OCC℠ Recovery and Orderly Wind-Down Plan Participant Guide

September 2020

OCC THE FOUNDATION FOR SECURE MARKETS℠

Contents

This OCC Recovery and Orderly Wind-Down Plan Participant Guide is intended to provide market participants with a high-level overview of OCC's Recovery and Orderly Wind-Down Plan. Nothing in this Guide supersedes the content of OCC's Rules, By-Laws, or Recovery and Orderly Wind-Down Plan. This Guide is subject to change.

OCC is a SIFMU

Systemically Important Financial Market Utility

"A failure or disruption of OCC could have cumulative negative effects on U.S. domestic options and futures markets, financial institutions, and the broader financial system that are substantial in their own right and so severe as to create a risk that liquidity and credit problems experienced could spread among financial institutions and other markets."

Financial Stability Oversight Council, Designation of Systemically Important Financial Market Utilities
July 18, 2012—Designating OCC as a SIFMU

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Regulatory Oversight

SIFMU designation expanded regulatory oversight of OCC.

REGULATORS

EQUITIES	FUTURES
SEC U.S. Securities and Exchange Commission	**CFTC** Commodity Futures Trading Commission

Federal Reserve

Board of Governors

Reserve Bank of Chicago

NOTE: OCC's SIFMU designation does not extend to OCC's futures business as OCC is not designated as a systemically important derivatives clearing organization under CFTC regulations.

SIFMU designation imposes more extensive requirements under SEC regulations.

In aggregate, over 2,000 SEC and CFTC regulations are applicable to OCC.

Also provides for prudential oversight by the Federal Reserve.

International

OCC has reporting requirements to certain Canadian regulators.

EU and UK applications to be recognized as to provide clearing services in the EU and the UK are in development.

OCC is on the list of CCPs that will enter the UK's Temporary Recognition Regime pending the UK's exit from the EU.

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Who OCC Serves

OCC is the sole clearing agency for listed equity options in the U.S.

3 Regulators	**16** Options Exchanges	**2** Futures Exchanges	**105** Clearing Members

A list of OCC participant exchanges and futures exchanges is available at https://www.theocc.com/Clearance-and-Settlement/Participant-Exchanges.
A list of OCC clearing members is available at https://www.theocc.com/Company-Information/Member-Directory.

What is the Purpose of a Recovery and Orderly Wind-Down Plan?

OCC maintains a Recovery and Orderly Wind-Down Plan ("Plan") in the unlikely event that it experiences liquidity shortfalls and/or credit losses that threaten its viability as a going concern.

The purpose of a recovery plan is:

"[*I*]*dentify scenarios that may potentially prevent [a Covered Clearing Agency] from being able to provide its critical operations and services as a going concern and assess the effectiveness of a full range of options for recovery and orderly wind-down…and prepare[d] appropriate plans on the result of that assessment.*"

Standards for Covered Clearing Agencies, 81 Fed. Reg. 70810 (Oct. 13, 2016).

"…a derivatives clearing organization shall identify scenarios that may potentially prevent it from being able to meet its obligations, provide its critical operations and services as a going concern and assess the effectiveness of a full range of options for recovery or orderly wind-down."

17 C.F.R. § 39.39(c)(1).

What Is the Expected Content of a Recovery Plan?

Neither the Securities Exchange Act of 1934 nor the SEC's regulations specify the expected contents of a recovery plan. CPMI-IOSCO and the CFTC, however, provide some guidance on a recovery plan's content.

The CPMI-IOSCO report, Recovery of Financial Market Infrastructures provides that a recovery plan should include the following sections:

- A high-level summary that provides an overview of the recovery plan and how it will be implemented,
- An identification of the CCP's critical services,
- A substantive description of the CCP's recovery tools,
- An identification of "recovery triggers," and
- A discussion of stress scenarios that could threaten the viability of the CCP.

The CFTC has provided guidance about the subjects that should be addressed in a derivatives clearing organization's (DCO)'s recovery plan, which include:

- A discussion of stress scenarios that could threaten the DCO's viability;
- A substantive description of the DCO's recovery tools;
- Agreements to be maintained during recovery;
- Financial resources necessary to implement recovery;
- Governance applicable to the recovery process,
- Notifications to regulators, clearing members, and others;
- Material assumptions; and
- Arrangements for updates and testing.

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Plan Governance

OCC has filed its Recovery and Orderly Wind-Down Plan with, and received approval from, the SEC. The Plan is reviewed periodically to maintain its viability.

Consistent with CPMI-IOSCO's Principles for Financial Market Infrastructures, SEC and CFTC rules require systemically important CCPs to maintain viable plans for recovery and resolution (or wind-down) necessitated by (i) uncovered credit losses and liquidity shortfalls, and (ii) general business risk, operational risk, and other risks that threaten the CCP as a going concern.

- OCC's Plan was approved by the SEC in September 2018.

OCC reviews the Plan at least annually, and any proposed changes are reviewed and approved by OCC's Board of Directors ("Board") before being filed with the SEC for approval.

- Review of the Plan is lead by OCC's Recovery and Wind-Down Working Group, which is a cross-functional group that meets to review the Plan and recommends modifications to OCC's Management Committee, which upon approval recommends changes to the Board Risk Committee and the Board.

OCC Critical Services

OCC's Plan has defined clearance and settlement services for listed derivatives and pricing and valuation services as critical services.

CPMI-IOSCO and FSB have provided guidance on the identification of critical services.

"Critical" refers to the importance of the activity, function, or service to the smooth functioning of the market(s) that the financial market utility serves (including both clearing members and other financial market utilities) and, in particular, the maintenance of financial stability.

- Critical services are performed by "Critical Support Functions," which are functions performed within OCC (or outsourced to third parties) that, if they failed, would lead to the inability of OCC to perform its critical services.

Each service provided by OCC was assessed for criticality against criteria defined by an OCC internal Recovery and Wind-Down Plan Working Group.

In making the assessment OCC considered:

(1) OCC's market share for the service provided,

(2) the service's importance to the overall economy,

(3) the availability of existing alternate service providers,

(4) barriers to a client's ability to transfer to alternative service provider(s),

(5) impact to the members or markets if the OCC service discontinues,

(6) financial barriers to new entry by alternative service providers,

(7) operational barriers to new entry by alternative service providers,

(8) legal/regulatory barriers to new entry by alternative service providers.

OCC's Default Management Waterfall

The Recovery and Orderly Wind-Down Plan is reflected in OCC's default management waterfall.

- Defaulting Clearing Member's Margin Contribution
- Defaulting Clearing Member's Clearing Fund Contribution
- OCC Skin-in-the-Game*
- Non-defaulting Clearing Members' Clearing Fund Contributions and OCC Contribution**

Recovery

- Assessment Powers
- Voluntary Payments | Voluntary Tear-ups
- Partial Tear-up

Resolution

- Closeout Netting

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* Skin-in-the-game is a variable amount based on the amount of 110% of OCC's Target Capital Requirement, as defined in the Capital Management Policy
** The OCC contribution of the Executive Deferred Compensation Plan

OCC's Enhanced Risk Management and Recovery Tools

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International Standards for Recovery Tools

OCC considers CPMI-IOSCO recommended criteria in developing its recovery tools.

Comprehensive	Effective	Transparent, measurable, manageable, and controllable	Create appropriate incentives	Minimize negative impact
The tools should comprehensively address how OCC would continue to provide its critical services.	Each tool should be reliable and timely, and OCC should have a strong legal basis for its use.	The tools should enable those who would bear losses and shortfalls to measure, manage, and control their exposure to OCC.	The tools should properly incentivize OCC's owners, participants, and other stakeholders.	The tools should minimize negative impact on participants and the financial system.

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OCC's Enhanced Risk Management Tools

Tool	Purpose	Description and Analysis
Cash Clearing Fund Requirement	Liquidity Shortfalls	▪ OCC established a minimum cash contribution to the Clearing Fund. ▪ Executive Chairman, CEO, or COO may temporarily increase the minimum to up to 100% of the Clearing Fund.
Borrow Against Clearing Fund	Liquidity Shortfalls	▪ OCC has the authority to borrow against the Clearing Fund. ▪ Executive Chairman, CEO, or COO has discretion to determine the method of borrowing.
Auction of Defaulting Clearing Member's Portfolio	Re-establish Matched Book	▪ OCC has the authority to accept a prevailing bid for a defaulter's portfolio. ▪ Any decision by OCC to accept a bid that would result in a loss chargeable against the Clearing Fund requires review and approval by the Board Risk Committee.

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OCC's Enhanced Risk Management Tools

OCC's Recovery and Orderly Wind-Down Plan, Rules, and By-Laws provide tools and authorities for Management and the Board to address credit losses and liquidity shortfalls and enable OCC to re-establish a matched book.

Cash Clearing Fund Requirement

Executive Chairman, CEO, or COO has authority to temporarily increase the minimum cash requirement up to 100% of the Clearing Fund.

- Any temporary increase must be reviewed by the Board Risk Committee as soon as practical, but in any event, within 20 days of any such increase. Upon reviewing, the Risk Committee must determine whether the temporary increase is still necessary.

Borrow Against Clearing Fund

OCC is authorized to pledge Clearing Fund assets to obtain temporary liquidity.

Auction of Defaulting Clearing Member's Portfolio

OCC has the discretion to select the best bid submitted for any portfolio in an auction.

OCC retains the right to reject any or all bids (e.g., if the bids are unreasonably far from market value).

The acceptance of a bid resulting in a loss chargeable against the Clearing Fund must be approved by the Risk Committee.

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OCC's Recovery Tools

Tool	Purpose	Description and Analysis
Assessment Rights	Uncovered Losses	OCC has assessment rights for up to 200% of each Clearing Member's Clearing Fund contribution with a rolling maximum 20-day cooling-off period.
Voluntary Payments	Uncovered Losses	OCC has the authority to call for voluntary contributions from non-defaulting Clearing Members. Can be done only after: (i) one or more Clearing Members default, and (ii) OCC determines that it does not have sufficient resources to satisfy its obligations resulting from the default(s).
Voluntary Tear-Up	Re-Establish Matched Book	OCC has the authority to call for a Voluntary Tear-Up from non-defaulting Clearing Members/customers. Can only be done after: (i) one or more Clearing Members default, (ii) OCC has attempted one or more auctions, and (iii) OCC determines that it does not have sufficient resources to satisfy its obligations resulting from the default(s).
Partial Tear-Up	Re-Establish Matched Book	OCC has the authority to mandatorily tear-up the remaining open positions of a defaulted Clearing Member and related open positions of non-defaulting Clearing Members/customers. Can only be done after: (i) one or more Clearing Members default, (ii) OCC has attempted one or more auctions, and (iii) OCC determines that it may not have sufficient resources to satisfy its obligations resulting from the default(s).

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OCC's Recovery Tools

OCC's Recovery and Orderly Wind-Down Plan, Rules, and By-Laws provide tools and authorities for OCC Management and the Board to address credit losses and liquidity shortfalls and enable OCC to re-establish a matched book.

Assessment Rights

200% of a Clearing Member's then required Clearing Fund contribution.

A rolling maximum 20-day cooling-off period that requires withdrawing Clearing Members to close out or transfer all open positions by the end of the cooling-off period in order to avoid being required to replenish the Clearing Fund after the cooling-off period ends.

Voluntary Payments

If OCC successfully recovers from the estate of the defaulter(s), non-defaulting Clearing Members that made voluntary contributions will be compensated first from any recovery of defaulting Clearing Member's assets. If the amount of the recovery is less than the amount in voluntary contributions, then compensation will be made pro rata to non-defaulting Clearing Members that made voluntary contributions.

Voluntary Tear-Ups

If OCC successfully recovers from the estate of the defaulter(s), Clearing Members and customers that voluntarily tore-up their positions will be compensated for their voluntary tear-up losses second from any recovery, only after full compensation of non-defaulting Clearing Members that made voluntary contributions. If the amount of the recovery is more than the amount in voluntary contributions but less than the amount of voluntary tear-up losses, then compensation will be made pro rata to Clearing Members and customers that voluntarily tore-up their positions.

Partial Tear-Ups

Mandatory partial tear-ups would occur only at the discretion of the Board and following (i) a default, (ii) one or more failed auctions, and (iii) a determination that OCC may not have sufficient remaining resources to meet its obligations and liabilities arising from such default. The Board has the discretion to re-allocate the losses of a mandatory partial tear-up by way of a special charge levied against non-defaulting Clearing Members.

Tools/Approaches OCC Does Not Use

There are several tools and approaches used by other CCPs that OCC does not use, including:

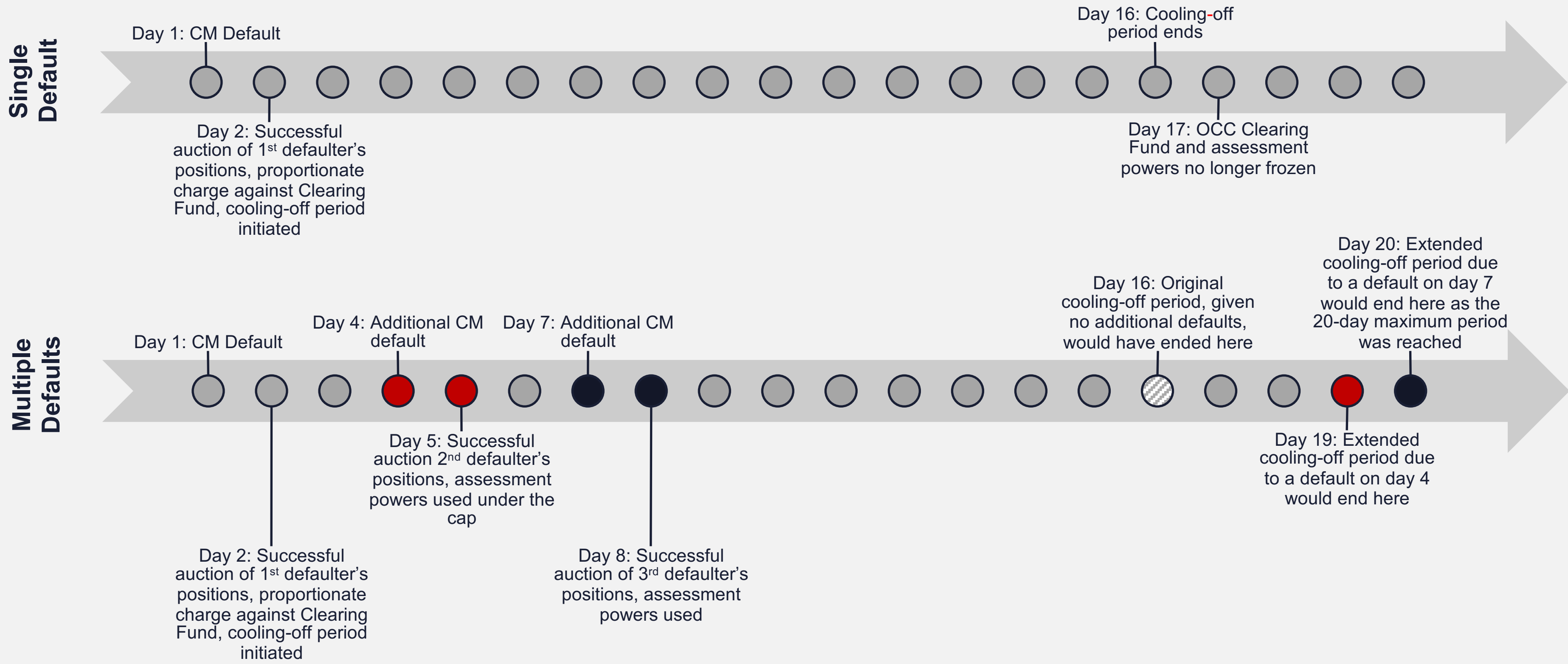
Tool	Purpose	Description and Analysis
Variation Margin Gains Haircutting	Uncovered Losses	▪ Reduce pro rata amount owed participants with in-the-money positions, while continuing to collect from participants with out-of-money positions. ▪ May concentrate losses on a subset of participants, including end-users who are not necessarily best able to cope with them. ▪ Considered by some industry participants as a less appropriate tool for markets that primarily serve retail investors. ▪ No significant variations amounts; likely very concentrated among certain Clearing Members.
Use of Non-Defaulters' Initial Margin	Uncovered Losses	▪ Write down initial margin provided by non-defaulting participants, who would have to replenish initial margin and/or reduce exposure to the CCP. ▪ U.S. laws protecting client collateral limit the applicability of this tool. ▪ May have significant procyclical effects, and impact participants' willingness to participate in a CCP.
Forced Allocation	Matched Book	▪ Allocate defaulter's open positions to non-defaulting participants, at prices determined by the CCP. ▪ Methods may include allocating to participants who, for example (i) hold positions related to defaulter positions, or (ii) made unsuccessful bids in auctions. ▪ May result in participants being forced to take on risk that they can't measure ex-ante and/or are unable to manage, particularly in a volatile market. ▪ May concentrate exposures in a subset of participants.
Forced Repo	Liquidity Shortfalls	▪ Require participants to enter into mandatory repo transactions. ▪ Require a CCP to analyze each participant's ability to absorb liquidity allocations of the magnitudes contemplated, particularly non-bank participants, and may generate undue risk to participants or indirectly back to the CCP. ▪ Most appropriate only for certain participants; creates additional operational burdens.
Payment in Kind	Liquidity Shortfalls	▪ Require participants who are owed funds by the CCP to accept payments in non-cash forms. ▪ Require a CCP to analyze each participant's ability to absorb liquidity allocations of the magnitudes contemplated, particularly non-bank participants, and may generate undue risk to participants or indirectly back to the CCP. ▪ Non-cash forms acceptable to participants would be a very narrow subset.

OCC's Recovery Tool Examples and Illustrations

Cooling-Off Period Timeline for Assessments

Assessments are subject to an automatic minimum 15 calendar-day cooling-off period (rolling to a maximum of 20 days).

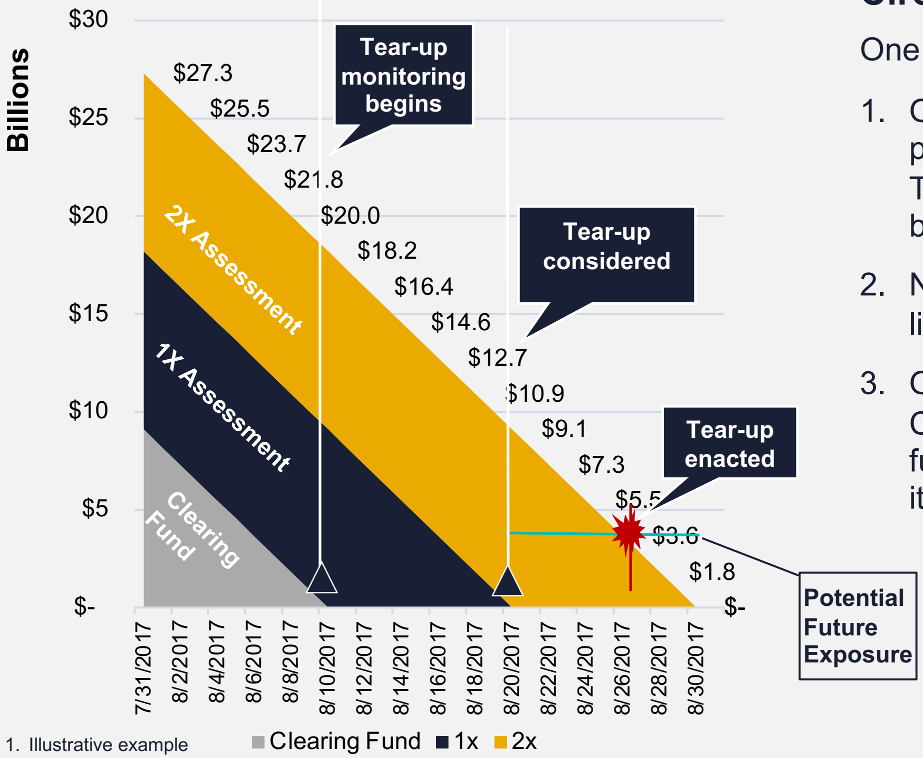
ILLUSTRATION OF COOLING-OFF PERIOD



What is OCC's Tear-Up Authority?

Voluntary and partial tear-ups are recovery tools designed to return OCC to a matched book after other default management tools have failed. The tools work by extinguishing the remaining contracts of a defaulted Clearing Member at OCC's marking price.

Post Clearing Member(s) Default OCC Financial Resources Burndown[1]



1. Illustrative example

Circumstances of Use

One or more Clearing Members have defaulted.

1. OCC has conducted at least one auction of the portfolio(s) of the defaulted Clearing Member(s). The auction(s) failed to return OCC to a matched book state.
2. No market exists for remaining contracts and/or no liquidation agent is available.
3. OCC has exhausted the pre-funded portion of the Clearing Fund and has determined the potential future exposure of residual positions may exceed its remaining assessment powers.

Tear-up monitoring begins after exhaustion of the pre-funded portion of the Clearing Fund. Tear-ups are only enacted when potential future exposure on remaining open positions may exceed OCC's Remaining Financial Resources and assessment authority.

What is Potential Future Exposure?

Potential Future Exposure (“PFE”) is a measure of the loss OCC may incur from holding the remaining positions over a two-day period in stressed market conditions.

PFE is an extension of the STANS℠ model OCC uses to calculate daily margin requirements. PFE consists of the position net asset value, expected shortfall, and a stress-test component. Unlike the daily margin requirement, which only looks to collateralize 25% of the stress-test charge, PFE utilizes the full value of the stress-test charge.

PFE vs. Remaining Financial Resources		
PFE	NAV:	$(100,000)
	Expected Shortfall:	$(10,000,000)
	Stress Component:	$(4,000,000)
	Total:	$(14,100,000)
Remaining Financial Resources	Remaining Assessment Powers:	$14,000,000
	Approved Use of Retained Earnings:	--
	Total:	$14,000,000
Net		$(100,000)

Based upon remaining positions in the defaulted clearing member(s) portfolio.

Once PFE exceeds OCC’s Remaining Financial Resources, it will seek Board approval to enact tear-ups.

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What Prices Would OCC Use?

Although OCC's rules provide flexibility, OCC intends to conduct all tear-ups based on OCC's marking price. This would provide for consistency with prices used for marking other open positions and benefit from OCC's existing pricing procedures.

OCC Tear-Up Timeline

Time	6AM	7AM	8AM	9AM	10AM	11AM	12PM	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM
Day T												Positions finalized and PFE calculated				Board grants tear-up authority		
Day T+1				Voluntary Tear-Ups tendered														

	Board authorizes tear-up authority
	OCC issues voluntary tear-up notice to Clearing Members
	Voluntary tear-ups tendered
	Partial tear-ups calculated
	Voluntary and partial tear-ups effected
	Positions finalized and PFE calculated

Both voluntary and partial tear-ups presumably will be effected at the closing price for Day T+1

INITIATING TEAR-UP PROCESS: Upon Board approval, OCC issues notice to affected Clearing Members and solicits voluntary tenders. At the end of the day, tender notices are compared with remaining positions to be torn-up after allocation of voluntary interest. In the event OCC has not received enough voluntary interest, it will allocate tear-ups pro rata to the other accounts holding those positions on an involuntary basis. All tear-ups (both voluntary and involuntary) will be conducted at close of business on T+1 and presumably at OCC's marking price.

OCC Price Source Hierarchy

In the ordinary course of business, OCC obtains pricing data from multiple sources, including listing exchanges and market data vendors.

Equities (Underlier, Collateral Deposits, and Stock Loan)	▪ Last traded price. ▪ Midpoint of most recent bid/ask. ▪ Review of related products (e.g., SPY and IVV).
Index Underlier	▪ Listing exchange provided value (Obtained from service provider, e.g., Russell, S&P). ▪ Market data vendor provided value (unofficial close). ▪ Review of related products (e.g., SPX, SP futures adjusted for cost of carry and/or related ETFs).
Futures	▪ Listing exchange final settlement. ▪ Mid-pointing of most recent bid/ask. ▪ Review of surrounding contract months that have pricing. ▪ Review of related products.
Options and Futures Options	▪ All options and futures options are valued using output from OCC's Implied Volatility Smoothing Algorithm. ▪ Bid/ask prices are core inputs, along with yield curve, dividends, etc. ▪ Attempts to enforce put/call parity and elimination of price arbitrage while keeping final price within the bid/ask spread.

Approach for Products Lacking Price Discovery

OCC's existing pricing procedures provide for the use of alternative or theoretical prices when no current price exists, as described below.

If the underlying deliverable does not have current market quotations:

- Per OCC Rule 805(j), OCC will use the last traded price of the security.

If option contracts do not have current market quotations:

- If no current market quotations are available for an individual or limited number of option contracts, OCC will utilize price and implied volatility of surrounding contracts to determine a reasonable final settlement price in line with the rest of the option chain.
- If no current market quotations are available for any contract in an option chain, OCC will utilize all current pricing inputs available (i.e., underlying value, time-to-maturity, yield curve, dividend) along with prior day's volatility curve (adjusted for change in underlying value) to determine the current marking value for the contract.

In the normal course of business, OCC encounters situations where there are no current market prices for a product it needs to mark and maintains processes to address these cases.

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Example: Oversubscribed Tear-Up

Clearing Member 3 has defaulted and has 920 contracts that need to be torn-up. A total of 1,315 contracts were voluntarily tendered resulting in an oversubscription of 395 contracts. OCC will extinguish the 920 contracts exclusively through voluntary tear-up, which will be apportioned pro rata between Clearing Members 4 and 5.

PJOQ August 50 Calls Remaining Open Positions at Defaulting Member (red) vs. Voluntary Tear-Up (green)

Clearing Member	AT	Symbol	Call / Put	Series/ Contract Date	Strike	Exp Date / Settle Date	Start Long	Start Short
3	C	PJOQ	C	8/1/2017	50	7/28/2017 7/31/2017	0	920
4	C	PJOQ	C	8/1/2017	50	7/28/2017 7/31/2017	0	395
4	F	PJOQ	C	8/1/2017	50	7/28/2017 7/31/2017	10	0
5	C	PJOQ	C	8/1/2017	50	7/28/2017 7/31/2017	529	0
5	F	PJOQ	C	8/1/2017	50	7/28/2017 7/31/2017	776	0

Pro-Rata Assignment of PJOQ August 50 Calls Voluntary Tear-Up (green)

Clearing Member	Long Positions Tendered		Pro-Rata Assigned Voluntary Tear-Up		Remaining Long (After Tear-Up)
	Number	Percent	Number	Percent	
4F	10	0.8%	7	0.8%	3
5C	529	40.2%	370	40.2%	159
5F	776	59.0%	543	59.0%	233
Total	**1315**	**100%**	**920**	**100%**	**395**

Example: Undersubscribed Tear-Up

Clearing Member 3 has defaulted and has 260 contracts that need to be torn-up. During the voluntary tear-up period only 40 contracts were tendered. All voluntary tenders are accepted. OCC must then proceed with partial tear-up of the 220 remaining contracts. This is done by pro rata assignment.

PJMQ Futures Remaining Open Positions at Defaulting Member (red) vs. Voluntary Tear-Up (green)

Clearing Member	AT	Symbol	Series/ Contract Date	Exp Date	Start Long	Start Short
1	C	PJMQ	7/3/2017	8/8/2017	0	40
2	C	PJMQ	7/3/2017	8/8/2017	0	20
3	C	PJMQ	7/3/2017	8/8/2017	0	260
4	C	PJMQ	7/3/2017	8/8/2017	0	40
5	F	PJMQ	7/3/2017	8/8/2017	40	
6	F	PJMQ	7/3/2017	8/8/2017	2	
7	C	PJMQ	7/3/2017	8/8/2017	126	
7	F	PJMQ	7/3/2017	8/8/2017	92	
8	C	PJMQ	7/3/2017	8/8/2017	100	

Pro-Rata Assignment of PJMQ Partial Tear-Up (green)

Clearing Member	Long Positions Tendered		Pro-Rata Assigned Mandatory Tear-Up		Remaining Long (After Tear-Up)
	Number	Percent	Number	Percent	
6F	2	0.6%	1	0.6%	1
7C	126	39.4%	87	39.4%	39
7F	92	29.0%	63	29.0%	29
8C	100	31.0%	69	31.0%	31
Total	**320**	**100%**	**220**	**100%**	**100**

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Appendix

Terms

Remaining Financial Resources

Resources available for immediate use by OCC to cover losses resulting from the defaults. At this stage of the default management process, it is likely that Remaining Resources are only the amount of OCC's remaining assessment powers and possibly the contribution of OCC's retained earnings, if such contribution has received the approval of the Board and unanimous approval of Stockholder Exchanges.

Tear-Up Exposure

The amount of money that OCC would pay (or receive) from closing out the positions in a defaulted Clearing Member's remaining portfolio at the prior day's closing price, plus a conservative estimate of the stressed loss that may occur over a 2-day period. Tear-Up Exposure is NAV + Expected Shortfall + 100% of the margin stress test component (instead of 25%, which is the amount used for OCC's margin calculation). OCC believes that using 100% of the stress test component provides an appropriately conservative estimate of the potential future exposure of a defaulted Clearing Member's' remaining portfolio, sufficient to ensure that OCC is likely to have the necessary remaining resources needed to:

(1) pay individuals who had their positions torn-up the amount of accumulated unrealized gains on their positions; and

(2) compensate individuals who had their positions torn-up for the replacement cost of their torn-up positions (inclusive of reasonable and customary transaction costs and fees).

Covered Clearing Agency Regulations

SEC Regulation	Description of Regulatory Requirement
Rule 17Ad-22(e)(3)(ii)	Establish, implement and maintain plans for the recovery and orderly wind-down necessitated by credit losses, liquidity shortfalls, general business risk losses, or any other losses.
Rule 17Ad-22(e)(4)(viii)	Effectively identify, measure, monitor, and manage credit exposures, including by addressing the allocation of credit losses a Covered Clearing Agency may face if collateral and other resources are insufficient to fully cover its credit exposures.
Rule 17Ad-22(e)(4)(ix)	Effectively identify, measure, monitor, and manage credit exposures, including by establishing a process to replenish any financial resources a Covered Clearing Agency may use following a default or other event.
Rule 17Ad-22(e)(7)(viii)	Effectively measure, monitor, and manage liquidity risk by, at a minimum, addressing foreseeable liquidity shortfalls that would not be covered by liquid resources.
Rule 17Ad-22(e)(ix)	Effectively measure, monitor, and manage liquidity risk by, at a minimum, establishing a process for replenishing any liquid resources that a Covered Clearing Agency may employ during a stress event.

Subpart C DCO Regulations[1]

CFTC Regulation	Description of Regulatory Requirement
Rule 39.35(a)(1)	Adopt explicit rules and procedures that address fully any loss arising from any individual or combined default, which address how OCC would allocate losses exceeding its available financial resources. Include rules and procedures that address: ▪ Allocation of losses exceeding financial resources available to the DCO; ▪ Repayment of funds borrowed by the DCO; and ▪ Replenishment of financial resources employed during a stress event, so that the DCO can continue to operate in a safe and sound manner.
Rule 39.35(b)(1)	Establish rules and/or procedures that enable OCC to promptly meet all of its settlement obligations if one or more Clearing Members default or if a liquidity shortfall exceeds OCC's available financial resources.
Rule 39.35(b)(2)(iii)	Establish a process to replenish any liquidity resources that OCC may employ during a stress event so that it can continue to operate in a safe and sound manner.
Rule 39.39(b)	Maintain viable plans for orderly recovery and wind-down necessitated by credit losses, liquidity shortfalls, general business risk losses or any other losses.

1. OCC is not currently subject to these rules.

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Applicable PFMI Standards

PFMI Principle and Key Consideration	Description of International Standard
PFMI Principle 3, Key Consideration 4	Identify scenarios that may potentially prevent an FMI from being able to provide its critical operations and services as a going concern and assess the effectiveness of a full range of options for recovery or orderly wind-down. Prepare appropriate plans for its recovery or orderly wind-down based on the results of that assessment.
PFMI Principle 4, Key Consideration 7	Establish rules and procedures that address fully any credit losses it may face as a result of any individual or combined default among its participants. These rules and procedures should also: ▪ Address how potentially uncovered credit losses would be allocated, including the repayment of funds borrowed from liquidity providers; and ▪ Indicate the Financial Market Infrastructure’s process to replenish any financial resources that may be employed during a stress event.
PFMI Principle 7, Key Consideration 10	Establish rules and procedures to enable the FMI to effect same-day, and where appropriate multi-day and intraday, settlement obligations on time following one or more Clearing Members default. These rules and procedures should also: ▪ Address unforeseen/potentially uncovered liquidity shortfalls; and ▪ Indicate the FMI’s process to replenish any liquidity resources it that may be employed during a stress event.

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