sup>1</sup>
- Across advanced economies, equity markets and the corporate credit markets remained relatively resilient in 2021 Q4, however, the sentiment shifted over the growing concerns of the Omicron COVID-19 variant.<sup>2</sup>
- Government bond yields increased relatively sharply as investors wrestled with the prospects of increased inflation and a removal of monetary stimulus. Government bond yields further increased for emerging market economies where the depreciation of emerging market currencies' value against an appreciating US dollar revealed concerns on their outlook.<sup>2</sup>
- Central banks in the largest advanced economies gradually relieved the extraordinary measures put into place during the COVID-19 pandemic, whilst remaining on a cautionary stance. In November, the Fed confirmed the start of its tapering of asset purchases, while the Bank of Canada stopped its securities purchasing entirely.<sup>2</sup>
- 2021 Q4 Global Futures & Options volumes surpassed their previous months volumes with a record 6.17B contracts for November 2022, and 6.14B contracts for December 2022. Primary regional drivers were across APAC and North America regions. December 2020 to 2021 increases were primarily driven by equity index and currency contracts and individual equity.<sup>3</sup>

<sup>1</sup> <https://www.svb.com/globalassets/trendsandinsights/reports/sotm/sotm-q4-2021/state-of-the-markets-q4-2021-final2.0.pdf>

<sup>2</sup> [https://www.bis.org/publ/qtrpdf/r\\_qt2112.pdf](https://www.bis.org/publ/qtrpdf/r_qt2112.pdf)

<sup>3</sup> <https://www.fia.org/resources/etd-volume-december-2021>, <https://www.fia.org/resources/etd-volume-november-2021>

# Headline Statistics of the Public Quantitative Disclosures

2021 Q4

## Total Global Margin\* (USD B)

### Required IM & DF:

Total Global Initial Margin (IM) Requirement (6.1.1)	1,188
Total Global Default Fund (DF) Requirement (4.1.4)	129
<b>Total Global CCP Collateral Requirement (6.1.1 + 4.1.4)</b>	<b>1,317</b>

### Held (PostHaircut) IM & DF:

Total Global IM Held (PostHaircut) (6.2.15)	1,641
Total Global DF Held (PostHaircut) (4.3.15)	153
<b>Total Global CCP Collateral Held (PostHaircut) (6.2.15 + 4.3.15)</b>	<b>1,794</b>

### Variation Margin (VM)

Total Global Average Daily VM Paid to the CCP by participants each business day (6.6.1)	32
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## Total Global CCP Collateral (Held) in form of\*:

	Disclosure	Initial Margin	Disclosure	Default Fund
<b>Cash</b>				
<i>At Central Bank</i>	<b>(6.2.1 + 6.2.2)</b>	25.7%	<b>(4.3.1 + 4.3.2)</b>	44.8%
<i>Secured Cash (incl. Reverse Repos) at Commercial Banks</i>	<b>6.2.3</b>	7.1%	<b>4.3.3</b>	8.2%
<i>Unsecured Cash at Commercial Banks</i>	<b>6.2.4</b>	3.6%	<b>4.3.4</b>	11.5%
<b>Non-Cash</b>				
<i>Sovereign Gov Bonds - Domestic</i>	<b>6.2.5</b>	20.8%	<b>4.3.5</b>	28.5%
<i>Sovereign Gov Bonds – Foreign</i>	<b>6.2.6</b>	16.2%	<b>4.3.6</b>	3.2%
<i>Agency Bonds</i>	<b>6.2.7</b>	1.0%	<b>4.3.7</b>	2.0%
<i>State/Municipal Bonds</i>	<b>6.2.8</b>	0.5%	<b>4.3.8</b>	0.1%
<i>Corporate Bonds</i>	<b>6.2.9</b>	5.7%	<b>4.3.9</b>	0.9%
<i>Equities</i>	<b>6.2.10</b>	4.3%	<b>4.3.10</b>	0.3%
<i>Commodities – Gold</i>	<b>6.2.11</b>	0.2%	<b>4.3.11</b>	0.0%
<i>Commodities – Other</i>	<b>6.2.12</b>	0.0%	<b>4.3.12</b>	0.0%
<i>Mutual Funds/UCITs</i>	<b>6.2.13</b>	0.3%	<b>4.3.13</b>	0.0%
<i>Other</i>	<b>6.2.14</b>	2.5%	<b>4.3.14</b>	0.5%

\*The sum of the % in the IM column = 90% 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 foreign exchange rates at the quarter-end for each PQD quarterly release.

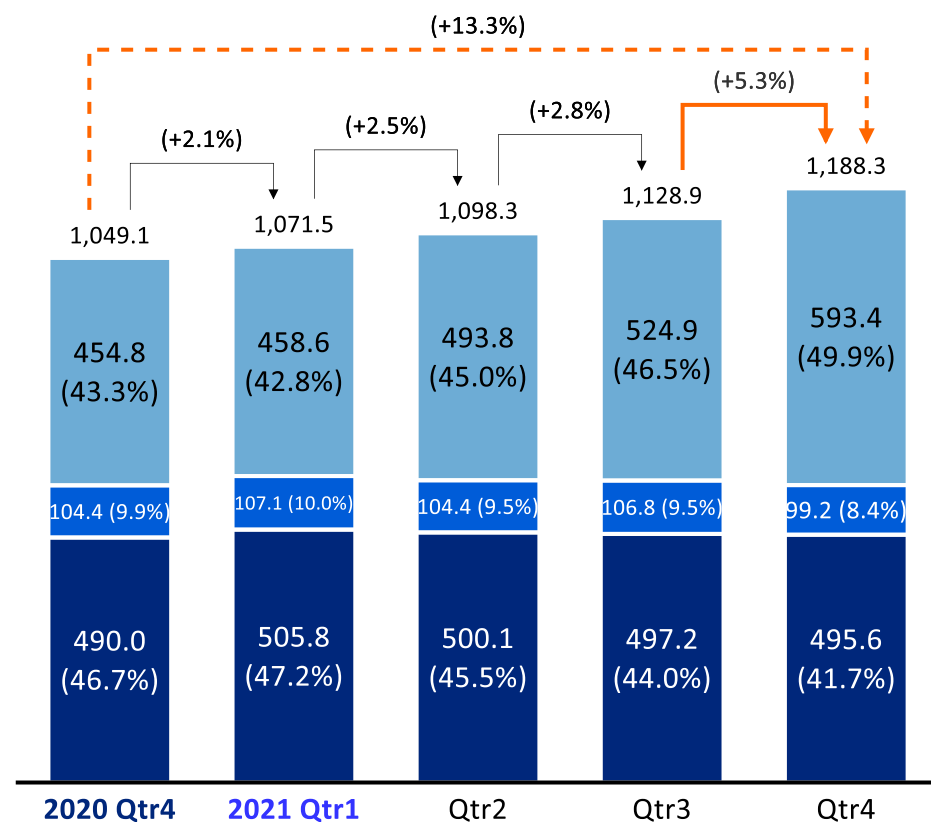
# Across the CCPs, a slightly higher level of Total IM required and a decrease in Total DF required collateral was observed for 2021 Q4.

## Global CCP Collateral (Required) - Grand Total 2020 Q4 to 2021 Q4 (USD B, %)

- EMEA
- APAC
- Americas

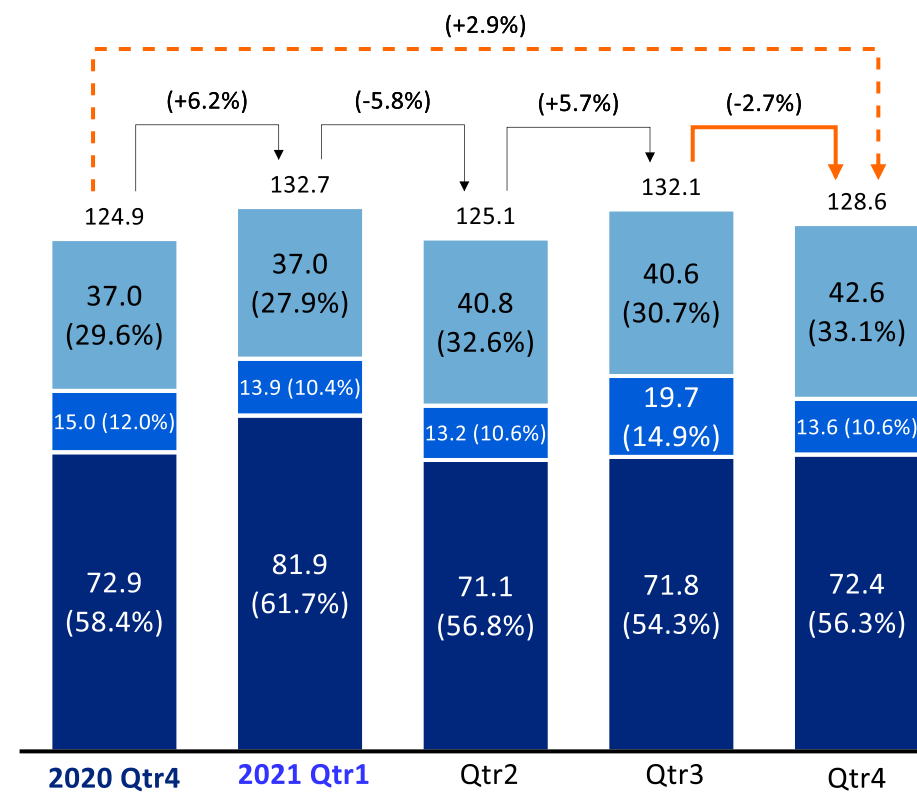
### Total IM Required

Disclosure (6.1.1)



### Total DF Required

Disclosure (4.1.4)



IM: Initial Margin; QoQ: Quarter-over-Quarter.

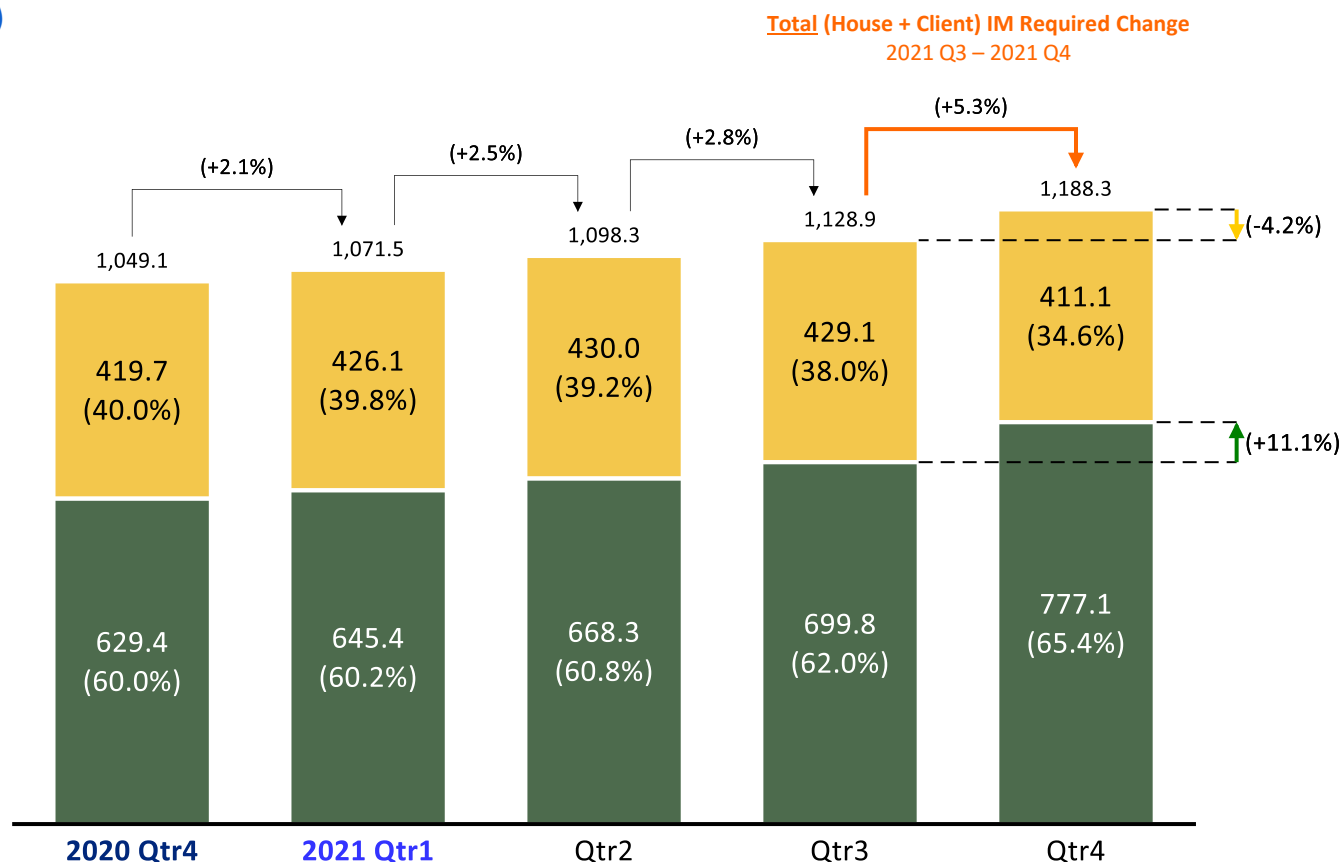
For 2021 Q4, House IM required decreased by 4.2% and Client IM required increased by 11.1%. For Client IM, we observe a higher proportion relative to the preceding quarters.

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

Disclosure (6.1.1):

2020 Q4 to 2021 Q4 (USD B, %)

- House\_IM
- Client\_IM



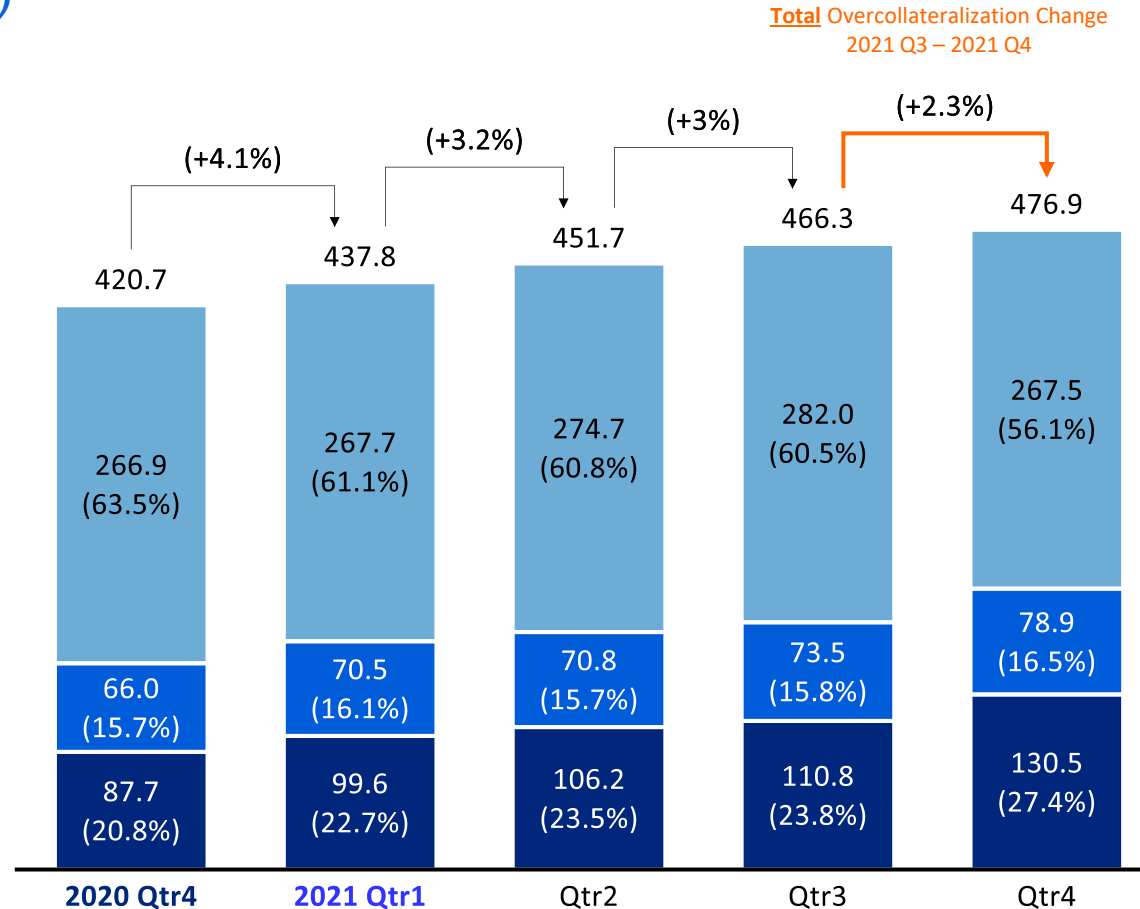
\*Sum of IM Required is slightly lower than the Total IM Required on slide 5, due to no breakdown of House/Client IM Required for HKEX HKSCC, HKEX OTCC and NSE. As a result, these are assumed House\_IM.

# Total Overcollateralization\* was USD 476.9B for 2021 Q4, representing an increase of 2.3% from 2021 Q3.

## Global CCP Overcollateralization (IM and DF Held (PostHaircut) – IM and DF Required)

(6.2.15 + 4.3.15) – (6.1.1 + 4.1.4)  
2020 Q4 to 2021 Q4 (USD B, %)

- EMEA
- APAC
- Americas



\*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

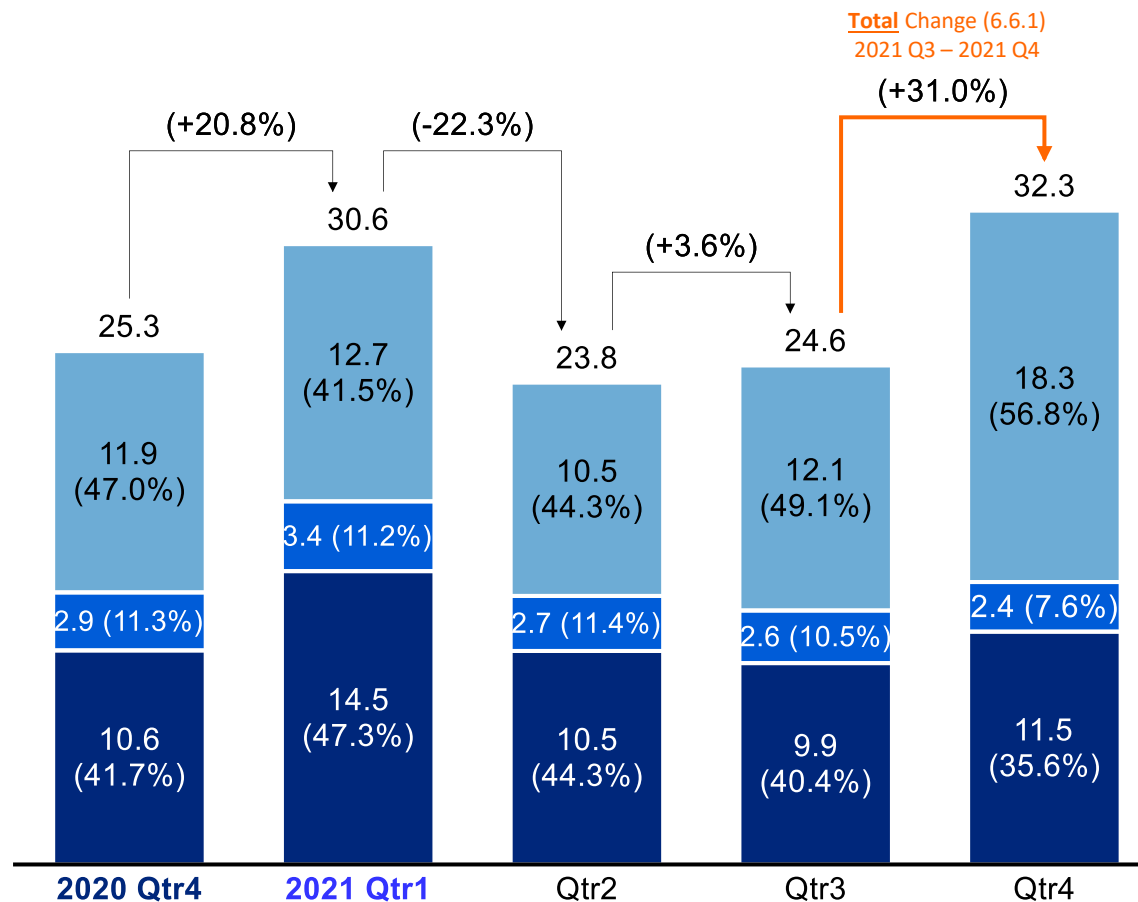
# Sum of the Average Total VM Paid to the CCP by participants each business day increased 31% in 2021 Q4, similar to the 2021 Q1 figures.

Sum of the Average Total VM Paid to the CCP by participants each business day across the regions

Disclosure (6.6.1)

2020 Q4 to 2021 Q4 (USD B, %)

- EMEA
- APAC
- Americas



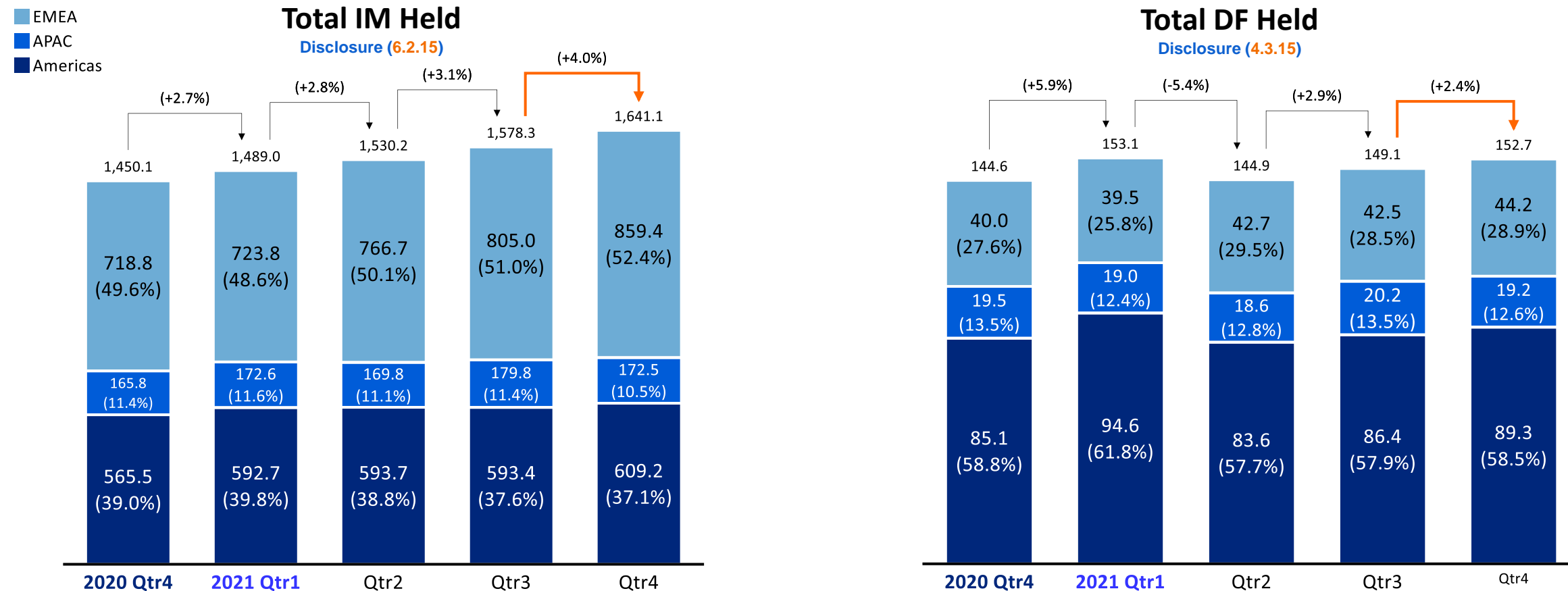
VM: Variation Margin

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



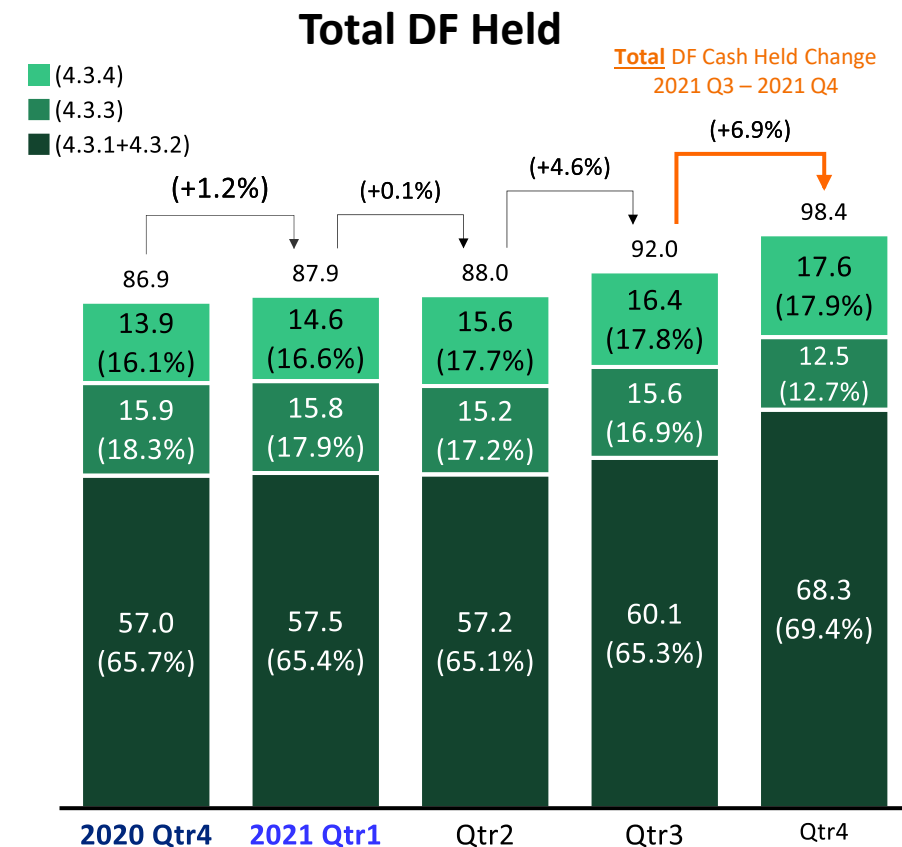
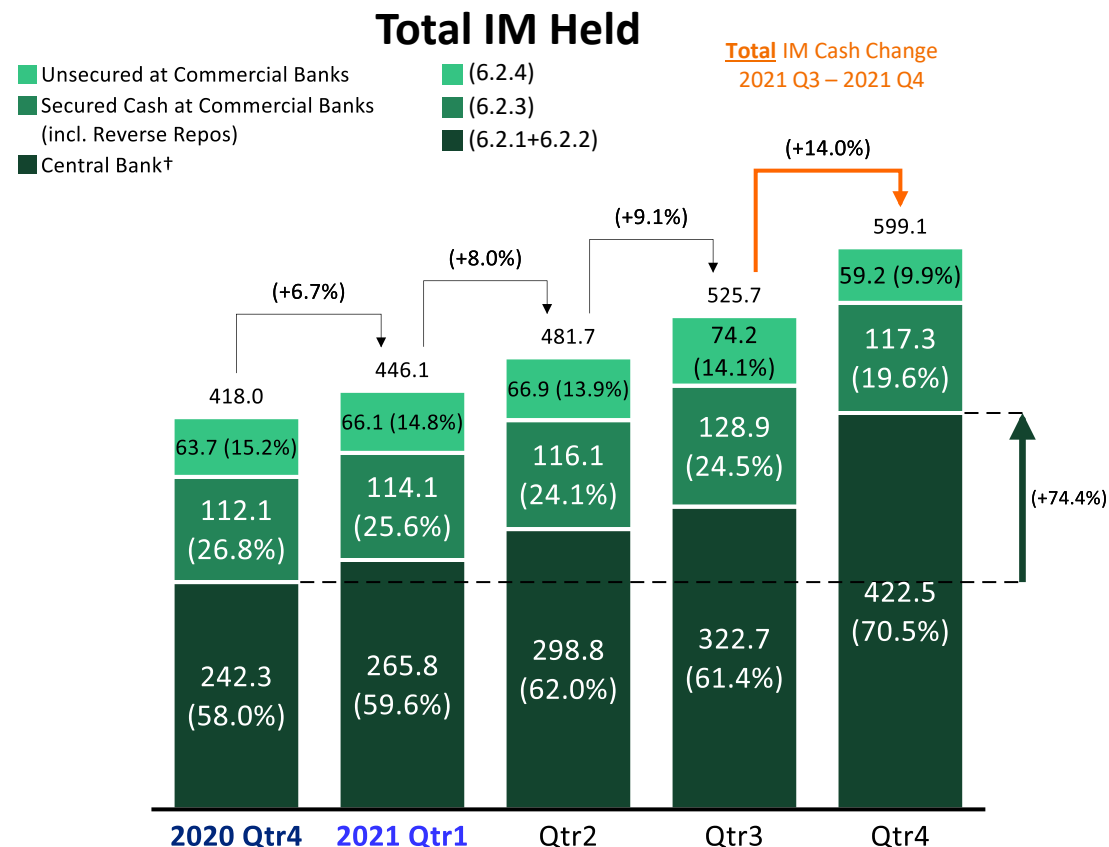
Total IM Held and DF Held exhibited minor increases for 2021 Q4 of 4.0% and 2.4%, respectively. Distribution of IM Held is consistently the largest for EMEA, followed by Americas & APAC. Distribution of DF Held is consistently higher in the Americas, followed by EMEA & APAC.

Global CCP Collateral Held (PostHaircut) - **Grand Total**  
2020 Q4 to 2021 Q4 (USD B, %)



**Total Cash Held\*** for IM increased by **14.0%**, with a continued upwards trend since early 2020 during the onset of the CC. **DF Held** increased by **6.9%**. The proportion of IM Cash Held resources has continued to be deposited at the Central Bank† representing a **74.4%** increase YoY from 2020Q4 – 2021Q4 for this segment.

**Global CCP Collateral (Held) (PostHaircut) – Cash Total**  
**2020 Q4 to 2021 Q4 (USD B, %)**



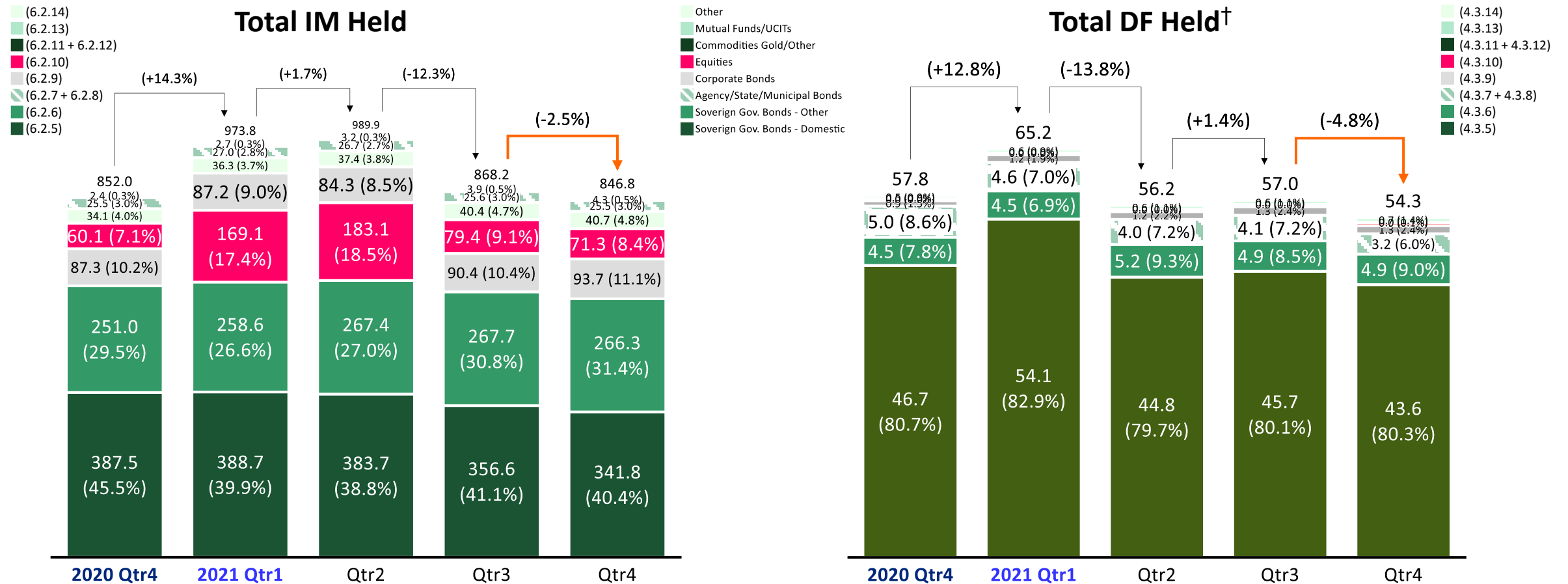
\*Figures as of quarter-end. Sum of IM Held across 6.2.1 – 6.2.14 is slightly lower than the Total IM Held Values for 6.2.15, due to: (1). DTCC have requested that 6.2.15 figures be equivalent to 4.3.15 figures, and (2). For OCC 6.2.15 total > sum of 6.2.1 – 6.2.14. TCH provide the full breakdown of 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 <0.8% of the total cash collateral for IM and <0.4% for the DF. Therefore, "Central Bank of Issue" and "Other Central Bank" Cash deposits grouped together within the charts.

CC: COVID-19 Crisis; YoY: Year-over-Year

# During 2021 Q4, total global Non-Cash Held IM decreased again by **2.5%**. DF also decreased by **4.8%**.

## Global CCP Collateral Held (PostHaircut) – Non-Cash Total 2020 Q4 to 2021 Q4 (USD B, %)



\*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 <2% of total non-cash collateral per quarter.

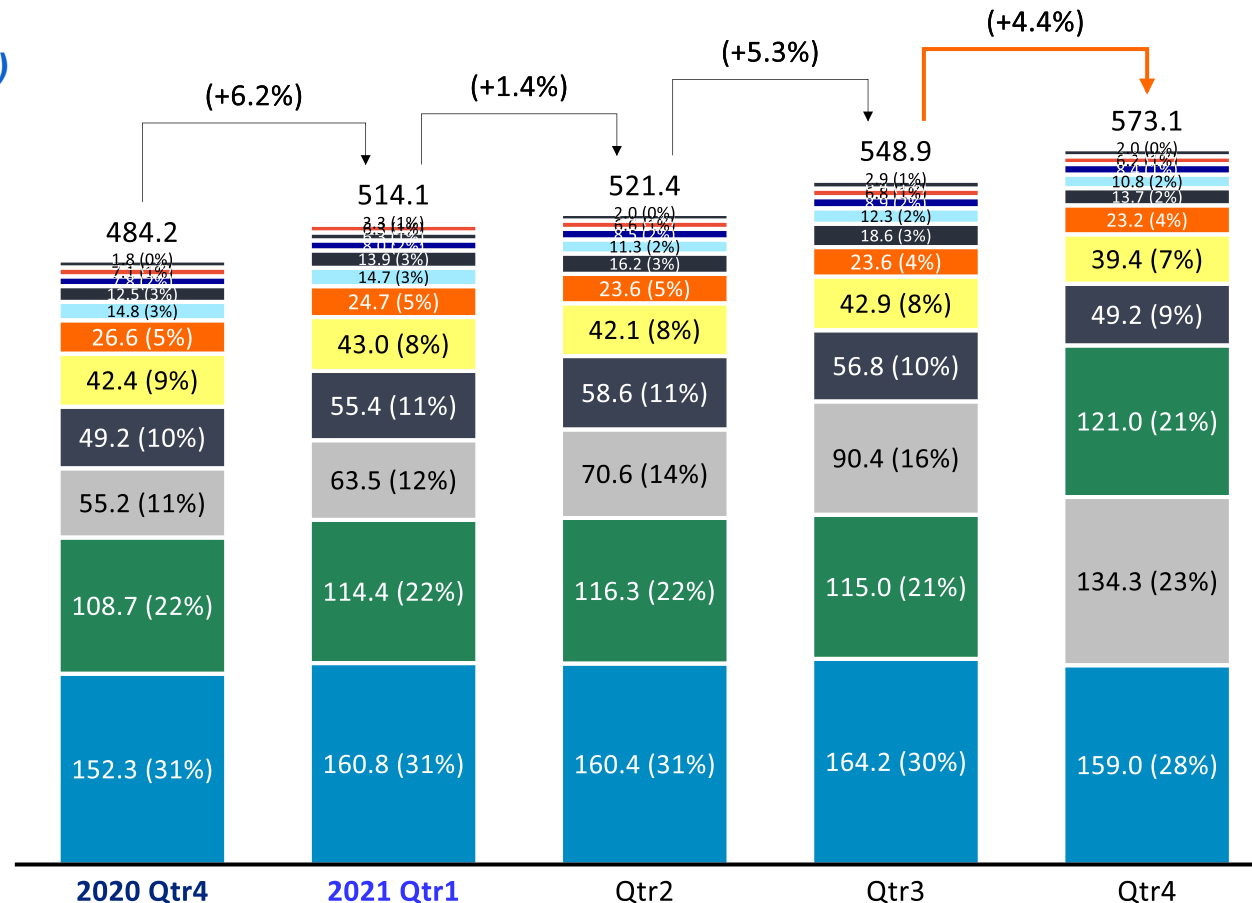
For 2021 Q4 the IM required for ETDs across the following selected 10 CCPs increased by **4.4%**. Proportion of IM across each CCP has remained relatively consistent QoQ.

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

Disclosure (6.1.1)

2020 Q4 to 2021 Q4 (USD B, %)

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



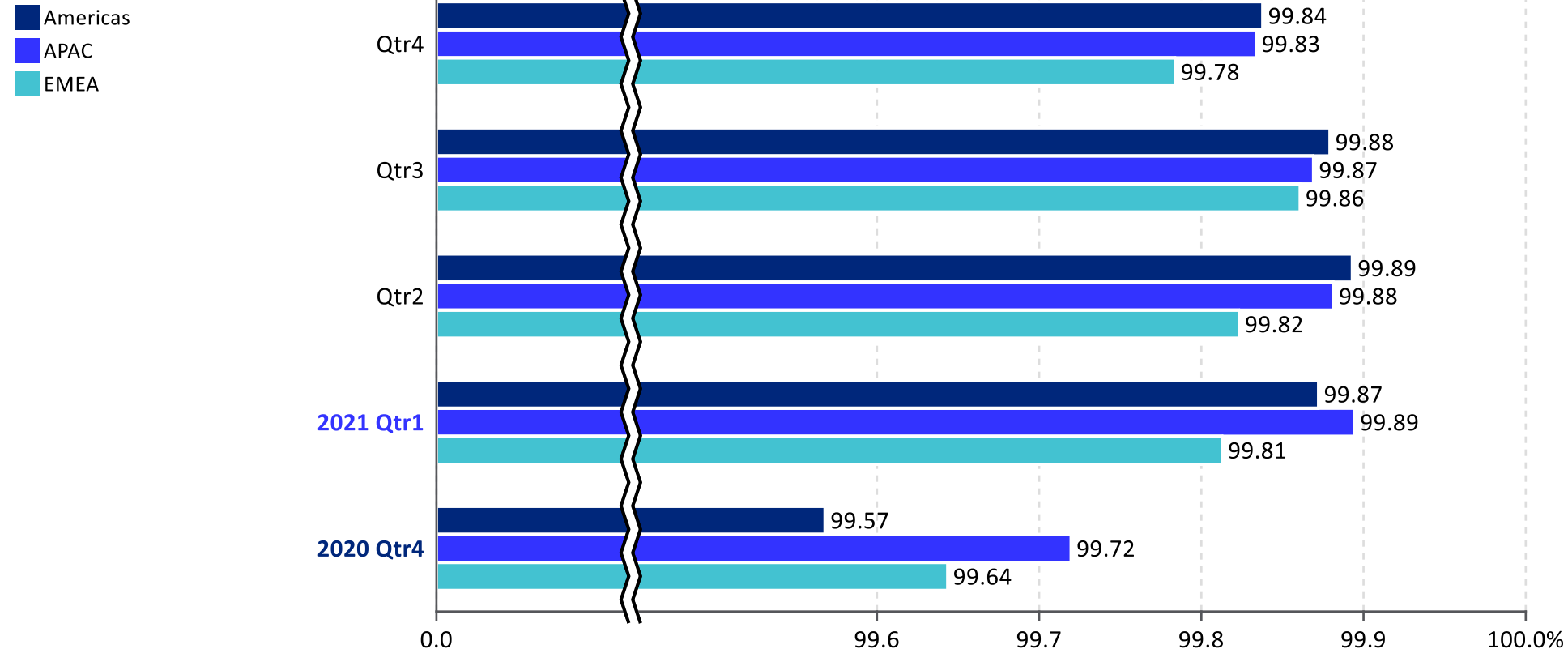
ETD: Exchange-traded derivatives; QoQ: Quarter-over-Quarter

# Results of back-testing of IM (ACL - Achieved Coverage Level) decreased marginally for all region but has remained above 99.82% (on average) globally since 2021 Q1.

Results of back-testing of initial margin – ACL\*

Disclosure (6.5.3)

2020 Q4 to 2021 Q4 (%)



\*Average has been taken across each respective region

CCPs reported a **99.97%** availability to core clearing systems over the previous 12-month period\*, the same as the previous quarter.

## Availability, Failures and Recovery Time Objectives

2021 Q4

- 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 (January 1, 2021, through December 31, 2021) across all 52 CCP PQDs was: **99.97%**

### Disclosure (17.4):

Out of 52 CCP PQDs representing 31 CCP12 Members & 2 Non-Members	
1 CCP observes a target recovery time of within:	20 mins
2 CCPs observe a target recovery time of within:	45 mins
2 CCP observe a target recovery time of within:	1 hr
<b>44 CCPs observe the standard target recovery time of within:</b>	<b>2 hrs</b>
1 CCP observes a target recovery time of within:	3 hrs
2 CCPs observe a target recovery time of within:	4 hrs <sup>†</sup>

\*For 2021 Q3, the average availability of core clearing systems over the period (October 1, 2020, through September 30, 2021) across all CCPs was 99.97%.

<sup>†</sup>CC&G data is incorporated as a non-CCP12 member. MOEX (NCC) is incorporated as a non-CCP12 member (suspended).

<sup>‡</sup>Based on their respective regulatory requirements

# CCP12 Members



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