



JSCC Quantitative Disclosures Summary Q4 2022

Exchange & beyond

February 28, 2023

Revised on April 28, 2023



Contents

Disclaimer	3
Introduction	4
Q4 2022 Highlights	6
Composition of Clearing Membership Categories	7
Contribution by JSCC(SIG) & Exchanges/PTSs	8
Mutualized Loss Compensation Resources	10
Kccp	12
Stress Testing	13
Initial Margin	15
Initial Margin Back Testing	18
Variation Margin & Initial Margin Calls	20
Collateral Composition of Initial Margin	21
Total Cash Received	23
Liquidity	25
Operational Availability	27
Topic of This Quarter	28

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This document is written in English, but some parts are written in both English and Japanese.

本文書は原則として英語表記ですが、一部日本語を併記しています。

Introduction

JSCC is a clearing organization licensed in Japan to conduct financial instrument obligation assumption (clearing) services under the Financial Instruments Exchange Law. JSCC is required to strictly comply with "Principles for Financial Market Infrastructures (hereinafter referred to as "PFMI")", as published by the Committee on Payments and Market Infrastructures (CPMI) and the International Organization of Securities Commissions (IOSCO) in April 2012.

To enhance overall transparency in financial market infrastructures, CPMI and IOSCO published "Principles for financial market infrastructures: disclosure framework and assessment methodology" in December 2012. In addition, as a supplement to the Principles, they released "Public quantitative disclosure standards for central counterparties" to encourage Clearing Organizations to disclose quantitative information.

License granted by Regulatory Authority in Japan

JSCC was licensed as the Financial Instruments Clearing Organization under the Financial Instruments and Exchange Act in January 2003, and as Commodity Clearing Organization under the Commodity Futures Act in July 2020 when JSCC integrated the commodity clearing services of Japan Commodity Clearing House Co., Ltd. As a result, JSCC is regulated and supervised directly by the Financial Services Agency, the Ministry of Agriculture, Forestry and Fisheries and the Ministry of Economy, Trade and Industry of Japan.

License from Overseas Regulatory Authorities for Clearing Business

- U.S.: Exempt DCO (for Interest Rate Swap Clearing Business and Credit Default Swap Clearing Business)
- EU: Third-Country CCP (for all Clearing Businesses)
- Australia: Designation as Prescribed CCP (for Interest Rate Swap Clearing Business)
- Hong Kong: ATS-CCP and Designated CCP (for Interest Rate Swap Clearing Business)
- Switzerland: Foreign Central Counterparty (for Interest Rate Swap Clearing Business)
- UK: Third-Country CCP (for all Clearing Businesses)*

* JSCC has obtained temporary recognition for the provision of services in the U.K. as a Third Country CCP.

はじめに

JSCCは、金融商品取引法に基づき金融商品債務引受業の免許を取得している清算機関であり、決済・市場インフラ委員会（CPMI）と証券監督者国際機構（IOSCO）により2012年4月に公表された「金融市場インフラのための原則（以下「FMI原則」という。）」を遵守する必要があります。

CPMI及びIOSCOは、金融市場インフラの透明性を全般的に向上させるため、2012年12月に「FMI原則：情報開示の枠組みと評価方法」を公表しましたが、更にこれを補完するため、2015年2月に、清算機関が高い頻度で開示すべき定量的な情報の開示を促す、「清算機関のための定量的な情報開示基準」（原題：Public quantitative disclosure standards for central counterparties）を公表しています。

日本の規制当局からの免許取得状況

当社は、金融商品取引清算機関として2003年1月に金融商品債務引受業の免許を取得しており、また、2020年7月に株式会社日本商品清算機構の持つ清算機能を統合して商品市場に係る清算業務を承継するにあたり、商品取引清算機関として商品取引債務引受業の許可を取得しており、日本国の金融庁、農林水産省及び経済産業省による直接の規制と監督を受けています。

海外の規制当局からの認証等の取得状況

【米国】 Exempt DCO（対象業務：金利スワップ清算業務、CDS清算業務）

【欧州連合】 第三国CCP（対象業務：全清算業務）

【豪州】 Prescribed CCPへの指定（対象業務：金利スワップ清算業務）

【香港】 ATS-CCP及びdesignated CCP（対象業務：金利スワップ清算業務）

【スイス】 外国CCP（対象業務：金利スワップ清算業務）

【英国】 第三国CCP（対象業務：全清算業務）*

* JSCC は外国 CCP として英国でサービスを提供することについて、暫定的な認証を取得しています。

Q4 2022 Highlights

- 64 bil. JPY of JSCC SIG and Compensation by Exchanges/PTS – 76% of JSCC shareholder equity
- 14 breaches on stress testing for ETP, resolved on the following business days through the daily revision of default fund.
- Coverage of margin back testing (12-month period) above the JSCC risk appetite* except ETP(JGB F&O-OSE).
 - * JSCC risk appetite: IRS & CDS: 99.5% / Other Clearing Businesses: 99%
- 0 Liquidity Stress Testing breaches during the quarter
- 0 Defaults during the quarter
- 100% Operational Availability of the core system over the previous 12 months

Skin in the Game (SIG)

(PQD 4.1.1, 4.1.2, 4.1.6, 4.1.10)

(in bil. JPY) (in mil. USD)

ETP Non-Commodity	49.26	371
ETP Commodity	4.49	33
CDS	3.00	22
IRS	4.00	30
OTC-JGB	3.50	26

Note: Compensation by Exchanges & PTSs are included for ETP.

USD/JPY: as of Dec. 31, 2022

Achieved Coverage Level of Initial Margins

(PQD 6.5.3)

ETP(Cash Securities)	99.82%	(+0.03%)
ETP(JGB F&O-OSE)	98.64%	(-0.39%)
ETP(INDEX F&O-OSE)	99.93%	(+0.06%)
ETP Commodity	99.76%	(+0.15%)
CDS	100.00%	(±0.00%)
IRS	99.83%	(-0.02%)
OTC-JGB	99.66%	(-0.07%)

Stress Testing

(PQD 4.4.4, 4.4.5, 4.4.8, 4.4.9)

14 Estimated Stress Losses Exceedance

- ETP(Precious Metals-OSE): 5 days 205 mil. JPY at maximum.
- ETP(Energy-TOCOM): 9 days 835 mil. JPY at maximum.

Operational Availability

(PQD 17.2.1)

ETP	100.00%
CDS	100.00%
IRS	100.00%
OTC-JGB	100.00%

Composition of Clearing Membership Categories

JSCC provides clearing services to clearing members of 13 different categories, each of which has a default fund to address any losses resulting from the default of a clearing participant in the relevant category. Some of the resources, such as liquidity resources, may be shared across the categories.

当社は、以下の13の清算資格に区分して清算業務を行っており、清算資格毎に清算参加者が破綻した場合を想定した損失をカバーするための清算基金制度を設けています。なお、流動性供給枠等は複数の清算資格で共有しています。

Clearing Membership Category*		1. Cash Securities	2. JGB F&O 3. INDEX F&O	4. Precious Metals 5. Rubber 6. Agricultural 7. Petroleum	8. Energy	9. Agricultural (ODEX) 10. Sugar	11. CDS 12. IRS 13. OTC-JGB
Market		ETP					OTC
		Cash Securities “ <u>ETP(Cash Securities)</u> ”	Derivatives				
			“ <u>ETP Non-commodity derivatives</u> ”	Commodity “ <u>ETP Commodity</u> ”			
	Exchanges/ PTSs	Japanese Securities Exchanges, PTSs	OSE (Osaka Exchange) “ <u>OSE-listed ETP</u> ”	TOCOM (Tokyo Commodity Exchange)	ODEX (Osaka Dojima Exchange) “ <u>ODEX-listed ETP</u> ”		
Regulatory Law		FIEA (Financial Instruments and Exchange Act) “ <u>FIEA-regulated ETP</u> ”			CFA (Commodity Futures Act) “ <u>CFA-regulated ETP</u> ”		FIEA

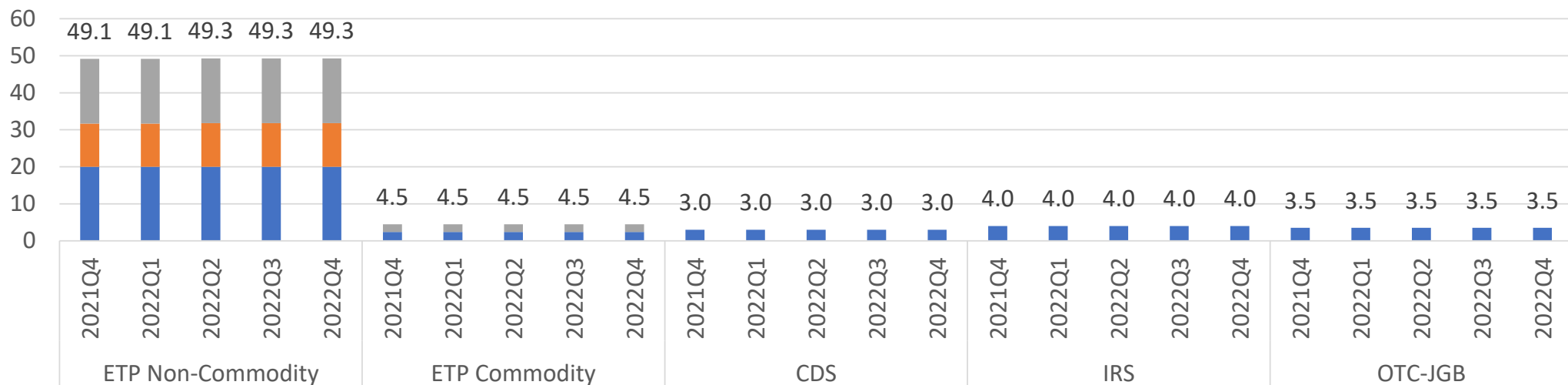
*Underlined abbreviations in each segment are those used in the quantitative disclosure of JSCC.

Contribution by JSCC(SIG) & Exchanges/PTs (1/2)

PQD References: 4.1.1, 4.1.2, 4.1.6, 4.1.10

Contribution by JSCC(SIG) & Exchanges/PTs (end of Quarter)

(bil. JPY) ■ JSCC SIG ■ Compensation by Exchanges & PTs(ETP Cash Securities) ■ Compensation by Exchanges(ETP exc. Cash Securities)



JSCC SIG (end of Quarter)

	(bil. JPY)				
	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4
ETP Non-Commodity	20.00	20.00	20.00	20.00	20.00
ETP Commodity	2.37	2.37	2.37	2.37	2.37
CDS	3.00	3.00	3.00	3.00	3.00
IRS	4.00	4.00	4.00	4.00	4.00
OTC-JGB	3.50	3.50	3.50	3.50	3.50

Compensation by Exchanges & PTs (end of Quarter)

	(bil. JPY)				
	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4
ETP(Cash Securities)	11.69	11.69	11.81	11.81	11.81
ETP Non-Commodity Derivatives	17.45	17.45	17.45	17.45	17.45
ETP Commodity	2.12	2.12	2.12	2.12	2.12
CDS	-	-	-	-	-
IRS	-	-	-	-	-
OTC-JGB	-	-	-	-	-

Note: About 90% of the Compensation by Exchanges & PTs are arranged to be contributed by exchanges affiliated with JSCC.

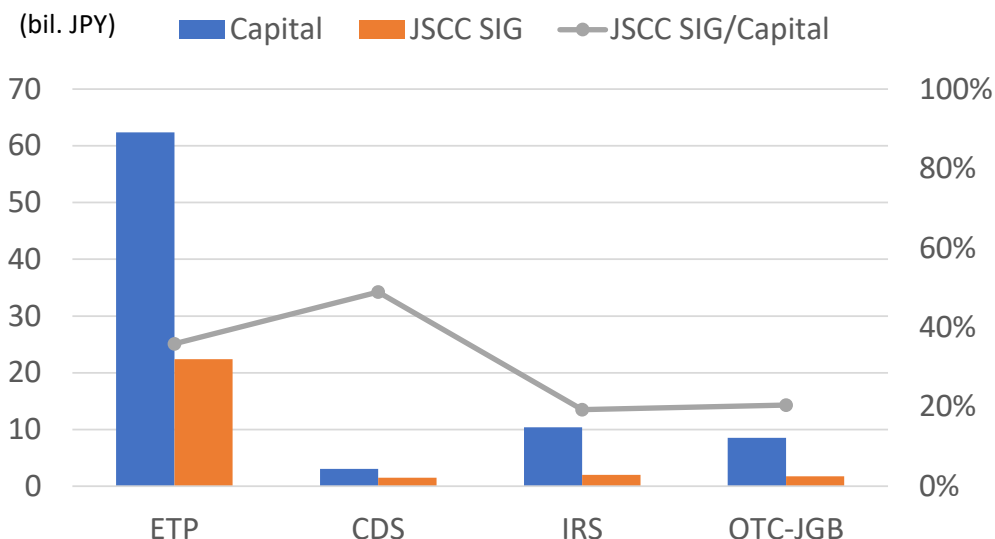
注: 取引所及びPTSによる損失補償の約90%は、日本取引所グループ内の取引所により拠出されています。

Contribution by JSCC(SIG) & Exchanges/PTs (2/2)

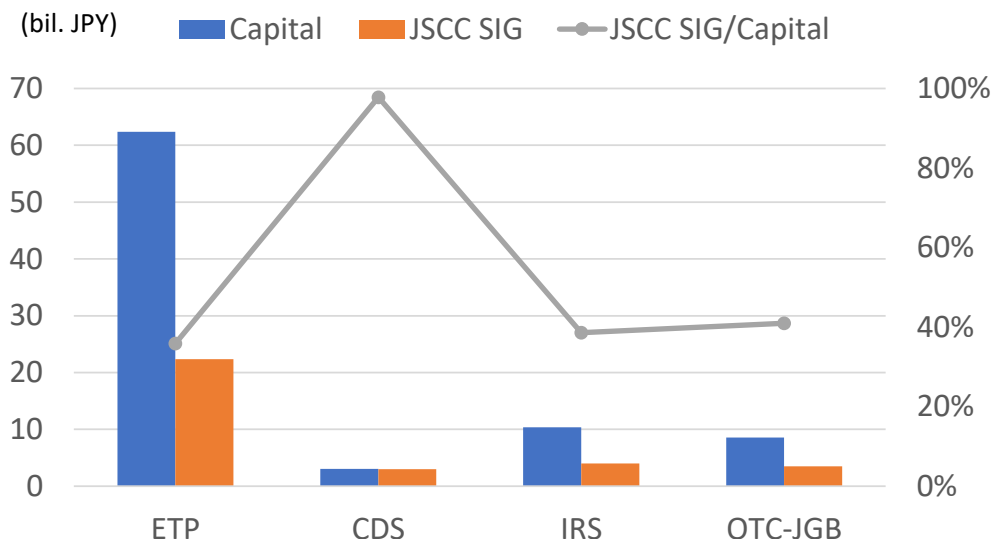
PQD References: 4.1.1, 4.1.2

JSCC Capital, JSCC SIG (left axis) and Ratio of JSCC SIG to Capital (JSCC SIG/Capital, right axis) (end of Quarter)

JSCC SIG before Default Fund



JSCC SIG before and alongside Default Fund



Note: JSCC has adopted class share structure to maintain its own funds for each of clearing businesses - Class A shares for Exchange Traded Products(Cash and Derivatives(Commodity and Non-Commodity), Class B shares for CDS, Class C shares for IRS, and Class D shares for OTC JGB.

Capital amounts per share by class shares as of Mar. 31, 2022 and number of shares are found at the following links:

注：JSCCは4つの種類株式（A種類株式：現物取引及び上場デリバティブ取引(商品と商品以外)の清算業務、B種類株式：CDS清算業務、C種類株式：金利スワップ取引清算業務、D種類株式：国債店頭取引清算業務）を発行しています。各種類株式の1株当たり純資産額（Mar. 31, 2022）及び発行済み株式の総数は以下をご覧ください。

<https://www.jpx.co.jp/jsc/kaisya/koukoku.html>

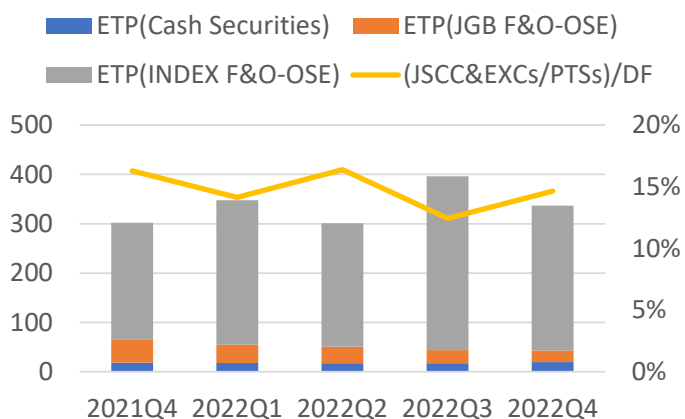
<https://www.jpx.co.jp/jsc/en/company/profile.html>

Mutualized Loss Compensation Resources (1/2)

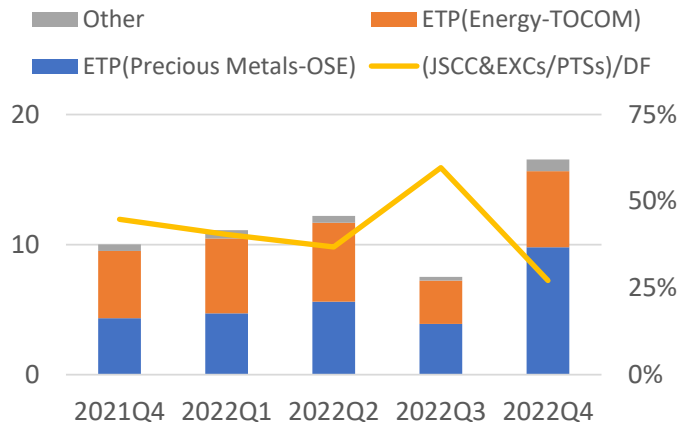
PQD References: 4.1.4

Default Fund (end of Quarter)

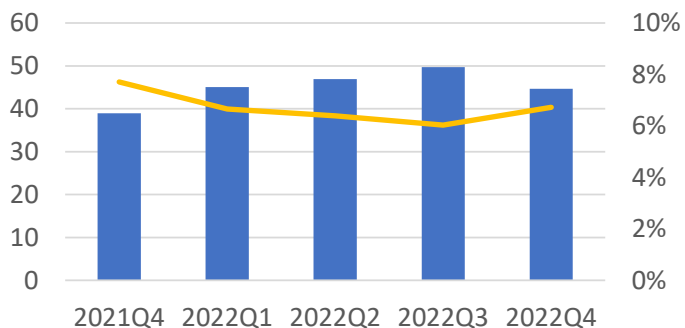
(bil. JPY) ETP Non-Commodity



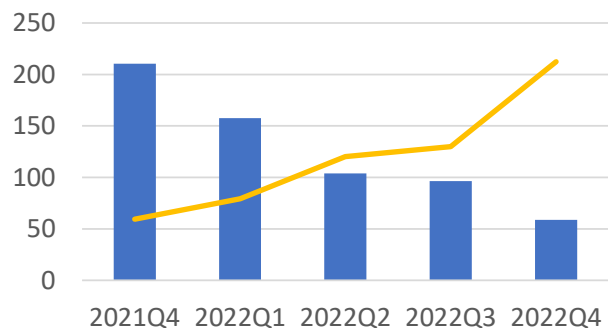
(bil. JPY) ETP Commodity



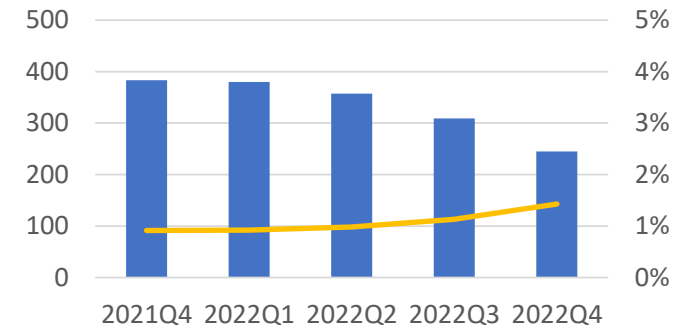
(bil. JPY) CDS JSCC SIG/DF



(bil. JPY) IRS JSCC SIG/DF



(bil. JPY) OTC-JGB JSCC SIG/DF



Mutualized Loss Compensation Resources (2/2)

PQD References: 4.1.4, 4.1.8

Default Fund (end of Quarter)

	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4 (bil. JPY)
ETP(Cash Securities)	18	18	17	17	19
ETP(JGB F&O-OSE)	46	36	33	26	23
ETP(INDEX F&O-OSE)	237	293	250	352	293
ETP(Precious Metals-OSE)	4	4	5	3	9
ETP(Rubber-OSE)	0	0	0	0	0
ETP(Agricultural-OSE)	0	0	0	0	0
ETP(Petroleum-OSE)	0	0	0	0	0
ETP(Energy-TOCOM)	5	5	6	3	5
ETP(Agricultural-ODEX)	0	0	0	0	0
ETP(Sugar-ODEX)	0	0	0	0	0
CDS	38	45	46	49	44
IRS	210	157	103	96	58
OTC-JGB	383	380	357	309	245

Assessment (end of Quarter)

	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4 (bil. JPY)
ETP(Cash Securities)	n/a	n/a	n/a	n/a	n/a
ETP(JGB F&O-OSE)	138	109	100	80	70
ETP(INDEX F&O-OSE)	711	879	750	1,056	879
ETP(Precious Metals-OSE)	13	14	16	11	29
ETP(Rubber-OSE)	0	0	0	0	2
ETP(Agricultural-OSE)	0	0	0	0	0
ETP(Petroleum-OSE)	0	0	0	0	0
ETP(Energy-TOCOM)	15	17	18	10	17
ETP(Agricultural-ODEX)	0	0	0	0	0
ETP(Sugar-ODEX)	0	0	0	0	0
CDS	38	45	46	49	44
IRS	210	157	103	96	58
OTC-JGB	383	380	357	309	245

Note: For ETP derivatives, the required amount of the assessment is capped at 3 times the Clearing Fund Requirement of each non-defaulting Clearing Participant.

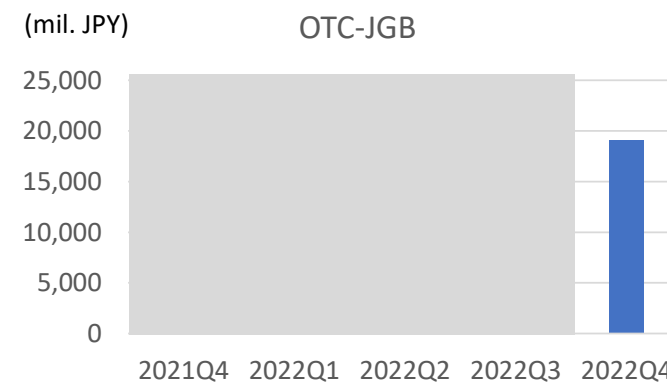
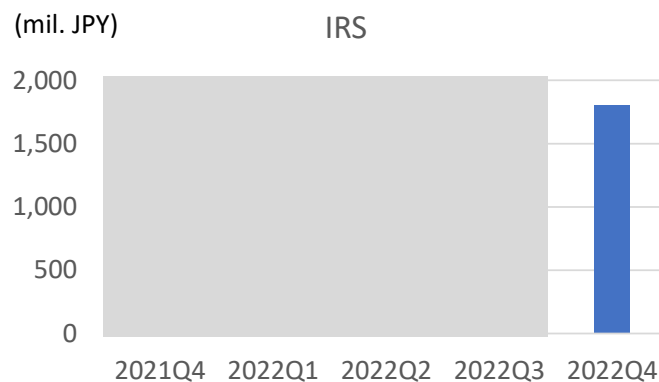
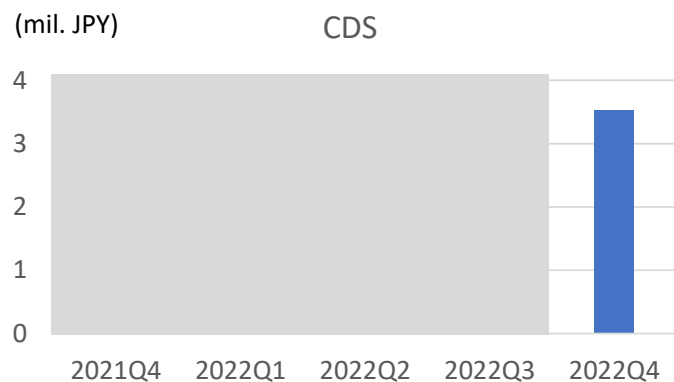
For OTC products, the required amount of the assessment is capped at the Clearing Fund Requirement of each non-defaulting Clearing Participant.

注：上場デリバティブに係る特別清算料（VMヘアカットを除く）は、生存参加者の清算基金所要額の3倍の額を上限としています。

OTC取引に係る特別清算料（VMヘアカットを除く）は、生存参加者の清算基金所要額を上限としています。

Kccp

Kccp (end of Quarter)



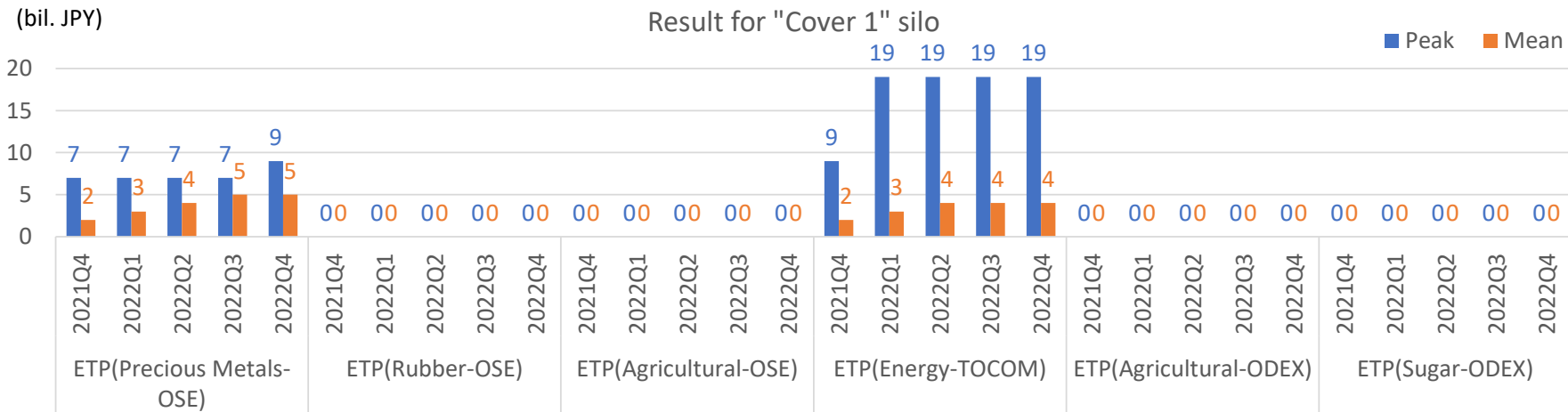
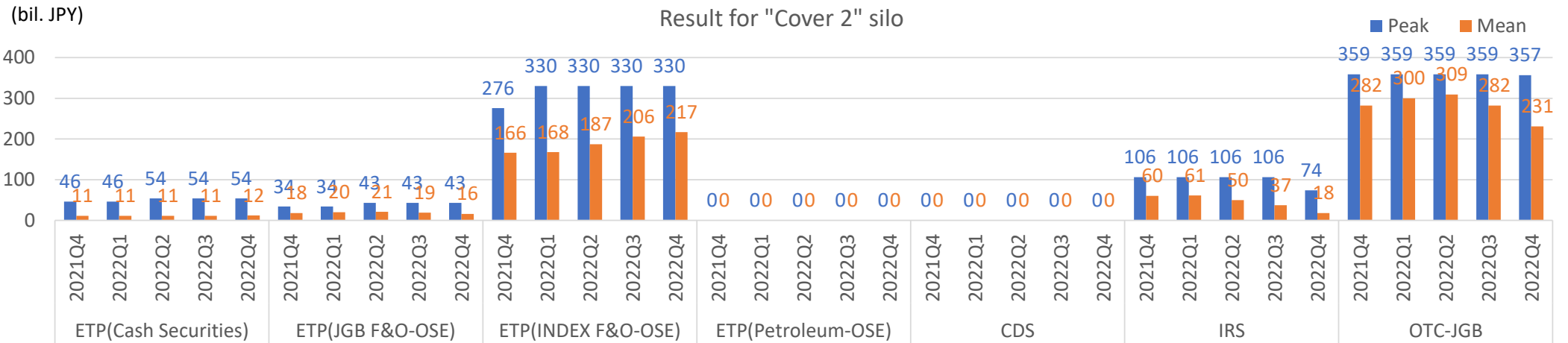
Note:JSCC started Kccp calculations based on BCBS 282 methodology (standardized approach to counterparty credit risk (SA-CCR)) in December 2022.

注：2022年12月から、BCBS282(SA-CCR)に基づいて計算しています。

Stress Testing (1/2)

PQD References: 4.4.3, 4.4.7

Estimated Largest Aggregate Stress Loss in Excess of Initial Margin (previous 12 months)



Note: The default assumptions for prefunded financial resources are Cover 2(two Clearing Participants including affiliates with the largest expected loss) for ETP(Cash Securities, Derivatives for Non-Commodity and Petroleum), CDS, IRS, & OTC JGB, and Cover 1 + 5 financially weakest Clearing Participants for Commodity ex. Petroleum.

注：現物株式、上場金融デリバティブ及び原油については上位2先、原油を除く上場商品デリバティブについては上位1先及び純財産額が下位の5先の破綻を想定しています。

Stress Testing (2/2)

PQD References: 4.4.4, 4.4.5, 4.4.8, 4.4.9

Number of Days exceeded Actual pre-funded Default Resources (during Quarter)

- Result for "Cover 2" silo

	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4
ETP(Cash Securities)	1	0	3	1	0
ETP(JGB F&O-OSE)	0	0	0	0	0
ETP(INDEX F&O-OSE)	0	0	0	0	0
ETP(Petroleum-OSE)	0	0	0	0	0
CDS	0	0	0	0	0
IRS	0	0	0	0	0
OTC-JGB	0	0	0	0	0

- Result for "Cover 1" silo

	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4
ETP(Precious Metals-OSE)	0	0	1	0	5
ETP(Rubber-OSE)	0	0	0	0	0
ETP(Agricultural-OSE)	0	0	0	0	0
ETP(Energy-TOCOM)	0	7	1	0	9
ETP(Agricultural-ODEX)	0	0	0	0	0
ETP(Sugar-ODEX)	0	0	0	0	0

Maximum Amount exceeding Actual pre-funded Default Resources (during Quarter)

- Result for "Cover 2" silo

	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4
ETP(Cash Securities)	16,766	0	24,245	3,421	0
ETP(JGB F&O-OSE)	0	0	0	0	0
ETP(INDEX F&O-OSE)	0	0	0	0	0
ETP(Petroleum-OSE)	0	0	0	0	0
CDS	0	0	0	0	0
IRS	0	0	0	0	0

(mil. JPY)

- Result for "Cover 1" silo

	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4
ETP(Precious Metals-OSE)	0	0	51	0	205
ETP(Rubber-OSE)	0	0	0	0	0
ETP(Agricultural-OSE)	0	0	0	0	0
ETP(Energy-TOCOM)	0	5,943	137	0	835
ETP(Agricultural-ODEX)	0	0	0	0	0
ETP(Sugar-ODEX)	0	0	0	0	0

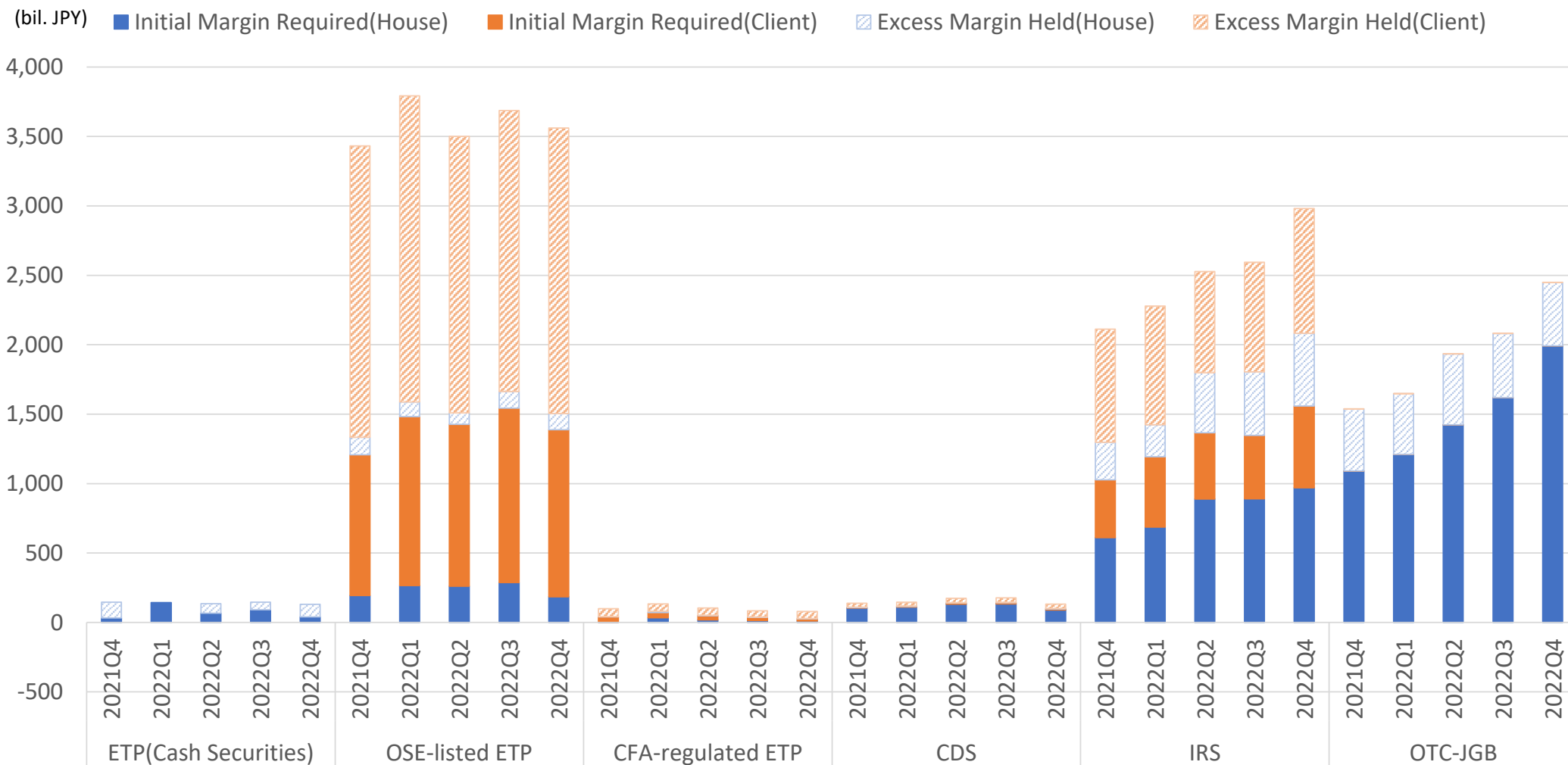
(mil. JPY)

Note: Possibility of breaches continuing for consecutive days is minimized by applying additional initial margin in ETP(Cash Securities) and the daily revision of default fund in other clearing services.

注：現物清算資格は当初証拠金追加所要額の適用、その他の清算資格は清算基金の日次更新により、当日発生したブリーチは翌営業日には解消することを想定しています。

Initial Margin (1/3)

PQD References: 6.1.1, 6.2.15



Note: Excess margin held is calculated by subtracting initial margin required from initial margin held (post haircut).

注：証拠金余剰額は、ヘアカット後の証拠金預託額から証拠金所要額を減じて計算しています。

Initial Margin (2/3)

PQD References: 6.1.1, 6.2.15

Initial Margin Required (end of Quarter)

	(bil. JPY)				
ETP(Cash Securities)	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4
Total	32	142	66	92	39
OSE-listed ETP	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4
House	193	265	260	287	184
Client	1,013	1,216	1,166	1,255	1,202
Total	1,207	1,482	1,426	1,542	1,387
CFA-regulated ETP	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4
House	0	33	19	14	10
Client	40	37	30	22	16
Total	40	70	49	37	26
CDS	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4
House	103	110	131	133	89
Client	4	4	7	8	9
Total	107	115	139	142	98
IRS	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4
House	611	686	889	890	969
Client	415	506	476	457	589
Total	1,026	1,193	1,366	1,347	1,558
OTC-JGB	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4
House	1,090	1,211	1,424	1,619	1,992
Client	0	0	0	0	0
Total	1,090	1,211	1,424	1,619	1,992

Initial Margin Held (Post Haircut) (end of Quarter)

	(bil. JPY)				
ETP(Cash Securities)	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4
House(Total)	146	139	135	145	129
OSE-listed ETP	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4
House	320	371	342	407	301
Client	3,112	3,421	3,157	3,279	3,259
Total	3,432	3,793	3,500	3,686	3,561
CFA-regulated ETP	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4
House	1	43	20	15	12
Client	97	89	83	68	66
Total	98	132	103	84	79
CDS	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4
House	106	113	133	136	91
Client	32	32	40	41	40
Total	138	146	173	177	132
IRS	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4
House	883	916	1,321	1,347	1,493
Client	1,228	1,362	1,205	1,246	1,488
Total	2,111	2,278	2,527	2,593	2,981
OTC-JGB	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4
House	1,536	1,647	1,933	2,080	2,447
Client	1	1	1	1	1
Total	1,537	1,648	1,934	2,081	2,448

Initial Margin (3/3)

Excess Margin Held (end of Quarter)

(bil. JPY)

ETP(Cash Securities)	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4
Total	114	-2	68	53	90

OSE-listed ETP	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4
House	126	106	82	120	116
Client	2,098	2,204	1,991	2,024	2,057
Total	2,225	2,310	2,073	2,144	2,174

CFA-regulated ETP	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4
House	0	10	1	0	1
Client	57	52	53	46	50
Total	58	62	54	46	52

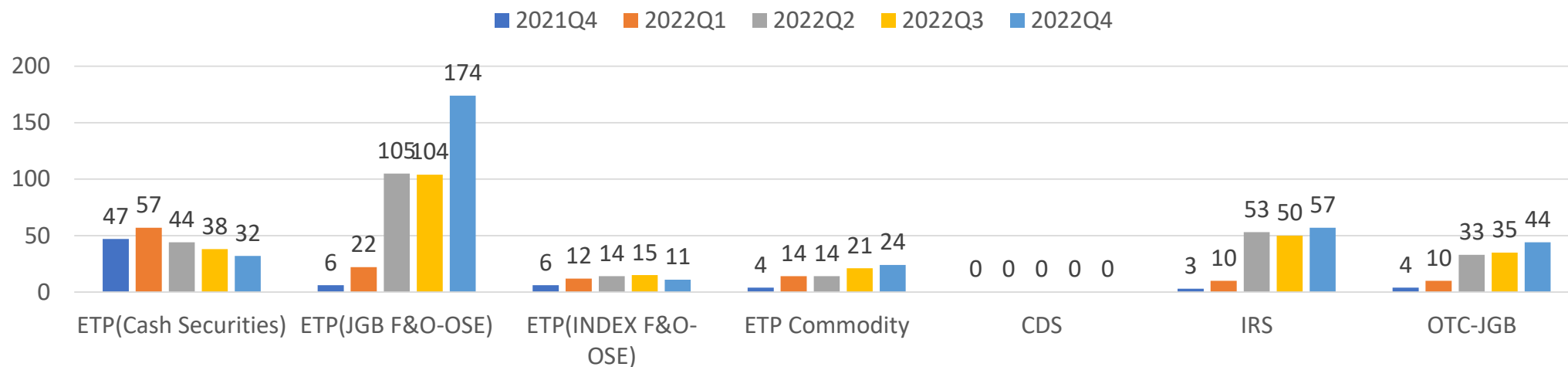
CDS	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4
House	3	2	1	2	2
Client	28	27	32	32	31
Total	31	30	33	34	34

IRS	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4
House	271	229	432	457	523
Client	813	855	728	789	898
Total	1,085	1,084	1,161	1,246	1,422

OTC-JGB	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4
House	445	436	509	460	454
Client	0	0	0	0	0
Total	446	437	510	461	455

Initial Margin Back Testing (1/2)

Number of Margin Breaches (previous 12 months)



Number of Margin Breaches for ETP Commodity (previous 12 months)

	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4
ETP(Precious Metals-OSE)	2	7	7	11	13
ETP(Rubber-OSE)	1	0	0	2	3
ETP(Agricultural-OSE)	0	0	0	1	1
ETP(Petroleum-OSE)	1	5	5	5	4
ETP(Energy-TOCOM)	0	2	2	2	3
ETP(Agricultural-ODEX)	0	0	0	0	0
ETP(Sugar-ODEX)	0	0	0	0	0
Total	4	14	14	21	24

At the Monetary Policy Meeting on December 20, 2022, the Bank of Japan decided to expand the target range of the 10-year JGB yields in the yield curve control.

The sharp interest rate fluctuation following this decision resulted in breaches (i.e., the margin was insufficient to cover actual market losses) for the ETP (JGB F&O OSE).

In response to these breaches, JSCC:

- Called Intraday Initial Margin for ETP (12/20)
- Implemented ad hoc modifications to the SPAN parameters for 10-year JGB Group (12/20)

No breach occurred in the stress testing of the loss compensation financial resources, and all settlements and collateral deliveries were performed without incident.

Initial Margin Back Testing (2/2)

PQD References: 6.5.3, 6.5.4

Achieved Coverage Level (previous 12 months)

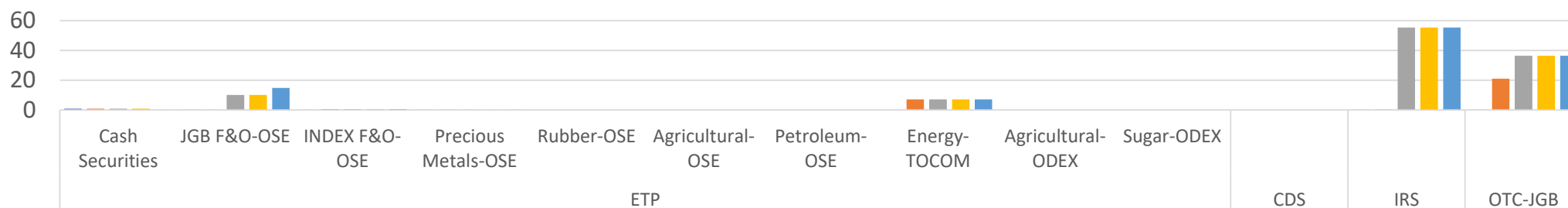
	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4
ETP(Cash Securities)	99.74%	99.69%	99.76%	99.79%	99.82% ↑
ETP(JGB F&O-OSE)	99.94%	99.77%	98.87%	99.03%	98.64%
ETP(INDEX F&O-OSE)	99.93%	99.85%	99.83%	99.87%	99.93% ↑
ETP Commodity	99.83%	99.40%	99.41%	99.61%	99.76% ↑
CDS	100.00%	100.00%	100.00%	100.00%	100.00%
IRS	100.00%	99.97%	99.84%	99.85%	99.83%
OTC-JGB	99.97%	99.93%	99.75%	99.73%	99.66%

Due to the sharp interest rate fluctuation explained on the previous slide, ETP (JGB F&O OSE) could not achieve the 99% target confidence level. JSCC confirmed the SPAN Price Scanning Range ("PSR"), which increased (from 1.29 mil. to 1.77 mil. JPY) based on the methodology where JSCC has already revised from September 5, 2022 to response the decline of achieved level in Q2, was sufficient to cover market losses for the present.

Peak Size of Uncovered Exposure (previous 12 months)

(bil. JPY)

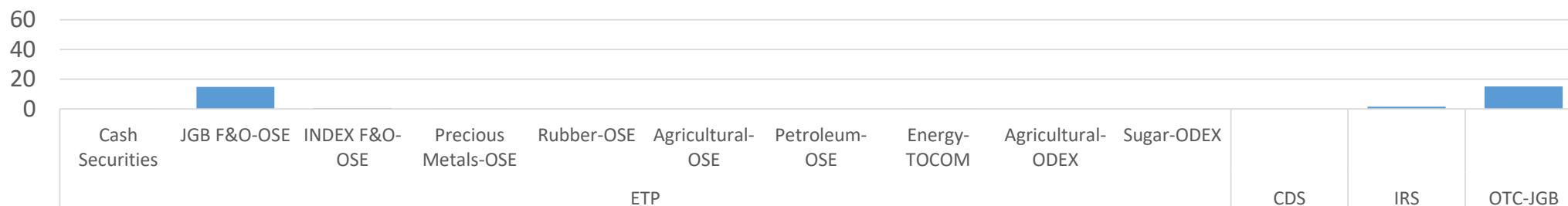
■ 2021Q4 ■ 2022Q1 ■ 2022Q2 ■ 2022Q3 ■ 2022Q4



Peak Size of Uncovered Exposure (previous 3 months)

(bil. JPY)

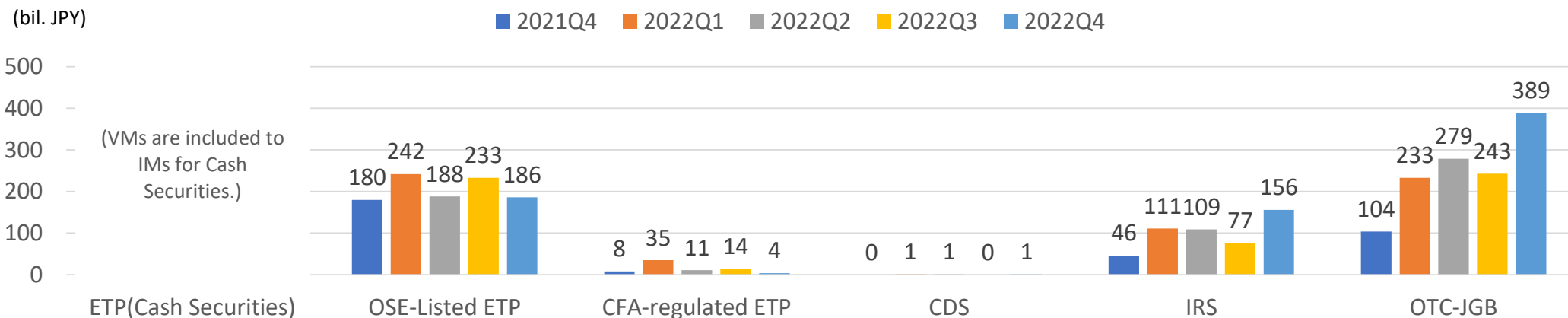
■ 2022Q4



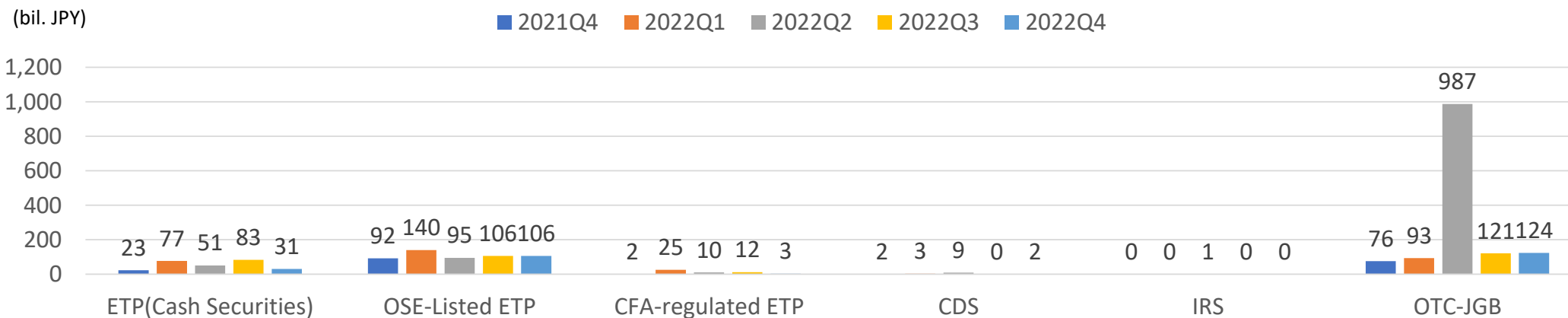
Variation Margin & Initial Margin Calls

PQD References: 6.7.1, 6.8.1

Maximum Total Variation Margin Paid to JSCC (during Quarter)



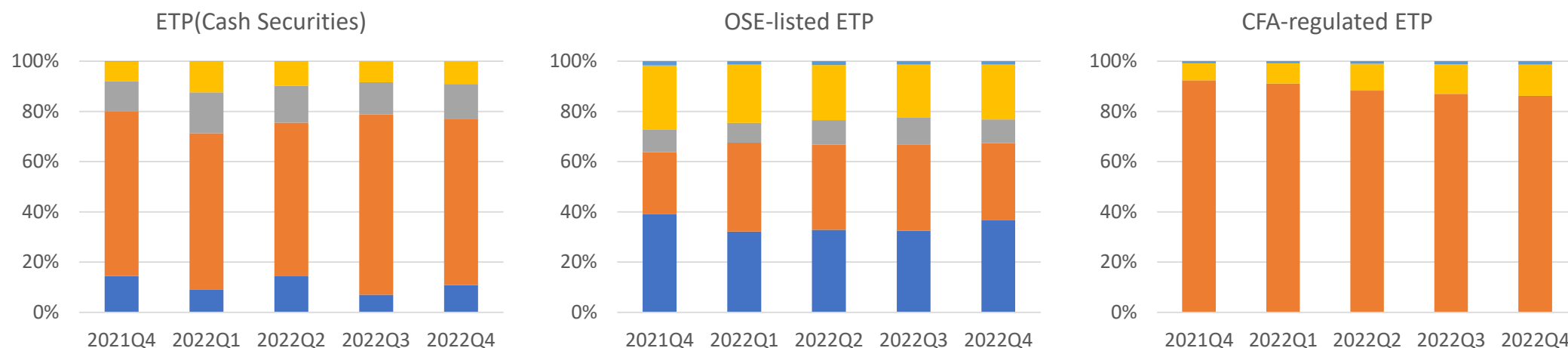
Maximum Aggregate Initial Margin Call (during Quarter)



Collateral Composition of Initial Margin (1/2)

PQD References: 6.2.1-6.2.14

Collateral Composition of Initial Margin-ETP (end of Quarter)



- Cash deposited at a central bank of issue of the currency concerned : 関連する通貨の発行主体である中央銀行の現金預金
- Secured cash deposited at commercial banks (including reverse repo) : 商業銀行における保全された現金預金
- Non-Cash Sovereign Government Bonds - Domestic : 現金以外のソブリン債 (自国債)
- Non-Cash Equities : 現金以外の株式
- Other : その他

Note: "Secured cash deposited at commercial banks (including reverse repo)" is held in settlement accounts of commercial banks, which are entirely protected by the Japanese Deposit Insurance Corporation.

"Non-Cash Sovereign Government Bonds – Domestic" is JGBs.

"Non-Cash Equities" means domestic listed securities (including convertible bonds for ETP Derivatives). Details of the eligible collateral can be found at the following link:

注: 「商業銀行における保全された現金預金」は全額が預金保険制度の対象となる決済性預金です。

「現金以外のソブリン債 (自国債)」は日本国債です。

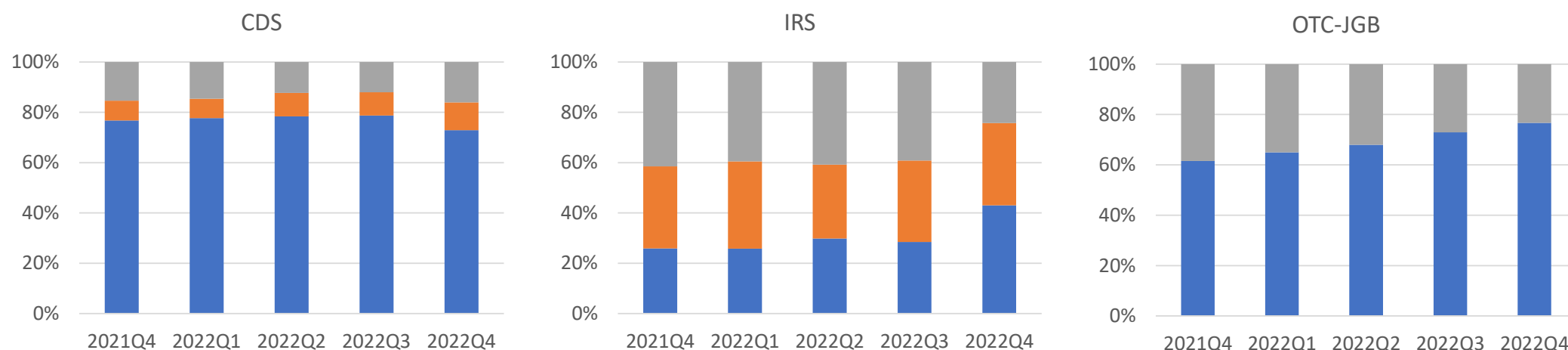
「現金以外の株式」は内国上場株式です (上場デリバティブはC Bも含む)。適格担保については以下をご覧ください。

<https://www.jpcc.co.jp/iscc/en/risk/collateral/collateral.html>

Collateral Composition of Initial Margin (2/2)

PQD References: 6.2.1-6.2.14

Collateral Composition of Initial Margin-OTC (end of Quarter)



- Cash deposited at a central bank of issue of the currency concerned : 関連する通貨の発行主体である中央銀行の現金預金
- Secured cash deposited at commercial banks (including reverse repo) : 商業銀行における保全された現金預金
- Non-Cash Sovereign Government Bonds - Domestic : 現金以外のソブリン債 (自国債)
- Other : その他

Note: “Secured cash deposited at commercial banks (including reverse repo)” is held in a trust account, which is bankruptcy remote from JSCC and clearing participants. For OTC derivatives, clearing participants and clients may choose between custodying their collateral in a trust or in the central bank.

“Non-Cash Sovereign Government Bonds – Domestic” is JGBs.

注：「商業銀行における保全された現金預金」は信託銀行に信託されており、JSCC及び清算参加者の破綻リスクから保護されています。

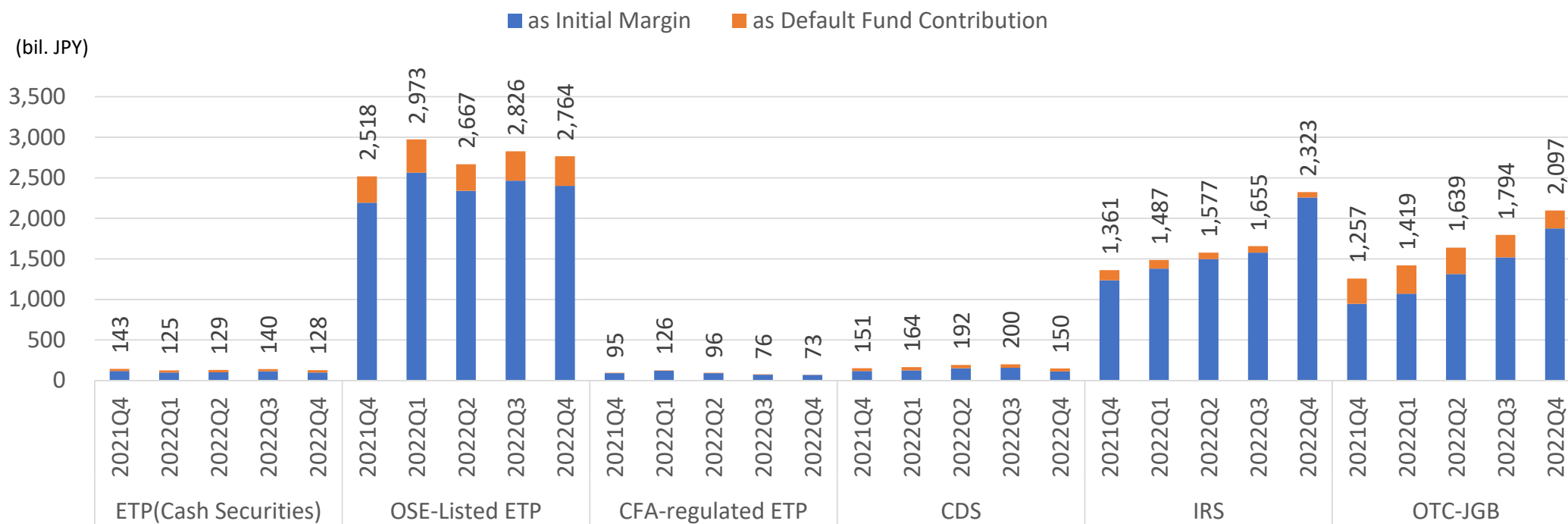
OTCデリバティブの担保の預託先は、清算参加者・清算委託者の選択に従います。

「現金以外のソブリン債 (自国債)」は日本国債です。

Total Cash Received (breakdown by IM/DF)

PQD References: 16.1.1, 16.1.2

Total Cash Received from Participants (end of Quarter)



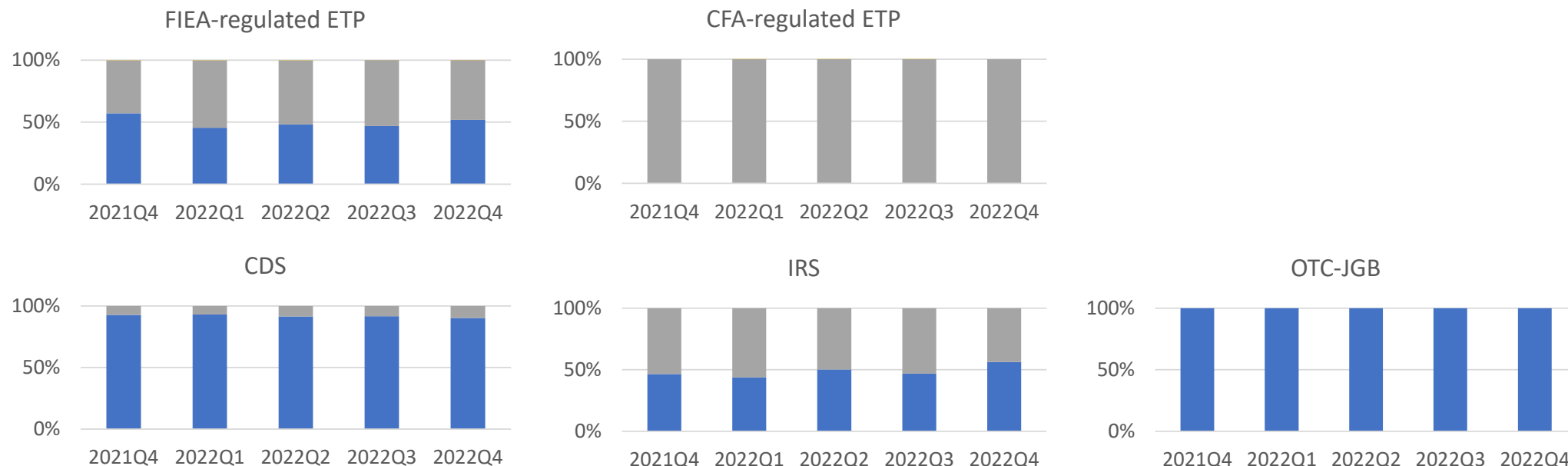
Note: For ETP, each Clearing Participant must deposit yen cash with a value that is at least 50% of their default fund requirement, minus JPY1 billion.

注：JSCCは上場商品において、清算基金所要額から10億円を控除した額の半額以上について円貨での預託を求める清算基金の現金預託制度を設けています。

Total Cash Received (breakdown by the custody)

PQD References: 16.2.2-16.2.7

Percentage of Total Participant Cash Held as Cash Deposits (end of Quarter)



- cash deposits at central banks of issue of the currency deposited : 関連する通貨の発行主体である中央銀行の現預金
- cash deposits at other central banks : その他の中央銀行の現預金
- cash deposits at commercial banks (Secured, including through reverse repo)* : 商業銀行のマネー (担保保全されているもの (リバースレポを含む))
- cash deposits at commercial banks (Unsecured) : 商業銀行のマネー (担保保全されていないもの)
- in money market funds : MMF (マネーマーケットファンド)
- in other forms : その他の方法

Note: "Cash deposits at commercial banks" are bankruptcy remote from JSCC and clearing participants (for the trust scheme used for CDS and IRS). They are deposited in settlement accounts for other clearing membership categories.

Deposits for CFA-related ETP are not deposited at the central bank.

Only non-JPY currencies are deposited at unsecured commercial banks.

注: 「商業銀行の現預金」は、CDS及びIRSにおいてはJSCC及び清算参加者から倒産隔離された信託口座に保管されており、その他においては預金保険によって保護された決済性預金です。

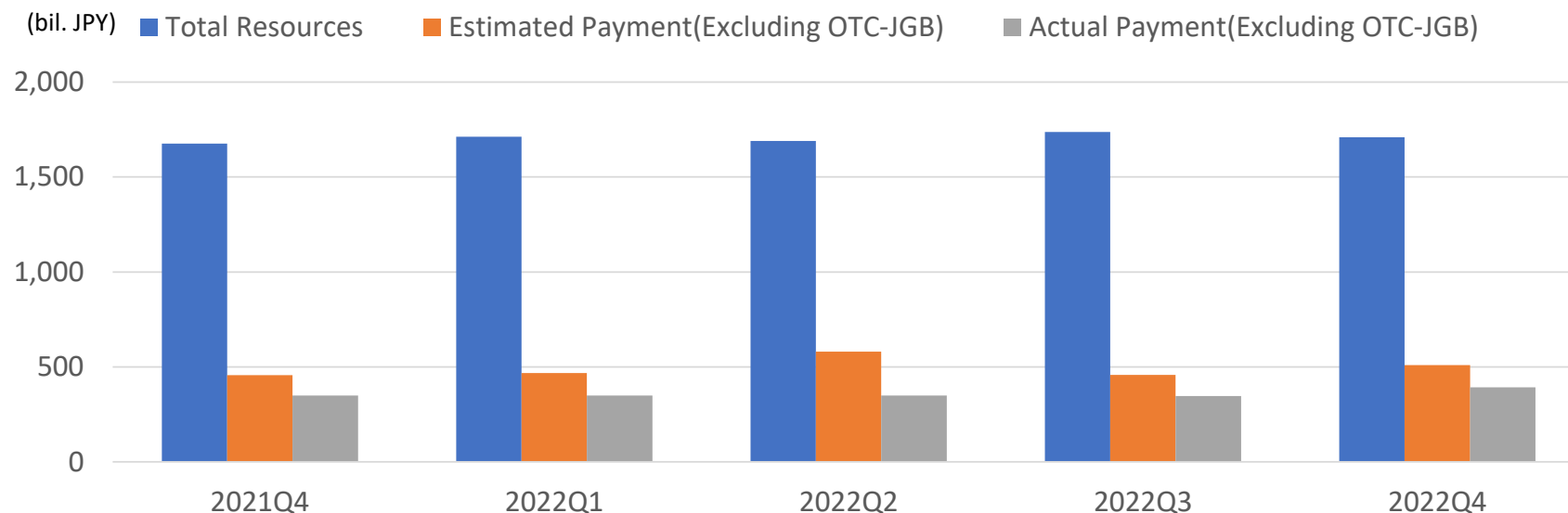
商先法に基づく商品の担保は中央銀行口座を利用していません。

外貨のみを未保全の商業銀行口座に預託しています。

Liquidity (1/2)

PQD References: 7.1.2-7.1.8, 7.3.1, 7.3.2, 7.3.4

Qualifying Liquid Resources (end of Quarter)
and Cover 1 Result of Estimated(during Quarter)/Actual(previous 12 months) Largest Payment Obligations



Number of Liquidity Stress Test Breaches (during Quarter)

	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4
Excluding OTC-JGB	0	0	0	0	0

Note: For OTC- JGB, JSCC has established a liquidity framework via JGB repo transactions with Clearing Participants and other financial institutions.

注：国債店頭取引においては、清算参加者又はそれ以外の金融機関との国債証券のレポ取引により、資金流動性を調達する制度を設けています。

Liquidity (2/2)

PQD References: 7.1.2-7.1.8

Size and Composition of Qualifying Liquid Resources (end of Quarter)

(bil. JPY)

	2021Q4	2022Q1	2022Q2	2022Q3	2022Q4
Cash deposited at a central bank of issue of the currency concerned*	121.8	144.6	122.7	170.2	142.3
Cash deposited at other central banks	0.0	0.0	0.0	0.0	0.0
Secured cash deposited at commercial banks (including reverse repo)*	0.9	1.0	0.8	0.1	0.6
Unsecured cash deposited at commercial banks	41.2	41.2	41.2	41.2	41.2
Secured committed lines of credit including committed foreign exchange swaps and committed repos	0.0	0.0	0.0	0.0	0.0
Unsecured committed lines of credit	1,512.7	1,525.2	1,525.2	1,525.2	1,525.2
Highly marketable collateral and convertible into cash with prearranged and highly reliable funding arrangements	0.0	0.0	0.0	0.0	0.0
Other	0.0	0.0	0.0	0.0	0.0
Total	1,677	1,712	1,690	1,737	1,709

Note: Cash is deposited at a central bank and secured cash deposited at commercial banks, depending on JSCC's rules. For ETP, each Clearing Participant must deposit yen cash with a value that is at least 50% of their default fund requirement, minus JPY1 billion. Therefore, the level of cash varies depending on the default fund requirement.

"Unsecured committed lines of credit" mean secured yen-denominated and foreign currency denominated liquidity supplies from its parent company and multiple commercial banks that have been designated as Fund Settlement Banks (Liquidity Supply Facilities).

注：中央銀行及び商業銀行の現金預金は、清算基金所要額から10億円を控除した額の半額以上について円貨での預託を求める上場商品に係る清算基金の現金預託制度によるものであり、その額は清算基金所要額に連動します。

「コミットされた無担保信用供与枠：Unsecured committed lines of credit」とは、親会社及び資金決済銀行として指定された複数の商業銀行から確保している流動性供給枠（資金流動性供給ファシリティ）を指します。

Operational Availability

PQD References: 17.1.1, 17.2.1

Actual/Target Availability of the Core Systems (previous 12 months)

	2021Q4	2022Q1	Actual 2022Q2	2022Q3	2022Q4	Target
ETP	100.00%	100.00%	100.00%	100.00%	100.00%	99.99%
CDS	100.00%	100.00%	100.00%	100.00%	100.00%	99.90%
IRS	100.00%	100.00%	100.00%	100.00%	100.00%	99.90%
OTC-JGB	100.00%	100.00%	100.00%	100.00%	100.00%	99.99%

Topic of This Quarter

Simulations of potential future margin and parameter changes

[Assumptions]

- Margin changes of key Japanese-yen rate products are estimated assuming that the same historical returns that occurred following the December 20 BOJ monetary policy meeting, would occur again when the BOJ meets on March 10.
- Specifically, with an assumption that a simulation period from February 1, 2023 to April 19, 2023 would encounter the same historical returns from November 11, 2022 to January 31, 2023 so that the same historical return on last December 20 would be the simulated return on March 10, 2023, margin changes during the period are simulated.
- Note that the actual returns may be different during the period, while the simulations do not represent the possible largest actual returns or margin changes.

[Simulated scenarios (ex. 10-year JGB futures)]



The same historical returns during the period from November 11, 2022 to January 31, 2023 are assumed to reoccur during the simulation period from February 1, 2023 to April 19, 2023 so that the same historical returns realized at the last December meeting would replay at the March meeting.

[Simulation results: Summary]

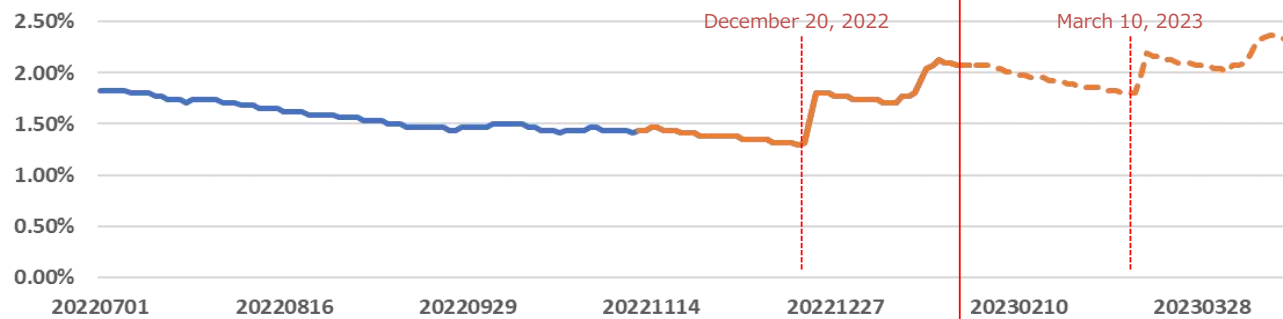
The ratio of margins to face values (notional amounts)

Products 商品	A. Actual@1/31	B. Largest results	C.=B/A
10-Year JGB Futures PSR	2.04%	2.37%	116%
JGB (D class) Market Price Fluctuation Risk Factor*	0.98%	1.15%	117%
10-Year OIS Pay Fix	1.85%	2.11%	114%
10-Year OIS Receive Fix	2.82%	3.22%	114%

*Note : D class is Interest-Bearing JGBs with remaining years to maturity of 7-10 years

[Simulation results: Charts of margin/parameter changes]

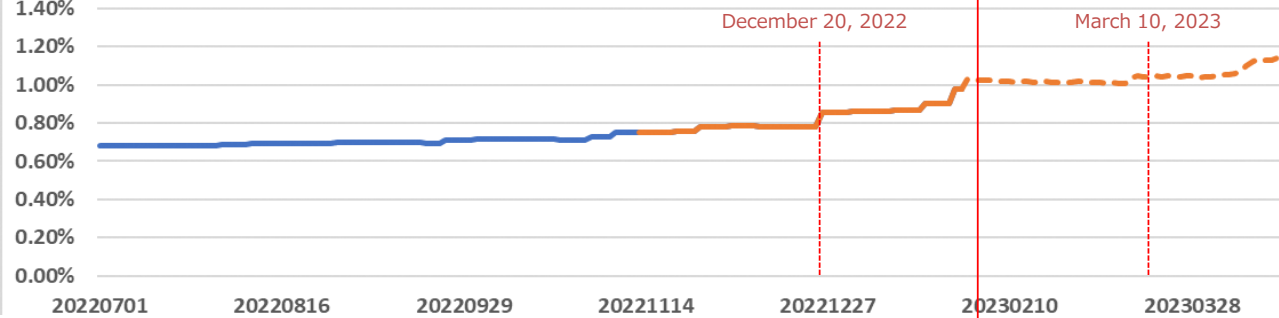
10 Year JGB Future PSR



Gradual decrease until March 10 and then large increase on March 13

- December 21 1-day increase +19%
- March 13 1-day increase +10%
- The largest result (April 12 2.37% face value) is 16% higher than that in December and January (January 23 – 31 2.04% face value)

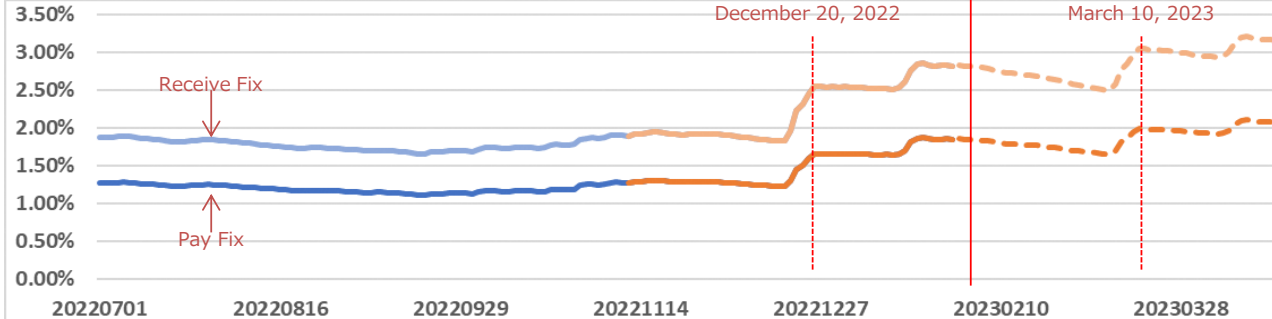
JGB (D class*) Market Price Fluctuation Risk Factor



Gradual increase during the simulation period

- The largest result (April 19 1.15% face value) is 18% higher than that in December and January (January 30 0.98% face value)

10-Year OIS Base IM



Gradual decrease until March 10 and then large increase on March 13

- December 21 1-day increase +11% (Pay), +13% (Receive)
- March 13 1-day increase 7% (Pay, Receive)
- The largest result (April 12 2.11% notional (Pay), 3.22% (Receive) is +13% higher than that in December and January (January 24, 1.87% notional (Pay), 2.86% notional (Receive))