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Functional Aspects of the New Trading Platform

Spot US Dollar and Derivatives Markets

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Agenda

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- New Trading Platform
- Impacts to Traders
- New Features

Agenda

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- The New Trading Platform
  - Benefits
  - Timeline
  - Transition Phase
- Impacts to Traders
- New Features

BENEFITS OF THE NEW TRADING PLATFORM

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- Replacement of 4 systems (GTS, Mega Bolsa, Bovespa Fix and Sisbex) by 1 system – access simplification, technological upgrade and operational synergies

- Statistics

	GTS SYSTEM	THE NEW TRADING PLATFORM
PERFORMANCE		
LATENCY – AVERAGE RTT *	15 ms	1.1 ms
RTT STANDARD-DEVIATION	100 ms	0.37 ms
OUTLIERS**	10 sec	15 ms
PROCESSING CAPACITY		
PEAK OF MESSAGES /DAY	7 millions	200 millions

(*) RTT: *Round Trip Time*

(**) Maximum RTT observed

According to the IT roadmap, on 2012 the new trading platform latency will be reduced to sub-millisecond average RTT.

IMPLEMENTATION TIMELINE

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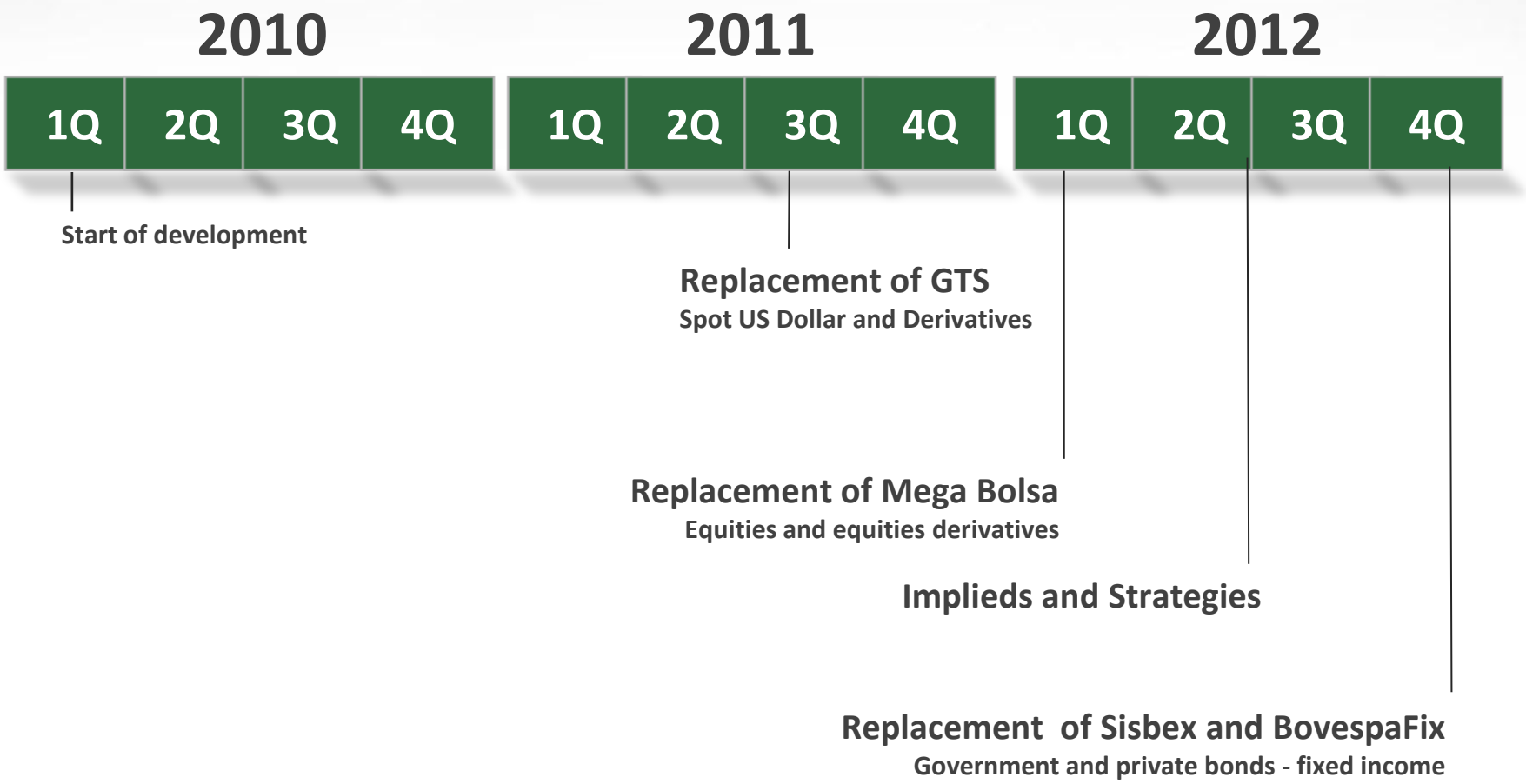

IMPLEMENTATION TIMELINE

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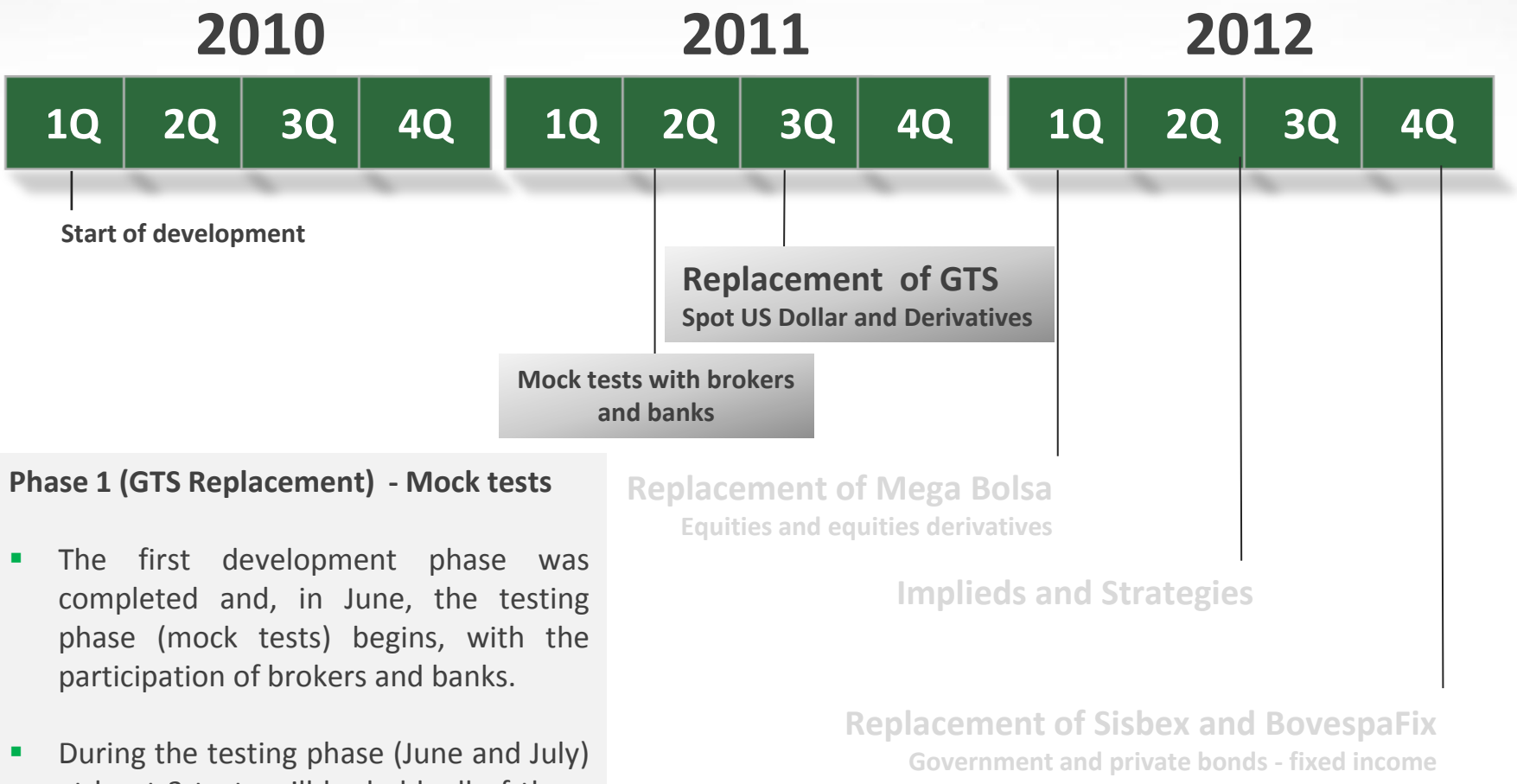

Phase 1 (GTS Replacement) - Mock tests

- The first development phase was completed and, in June, the testing phase (mock tests) begins, with the participation of brokers and banks.
- During the testing phase (June and July) at least 3 tests will be held, all of them with the participation of brokers and banks

IMPLEMENTATION OF PHASE 1

SPOT US DOLLAR AND DERIVATIVES - BM&F SEGMENT

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The migration of the instruments, from GTS system to the new trading platform, will follow 4 steps:

1. **Spot US Dollar instruments** (USDP)

2. **Commodities derivatives**
   Ex: futures and options on cattle, corn, Arabica coffee, etc.

3. **Financial derivatives, except equities index derivatives**
   Ex: futures and options on US Dollar, DI, DDI, etc.

4. **Equities index derivatives**
   Ex: futures and options on Ibovespa and IBrX.

After the last migration step, the GTS system will be turned off and trading will be processed exclusively by the new trading platform.

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Migration Period

- During the migration period (execution of migration steps from the GTS system to the new trading platform), the trading of derivatives will be processed by both systems.

- During the migration period:
  - There will be performance differences among the assets traded, depending on the system processing each one (GTS system or the new platform).
  - There will be differences on the systems' behavior, depending on the platform, but trading screens compatibility must be complete.
  - New features will be available on the new platform only after the conclusion of all migration steps.

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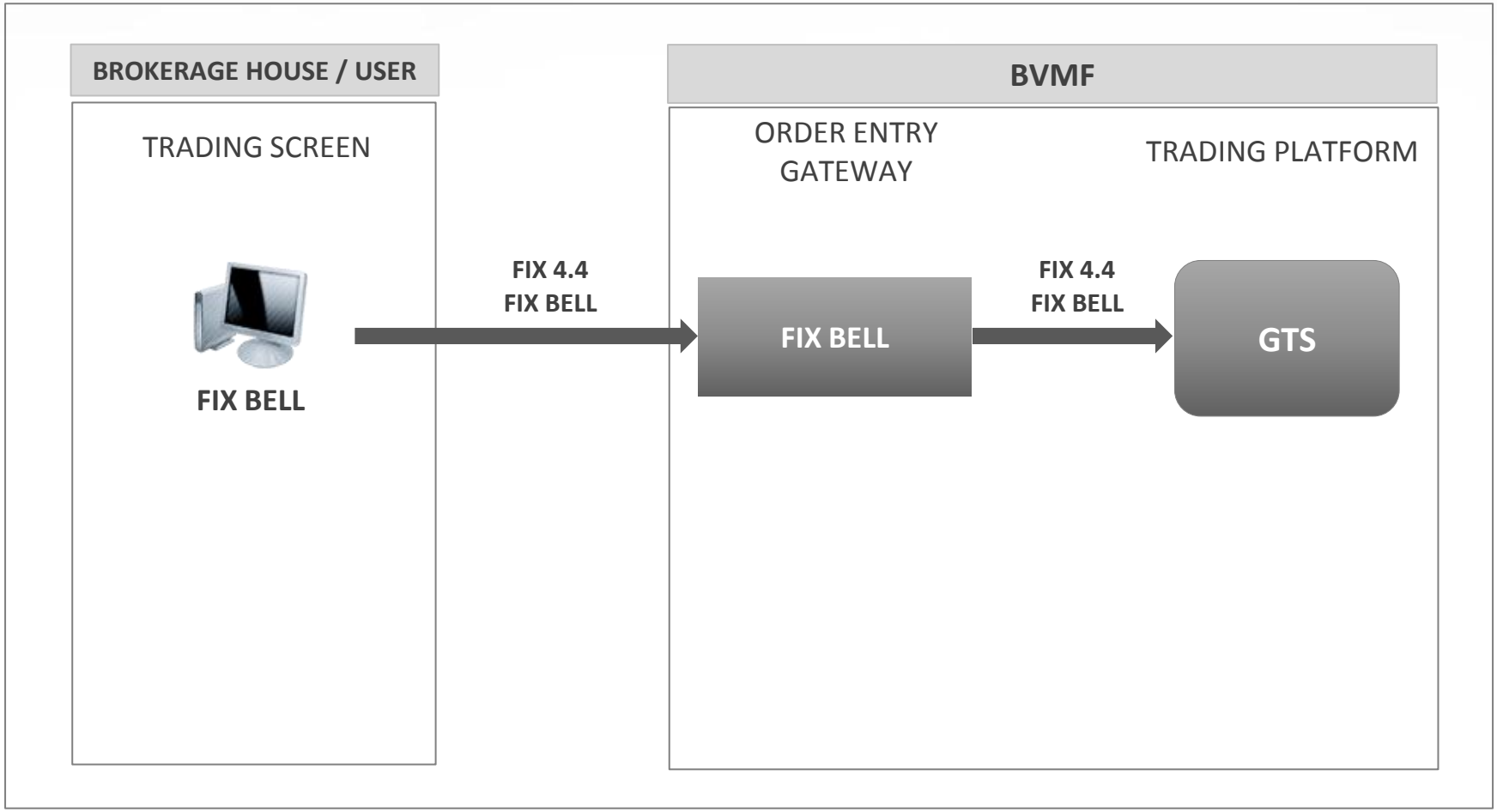
ORDER ENTRY INTERFACE

Current situation – Processing of all instruments by the GTS system



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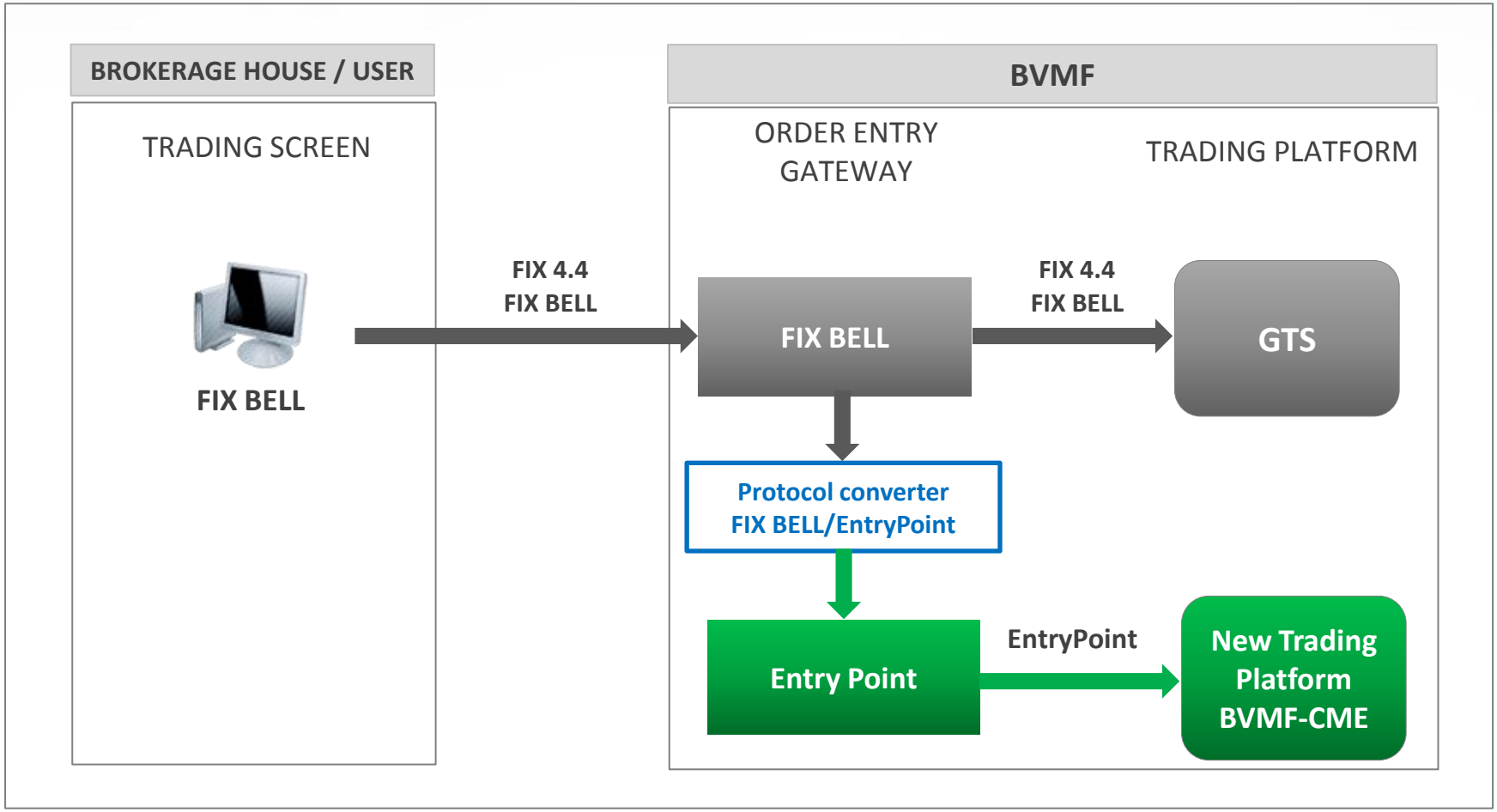
ORDER ENTRY INTERFACE

Migration period – Parallel processing by the GTS system and the new platform



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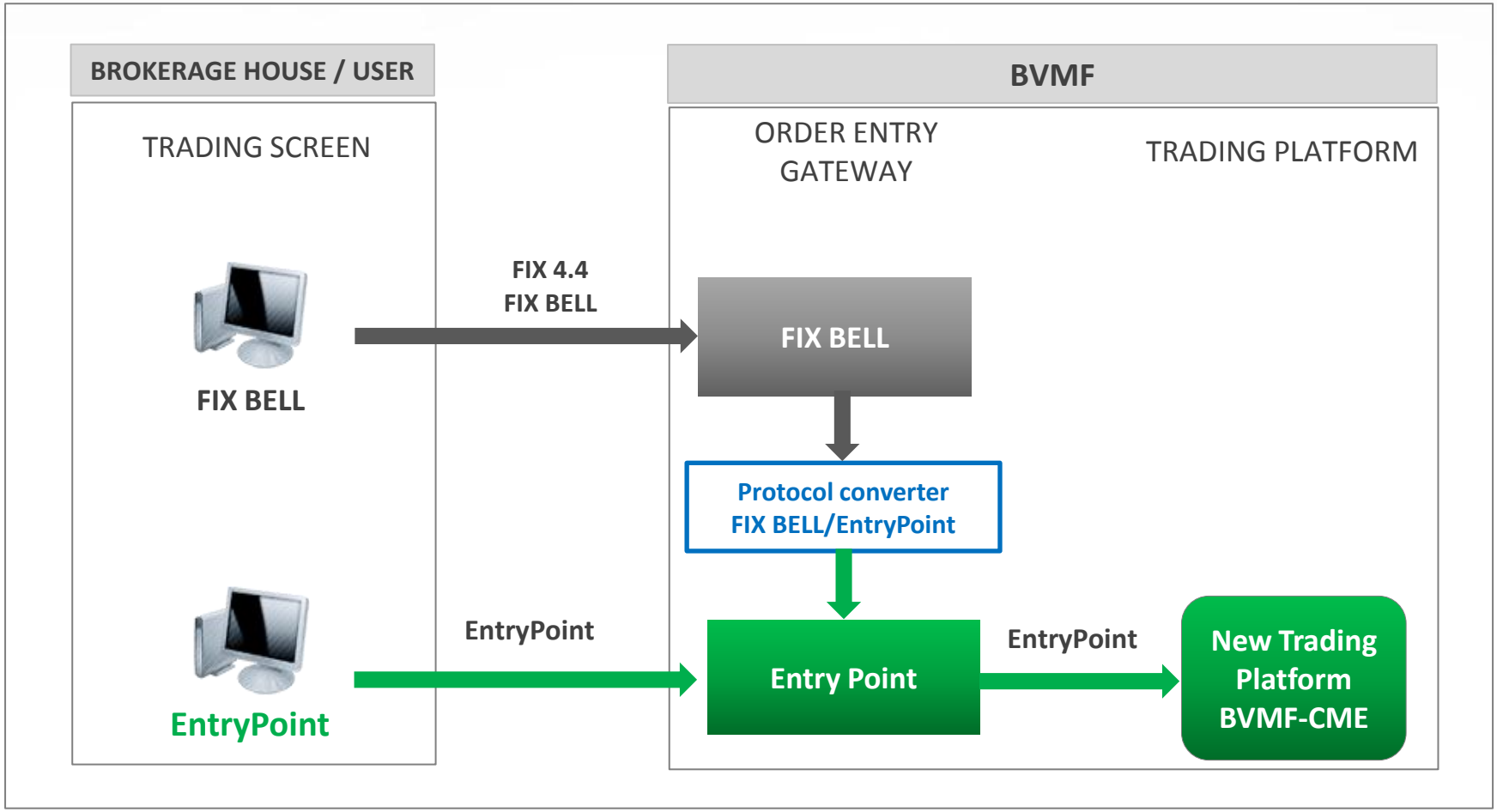
ORDER ENTRY INTERFACE

After migration – All instruments are processed by the new trading platform



Agenda

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- The New Trading Platform
- Impacts to Traders
  - Trading Phases
  - Modifications related to auctions
  - Modifications related to continuous trading
  - Other modifications
- New Features

Agenda

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The New Trading Platform

Impacts to Traders

Trading Phases
- GTS phases vs. new trading platform phases
- Modifications to the phase “Pré Abertura”
- Creation of phase “Pause”

Modifications related to auctions

Modifications related to continuous trading

Other modifications

New Features

Impacts to Traders

Trading Phases

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GTS system	New trading platform	Description
Pré Abertura (não admite cancelamento)	*Pre Open*	Registration, modification and cancellation of orders are allowed, subject to market rules. At this phase the orders do not result immediately in trades and are used to determine the Theoretical Opening Price (TOP).
Negociação	*Open*	Registration, modification and cancellation of orders are allowed, subject to market rules. There is matching in this phase.
Cancelamento de Ofertas	*Pause*	It is not allowed to register or modify orders. Only cancellation of orders is allowed.
Intervenção da Supervisão	*Pre Close*	Registration, modification and cancellation of orders are not allowed. This phase is used to prevent matching.
Consultas do Fim do Dia	*Close*	Registration, modification and cancellation of orders are not allowed. "Day" orders expire at that phase.

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Modifications to the phase "Pré Abertura"

GTS system (Pré Abertura)	New trading platform (Pre Open)
▪ Pre Open phase lasts 5 minutes. ▪ Pre Open can not be **extended**.	▪ Pre Open phase lasts 5 minutes ▪ Pre Open can be **extended** by 1 minute and admits 1 extension with length **randomly** defined (until 1 minute).

"Pause" phase and cancellation of orders

GTS system	New trading platform
▪ It is not allowed to cancel orders **after the trading period** (cancellations are accepted only during periods when registration of orders is allowed). ▪ The system **is responsible** for the cancellation of all orders before and after the calls.	▪ At **Pause** phase only cancellation of orders is allowed. ▪ **Pause** phase lasts **3 minutes**. ▪ The one who sent the order is responsible for its cancellation **(trader /DMA customer)**.

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Phase "Pause"
Example: Scheduling of DI1 Futures phases

Futures Market		
Phase	**Time**	**Trading Session**
Pre Open	8:55 am	Regular Trading Session
Open	9:00 am	
Restricted	4:00 pm	
Pause	**4:05 pm**	Closing Call
Restricted	4:08 pm	
Pause	**4:42 pm**	Extended Trading Session
Pre Open	4:45 pm	
Open	4:50 pm	
Restricted	6:00 pm	
Closed	7:00 pm	

Agenda

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The New Trading Platform

Impacts to Traders

Trading Phases

Modifications related to auctions:
- Criteria for determination of the theoretical pricing
- Extension
- Cancellation of orders
- Modification of orders
- Order with quantity attribute
- Order with hidden quantity

Modifications related to continuous trading

Other modifications

New Features

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Fixing - current rule (GTS) to determination of theoretical price

First criterion

The price assigned to the auction is the one for which the largest number of contracts is traded.

Second criterion

If there is a draw for the first criterion (i.e. there are two or more prices for which the same number of contracts is traded), the prices that generate the lowest imbalance in the bid side and the lowest imbalance in the ask side are selected, and the theoretical price is selected from the range between such prices as the closest to the settlement price.

Third criterion

If there is a draw in the first and second criteria (i.e. there are two or more prices for which (i) the same number of contracts is traded and (ii) the same imbalance in opposite sides are generated), then the price assigned to the auction is the closest to the settlement price (equal to or between the prices generating the second criterion draw).

Impacts to Traders

Auctions – Examples of GTS current criteria

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First criterion

The price assigned to the auction is the one for which the largest number of contracts is traded.

Symbol	Name	Settlement price	Last price				
INDV11	IBOVESPA	61,790	61,785				
Broker	**Time**	**Qty**	**Bid**	**Ask**	**Qty**	**Time**	**Broker**
B	01:09:34 pm	1,000	61,785	61,780	2,000	01:05:15 pm	C
A	01:07:45 pm	2,000	61,780	-	-	-	-

Order book before the auction

Price	Bid Qty	Ask Qty	Traded Qty
61,785	1,000	2,000	1,000
61,780	3,000	2,000	2,000

TRADES- Theoretical Price: 61,780

Qty	Price	Buyer	Seller
1,000	61,780	A	C
1,000	61,780	B	C

Symbol	Name	Settlement Price	Last price				
INDV11	IBOVESPA	61,790	61,780				
Broker	**Time**	**Qty**	**Bid**	**Ask**	**Qty**	**Time**	**Broker**
A	01:07:45 pm	1,000	61,780				

Order book after the auction

Impacts to Traders

Auctions – Examples of GTS current criteria

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Second criterion

If there is a draw for the first criterion (i.e. there are two or more prices for which the same number of contracts is traded), the prices that generate the lowest imbalance in the bid side and the lowest imbalance in the ask side are selected, and the theoretical price is selected from the range between such prices as the closest to the settlement price.

Symbol	Name	Settlement price	Last price				
INDV11	IBOVESPA	61,787	61,790				
Broker	**Time**	**Qty**	**Bid**	**Ask**	**Qty**	**Time**	**Broker**
C	01:20:38 pm	1,000	61,790	61,780	1,000	01:18:31 pm	B
A	01:18:24 pm	1,000	61,780	-	-	-	-

Order book before the auction

Price	Bid Qty	Ask Qty	Traded Qty	Price
61,790	1,000	1,000	1,000	0
61,780	2,000	1,000	1,000	1,000 C

1º criterion draw

TRADES- Theoretical Price: 61,787

Qty	Price	Buyer	Seller
1,000	61,787	C	B

Symbol	Name	Settlement Price	Last price				
INDV11	IBOVESPA	61,787	61,787				
Broker	**Time**	**Qty**	**Bid**	**Ask**	**Qty**	**Time**	**Broker**
A	01:18:24 pm	1,000	61,787				

Order book after the auction

Impacts to Traders

Auctions – Examples of GTS current criteria

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Third criterion

If there is a draw in the first and second criteria (i.e. there are two or more prices for which (i) the same number of contracts is traded and (ii) the same imbalance in opposite sides are generated), then the price assigned to the auction is the closest to the settlement price (equal to or between the prices generating the second criterion draw).

Symbol	Name	Settlement price	Last price				
INDV11	IBOVESPA	61,770	61,780				
Broker	**Time**	**Qty**	**Bid**	**Ask**	**Qty**	**Time**	**Broker**
A	02:20:05 pm	400	61,785	61,775	500	02:20:29 pm	C
B	02:20:13 pm	100	61,780	61,785	100	02:20:41 pm	D

Order book before the auction

Price	Bid Qty	Ask Qty	Traded Qty	Price
61,785	400	600	400	200 V
61,780	500	500	500	0
61,775	500	500	500	0

1º criterion draw **2º criterion draw**

TRADES- Theoretical Price: 61,775

Qty	Price	Buyer	Seller
400	61,775	A	C
100	61,775	B	C

Symbol	Name	Settlement price	LTP				
INDV11	IBOVESPA	61,770	61,775				
Broker	**Time**	**Qty**	**Bid**	**Ask**	**Qty**	**Time**	**Broker**
-	-	-	-	61,785	100	02:20:41 pm	D

Order book after the auction

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Fixing - modification of 2nd and 3rd theoretical price criteria

GTS system	New trading platform
▪ The 2nd criterion to determination of the theoretical price assigns to the auction the price closest to the **settlement price, with no rounding to fit the tick size**.	▪ The 2nd criterion to determination of the theoretical price assigns to the auction the price closest to the **last traded price** or, in the absence of it, the closest to the **settlement price**, with rounding to fit the tick size.
▪ The 3rd criterion to determination of the theoretical price assigns the price closest to the **settlement price, with no rounding to fit the tick size**.	▪ The 3rd criterion to determination of the theoretical price assigns the to the auction the price closest to the **last traded price** or, in the absence of it, the closest to the **settlement price**, with rounding to fit the tick size.

Impacts to Traders

Auctions – Examples of the new trading platform criteria

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Second criterion

If there is a draw in the 1st criterion (i.e. there are two or more prices for which the same number of contracts are traded), the prices that generate the lowest imbalance in the bid side and the lowest imbalance in the ask side are selected and, in the range between them, the theoretical price is selected as **the closest to the last traded price or, in its absence, the closest to the settlement price, rounded to fit the tick size.**

Symbol	Name	Settlement Price	Last price				
INDV11	IBOVESPA	61,765	61,780				
Broker	**Time**	**Qty**	**Bid**	**Ask**	**Qty**	**Time**	**Broker**
C	01:20:38 pm	1,000	61,800	61,780	1,000	01:18:31 pm	B
A	01:18:24 pm	1,000	61,780	-	-	-	-

Order book before the auction

Price	Bid Qty	Ask Qty	Traded Qty	Price
61,800	1,000	1,000	1,000	0
61,780	2,000	1,000	1,000	1,000 B

1º criterion draw

TRADES- Theoretical Price: 61,790

Qty	Price	Buyer	Seller
1,000	61,790	C	B

Symbol	Name	Settlement Price	Last price				
INDV11	IBOVESPA	61,765	61,790				
Broker	**Time**	**Qty**	**Bid**	**Ask**	**Qty**	**Time**	**Broker**
A	01:18:24 pm	1,000	61,780				

Order book after the auction

Impacts to Traders

Auctions – Examples of new trading platform criteria

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Second criterion

If there is a draw in the 1st criterion (i.e. there are two or more prices for which the same number of contracts are traded), the prices that generate the lowest imbalance in the bid side and the lowest imbalance in the ask side are selected and, in the range between them, the theoretical price is selected as **the closest to the last traded price or, in its absence, the closest to the settlement price, rounded to fit the tick size.**

Symbol	Name	Settlement Price	Last price				
INDV11	IBOVESPA	61,770	-				
Broker	**Time**	**Qty**	**Bid**	**Ask**	**Qty**	**Time**	**Broker**
C	01:20:38 pm	1,000	61,800	61,780	1,000	01:18:31 pm	B
A	01:18:24 pm	1,000	61,780	-	-	-	-

Order book before the auction

Price	Bid Qty	Ask Qty	Traded Qty	Price
61,800	1,000	1,000	1,000	0
61,780	2,000	1,000	1,000	1,000 B

1º criterion draw

TRADES- Theoretical Price: 61,790

Qty	Price	Buyer	Seller
1,000	61,790	C	B

Symbol	Name	Settlement Price	Last price				
INDV11	IBOVESPA	61,770	61,790				
Broker	**Time**	**Qty**	**Bid**	**Ask**	**Qty**	**Time**	**Broker**
A	01:18:24 pm	1,000	61,780				

Order book after the auction

Impacts to Traders

Auctions – Examples of new trading platform criteria

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Third criterion

If there is a draw in the 1st and 2nd criteria (i.e. there are two or more prices for which (i) the same maximum number of contracts is negotiated and (ii) the same imbalance minimum at opposite ends is generated), the auction price will be (equal to or between the prices of the generators tie in the 2nd option) **the closest to the price of last trade, or in his absence, the nearest to the settlement price, rounded as tick size.**

Symbol	Name	Settlement price	Last price				
INDV11	IBOVESPA	61,770	61,780				
Broker	**Time**	**Qty**	**Bid**	**Ask**	**Qty**	**Time**	**Broker**
A	02:20:05 pm	400	61,785	61,775	500	02:20:29 pm	C
B	02:20:13 pm	100	61,780	61,785	100	02:20:41 pm	D

Order book before the auction

Price	Bid Qty	Ask Qty	Traded Qty	Price
61,785	400	600	400	200 S
61,780	500	500	500	0
61,775	500	500	500	0

1º criterion draw 2º criterion draw

TRADES- Theoretical Price: 61,780

Qty	Price	Buyer	Seller
400	61,780	A	C
100	61,780	B	C

Symbol	Name	Settlement Price	Last price				
INDV11	IBOVESPA	61,770	61,780				
Broker	**Time**	**Qty**	**Bid**	**Ask**	**Qty**	**Time**	**Broker**
-	-	-	-	61,785	100	02:20:41 pm	D

Order book after the auction

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Extension

GTS system	New trading platform
▪ All auctions, **except** the Pre Open auction, admit extension ▪ An auction is extended when, in the critical phase, occurs: – Modification of the Theoretical Price (TOP) – Modification of the Theoretical Quantity (TOQ) – Modification of the Executed Quantity (QMO)	▪ All auctions, including the Pre Open auction, admit extension ▪ An auction is extended when, in the critical phase, occurs: – Modification of the Theoretical Price (TOP) – Modification of the Theoretical Quantity (TOQ) – Modification of the Executed Quantity (QMO) – **Modification of the Remaining Quantity (RUQ)**

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Extension – Examples of how the new trading platform will work

Initial Situation

Qty	Bid	Ask	Qty
1,000	61,780	61,780	1,000

Auction Theoretical Price: 61,780

The registration of a new order, as indicated, causes the modification of the theoretical price (TOP)

Qty	Bid	Ask	Qty
1,000	61,785	61,780	1,000
1,000	61,780		

Auction Theoretical Price: 61,785
The auction is extended.

Initial Situation

Qty	Bid	Ask	Qty
1,000	61,780	61,780	2,000

Theoretical Quantity: 1,000

The registration of a new order, as indicated, causes the modification of the theoretical quantity (TOQ)

Qty	Bid	Ask	Qty
1,000	61,780	61,780	2,000
1,000	61,780		

Theoretical Quantity: 2,000
The auction is extended.

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Extension – Examples of how the new trading platform will work

Initial Situation

Qty	Bid	Ask	Qty
1,000	61,780	61,780	2,000
1,000	61,780		

Both the two bids have executed quantity equal to 1,000 contracts

The registration of a new order, as indicated, causes the modification of the executed quantity (QMO):

Qty	Bid	Ask	Qty
1,000	61,785	61,780	2,000
1,000	61,780		
1,000	61,780		

The executed quantity of the 2nd bid (1,000 contracts at 61,780) changes to zero.

The auction is extended.

Initial Situation

Qty	Bid	Ask	Qty
1,000	61,780	61,780	2,000
1,000	61,780		

Remaining quantity : 0

The registration of a new order, as indicated, causes the modification of the remaining quantity (RUQ)

Qty	Bid	Ask	Qty
1,000	61,780	61,780	2,000
1,000	61,780		
1,000	61,780		

Remaining quantity: 1,000

The auction is extended.

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Cancellation of orders

GTS system	New trading platform
It is not possible to **cancel orders** during an auction.	It is possible to cancel an order during an auction since the order is not in the determination of theoretical price at the moment of the cancellation request. A bid participates in the theoretical price determination if its price is higher or equal to it. An ask participates in the theoretical price determination if its price is lower or equal to it.

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Cancellation of orders – Example

1				200 12.48 - 12.48 125			
Broker	Time	Qty	Bid	Ask	Qty	Time	Broker
20	12:36:20	200	12.48	12.48	125	11:33:03 am	17
13	12:42:16	200	12.47				

The bid with quantity equal to 200 contracts and price equal to 12.47 can be cancelled because it is a bid with price lower than the theoretical price (12.48) and therefore does not participate in its formation.

1				200 12.48 - 12.48 125			
Broker	Time	Qty	Bid	Ask	Qty	Time	Broker
20	12:36:20	200	12.48	12.48	125	11:33:03 am	17
13	12:42:16	100	12.48				

The bid with quantity equal to 100 contracts and price equal to 12.48 can not be cancelled because it is a bid with price equal to the theoretical price.

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Modification of orders

GTS system	New trading platform
▪ During an auction **it is not allowed** to modify an order by decreasing its quantity or worsening its price.	▪ During an auction it is possible to modify an order by reducing its quantity or worsening its price, since the order **is not participating** in the theoretical price determination.
▪ Modifications to increase the quantity or improve the price of the order are allowed.	▪ Modifications to increase the quantity or improve the price of the order are allowed.

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Modification of orders – Example

1				20 99.16 - 99.12 45			
Broker	Time	Qty	Bid	Ask	Qty	Time	Broker
18	03:58:08 pm	20	99.16	99.12	45	03:57:31 pm	15
14	03:57:49 pm	45	99.15	99.35	3	02:57:20 pm	18
15	03:57:08 pm	10	99.12	99.39	8	02:25:32 pm	09
15	03:57:30 pm	35	99.12	99.40	10	02:04:59 pm	15
18	03:29:15 pm	5	99.11	99.79	8	02:25:40 pm	09
14	03:27:36 pm	5	99.10	99.89	8	02:25:55 pm	09
08	03:03:30 pm	10	99.00	99.90	8	11:17:17 am	18

- The ask with quantity equal to 3 contracts and price equal to 99.35 can be changed (by decreasing the quantity or worsening the price) because it is an ask at a price higher than the theoretical price (99.15) and therefore does not participate in its pricing process.
- The bids at 99.15 and 99.16 and the ask at 99.12, can be modified only by increasing the quantity or improving the price (increasing the price of the bid or decreasing the price of the ask).
- Modifications of bids at prices below 99.15 and asks at prices above 99.15 are allowed

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Order with hidden quantity (validity)

GTS system	New trading platform
▪ **Fill-and-Kill** order (FAK) is not allowed during an auction. ▪ **It is not allowed** to modify the validity of the order during an auction. ▪ Qualifiers allowed during auctions: – Day *(Validade Dia)*	▪ **Fill-and-Kill** order (FAK) is allowed during na auction. ▪ It is allowed to modify the validity of an order **only to Fill-and-Kill**. ▪ After the auction, the remaining quantity is automatically deleted from the order book. ▪ Qualifiers allowed during auctions: – Day *(Validade Dia)* – Fill-and-Kill

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Order with quantity attribute (validity) - Example

GTS SYSTEM

1 – Initial Situation

Qty	Bid	Ask	Qty
1,000	61,780	61,780	1,000
1,000	61,780		

2 – A FAK order of to 500 contracts at 61,780 is sent and rejected by GTS.

Qty	Bid	Ask	Qty
1,000	61,780	61,780	1,000
1,000	61,780		

3 –Order book after the end of the auction

Qty	Bid	Ask	Qty
1,000	61,780		

NEW TRADING PLATFORM

1 – Initial Situation

Qty	Bid	Ask	Qty
1,000	61,780	61,780	1,000
1,000	61,780		

2 – A FAK order of 500 contracts at 61,780 is sent and registered in the order book.

Qty	Bid	Ask	Qty
1,000	61,780	61,780	1,000
1,000	61,780		
500	61,780		

3 –Order book after the end of the auction

Qty	Bid	Ask	Qty
1,000	61,780		

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Iceberg order (quantity)

GTS system	New trading platform
It is not allowed to modify an Iceberg order during an auction.	During the auction it is allowed to modify Iceberg orders only **if the total amount be disclosed**, regardless of the modification or the theoretical price of the auction.

About Iceberg orders:

- Registration of Iceberg orders is allowed only during **continuous trading session** (Open phase)
- If an order is sent prior to the auction then its **total quantity (not just the apparent quantity)** is considered in the theoretical price calculation
- The apparent quantity must be at least **10 times** higher than the standard lot of the instrument
- Each **matching, total or partial, of the apparent quantity** generates a new trade. For example, an order with total quantity of 1,000 contracts and apparent quantity of 100 contracts will generate 10 trades of 100 contracts each when fully executed

Agenda

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The New Trading Platform

Impacts to Traders

Trading Phases

Modifications related to auctions

Modifications related to continuous trading
- Limit order modification to include a quantity attribute
- Stop order: modification
- Stop order: price adjustment
- Intentional cross trade: new pricing criteria
- Modification of apparent quantity

Other modifications

New Features

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Limit order modification to include a quantity attribute (validity)

GTS system	New trading platform
▪ A request for **modification of a limit order to include a quantity attribute** (FOK, FAK and "Minimum Quantity") is rejected if it is not possible to fill the attribute conditions. ▪ If the modification is rejected, the original order remains unchanged in the order book.	▪ A request for **modification of a limit order to include a quantity attribute** (FOK, FAK and "Minimum Quantity") is **always accepted**. ▪ If it is not possible to fill the attribute conditions, the order (as amended) is **eliminated** from the order book.

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Limit order modification to include a quantity attribute (validity)

EXAMPLE

Broker	Time	Qty	Bid	Ask	Qty	Time	Broker
02	05:29:58 pm	3	63,480	63,490	5	05:29:54 pm	04
02	05:29:03 pm	2	63,455	63,530	3	05:29:48 pm	05
05	05:30:44 pm	5	63,450	63,570	38	05:29:17 pm	02
02	04:53:05 pm	10	63,450	63,580	1	05:25:30 pm	03
02	04:53:05 pm	15	63,450	63,585	1	05:28:49 pm	06
02	04:53:05 pm	20	63,450	63,590	39	05:11:30 pm	07

Consider the 1st bid in the order book (3 contracts at 63,480) and the following requests:

- Modification to 10 contracts at 63,485 and minimal quantity of 5: the order is **eliminated**
- Modification to 10 contracts at 63,490 and minimum quantity of 5: the modification is **accepted, the match occurs and the remaining quantity (5 contracts) remains in the order book**
- Modification to 10 contracts at 63,490, FOK: the order is **eliminated**
- Modification to 10 contracts at 63,490, FAK: the modification is **accepted, the new order is executed** and the remaining quantity is **eliminated**.

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Stop Order: modification

GTS system	New trading platform
▪ **It is not possible** to modify a Stop order before it is triggered (no characteristic of the order nor its type (Stop)). ▪ **It is possible** to modify the order after it is triggered.	▪ **It is possible** to modify the characteristics of the Stop order before it is triggered. ▪ It is not possible to modify the order type (Stop). ▪ **It is not possible** to modify any characteristic after it is triggered.

Stop orders rules in the new trading platform:

- Limited Stop orders are allowed/accepted
- The Stop order has no quantity attribute ("Minimum quantity", FAK and FOK)
- Buy Stop order: The trigger price must be **higher** than the last traded price
  The price must be **higher than or equal to** the trigger price
- Sell Stop order: The trigger price must be **smaller than** the last traded price
  The price must be **smaller than or equal to** the trigger price.

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Stop Order: price adjustment

GTS system	New trading platform
The Stop order which price is out of the intraday limit is **rejected** when triggered.	When a Stop order which price is out of the intraday limit is triggered, its price adjusted to the limit value.

Symbol	Qty	Bid	Ask	Qty	LTP	Lim Inf	Lim Sup
WIN M11	2	63,515	63,525	2	63,525	56,842	69,472
DOLN11	280	1,596.500	1,597.000	125	1,597.000	1,494.000	1,684.000
INDM11	20	63,510	63,520	5	63,520	56,845	69,470
WDLN11	38	1,596.500	1,597.000	13	1,597.000	1,494.000	1,684.000

New trading platform functioning

Example: Ibovespa Futures **INDM11, with a last traded price at 63,520**:

- Consider a **stop sell order** with **trigger price at 57,000** and **price at 56,840** (consider that at the moment of the insertion of the order the price was within inferior and superior limits).
- A n abrupt movement in the market reduces the INDM11 price to 57,000 points, causing the trigger of the stop order, priced at 56,840.
- As the **inferior limit** is **56,845** at the time of the trigger, the price of the triggered order is **adjusted to 56,845**.

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Intentional Cross Trade (key F6): new pricing criteria

GTS system	New trading platform
▪ Any intentional cross trade is accepted, for groups of liquid instruments, if its price is between the best bid and best ask **(values included).**	▪ Any intentional cross trade is accepted, for groups of liquid instruments, if its price is between the best bid and best ask **(values not included).** ▪ If there is no **spread between bid and ask**, it is possible to send an intentional cross trade at a price **equal** to the best bid or equal to the best ask.

Open spread example

Bid		Ask	
300	49.00	51.00	200
100	48.00	52.00	300

Cross trade with price <= 49.00 is rejected
Cross trade with price >= 51.00 is rejected
Cross trade with price> 49.00 and < 51.00 is accepted

Closed spread example

Bid		Ask	
300	49.50	49.51	200
100	49.49	49.52	300

Cross trade with price < 49.50 is rejected
Cross trade with price > 49.51 is rejected
Cross trade with price >= 49.50 and <= 49.51 is accepted

If there are no orders, there are no validation. In an empty order book, the intentional cross trade is accepted at any price accepted by the auction tunnel valid for the contract.

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Modification of apparent quantity

GTS System	New trading platform
The modification of the apparent quantity, if accepted, is immediately enforced and released to the market, except in cases when the order has already been partially executed.	The modification of the apparent quantity, if accepted, is enforced only after the full execution of the apparent quantity defined prior to the modification request

Agenda

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Modifications related to continuous trading

Other modifications
- Number of the trade
- On behalf orders and trades
- Orders rejected by tunnels
- States and phases flags
- Auction information by market data
- Last trade quantity

New Features

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Number of the trade (integration of the clearinghouses)

- Trading environment: the numbers of the trades are set in steps of 10, instead of 1.
- Post-trading environment: the trades numeration will not be modified.

ASSET	RANGE OF THE TRADES NUMBERS POST-TRADING ENVIRONMENT	
	FROM	TO
WIN	1	4,000,000
DOL, DR1, FRP0 e FRP1	4,000,001	6,700,000
IND, IR1, FWI	6,700,001	8,350,000
DI1	8,350,001	8,800,000
Others	8,800,001	9,800,000
Options exercise	9,800,001	9,999,999

Impacts to Traders
Other modifications

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On Behalf orders and trades (orders and trades registrated by BVMF)

It will be possible to BVMF to register orders and trades ,on behalf of a brokerage house, when necessary and if justified.

Orders rejected by tunnels

- When an order is rejected because of violation of a tunnel, the new trading platform will not disclose the prices accepted by the trading tunnels.
- The rules shall be consulted by the brokers on BM&FBovespa's website (www.bmfbovespa.com.br / Rules / Regulations / Operational Procedures / Derivatives).
- Rejection message

GTS System

"The order price (64,800) is below the rejection tunnel ***(min > (68,010; 68,310) < max)*** for limit orders"

New trading platform

"The price (64,800) is below or above of the rejection tunnels for this instrument "

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States and phases flags

The letters used to indicate phases and states will be modified due to the reduction of the quantity of phases.

Phase Flags (applicable to instruments groups)

GTS system		New trading platform	
Consulta de início de dia	**H**	Pause	**H**
Consultar/desabilitar	**P**	Pre Open	**P**
Negociação		Open	
Intervenção da supervisão	**H**	Pre Close	**H**
Ofertas de cancelamento	**H**	Pause	**H**
Mini batch	**X**	Close	**X**

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States and phases flags

State Flags (applicable to instruments)

GTS System		New Trading Platform	
Aberto		Open	
Reservado	R	Reserved	R
Sujeito a interferência	I	Reserved	R
Reservado-prorrogado	S	Reserved	R
Randômico	A	Reserved	R
Aberto proibido	X	Forbidden	X
Reservado proibido	X	Forbidden	X
		Pause	S
		Close	X

Impacts to Traders

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Auction information through the market data

Information about theoretical quantity and theoretical price will be reported only during the auction and not during regular trading hours

Last trade quantity (GLWin)

The quantity of the last trade reported by GLWin screens will be different from the last trade when a matching against several orders in the order book occurs.

Agenda

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New Features

New Features

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- The new features of the new trading platform will be available for use **after the completion of all instruments migration** (since it is not possible to garantee their compatibility with GTS)

- Among the new features, the most important are:

1. **Instruments creation**
   It will be possible to create an instrument and trade such instrument in T+0

2. **Orders with validity (GTC e GTD)**
   Orders with validity "Good-til-Date" and "Good-til-Cancel" will be accepted

3. **MOA/MOC Orders**
   MOA and MOC orders specific for auction, with prices always equal to the theoretical price of the auction and higher priority

4. **Market-with-Protection e Stop-with-Protection Orders**
   BVMF sets a price range where these orders can be executed.

New Features

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- Among the new features, the most important are:

5. Compatibility with Estação Mega Bolsa

It will be possible to trade in the two markets (derivatives of the BM&F segment and spot equity and equity derivatives of the BOVESPA segment) through the same trading screen.

6. Non intentional cross trade – auction trigger

A non intentional cross for an iliquid instrument will be submitted to auction only if the **exposure time** of the first order registered in the order book (buy or sell) is less than N seconds

Exposure time of the first order (buy / sell) is the time period between its insertion in the order book and its execution (against the sell/buy order)

7. The first trade of the day is not submmited to auction

The first trade of the day may not be submmited to auction, according its liquidity.

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