

# CCP clearing for the South African bonds and repo markets

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Market workshop – Session 6  
26<sup>th</sup> Oct 2023

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JSE | CLEAR

Please find the link for market workshop presentations and recordings

[Bond CCP | JSE Client Portal](#)

- Introduction and project update
- Recap from previous workshop sessions:
  - Trade novation and trade publication
  - CCP account structures
  - EOD margining process
- Trade cancellation
- Deal and position management
- Default management
- Summary and key takeaways
- Conclusion and next steps

## Primary objectives of the Bonds CCP market workshops:

- I. **Consulting and collaborating with market participants** including trading members, clients, clearing members, Strate and CSDPs around the detailed design and requirements of the CCP clearing service.
- II. **Discussing and understanding the change impact and interdependencies** across the various market participants' business processes and IT systems.
- III. **Providing necessary project status updates** including updates to project timelines and key milestones.
- IV. **Providing the required training and support** to operational teams prior to market testing and go-live.

### Who should attend these workshops?

Business managers, Business operation leads/managers, IT leads/ managers, Project managers

### MARKET WORKSHOP DATES FOR 2023:

- ✓ Session 1 – 11<sup>th</sup> May
- ✓ Session 2 – 26<sup>th</sup> Jun
- ✓ Session 3 – 12<sup>th</sup> Jul
- ✓ Session 4 – 8<sup>th</sup> Aug
- ✓ Session 5 – 28<sup>th</sup> Sep
- Session 6 – 26<sup>th</sup> Oct
- Session 7 – 5<sup>th</sup> Dec

*Agendas to be sent out two weeks prior to the workshop*

### Topics to be covered in workshop sessions:

- Trade novation ✓
- Account structure ✓
- Trade publication ✓
- Trade cancellation
- Integration with internal and external systems ✓
- Deal management
- Position management
- Collateral Management (cash & securities) ✓
- Settlement management ✓
- Risk management and margining ✓
- Fees and billing
- Reporting
- Default management ✓
- Clearing membership criteria ✓
- CCP rules, policies and procedures

## Primary drivers for Bonds CCP

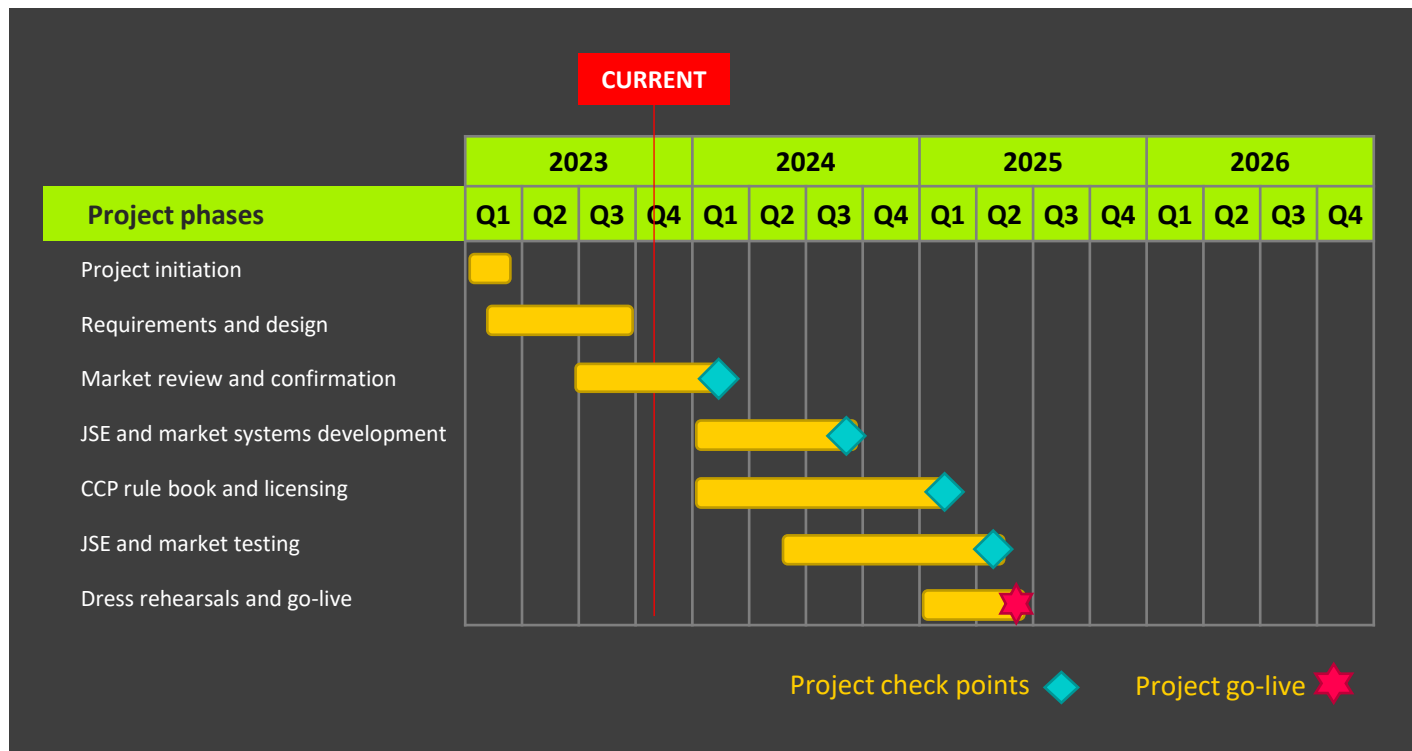
- CCP clearing is a critical service required to scale and increase trading activity in the Bonds ETP market, that is currently limited in access to the 10 Primary Dealers and represents only 1% of the total bonds and repo trading activity in SA. Electronic trading and CCP clearing of repos in European markets is close to 40% (and rising) of total trading activity.
- The three primary objectives and market benefits of Bond and Repo CCP clearing include:
  - i. broadened access to ETP and repo markets and increased trade liquidity;
  - ii. reduced counterparty credit risk and increased operational efficiency for banks; and
  - iii. improved market protection and price transparency.

## Why JSE Clear?

- JSE Clear is a fully independent and internationally recognised CCP.
- It is well positioned to leverage its existing CCP clearing infrastructure and integration with clearing member banks to provide a timeous and cost-effective domestic bond and repo CCP clearing service for SA.

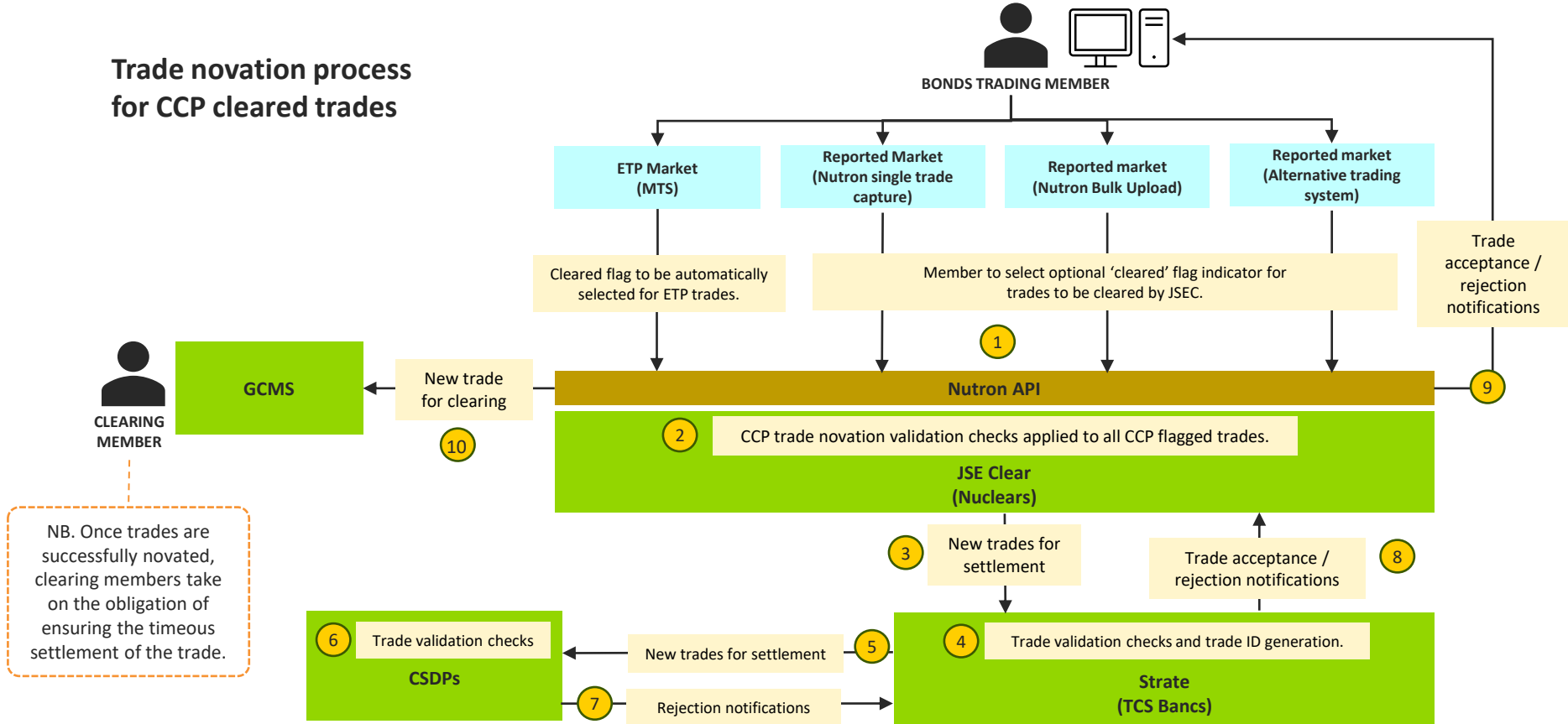


- Project progressing well and on track for H2 2025 go-live.
- Requirements and design of the Bonds CCP targeted for completion in Q4 this year.
- Market participants to start mobilising their internal teams to commence internal design and system development work in Q3/Q4 2023.



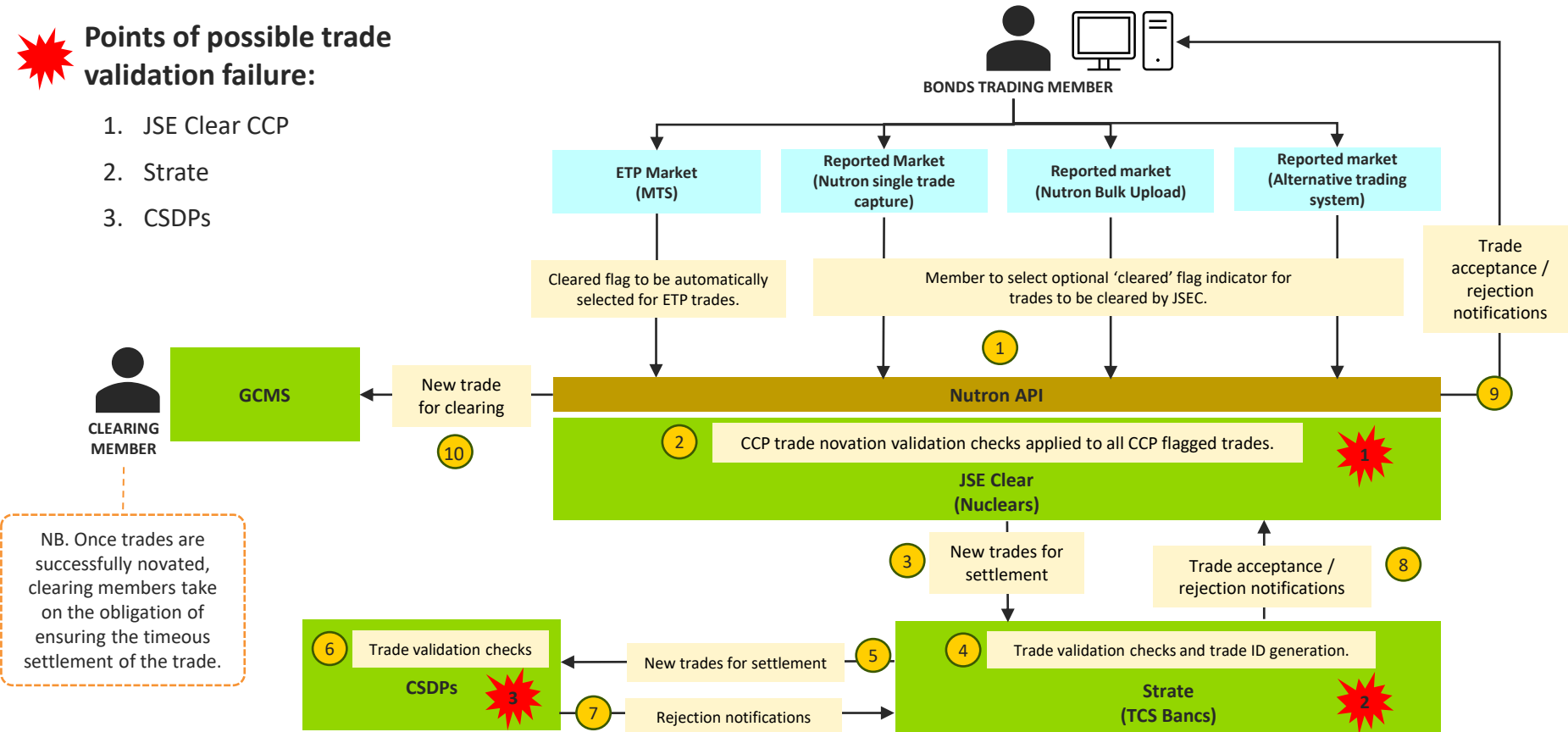
- Recap from previous workshop sessions:
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  - CCP account structures
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## Trade novation process for CCP cleared trades



## Points of possible trade validation failure:

1. JSE Clear CCP
2. Strate
3. CSDPs

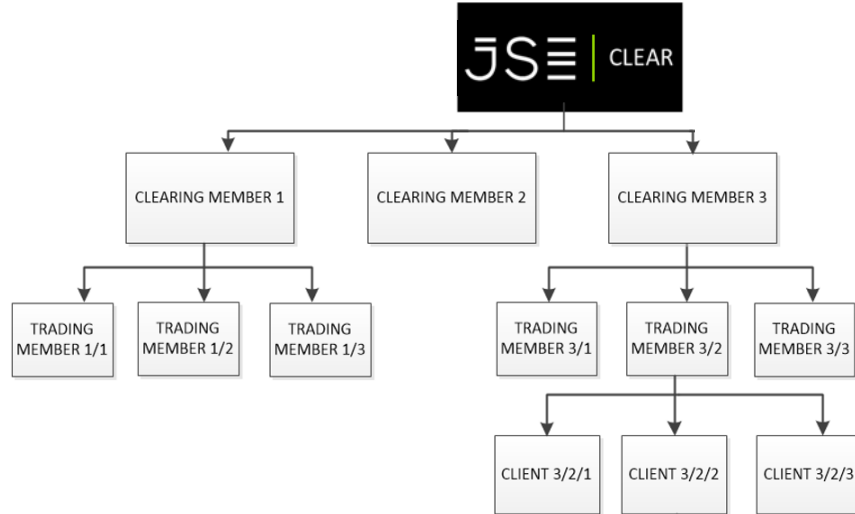


NB. Once trades are successfully novated, clearing members take on the obligation of ensuring the timeous settlement of the trade.

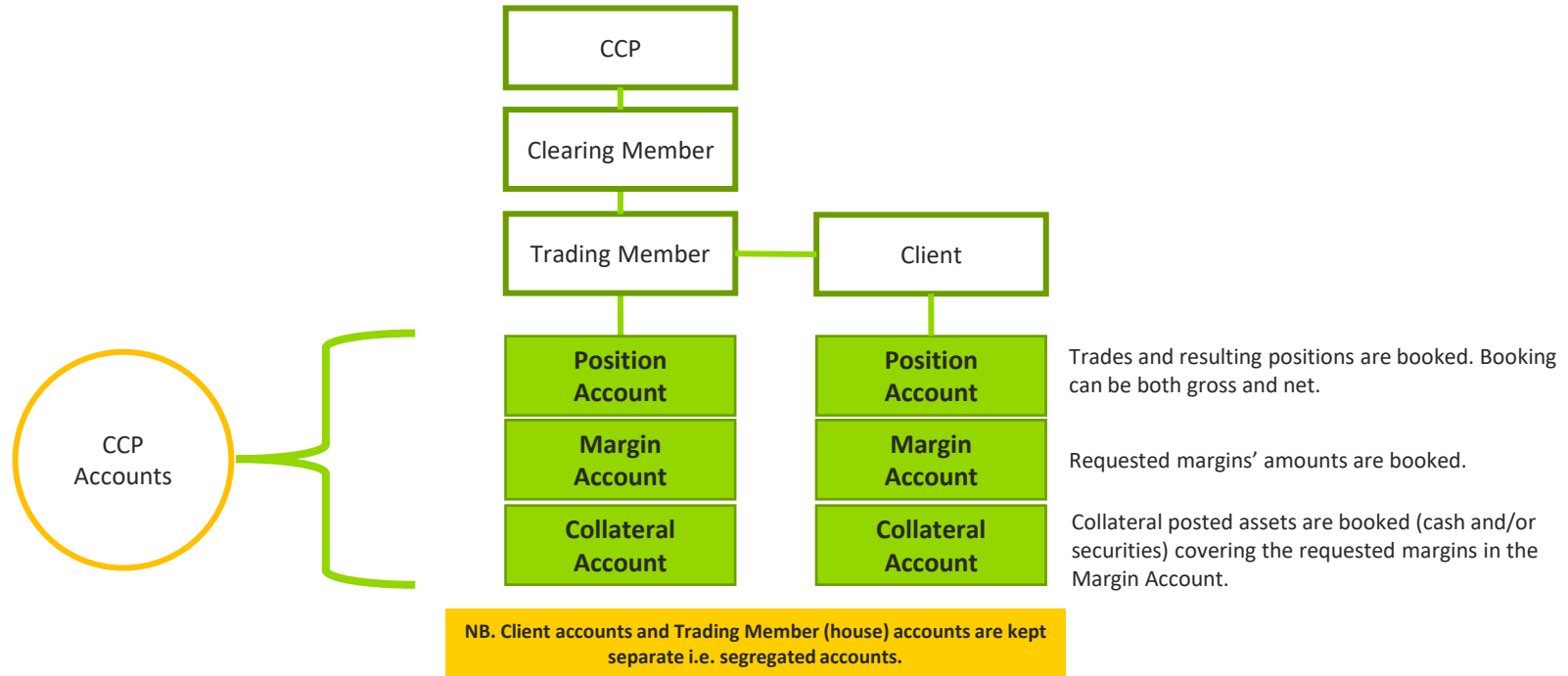


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- The **Clearing House(CH)** represents the highest hierarchical level and is the CCP clearing business of the JSE i.e. JSE Clear
- A **Clearing Member (CM)** is a direct member of the Clearing House and has legal and contractual responsibility to uphold the rules of the Clearing House
- A **Trading Member (TM)** has a direct relationship with one or multiple CMs and has no responsibility to the CH other than through the CM
- A **Member Client** is associated directly with one or multiple TMs



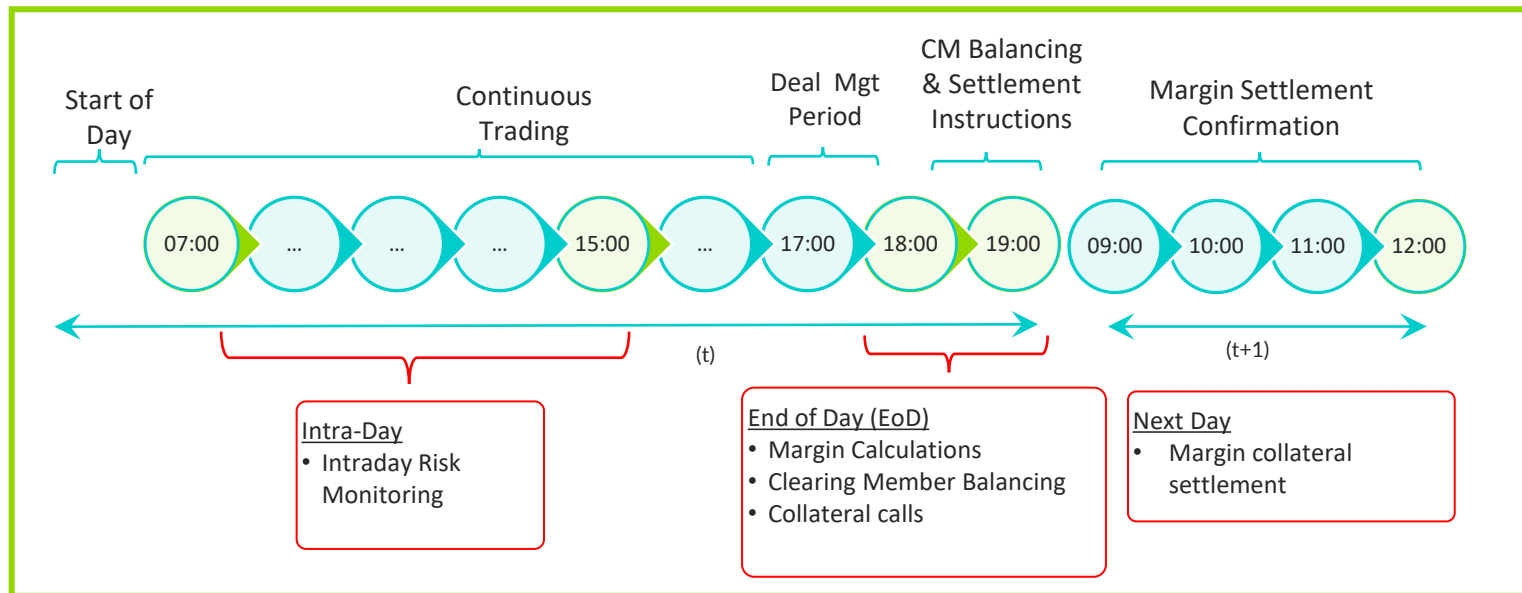
CCP has generally three levels for a specific clearing account i.e. Position, Margin & Collateral account



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## Two core risk management processes are conducted daily by the CCP

1. **EOD margin run** : Each day JSE Clear will run a single End-of-Day (EOD) margin run for all markets. Margin calls are required to be settled by clearing members on T+1 ( by 12:00pm).
2. **Intra-day margin run**: Additionally in extreme volatile markets JSE clear may elect to run an adhoc intraday margin call. Intraday margin call take place during the trading day and must be settled in cash before 15:00pm.



Time	EOD Risk management Process
Before 18:00	<b>Final settlement run</b> <ul style="list-style-type: none"> <li>• Strate to complete the final settlement run for spot bond and repo market.</li> </ul>
18:00	<b>Market Close</b> <ul style="list-style-type: none"> <li>• Cash bond &amp; IRD market close.</li> </ul>
18:02	<b>EOD process begins.</b> <ul style="list-style-type: none"> <li>• JSE calculates IM and VM &amp; fees per client and member account and aggregates at CM level. (Bonds CCP cleared trades will be included)</li> <li>• JSE disseminates the EOD reports to CMs. (Reporting will include Bonds CCP cleared trades)</li> <li>• Clearing members run their EoD process. (CMs to include Bonds CCP cleared trades )</li> </ul>
18:30 to 19:00	<b>Security collateral</b> <ul style="list-style-type: none"> <li>• JSEC sends eligible spot bond prices to STRATE CMS.</li> <li>• JSEC sends exposure to STRATE CMS i.e Maximum security value that can be pledged for each client. (Exposure will include both IRD and Bonds CCP cleared trades)</li> </ul>
After 20:00	<ul style="list-style-type: none"> <li>• JSE prepares net settlement instructions for CMs, to be released next day at 6:00 am. (Bond CCP cleared trades margins and fees will be included)</li> </ul>

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All existing trade cancellation rules and business processes for bonds and repos will remain same.

- **ETP trade cancellations**

- Cancellation via the MTS platform can only be done on T.
  - Trades cancelled after T, will need to be done via the JSE Reported market, as an equal and opposite trade, with the “Cleared” indicator selected.
- As ETP is anonymous central order book trading, any cancellations will need to be approved by JSE Market Regulation
- If approved, CSDPs will be asked to uncommit to trades so that cancellations may be processed

- **IRC cancellations**

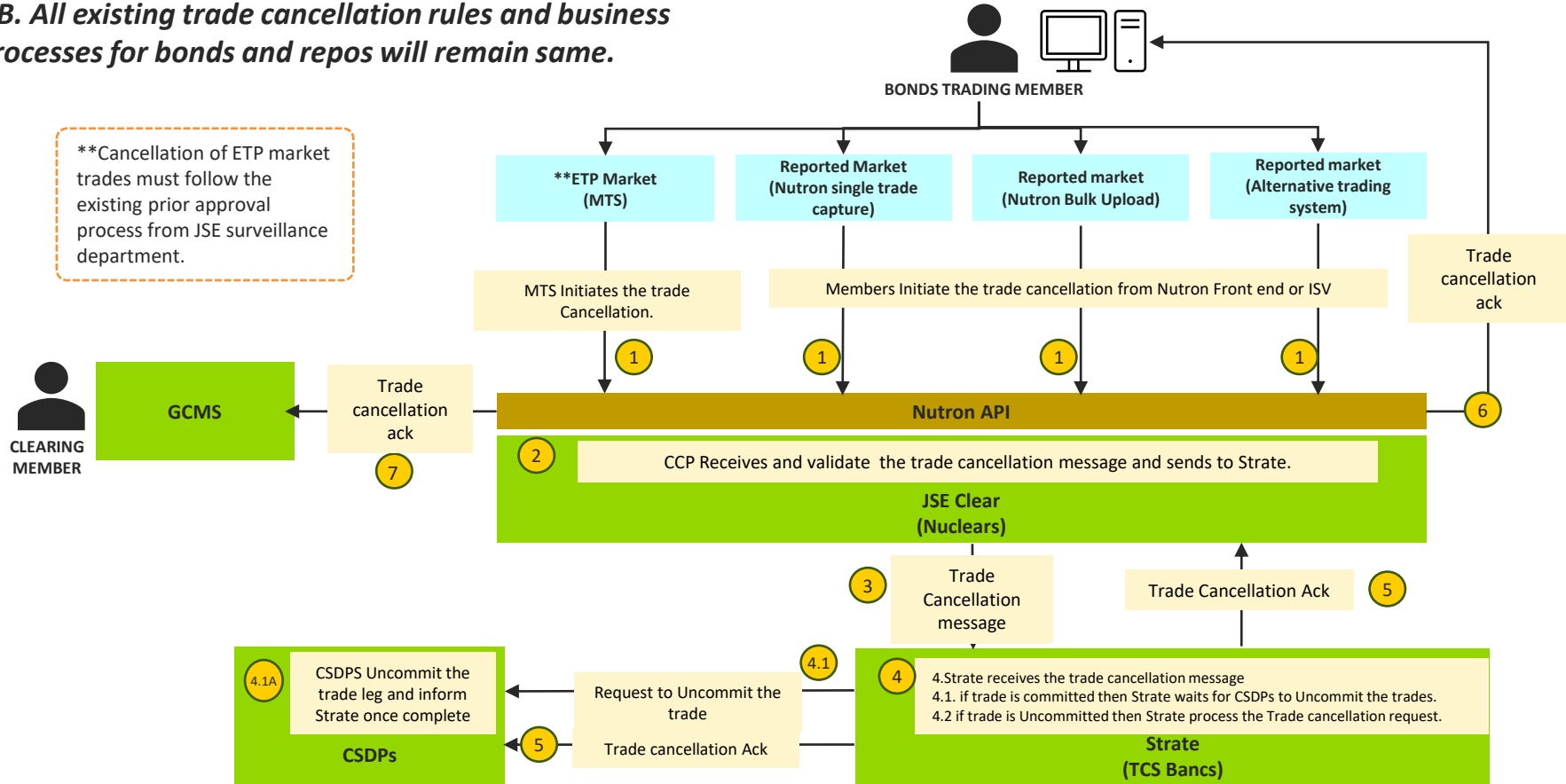
- All trades which need to be cancelled or reallocated should be done before settlement day
- No cancellations or reallocations are allowed on S (with the exception of same say trades)
- Member’s need to request that their CSDP lift their commit prior to processing the cancellation in order for the cancellation to be properly processed

NB. Any cleared trades not cancelled by end of day T, will be margined and TMs will be liable for the margin on T+1.



**NB. All existing trade cancellation rules and business processes for bonds and repos will remain same.**

**\*\*Cancellation of ETP market trades must follow the existing prior approval process from JSE surveillance department.**



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## Phase 1 (members to members trade)

- ✓ no deal management activity applicable

## Phase 2 (members to client trade)

The following deal management activities will be applicable:

1. Allocation: Allocate novated trade from member to client
  - ✓ Member will only be allowed to allocate trade from its house account to its client account if client is also approved for clearing.
2. Re-Allocation : Re-allocate incorrectly novated trade to the correct Client
  - ✓ Member will only be allowed to allocate the trade from one of its client accounts to its other client account if both clients are approved for clearing.

*Detailed deal management rules and processes to be provided during phase 2.*

## Position management activities applicable in the CCP clearing:

### Phase 1

#### I. Transfer of trading member unsettled trades to a new clearing member

The transfer of trading member trades to a new clearing member is typically performed when:

- ✓ trading members wish to clear through a new clearing member
- ✓ a clearing member defaults and their trading members (including clients) are to be migrated to a new clearing member at an agreed price

#### II. Transfer of defaulting trading member trades to their clearing member

- ✓ In the event where a trading member has defaulted, their trades are transferred to their clearing member at an agreed price.

### Phase 2

#### I. Transfer of client trades to a new trading member

The transfer of client trades to a new trading member is typically performed when:

- ✓ clients wish to migrate to a new trading member
- ✓ a trading member defaults and their clients need to be migrated to new trading members at an agreed price

#### II. Transfer of defaulting client trades to trading member

- ✓ In the event where a client has defaulted, their trades are transferred to the trading member house account at an agreed price.

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## Topics Covered in today's session

- JSEC default management
- Client default management process
- Trading member default management process
- Clearing member default management process
- Further discussion/questions

**NB. The following default management processes are applicable to the current JSE Clear derivatives markets. These processes will be used as a bases for defining the default management processes for the Bonds CCP.**

The default management framework (rules, policies and procedures) is to ensure that the actions required to resolve a default event are executed in an orderly and timely fashion, and that disruption to the markets operated by JSE Clear is minimised as far as possible.

Rules, policies and procedures are continuously reviewed and refined and tested during fire-drills annually to safeguard JSEC and its participants against potential systemic fallout arising from a default.

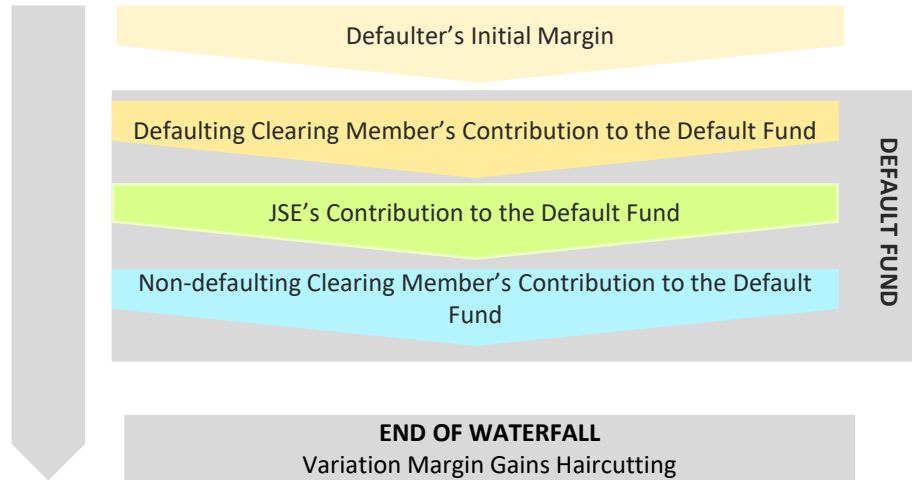
The default management processes differ based on the type of entity defaulting, that is:

- client,
- trading member,
- clearing member

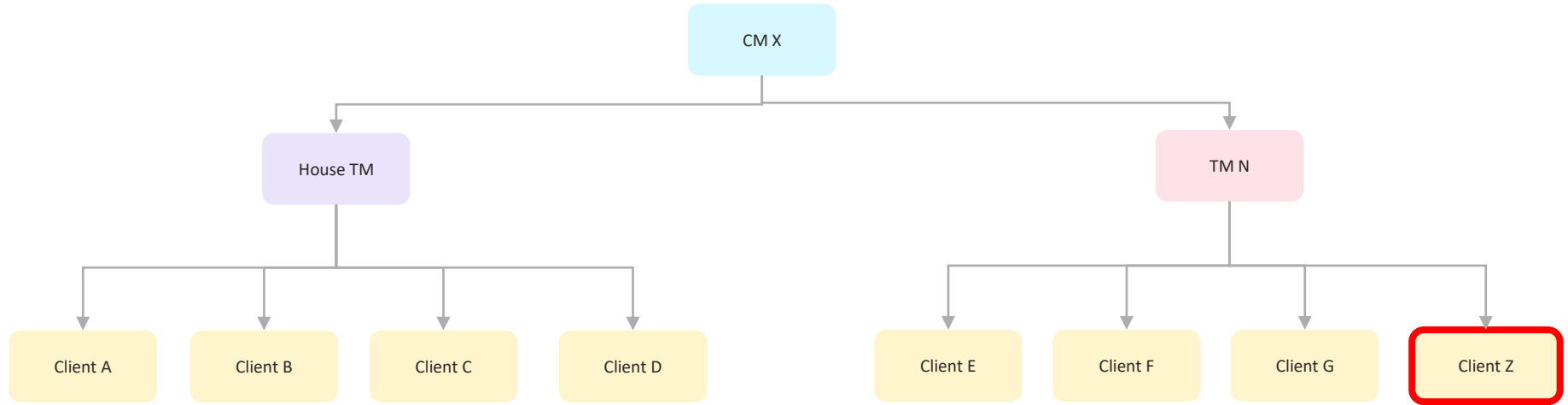
In a **client** and **trading member** default the obligations of the defaulter shift immediately to their trading member and clearing member respectively.

Once the positions are closed out/transferred the initial margin held is released for the trading member and clearing member to off-set all amounts owed to them.

In a clearing member default, the risk waterfall is available to cover the losses of the defaulter.





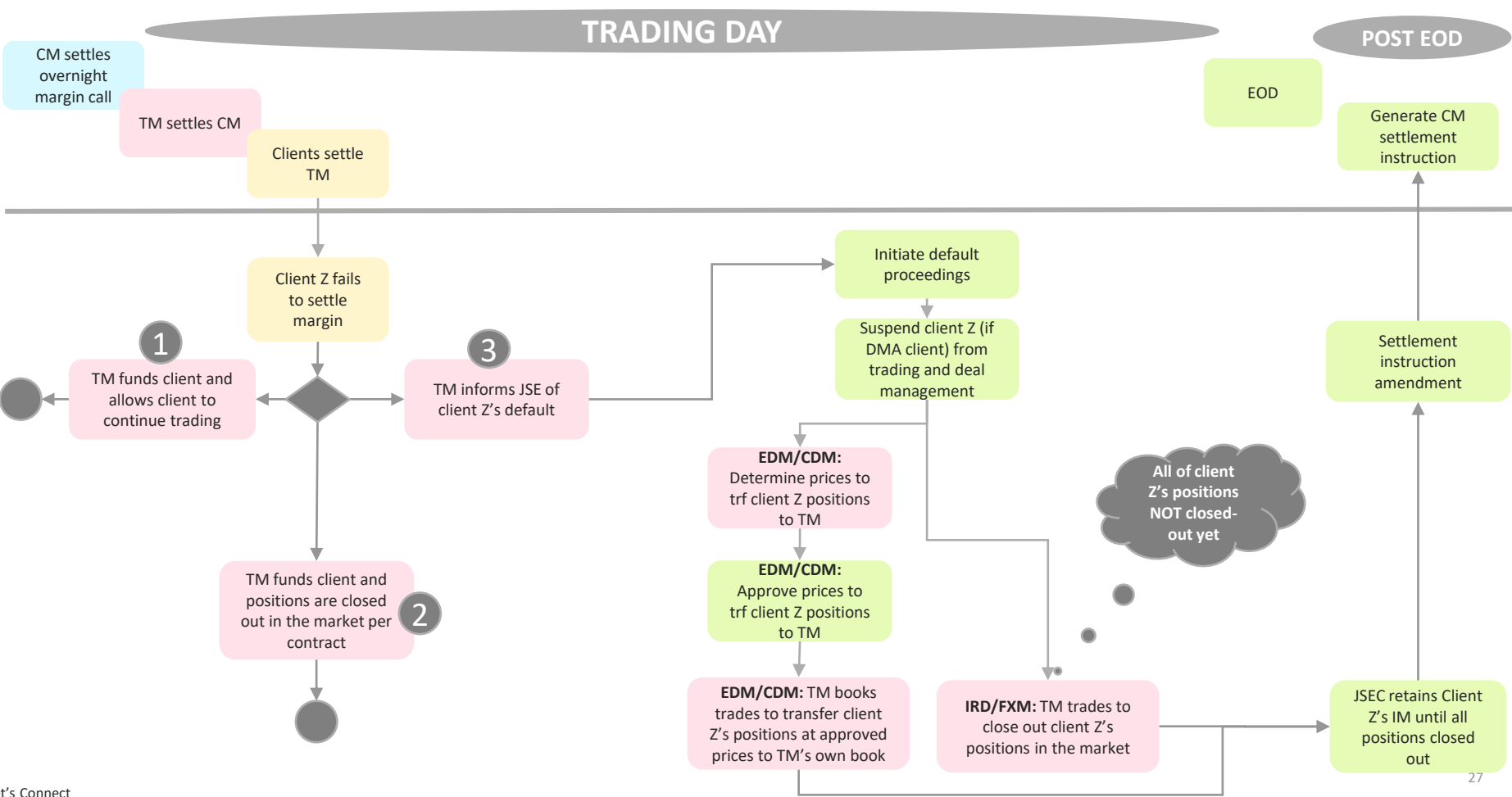


KEY FEATURES	CLIENT DEFAULT
<b>Default decision</b>	A default is a factual state of affairs as defined in the rule book
<b>Activity of the defaulter</b>	Suspended from trading and deal management
<b>Defaulter's Initial Margin (IM) held</b>	Defaulter's IM retained by JSEC until all positions closed out
<b>Obligations of defaulter until positions are closed out</b>	<b>Trading Member</b> must meet the obligations of the defaulter <b>i.e. VM and IM</b>
<b>Mechanism to close out defaulter's positions</b>	Closed out in the market by <b>trading member</b> or transferred to <b>trading member</b> at an agreed price
<b>Surplus IM after all obligations are settled</b>	<b>Trading member</b> pays residual IM to defaulted client
<b>Shortfall in IM after all obligations are settled</b>	<b>Trading member</b> claims losses from the defaulted <b>client</b>

# Current JSEC Client default management process

BAU

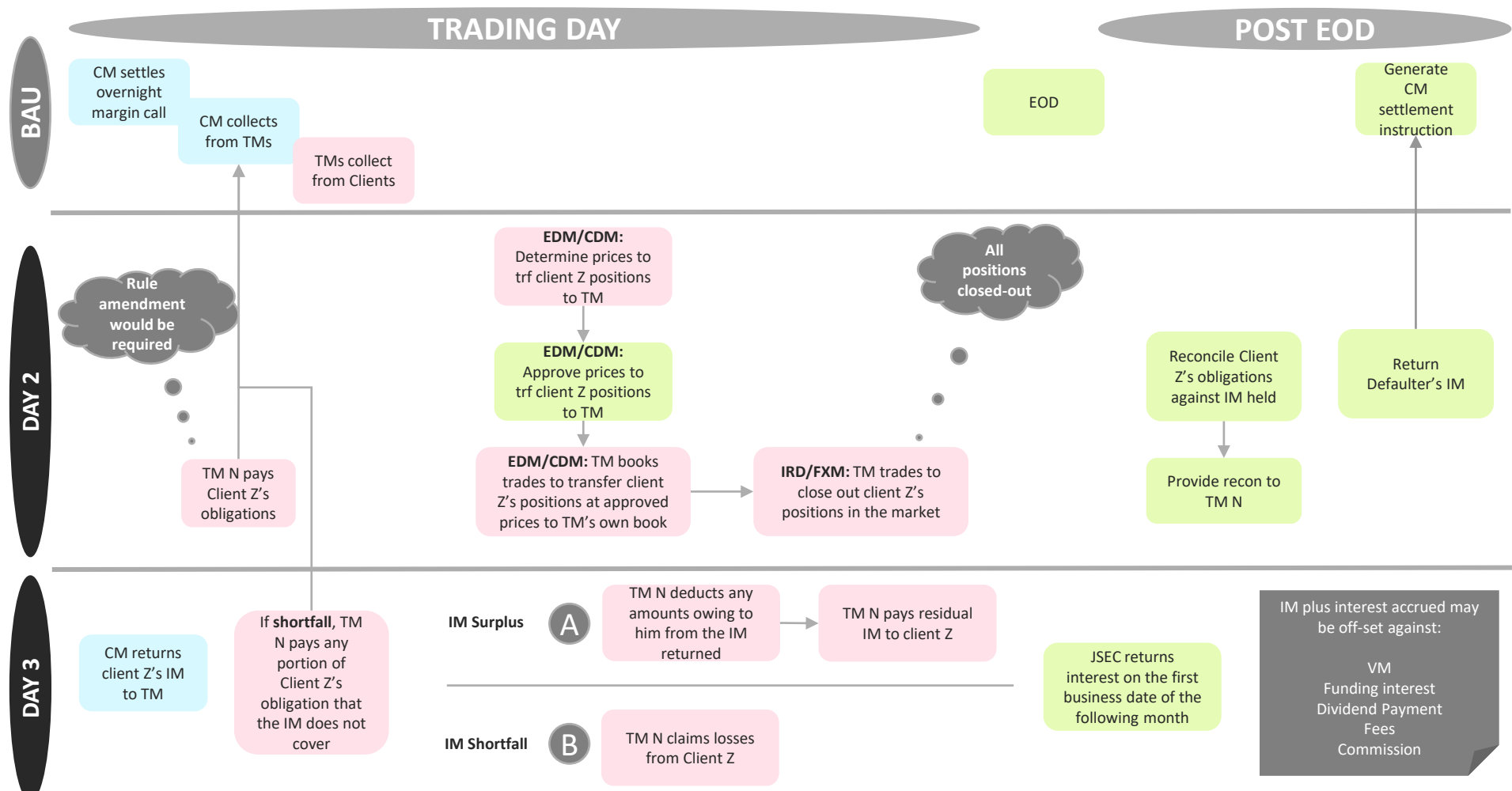
DAY 1

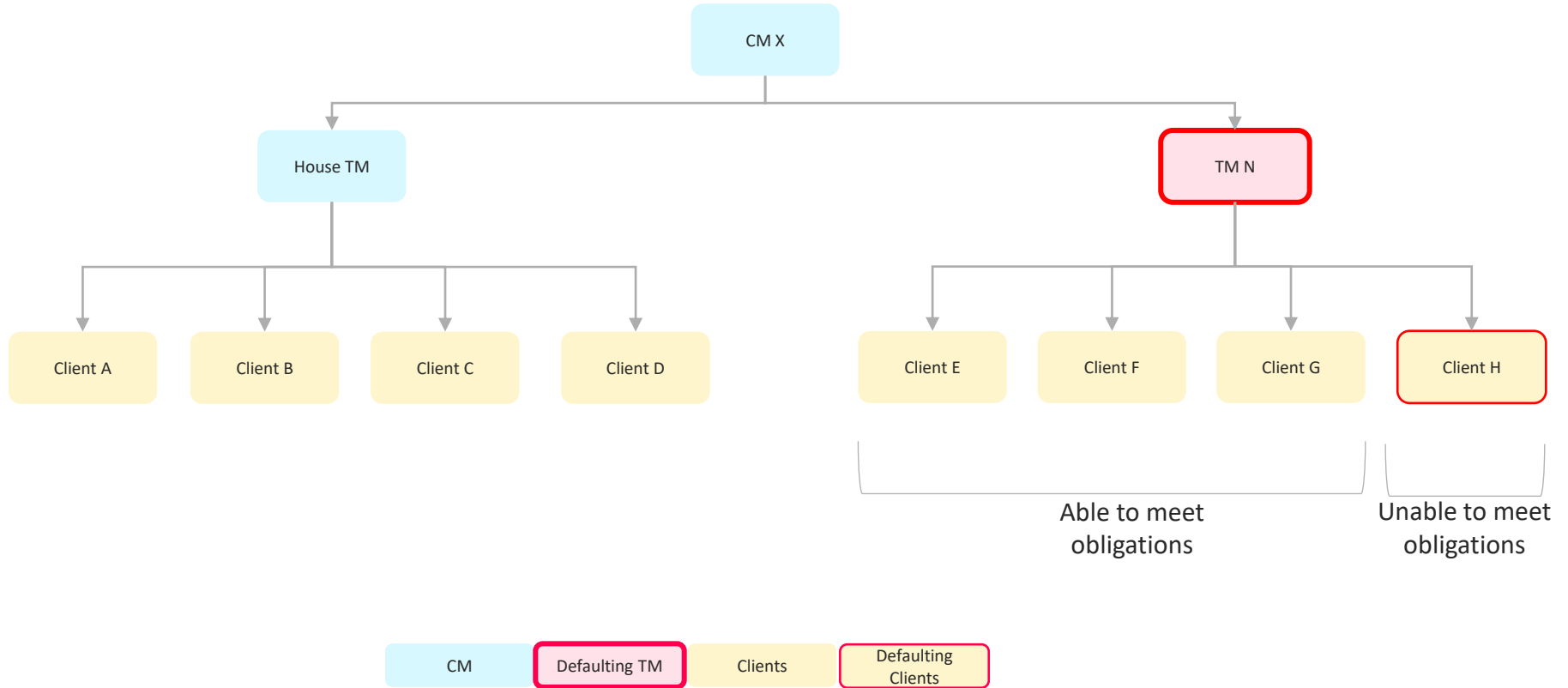


All of client Z's positions NOT closed-out yet

# Client Default Management Process

CM X    TM N    Client Z    JSEC





KEY FEATURES	CLIENT DEFAULT	TRADING MEMBER DEFAULT
<b>Default decision</b>	A default is a factual state of affairs as defined in the rule book	A default is a factual state of affairs as defined in the rule book
<b>Activity of the defaulter</b>	Suspended from trading and deal management	Suspended from trading and deal management
<b>Defaulter’s Initial Margin (IM) held</b>	Defaulter’s IM retained by JSEC until all positions closed out	Defaulter’s IM retained by JSEC until all positions closed out
<b>Obligations of defaulter until positions are closed out</b>	<b>Trading Member</b> must meet the obligations of the defaulter i.e. <b>VM and IM</b>	<b>Clearing Member</b> must meet the obligations of the defaulter i.e. <b>VM and IM</b>
<b>Mechanism to close out defaulter’s positions</b>	Closed out in the market by <b>trading member</b> or transferred to <b>trading member</b> at an agreed price	Closed out in the market by <b>clearing member</b> or transferred to <b>clearing member</b> at an agreed price
<b>Surplus IM after all obligations are settled</b>	<b>Trading member</b> pays residual IM to defaulted client	<b>Clearing member</b> pays residual IM to defaulted client
<b>Shortfall in IM after all obligations are settled</b>	<b>Trading member</b> claims losses from the defaulted <b>client</b>	<b>Clearing member</b> claims losses from the defaulted <b>trading member</b>
<b>Healthy Clients of defaulting Trading Member</b>	N/A	Healthy clients of the trading member become clients of the clearing member and are ported to the clearing member

# Trading Member Default Management Process

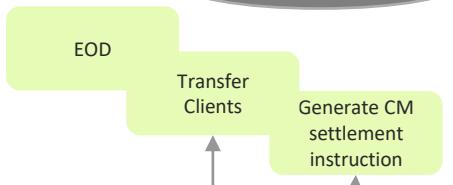
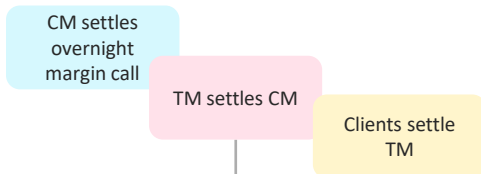
JSE/JSEC    CM X/House TM    Defauling TM    Clients

## TRADING DAY

## POST EOD

BAU

DAY 1



TM N fails to settle his own and client's obligations

JSE or JSEC initiate default proceedings

Suspend TM N and all TM N's clients from trading and deal management

Share client details with CM (Rule 10.3.1.5)

Contact clients to inform clients of TM default, request Day 0 payment, immediate transfer to CM, and to conclude client agreement

Inform JSE of any defaulting clients

CM continues to fund TM N **1**

CM informs JSE of TM N's default **2**

Close-out TM N prop positions and/or defaulting clients' EDM/CDM positions to House TM acc

Determine prices to transfer positions to House TM acc

Approve prices to transfer positions to House TM

House TM books trades to transfer positions at approved prices to CM's own book

Close-out defaulting clients' IRD/FXM positions in the market

House TM trades to close out positions in the market

**JSEC Rule book:**  
**10.3.1.2** the clearing member must close out the **proprietary** positions of the exchange member by trading to transfer those positions to itself and for its own account at a price approved by JSE Clear within two business days or such other period as may be determined by JSE Clear, from the date of default;

**JSEC Rule Book**  
**10.3.1.5** the clients of the exchange member will, without notice to such clients, become the clients of the clearing member;  
  
**10.3.1.6** the clearing member must assume the obligations of the exchange member in terms of these rules that accrued on the date of default or on the previous business day;

All TM X's and defaulting client's positions NOT closed-out

Close-out of client positions as per client default rules and TM prop positions as per TM default rules

Retain TM N's and defaulting client's IM until all positions closed out

# Trading Member Default Management Process

JSE/JSEC

CM/House TM

Defaulting TM

Clients

## TRADING DAY

## POST EOD

BAU

CM settles overnight margin call

TM settles CM

Clients settle TM

Transferred clients settle their TM for Day 0 and 1 obligations

EOD

Generate CM settlement instruction

DAY 2

CM X pays TM N's and its clients' obligations incurred on Day 1

Close-out TM N prop positions and/or defaulting clients' EDM/CDM positions to House TM acc

Determine prices to trf positions to House TM acc

Approve prices to transfer positions to House TM

TM House books trades to transfer positions at approved prices to CM's own book

Close-out defaulting clients' IRD/FXM positions in the market

CM trades to close out positions in the market

All positions closed-out

Reconcile TM N's and clients' obligations against IM held

Provide recon to CM X

Return TM N and defaulting clients' IM

Finalise client agreements with transferred clients

DAY 3

If **shortfall**, CM X pays any portion of TM N's/clients' Day 2 obligations that the IM does not cover

CM X deducts any amounts owing to him

IM Surplus

A

CM X pays residual IM to TM N and defaulted clients

IM Shortfall

B

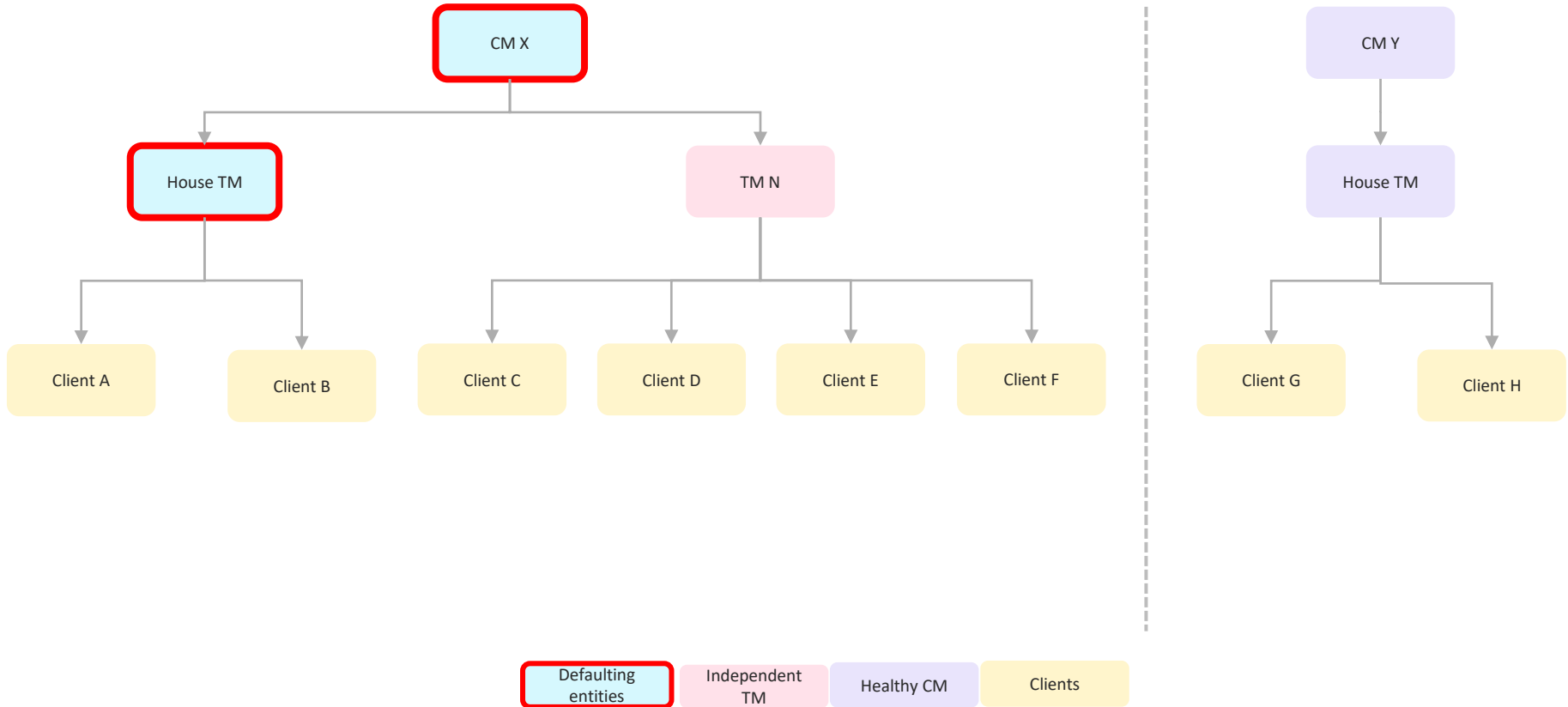
CM X claims losses from TM N and defaulted clients

JSEC returns interest on the first business date of the following month

IM plus interest accrued may be off-set against:

VM  
Funding interest  
Dividend Payment  
Fees  
Commission





KEY FEATURES	CLEARING MEMBER DEFAULT
<b>Defaulter’s Initial Margin (IM) held</b>	IM is made available only once all positions under the clearer are closed out or ported
<b>Obligations of defaulter until positions are closed out</b>	Liquidity lines up to the defaulter’s IM are used to cover the defaulter’s losses until all positions are closed out
<b>Liquidation period</b>	2 days
<b>Liquidation mechanisms</b>	<p>The following liquidation options will be considered:</p> <ul style="list-style-type: none"> <li>Auction</li> <li>Trading out</li> <li>Cancellation/Failing trade</li> </ul>
<b>Healthy Clients of defaulting Trading Member</b>	<p>Healthy trading members and clients of the clearing member are requested to:</p> <ul style="list-style-type: none"> <li>• secure an alternate clearing member to clear through, within a limited timeframe</li> <li>• settle JSEC directly until ported</li> </ul> <p>If an alternate clearing member is not secured, healthy trading member’s positions will also be closed out</p>

KEY FEATURES	CLEARING MEMBER DEFAULT
<b>Surplus IM after all obligations are settled</b>	<ul style="list-style-type: none"> <li>•JSEC pays residual IM to independent TMs / defaulting CMs' clients directly</li> <li>•Independent TMs pay residual IM to their clients</li> </ul>
<b>Shortfall in IM after all obligations are settled</b>	<p>Pre-funded resources will be tapped into in the sequence below:</p> <ol style="list-style-type: none"> <li>1. Defaulters IM</li> <li>2. Defaulter's contribution to default fund</li> <li>3. JSEC's contribution to default fund</li> <li>4. Non-defaulter's contribution to default fund</li> </ol>
<b>Pre-funded resources are exhausted</b>	<p>JSEC will implement Variation Margin Gains Haircutting (VMGH) - reduce the variation margin payments to all winners proportionally so that pre-funded resources and the losses settled by VM losers are settled</p>
<b>Default Fund replenished</b>	<p>Default fund contributions are re-calculated and JSEC and members adjust their contribution accordingly</p>

# Clearing Member Default Management Process

JSE/JSEC

Defaulting CM

TMs

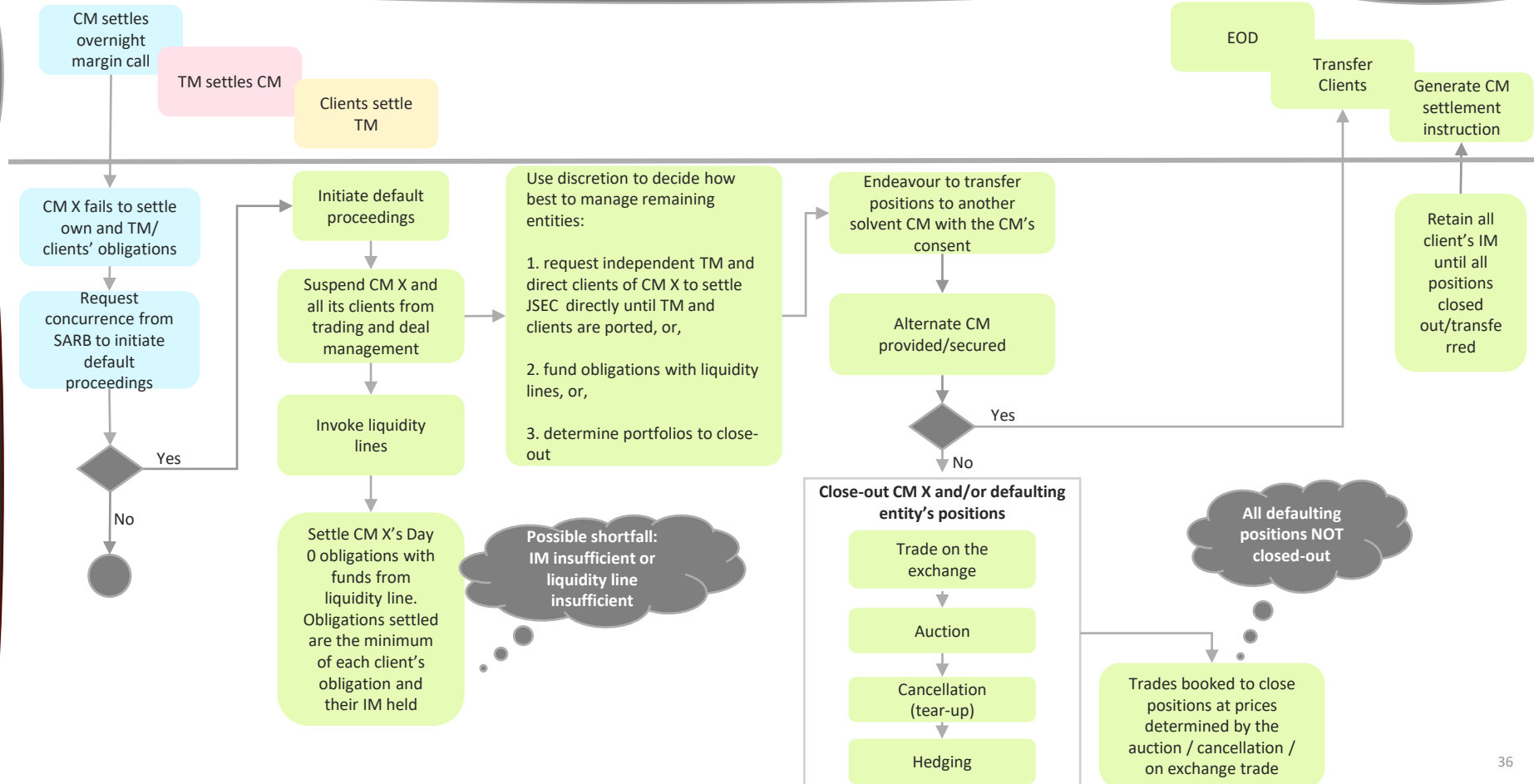
Clients

TRADING DAY

POST EOD

BAU

DAY 1



# Clearing Member Default Management Process



## TRADING DAY

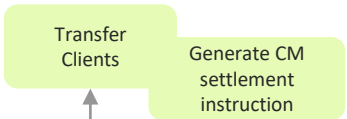
## POST EOD

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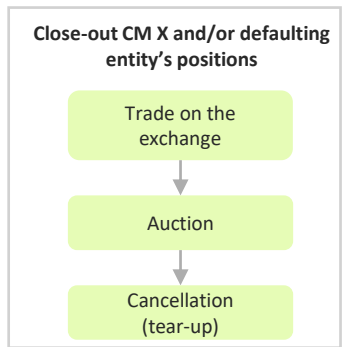


Healthy clients settle House TM for Day 0 and 1 obligations

EOD



DAY 2



All positions closed-out, IM becomes available

Trades booked to close positions at prices determined by the auction / cancellation / on exchange trade

Alternate CM secured

Unsuspend healthy TMs and clients from trading only to close-out positions and/or reduce risk

Settle CM X's Day 1 obligations with IM released post close-out of all positions

All positions under the defaulting CM must be closed out/ported before IM is released to settle obligations or IM is released to client

Finalise client agreements with transferred clients

Reconcile each defaulting entity's obligations against IM held

Return CM X and defaulting clients' IM

DAY 3

**IM Surplus**  
A

JSEC deducts any amounts owing from the IM held

JSEC pays residual IM to independent TMs / defaulting CMs' clients directly

Independent TMs pay residual IM to their clients

JSEC returns interest on the first business date of the following month

**IM Shortfall**  
B

Default fund is used. If default fund is exhausted then, VMGH

Replenish default fund

JSEC claims losses from the defaulting clearing member and clients

Any amounts recovered will be refunded to JSEC and non-defaulting CMs pro rata to the amount of their contributions to default fund

Counterparties that are subjected to interim/EOW haircutting will bear losses that are irrecoverable if the entire default fund is depleted

IM plus interest accrued may be off-set against:

- VM (profits/losses)
- Funding interest
- Dividend Payment
- Fees (not guaranteed)
- Commission (not guaranteed)

Residual IM of the CM may be used to off-set defaulting TM and clients' shortfalls

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## Conclusion and next steps:

- JSE to continue with the detailed design and requirements of the CCP with targeted completion in Q3 this year.
- Market participants to review the CCP design and requirements shared thus far and engage directly with JSE on any questions or queries they may have.
- Market participants to start mobilising their internal teams to commence internal design and system development work in Q4 2023.

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- CCP rules, policies and procedures

# Thank you

## Q&A

...for further info or questions, please contact:

Hemash Kala (Business lead) – [Hemashk@jse.co.za](mailto:Hemashk@jse.co.za)

Teresa Kloppers (Project manager) – [Teresak@jse.co.za](mailto:Teresak@jse.co.za)

Alicia Greenwood (CEO JSE Clear) – [Aliciag@jse.co.za](mailto:Aliciag@jse.co.za) ; or



*let's connect*