

# TECHNICAL WORKSHOP



BRAZILIAN  
EXCHANGE  
AND OTC

## New Metric SPVD SPVD Limits Monitoring



# New metric SPVD

# LINE 5.0

## INTRODUCTION

Following B3's last improvements in LiNe:

- Technical Workshop presented on July 8<sup>th</sup>, 2021
- LiNe Trading and LiNe Clearing segregation implemented on November 8<sup>th</sup>, 2021, where all aggregated metrics become evaluated in near-time
- New aggregated metric potencial short uncovered balance (SPVD) implemented in parallel production on December 13<sup>th</sup>, 2021

# LINE 5.0

## SPVD METRIC

### New aggregated metric potential short uncovered balance | SPVD

Objective: to limit the financial value of sales per investor

It is considered in the metric:

#### Intraday

- ✓ Ask orders
- ✓ Sell-trades
- ✓ Buy-trades (final accounts)
- ✓ Options exercise (buy and sell)

Netting between buying transactions and sale transactions/ask orders:

- **Final** accounts: there is netting
- **Transitory** accounts: there is no netting

There is no netting between buy and sell balance on different days (T+1, T+2) or from different assets

Metric evaluated in near time

Limit assignment is mandatory per document by participants, new orders will be rejected if the limit is not properly assigned

# LINE 5.0

## SPVD METRIC

### New aggregated metric potential short uncovered balance | SPVD

SPVD metric calculation for **final** accounts:

$$SPVD_{CtDf} = \sum_i^{N \text{ ativos}} SPVD_{CtDf}(i)$$

$$SPVD_{CtDf}(i) = \left( \sum_{t=1}^2 VD_{D+tCtDf}(i) \right) * P_{Ref}(i)$$

$$VD_{D+tCtDf}(i) = \max(- (C_{D+t}(i) - V_{D+t}(i)) + OFV_{D+t}(i) + ofv_{D+t}(i); 0)$$

SPVD metric calculation for **transitory** accounts:

$$SPVD_{CtT} = \sum_i^{N \text{ ativos}} SPVD_{CtT}(i)$$

$$SPVD_{CtT}(i) = \left( \sum_{t=1}^2 VD_{D+tCtT}(i) \right) * P_{Ref}(i)$$

$$VD_{D+tCtT}(i) = \max(V_{D+t}(i) + OFV_{D+t}(i) + ofv_{D+t}(i); 0)$$

SPVD metric calculation **document** level:

$$SPVD_{DOC} = \sum_{\forall CtDf} SPVD_{CtDf} + \sum_{\forall CtT} SPVD_{CtT}$$

# LINE 5.0

## SPVD METRIC

### Next steps

**March 14<sup>th</sup>, 2022: Metric will be enabled in production**

After the metric is enabled in production, the SPVD will behave like every other aggregated metric from the LiNe Clearing

- Limits must be assigned by participants to their clients otherwise orders will be rejected
- Limits will be evaluated and, in case of any violation, new orders will be rejected and Protected Mode will be activated
- Configured limits during parallel production will not be changed after entering production date



# Limits Monitoring

# LINE 5.0

## LIMITS MONITORING

### Changes

Sales risk in spot market:

- ✓ New SPVD metric will replace the control made through SPVI metric (B3 maximum limit applied based on chain's stressed economic capacity), therefore being responsible for sales' control in the spot market

Current limits monitoring on LiNe Clearing and LiNe BTB:

- ✓ SPVD metric will be included in the current limits monitoring model for aggregated metrics
  - ✓ Derivatives risk (RMKT);
  - ✓ Realized loss due to day trade (SFD);
  - ✓ Cash settlement exposure in the spot market (SDP);
  - ✓ Aggregated financial value of electronically traded non-certified lender positions (SPDA);
  - ✓ Aggregated financial value of electronically traded borrowing positions (SPTA)



# LINE 5.0

## LIMITS MONITORING

### Changes

- ✓ After May 16<sup>th</sup>, 2022, the SPVD metric will be considered in the limits' monitoring of assigned limits from participants to their clients and in the computation of residual risk violations

Settlement risk will be given by:

$$RL_{P,Func,doc} = \max \left( \begin{array}{l} LRMKT_{P,Func,doc}; 0,25 \times LSDP_{P,Func,doc}; LSFDP_{P,Func,doc}; \\ 0,18 \times LSPDA_{P,Func,doc}; 0,25 \times LSPTA_{P,Func,doc}; \mathbf{0,25} \times \mathbf{LSPVD}_{P,Func,doc} \end{array} \right)$$

Execution risk will be given by:

$$RE_{P,doc} = \max_{ct} \left( 0,35 \times \max(LRMKT_{P,doc,ct}; 0,25 \times LSDP_{P,doc,ct}; \mathbf{0,25} \times \mathbf{LSPVD}_{P,doc,ct}); LSFDP_{P,doc,ct} \right)$$

The participants could only increase the SPVD limit above the allowed residual risk in order to increase sales negotiation in the spot market if an authorization is granted by B3's risk teams prior to the limit increase. The justification for those operations must mitigate the short sales risk such as the existence of active balance in the Central Depository, position or options exercise settlements.



# Schedule

# LINE 5.0

## SCHEDULE

### SPVD Metric

**12/13/2021**  
**SPVD enabled in Parallel Production**  
Limits will be evaluated as usual but orders will not be rejected.

**03/14/2022**  
**SPVD in Production**  
Limits will be evaluated as usual, orders will be evaluated in the same manner as other LiNe Clearing metrics.



**01/27/2022**  
**Workshop Presentation**  
Presentation of operation and monitoring of the new metric

**05/16/2022**  
**SPVD Monitoring**  
Start of the limit monitoring for the SPVD metric.

# LINE 5.0

## SCHEDULE

### LINE next steps

- ✓ **Global CAP at instrument level** : Definition of global limit at instrument level given by B3
- ✓ **Start of day position**: Start of day positions will be considered When calculating the consumption of LiNe
- ✓ **New risk metrics per instrument inline**: Maximum risk by instrument in real time
- ✓ **New aggregated risk metrics where orders do not consume limits**: It will only take into consideration trades for consumption.
- ✓ **Real time post-trading integration**: Account will have limit updated after allocations (i.e.: master accounts)
- ✓ **Risk management by Clearing Member**: Monitoring and manual activation of protected mode to trading participants.





**Thank you!**

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