



# DEFAULT MANAGEMENT

MAY 27, 2020



# DEFAULT MANAGEMENT

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- **Annual Default Drills (tests)**
- **Declaration of a Default**
- **Default waterfall**
- **Liquidity waterfall**
- **Porting**
- **Auction Process**
  - **Default Management Committee**
  - **Mechanism for conducting the auction**
  - **Incentives**
- **Failed auction process**
  - **Tear-up**

# Overview

IN PREPARATION FOR A SIGNIFICANT CLEARING PARTICIPANT DEFAULT, ICE MAINTAINS AND ENHANCES, AS NECESSARY, ITS RISK MANAGEMENT FRAMEWORK AND DEFAULT MANAGEMENT PLAN, WHICH ARE SUPPORTED BY APPROPRIATE TOOLS, MANAGEMENT INFORMATION AND TESTING

## Financial Resources

- **Maintain a prudent amount of default waterfall funds**
  - Based on current cleared portfolios
  - Based on current market conditions
- **Ensure sufficient liquid resources are available to meet the daily cash payouts required from the clearinghouse on behalf of the defaulted Clearing Participant (“CP”)**
  - Mark-to-market
  - Unsettled upfront-fees
  - Coupon payments

## Process and Tools

- **Establish a default management plan**
- **Develop tools to facilitate the execution of the default management plan**
- **Create standards for information exchange with CPs**
- **Explore additional default management elements**
  - Expand auction participation
  - Further incentivize competitive bidding
  - Maximize opportunity to return to a matched book

## Management Information

- **Each business day, provide management with up-to-date information required to execute the plan**
  - Provide position, risk, pricing and treasury information through systems views and end-of-day reports
  - Determine first-order hedges daily for each CP
  - Maintain an internal database of default management contacts
  - Administer Default Committee membership rotation if applicable (i.e., seconded traders)
  - Keep templates on file for official communications

## Testing

- **Conduct annual default management industry tests**
  - Participation from all CPs, clearinghouse management, Default Committee, Risk Committee, Board and regulators
  - Results reviewed by the Risk Committee, Board and regulators
- **Perform internal ad-hoc department-level tests, as required**
- **Perform stress testing and back testing of default waterfall funds**
  - Total value of resources
  - Available liquid resources

# Annual Default Management Tests

ICE CONDUCTS AN INDUSTRY TEST OF ITS DEFAULT MANAGEMENT PLAN IN COLLABORATION WITH CLEARING PARTICIPANTS AND THE DEFAULT COMMITTEE

## Purpose

- **Demonstrate clearinghouse and CP operational readiness to manage a potential CP default**
- **Demonstrate CPs' ability to price a realistic default portfolio under tight timeframes**
- **Explore new or additional components of the default management plan**
- **Provide opportunity for the industry and regulators to provide feedback to the clearinghouse to improve its plan and execution capabilities**

## Test Elements

- **Perform all internal business process steps as realistically as possible and in “real-time”**
  - Management and staff members meet, perform analysis, present results, make decisions and communicate with third parties as though a real CP default had occurred
- **Prepare a production-like parallel system environment and perform near end-to-end execution**
  - Run the simulation using test default portfolios combined with current clearinghouse positions
  - Book risk reducing trades
  - Execute auction mechanics
  - Perform auction award transfers and cash flow ledgering
  - Generate all standard end-of-day reports
- **Include all CPs in auction execution**
- **Require the seconded traders (if applicable to the clearing house) to report to the ICE offices to work with the Risk Department**
- **Complete accounting to demonstrate compliance with default and liquidity waterfalls**

# DEFAULT DETERMINATION

ICE uses specific criteria contemplated in its clearing houses' rules to determine whether a Clearing Participant is considered to be in a state of default

## Failure to Meet Specific Criteria

CP Failure to Pay Margin

CP Suspension or Expulsion (from a Market)

CP Failure to Meet Other Obligations of clearinghouse Membership

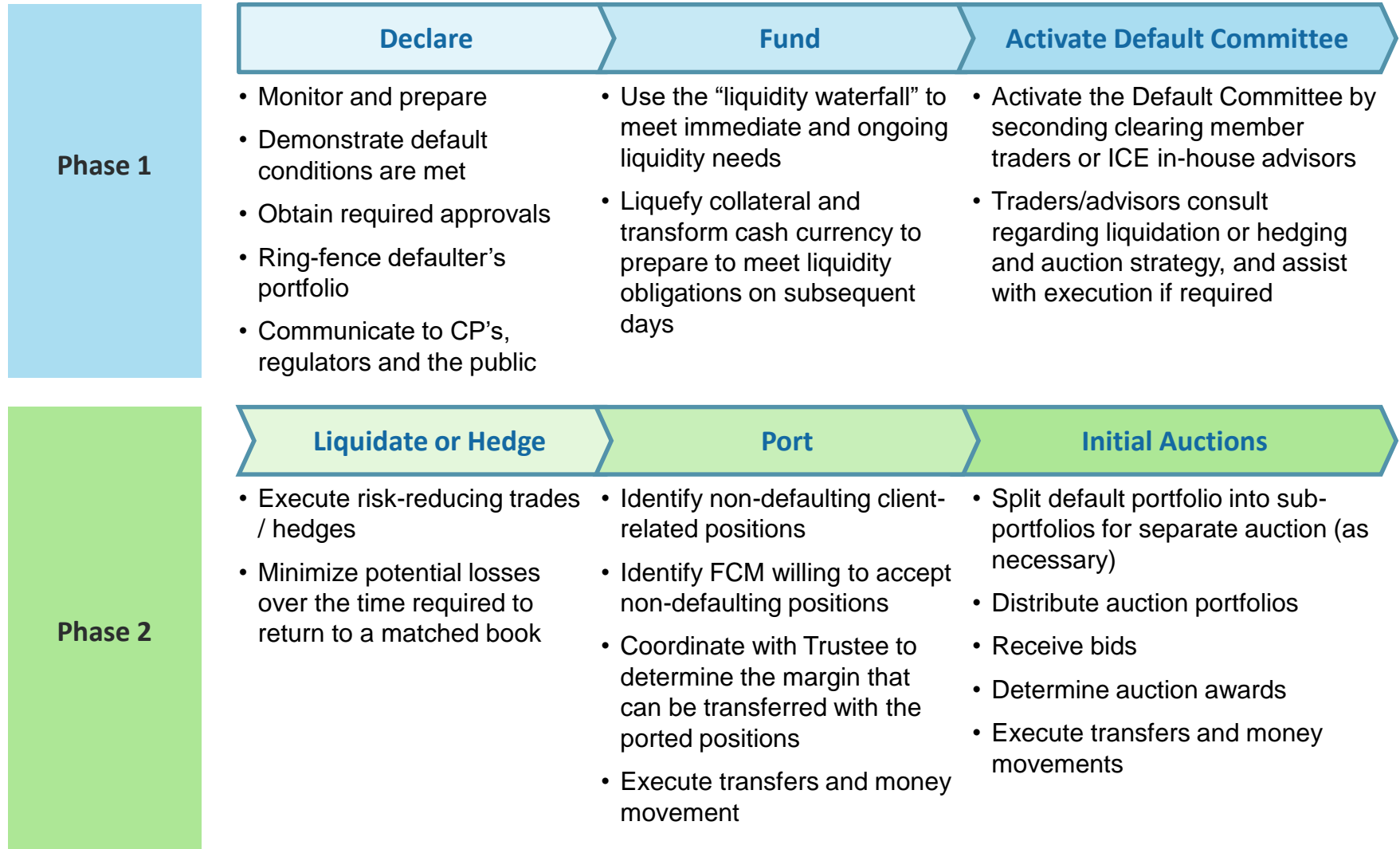
Guarantor Failure to Meet Obligations of its Guarantee

## Likely to Fail to Meet Specific Criteria

- Breach of terms of membership, refusal of application, suspension or expulsion from any market, exchange or clearinghouse
- Breach of terms of membership, withdrawal of authorization, suspension or expulsion from a regulatory body
- Regulatory body takes or threatens to take action
- CP or Guarantor becomes insolvent, makes an arrangement for the benefit of its creditors, is involved in an insolvency proceeding, etc.
- Failure to pay any sum due under any agreement (with certain exclusions such as where resulting from an operational error)
- Serving, enforcement or levying of any distress, execution or process against a property of the CP or Guarantor

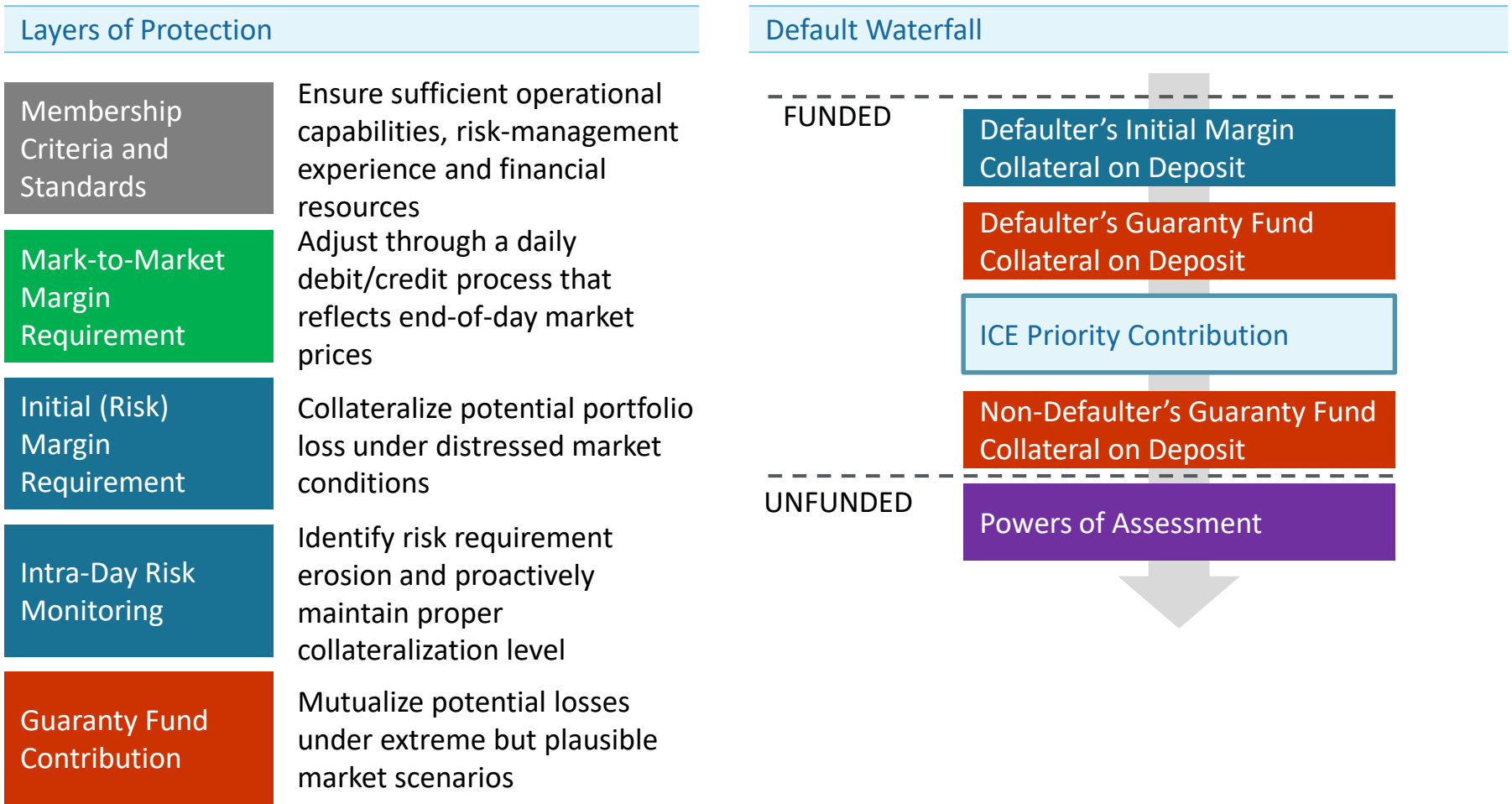
# DEFAULT MANAGEMENT PLAN

A Clearing Member default triggers the use of ICE's Default Management Actions



# Default Waterfall

ICE OFFERS MULTIPLE LAYERS OF PROTECTION TO FACILITATE THE CONTINUED FINANCIAL PERFORMANCE OF CLEARED TRANSACTIONS, SHOULD A CLEARING PARTICIPANT DEFAULT



# Default resources waterfall: addition of default insurance

	 F&O      CDS		 Clear Credit™	 Clear U.S.™	
<b>Initial Margin</b>	✓	✓	✓	✓	• Defaulting Clearing Member
<b>Guaranty Fund</b>	✓	✓	✓	✓	• Defaulting Clearing Member
<b>Skin in the Game</b>	\$183M	\$50M	\$50M	\$68M \$35M (Bakkt)	• Not included as part of Cover 2 sizing • cash
<b>Default Insurance</b>	\$75M		\$50M	\$25M	• Not included as part of Cover 2 sizing • Only available if paid by insurance company • Top-tier underwriter that is not affiliated with a clearing member • 90 day claim process • Claim event tied to CH default rules • Loss amount tied to liquidation of the defaulter's portfolio • 3-year term starting 9/17/19
<b>GF</b>	\$3.2B	\$1.2B	\$2.1B	\$663M	• Non-Defaulting Clearing Members
<b>GF Assessments</b>	5X	1X	3X	5.5X	• Non-Defaulting Clearing Members
<b>VM Gains Haircutting</b>	✓	✓	✓	✓	• Non-Defaulting Clearing Members



# DEFAULT MANAGEMENT SYSTEM

ICE has developed a cross-clearinghouse Default Management System that facilitates auction execution and porting of client-related positions

## Default Management System

- **Web-based platform**
- **Developed in-house for use by all ICE clearinghouses**
  - Multi-lot, multi-step auction capabilities launched 2016
  - Enhanced to include client porting for F&O 2017
  - Additional enhancements over time and ongoing
- **Supports bidding from Clearing Members and Direct Participating Customers (DPCs)**
  - Clients can bid indirectly through their FCMs
  - Client can also bid direct
  - Requires an FCM who agrees to clear awards
  - Appointed FCM can select a size limit for the DPC after the FCM reviews the default portfolio
- **Supports the partial filling of an auction**
  - Allows ICE to determine whether the “full-fill” clearing price is appropriate given market conditions, and considering all relevant factors including available funds, anticipated market depth, the distribution of the received bid prices, etc.

## Example Screen-Shot

BID REFERENCE										BID ECONOMIC'S	
#	MP	RP	Price Rank	Bid Ref'	Submission Time	Participant Code	Participant Name	Invalidate Bid	Size (% of Auction Portfolio)	Price (Payment per 100%)	Size x Price
1	🟢	🟢	1	369-1573	03-Nov-2016 09:41:41 EDT	369	Citigroup Global Marke...	<input type="checkbox"/>	5.00 %	55,000,000.00	2,750,000.00
2	🟢	🟢	1	371-1576	03-Nov-2016 09:42:21 EDT	371	Citi N.A.	<input type="checkbox"/>	5.00 %	55,000,000.00	2,750,000.00
3	🟢	🟢	2	369-1574	03-Nov-2016 09:41:41 EDT	369	Citigroup Global Marke...	<input type="checkbox"/>	15.00 %	35,000,000.00	5,250,000.00
4	🟢	🟢	2	371-1577	03-Nov-2016 09:42:21 EDT	371	Citi N.A.	<input type="checkbox"/>	15.00 %	35,000,000.00	5,250,000.00
5	🟢	🟢	3	850-1543	03-Nov-2016 08:54:31 EDT	850	The Bank of Nova Scotia	<input type="checkbox"/>	2.00 %	34,000,000.00	680,000.00
6	🟢	🟢	4	358-1564	03-Nov-2016 08:20:31 EDT	358	Credit Suisse Securitie...	<input type="checkbox"/>	9.00 %	29,000,000.00	2,610,000.00
7	🟢	🟢	5	358-1565	03-Nov-2016 08:20:31 EDT	358	Credit Suisse Securitie...	<input type="checkbox"/>	1.00 %	28,600,000.00	286,000.00
8	🟢	🟢	6	354-1580	03-Nov-2016 09:11:17 EDT	354	Credit Suisse Internati...	<input type="checkbox"/>	7.00 %	28,500,000.00	1,995,000.00
9	🟢	🟢	7	358-1566	03-Nov-2016 08:20:31 EDT	358	Credit Suisse Securitie...	<input type="checkbox"/>	1.00 %	28,300,000.00	283,000.00
10	🟢	🟢	8	354-1581	03-Nov-2016 09:11:17 EDT	354	Credit Suisse Internati...	<input type="checkbox"/>	1.00 %	27,500,000.00	275,000.00
11	🟢	🟢	9	093-1570	03-Nov-2016 09:28:58 EDT	093	Deutsche Bank AG, Lo...	<input type="checkbox"/>	10.00 %	27,000,000.00	2,700,000.00
12	🟢	🟢	9	354-1582	03-Nov-2016 09:11:17 EDT	354	Credit Suisse Internati...	<input type="checkbox"/>	1.00 %	27,000,000.00	270,000.00
13	🟢	🟢	10	369-1575	03-Nov-2016 09:41:41 EDT	369	Citigroup Global Marke...	<input type="checkbox"/>	30.00 %	20,000,000.00	6,000,000.00
14	🟢	🟢	10	371-1578	03-Nov-2016 09:42:21 EDT	371	Citi N.A.	<input type="checkbox"/>	30.00 %	20,000,000.00	6,000,000.00
15	🟢	🟢	10	850-1544	03-Nov-2016 08:54:31 EDT	850	The Bank of Nova Scotia	<input type="checkbox"/>	5.00 %	20,000,000.00	1,000,000.00
16	🟢	🟢	11	850-1545	03-Nov-2016 08:54:31 EDT	850	The Bank of Nova Scotia	<input type="checkbox"/>	10.00 %	10,000,000.00	1,000,000.00
17	🟢	🟢	12	196-1606	03-Nov-2016 10:07:30 EDT	196	UBS AG, London Branch	<input type="checkbox"/>	10.00 %	121,734.00	12,173.40
18	🟢	🟢	13	351-1594	03-Nov-2016 10:06:08 EDT	351	Goldman, Sachs & Co.	<input type="checkbox"/>	3.00 %	-10,155,400.00	-304,662.00
19	🟢	🟢	13	349-1605	03-Nov-2016 10:06:47 EDT	349	Goldman Sachs Intern...	<input type="checkbox"/>	3.00 %	-10,155,400.00	-304,662.00
20	🟢	🟢	14	760-1571	03-Nov-2016 09:31:07 EDT	760	Wells Fargo Securities...	<input type="checkbox"/>	10.00 %	-15,000,000.00	-1,500,000.00
21	🟢	🟢	15	183-1547	03-Nov-2016 10:22:07 EDT	183	Nomura Securities Inte...	<input type="checkbox"/>	2.00 %	-17,549,507.00	-350,990.14
22	🟢	🟢	15	181-1609	03-Nov-2016 10:22:57 EDT	181	Nomura International...	<input type="checkbox"/>	2.00 %	-17,549,507.00	-350,990.14
23	🟢	🟢	16	489-1579	03-Nov-2016 09:45:04 EDT	489	RNP Paribas	<input type="checkbox"/>	2.00 %	-9,000,000.00	-900,000.00

The above screen is the real-time auction results view, which automatically updates as new bids are submitted or existing bids are cancelled.

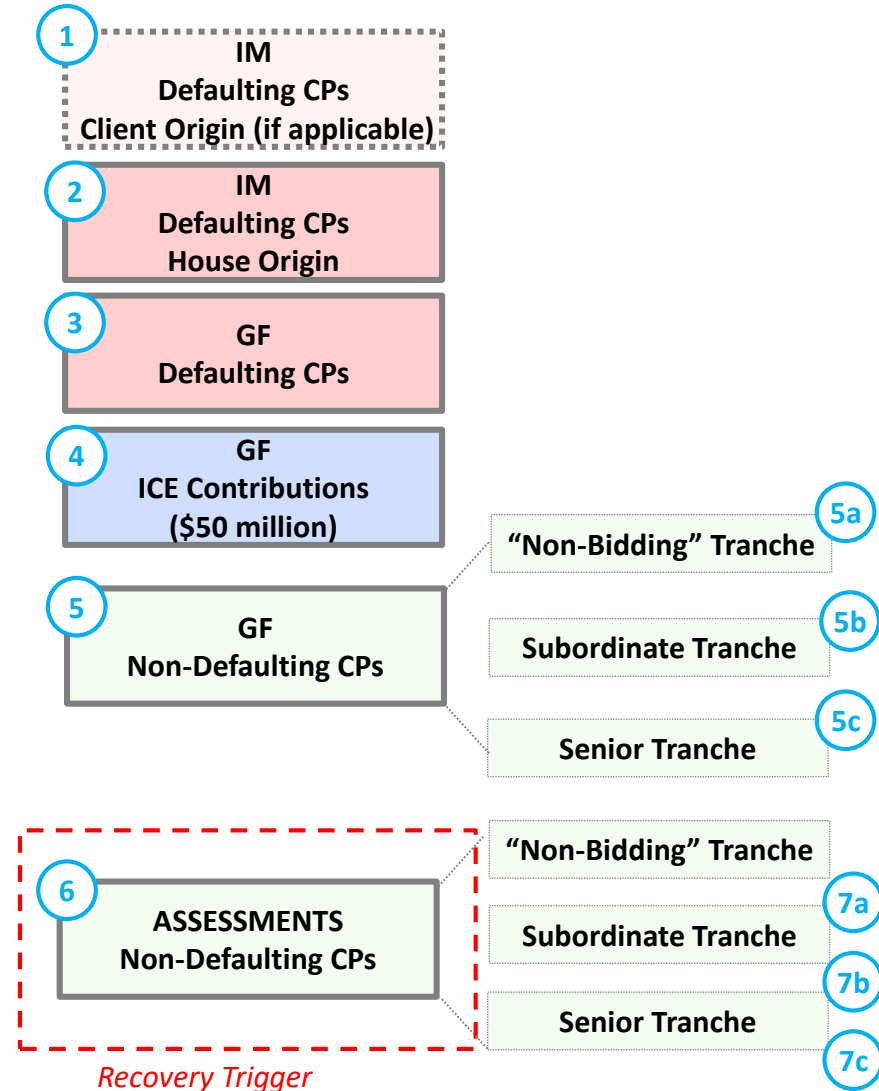
# AUCTION LIFECYCLE

A standardized auction lifecycle and Direct Participating Customer workflow is incorporated into the Default Management System



# INCENTIVIZING PARTICIPATION

- **Collateralize potential CP portfolio loss under distressed market conditions through Initial Margin (IM)**
  - **First**, apply Client IM of defaulting CPs to the CP’s client losses, if applicable (only permitted to use the IM of the customer causing the default, to the extent that customer can be identified)
  - **Second**, apply House IM of defaulting CPs to the CP’s own losses
- **Mutualize Cover-2 losses under extreme but plausible market scenarios through the Guaranty Fund (GF)**
  - **Third**, consume GF of defaulting CPs
- **Include ICE contribution to the GF**
  - **Fourth**, consume the ICE GF contribution
  - **Fifth**, consume the GF of the non-defaulting CPs on a pro-rata basis
- **Split each GF component into “Juniorization” tranches**
  - When applying resources against the auction-related losses, establish three tranches based on competitiveness of bids
  - Consume tranches in priority order (a, b, c) to incentivize competitive bidding
- **Trigger the recovery phase if funded resources are depleted**
  - **Six**, if funded default resources are exhausted, ICE can assess its CPs for additional GF contributions as a recovery tool



# REDUCED GAINS DISTRIBUTION (AKA VARIATION MARGIN GAINS HAIRCUTTING – VMGH)

Reduced gains distribution provides the potential for the clearinghouse to operate within a cooling-off period when default resources are fully consumed

- **May only be used after all default resources have been consumed**
- **Allows ICE to reduce the total payments from the clearinghouse to non-defaulting CPs by the amount due to the clearinghouse based on the defaulter's portfolio**
  - Each CP that is a net cash gainer in respect to its House or Client account is subject to a percentage haircut on those gains
  - Haircuts are determined independently on each day of reduced gains distribution, and applied separately for House and Client accounts
  - Within the Client account, haircuts are applied on a gross basis across the different customer portfolios, such that each customer portfolio receives the same haircut percentage
- **Rules provide for a RGD period of up to a maximum of 5 consecutive business days**
  - Requires day-to-day determination to use RGD (including governance through Risk Committee and Board)
  - RDG calculated on an individual daily basis (as opposed to a cumulative basis across multiple settlement cycles)
- **May allow for more favorable market conditions to prevail such that a secondary auction can be successful – and if auction successful, RGD period ends**

# PARTIAL TEAR UP

If a secondary auction does not result in the close out of the default portfolio within remaining resources, then ICE will proceed to a partial tear-up

- **Terminate the positions of non-defaulting CPs that exactly offset those in the defaulting CP's remaining portfolio (i.e., positions in the identical contracts and in the same aggregate notional amount) ("Tear-Up Positions")**
- **Terminate Tear-Up Positions across both the house and customer origin accounts of all non-defaulting Participants that have such positions, on a pro rata basis**
- **Within the customer origin account of a non-defaulting Participant, Tear-Up Positions of customers will be terminated on a pro rata basis**
- **ICE will determine a termination price for all Tear-Up Positions based on the current mark value**
- **Accordingly, no additional amount will be owed by ICE in connection with the tear-up**

# FULL TERMINATION

If for what ever reason Partial Tear-Up is unavailable, ICE may be forced to implement full termination of all open positions

- **Terminate all positions of all CPs (including the defaulting CP).**
- **As the result of such termination – clearing house will no longer have cleared open positions and will result in the termination of the clearing service.**
- **Clearing house will determine a termination price for all positions (based on the last established mark-to-market price, if available, a final price submission process, or certain other specified objective sources) and a net amount owed to/by each CP in respect thereof separately in respect of house and customer origin accounts.**
- **ICE will use all available default resources and net payments owed by CPs to make net payments owed to CPs, and in the event of a shortfall, available amounts will be applied on a pro rata basis.**