

# CME Clearing Q3 2022 Quantitative Disclosures Call

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December 2022

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# Speakers

## **Udesh Jha**

Managing Director, Post-Trade Services, Risk Management

## **Robert Taylor**

Director, Capital Policy, Regulatory Reporting & Cross-Border Licensing

## **Emily Hendrix**

Senior Director, Risk Policy, Recovery & Resolution

# Agenda

1 Introduction

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2 Q3 2022 PQD Highlights

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3 Review of Key PQDs

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4 Q&A

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# Introduction

## CME Clearing: Q3 2022 Quantitative Disclosures Call

### CME Clearing provides clearing and settlement services for a broad range of exchange-traded futures and options on futures and cleared swaps

- Chicago Mercantile Exchange Inc. (“CME”) is registered with the Commodity Futures Trading Commission (“CFTC”) as a derivatives clearing organization (“DCO”) and was designated as a systemically important financial market utility under Title VIII of the Dodd-Frank Wall Street Reform and Consumer Protection Act by the Financial Stability Oversight Council
  - CME Clearing is subject to the core principles for DCOs defined under the Commodity Exchange Act and CFTC regulations promulgated thereunder (e.g., Part 39 of CFTC Regulations), including those applicable to systemically important DCOs (e.g. Subpart C of Part 39)
- CME Clearing operates two distinct clearing services that each have their own independent financial safeguards waterfall
  - The Base products financial safeguards waterfall primarily covers the clearing of futures and options on futures and non-IRS cleared swaps
  - The IRS products financial safeguards waterfall primarily covers the clearing of IRS and contracts portfolio margined with IRS

### Consistent with Part 39 of CFTC Regulations, CME Clearing adheres to the CPMI-IOSCO’s *Principles for financial market infrastructures* published in April 2012 (“PFMI”)

- CME Clearing publishes a quantitative disclosures in line with the recommendations laid out under CPMI-IOSCO’s *Public quantitative disclosure standards for central counterparties* (“PQDs”) published in February 2015\*
- CME Clearing’s quantitative disclosure document is updated on a quarterly basis and provides a comprehensive view into key quantitative metrics pertaining to CME Clearing’s clearing services

\* <https://www.cmegroup.com/clearing/cpmi-iosco-reporting.html>

## Q3 2022 Highlights\*

### CME Clearing: Q3 2022 Quantitative Disclosures Call

- **0** Actual or Theoretical Default Fund breaches over the observation period (12 months)
- **1** Margin coverage breaches occurred over the observation period (3 months)
- Achieved margin coverage of **99.97%** in Base and **99.97%** in IRS over the observation period (12 months)
- **0** Liquidity coverage breaches over the observation period (12 months)
- **99.9%** operational availability across CME Clearing's core systems over the observation period (12 months)

## Financial Resources

**\$212 Billion** Total Amount of Initial Margin

### Total Value of Mutualized Default Resources

**\$6.9 Billion** Prefunded Participant Contributions

**\$250 Million** CME Contributed Capital

**\$12.6 Billion** Participant Commitment Resources

*\*Note, this document uses the terminology used in the PQDs for consistency with the published disclosures, which in some cases differs from the CME Group Exchanges Rules – e.g., CME Group Exchange Rules use the term “Guaranty Fund”, opposed to “Default Fund”.*

# Review of Key PQDs

# Mutualized Default Fund Resources

## CME Clearing: Q3 2022 Quantitative Disclosures Call

**\$16.6 billion** total available mutualized resources as of the end of Q3 2022 in the event of a Base Clearing Member default

### Base Financial Safeguards Waterfall

Required Default Fund Contributions	\$4,404,410,845
Designated CME Contribution	\$100,000,000
Assessment Powers	\$12,112,129,823
<b>Total</b>	<b>\$ 16,616,540,668</b>

**\$3.2 billion** total available mutualized resources as of the end of Q3 2022 in the event of an IRS Clearing Member default

### IRS Financial Safeguards Waterfall

Required Default Fund Contributions	\$2,495,007,672
Designated CME Contribution	\$150,000,000
Assessment Powers	\$533,859,710
<b>Total</b>	<b>\$ 3,178,867,382</b>

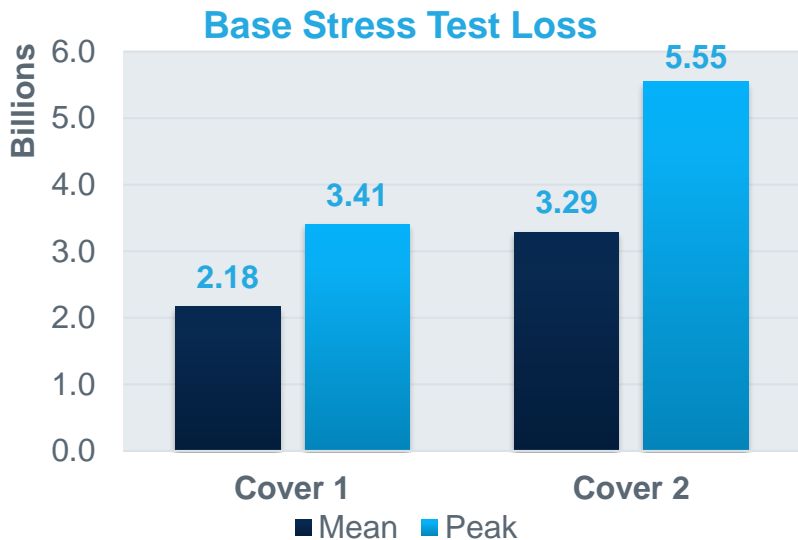
*PQD References: 4.1.1, 4.1.4, and 4.1.8*



# Default Fund Stress Testing Results

CME Clearing: Q3 2022 Quantitative Disclosures Call

Cover 2 standard **met at all times** for the Base Default Fund – i.e., estimated stress losses (in excess of initial margin) never greater than Base Default Fund



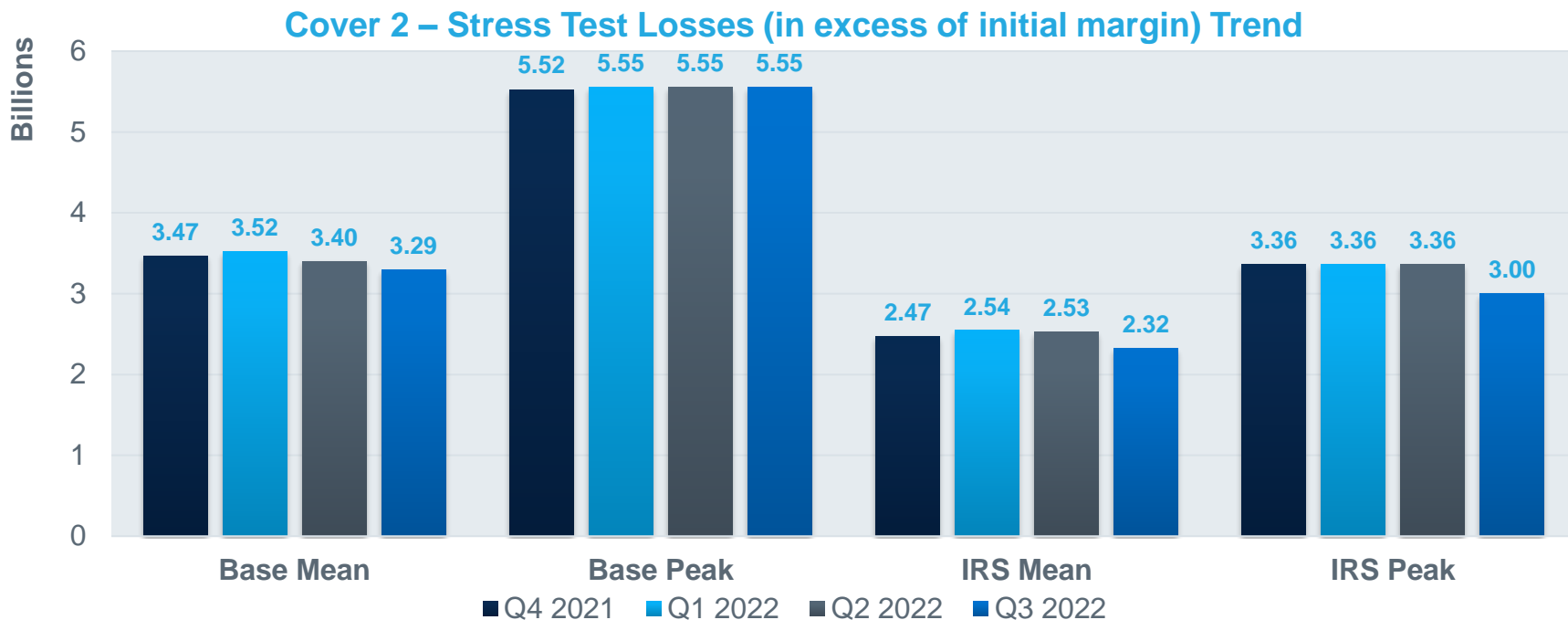
Note, results use a 12 month period.  
PQD References: 4.4.3 and 4.4.7

Cover 2 standard **met at all times** for the IRS Default Fund – i.e., estimated stress losses (in excess of initial margin) never greater than IRS Default Fund



# Default Fund Stress Testing Results

CME Clearing: Q3 2022 Quantitative Disclosures Call



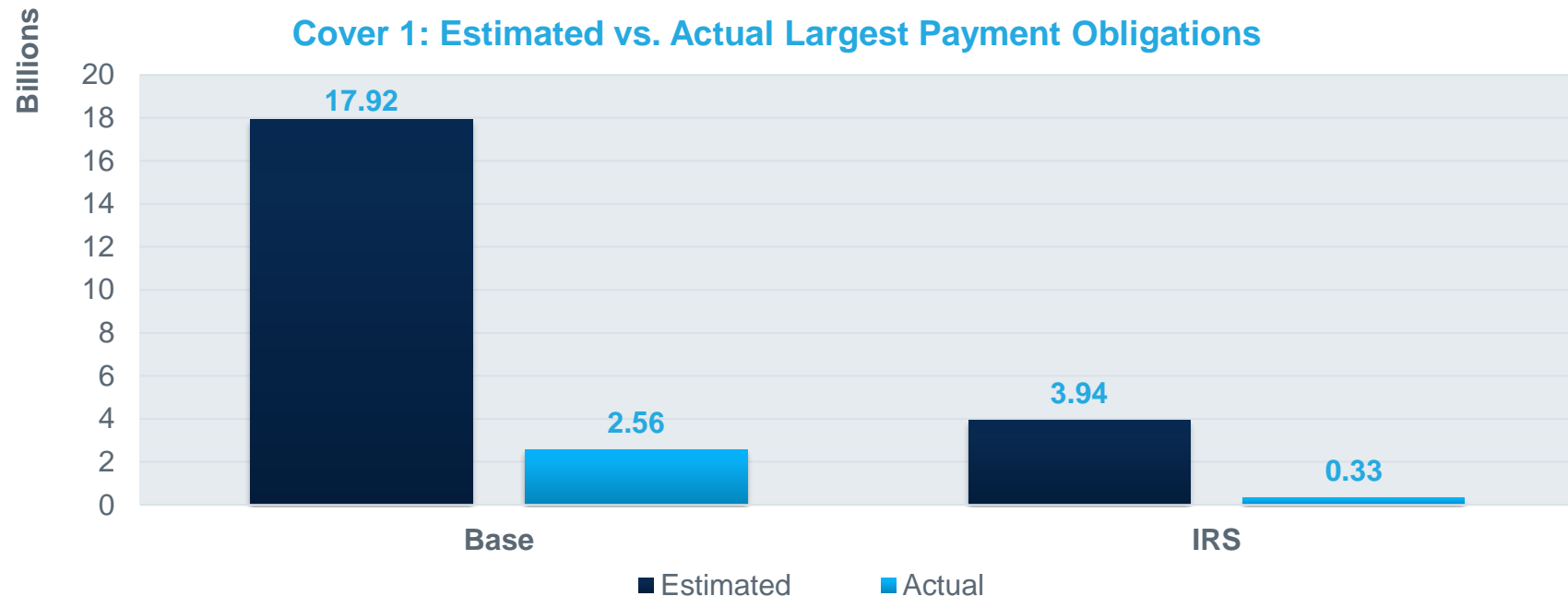
Note, results use a 12 month period.

PQD References: 4.4.7

# Liquidity Stress Testing Results

CME Clearing: Q3 2022 Quantitative Disclosures Call

There were no theoretical or actual liquidity coverage breaches during Q3 2022



*Note, largest estimated payment obligations are reported over the reporting quarter, whereas the largest actual payment obligations are reported over the previous 12 months.  
PQD References: 7.3.1 and 7.3.4*

# Size and Composition of Qualifying Liquidity Resources

## CME Clearing: Q3 2022 Quantitative Disclosures Call

<b>Composition of Qualifying Liquidity Resources</b> <i>– as of the end of Q3 2022</i>	<b>Amount</b>
Cash Deposited at Central Bank of Issue	\$128,488,389,829
Cash Deposited at other Central Banks	0
Cash Deposited at Commercial Banks (Secured) including Reverse Repo	0
Cash Deposited at Commercial Banks (Unsecured)	\$7,929,695,881
Secured Committed Lines of Credit (including FX Swaps and Committed Repo)	\$7,500,000,000
Unsecured Committed Lines of Credit	0
Highly Marketable Collateral and Convertible into Cash with Prearranged and Highly Reliable Funding Arrangements	\$38,200,000,000
Other	\$34,824,619,054
<b>Total</b>	<b>\$216,942,704,764</b>

PQD References: 7.1.2 thru 7.1.8

# Margin Backtesting Results

CME Clearing: Q3 2022 Quantitative Disclosures Call

1 margin breach occurred during Q3 2022

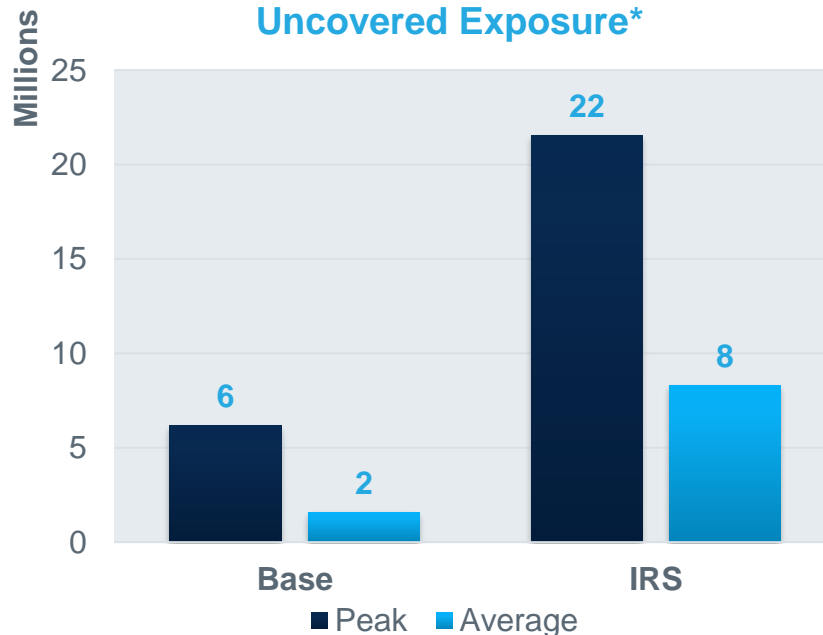
## Backtesting Results\*

	Base	IRS
# of Margin Breaches	8	3
# of Observations	24,567	9,650
Achieved Coverage Level	99.97%	99.97%

\*Reporting period captures the previous 12 months. Three Base margin breaches occurred in Q4 2021, four Base margin breaches occurred in Q1 2022, and one Base margin breach occurred in Q3 2022. Three IRS margin breaches occurred in Q2 2022.

PQD References: 6.5.1.1 thru 6.5.5

## Uncovered Exposure\*



# Initial Margin Required

CME Clearing: Q3 2022 Quantitative Disclosures Call

**\$180 billion** total initial margin required as of the end of Q3 2022

## Base Products

	Q2 2022	Q3 2022
House – Net	\$ 25,356,262,795	\$ 23,303,755,331
Client – Gross*	\$ 157,006,728,909	\$ 156,337,292,684
<b>Total</b>	<b>\$ 182,362,991,704</b>	<b>\$ 179,641,048,015</b>

*\*All client margins are required on a gross basis – i.e., client net margining is not permitted.*

**\$32 billion** total initial margin required as of the end of Q3 2022

## IRS Products

	Q2 2022	Q3 2022
House – Net	\$ 5,663,103,372	\$ 7,058,114,619
Client – Gross*	\$ 25,816,472,335	\$ 25,373,647,365
<b>Total</b>	<b>\$ 31,479,575,707</b>	<b>\$ 32,431,761,984</b>

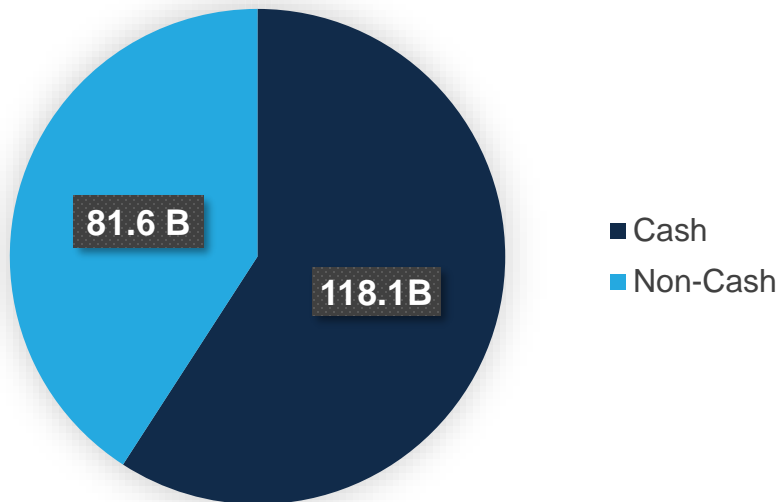
*\*All client margins are required on a gross basis – i.e., client net margining is not permitted.*

PQD References: 6.1.1

# Collateral Composition of Initial Margin – Cash vs Non-Cash

CME Clearing: Q3 2022 Quantitative Disclosures Call

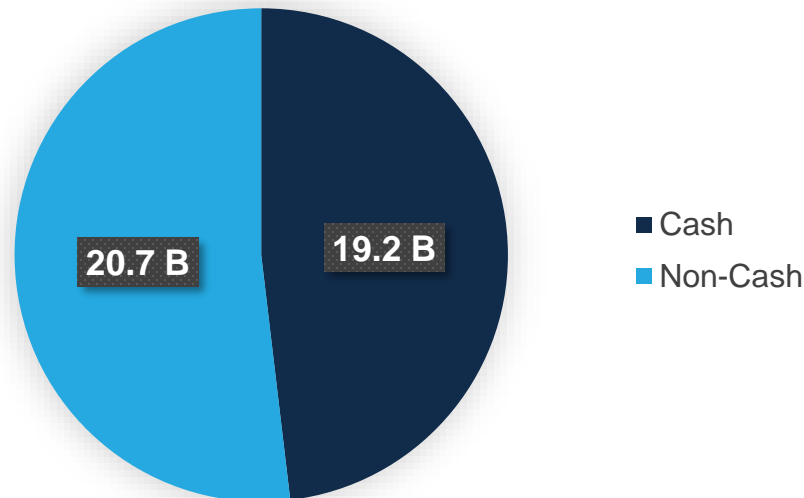
## Base



**\*94% of Base cash deposited at central banks or secured through reverse repo**

*Note, figures provided reflect post-haircut amounts as of the end of Q3 2022.  
PQD References: 6.2.1 thru 6.2.14*

## IRS

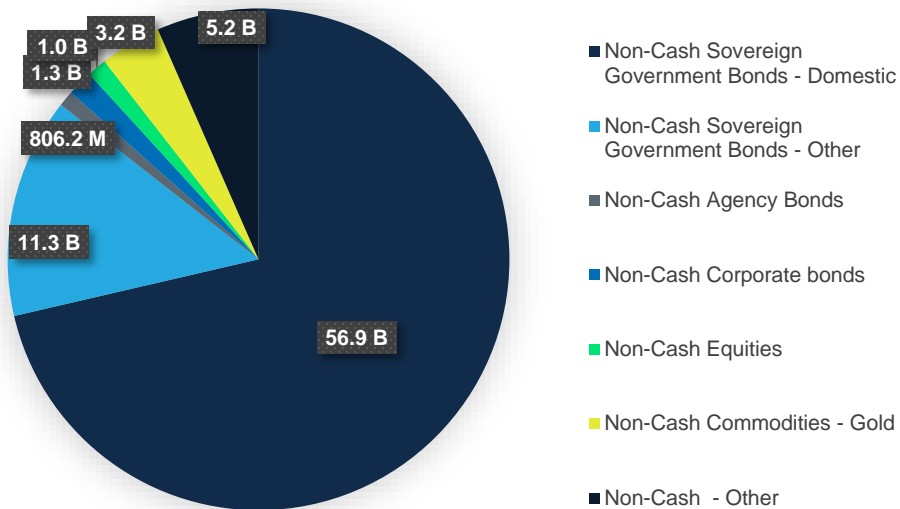


**\*93% of IRS cash deposited at central banks or secured through reverse repo**

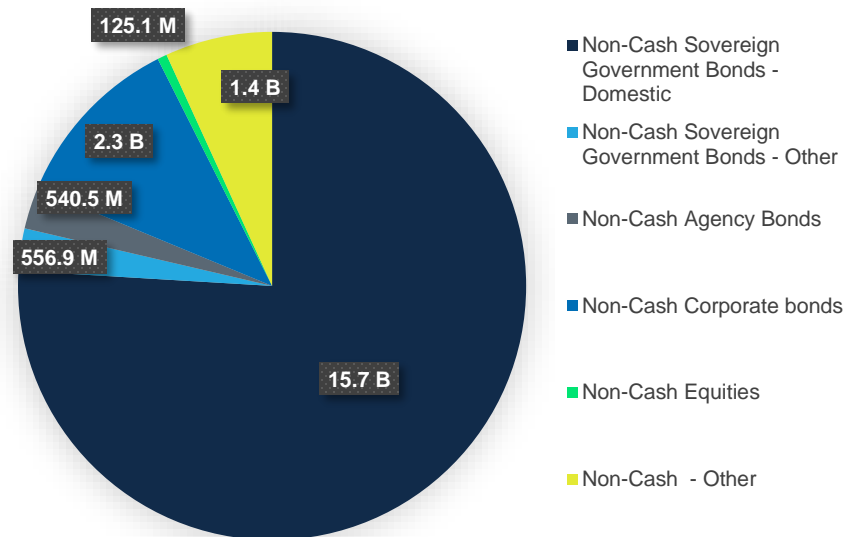
# Collateral Composition of Initial Margin – Non-Cash Breakdown

CME Clearing: Q3 2022 Quantitative Disclosures Call

## Base



## IRS



Note 1: Figures provided reflect post-haircut amounts as of the end of Q3 2022.

Note 2: Non-Cash Sovereign Government Bonds – Domestic are US Treasuries

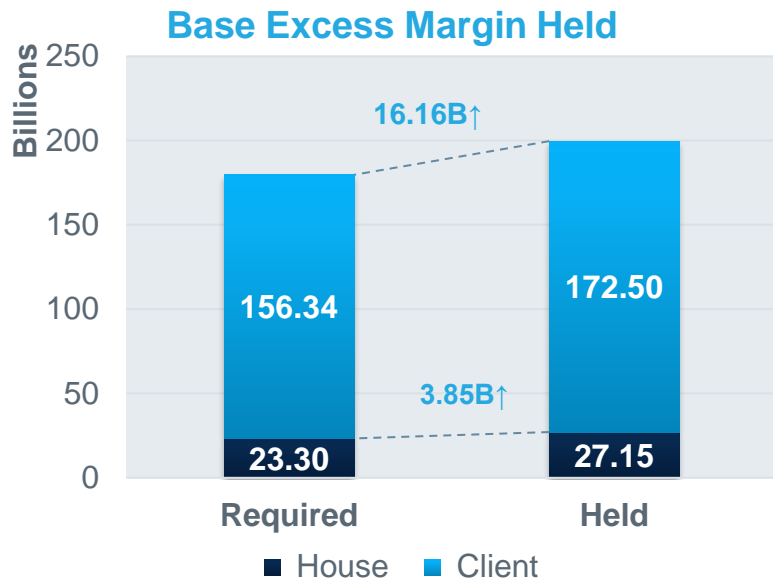
PQD References: [6.2.1](#) thru [6.2.14](#)



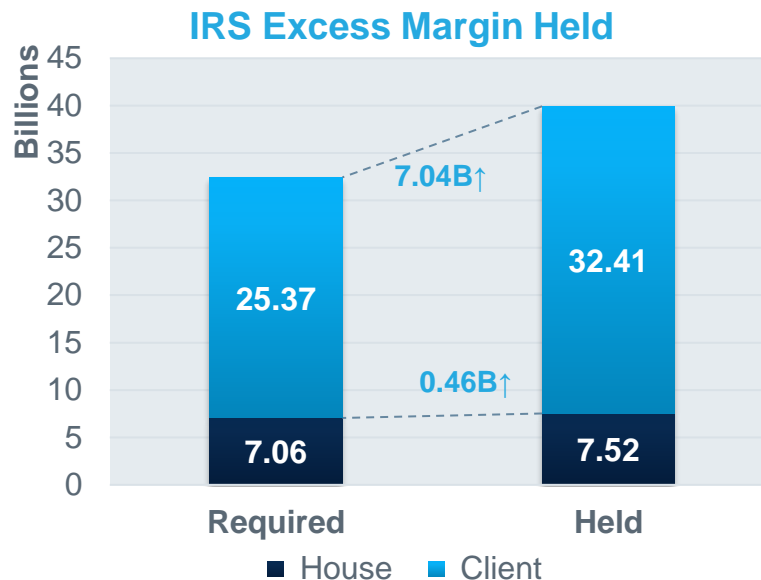
# Excess Margin Held

CME Clearing: Q3 2022 Quantitative Disclosures Call

**\$20.01 billion** excess margin held for Base products as of the end of Q3 2022



**\$7.50 billion** excess margin held for IRS products as of the end of Q3 2022

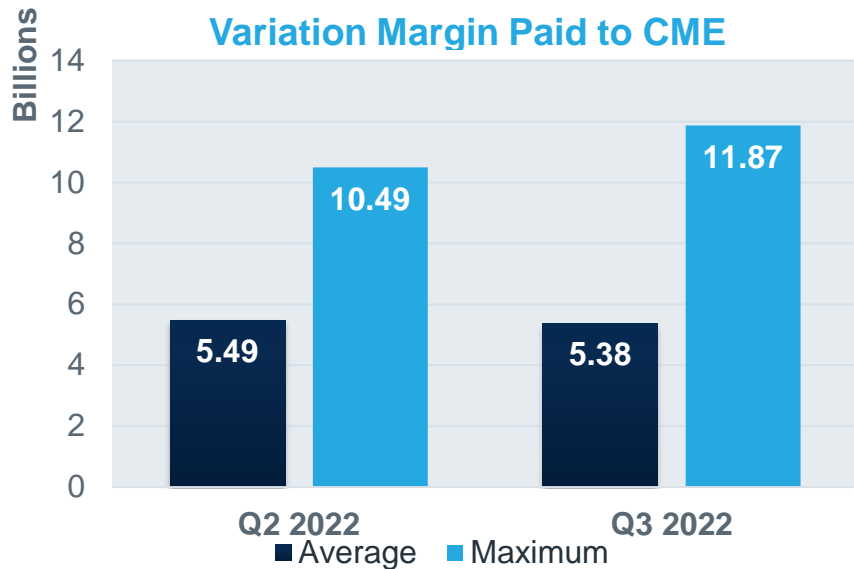


Note, excess margin held is the margin held above the required amount.  
PQD References: 6.1.1 and 6.2.15

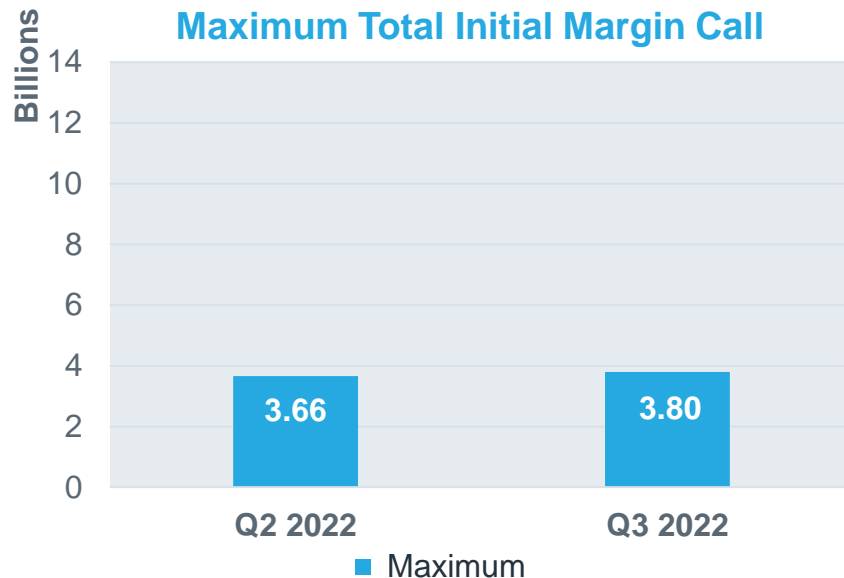
# Settlement Variation Flows/Initial Margin Calls

## CME Clearing: Q3 2022 Quantitative Disclosures Call

Avg. variation paid to CME decreased by 2% and maximum variation paid to CME increased by 13% in Q3 2022



Maximum total initial margin call increased by 4% in Q3 2022



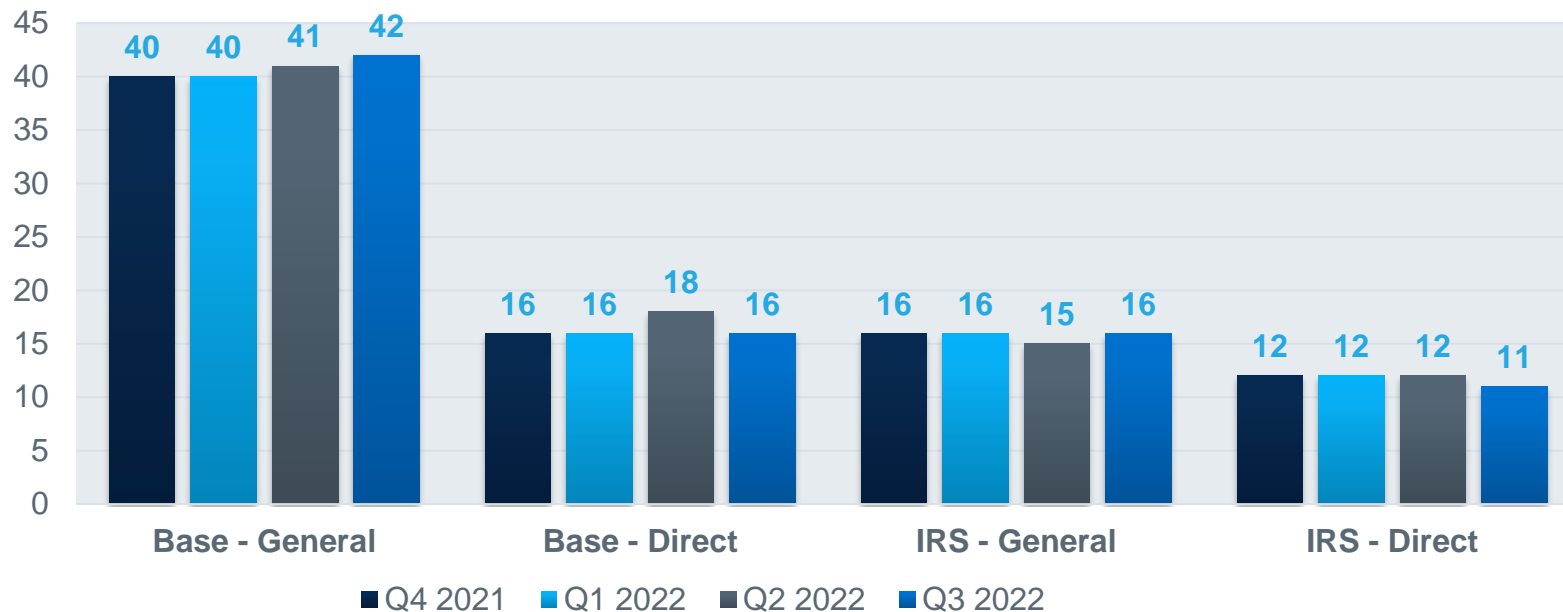
Note: figures include any intraday variation payments. Settlement variation is exchanged on a net basis.  
PQD References: 6.6.1 and 6.7.1

Note: figures include any intraday initial margin payments. Customer initial margin is collected on a gross basis.  
PQD Reference: 6.8.1

# Number of Clearing Members

CME Clearing: Q3 2022 Quantitative Disclosures Call

Clearing membership continues to remain stable at CME Clearing



Note, "Direct" references Clearing Members that only clear house business and "General" references Clearing Members that can also clear for clients.  
PQD References: 18.1.1.1 and 18.1.1.2

# Q & A

# Thank you

For questions regarding the CME Clearing's CPMI-IOSCO  
Qualitative or Quantitative Disclosures, please contact:

[CMEPFMIResponse@cmegroup.com](mailto:CMEPFMIResponse@cmegroup.com)

