

## Quantitative Disclosure

As of December 31st, 2016 - All financial data in BRL, unless otherwise specified

### CREDIT RISK

4.1	Total value of default resources (excluding initial and retained variation margin), split by clearing service if default funds are segregated by clearing service Quarterly - As at quarter end		
4.1.1	Prefunded resources - Own capital used before member contributions		296,000,000
4.1.2	Prefunded resources - Own capital used alongside member contributions		-
4.1.3	Prefunded resources - Own capital used after member contributions		-
4.1.4	Prefunded resources - Aggregate participant contributions - required amount		296,000,000
4.1.5	Prefunded resources - Aggregate participant contributions - posted amount	Post-haircut	392,482,065
4.1.6	Prefunded resources - Other		2,814,084,742
4.1.7	Committed resources - Own/parent funds committed to address a participant default (or round of participant defaults)		-
4.1.8	Committed resources - Aggregate participant commitments to address an initial participant default (or initial round of participant defaults)		-
4.1.9	Committed resources - Aggregate participant commitments to replenish the default fund to deal with a subsequent participant default (or round of participant defaults) after the initial participant default (or round of participant defaults) has been addressed		290,000,000 See note 4.1.9
4.1.10	Committed resources - Other		-

4.2	K <sub>CCP</sub> Quarterly - As at quarter end		
4.2.1	K <sub>CCP</sub> (reported only by CCPs which are or seek to be a "qualifying CCP" under relevant law)		-

4.3	Value of pre-funded default resources (excluding initial and retained variation margin) held for each clearing service, in total and split by asset type Quarterly - As at quarter end		
4.3.1	Cash deposited at a central bank of issue of the currency concerned	Pre-haircut	Not applicable
		Post-haircut	
4.3.2	Cash deposited at other central banks	Pre-haircut	Not applicable
		Post-haircut	
4.3.3	Secured cash deposited at commercial banks (including reverse repo)	Pre-haircut	-
		Post-haircut	-
4.3.4	Unsecured cash deposited at commercial banks	Pre-haircut	-
		Post-haircut	-
4.3.5	Non-cash Sovereign government bonds - Domestic	Pre-haircut	3,411,265,659
		Post-haircut	3,385,083,747
4.3.6	Non-cash Sovereign government bonds - Other	Pre-haircut	Not eligible
		Post-haircut	
4.3.7	Non-cash Agency bonds	Pre-haircut	Not eligible
		Post-haircut	
4.3.8	Non-cash State/municipal bonds	Pre-haircut	Not eligible
		Post-haircut	
4.3.9	Non-cash Corporate bonds	Pre-haircut	Not eligible
		Post-haircut	
4.3.10	Non-cash Equities	Pre-haircut	-
		Post-haircut	-
4.3.11	Non-cash Commodities - gold	Pre-haircut	-
		Post-haircut	-
4.3.12	Non-cash Commodities - other	Pre-haircut	Not eligible
		Post-haircut	
4.3.13	Non-cash Mutual funds / UCITs	Pre-haircut	Not eligible
		Post-haircut	
4.3.14	Non-cash Other (explanation of type of asset must be provided)	Pre-haircut	111,521,000
		Post-haircut	111,521,000
4.3.15	Total	Pre-haircut	3,522,786,659
		Post-haircut	3,496,604,747

4.4	Credit risk disclosures Quarterly		
4.4.1	Minimum requirement the CCP is subject to in relation to total pre-funded default resources ("Cover 1" or "Cover 2")		Cover 2
4.4.2	Number of business days within which the CCP assumes it will close out the default when calculating credit exposures that would potentially need to be covered by the default fund.		Up to 10 For details per contract type and liquidity constraints, please refer to 6.4.11.
4.4.3	The <b>estimated</b> largest aggregate stress loss (in excess of initial margin) that would be caused by the default of any <b>single</b> participant and its affiliates (including transactions cleared for indirect participants) in extreme but plausible market conditions.	Peak Day Amount In Previous 12 Months	317.000.000 Please refer to note 4.4
		Mean Average Over Previous 12 Months	287,000,000

4.4.4	Number of business days, if any, on which the above amount (4.4.3) exceeded actual pre-funded default resources (in excess of initial margin)		-
4.4.5	The amount in 4.4.3 which exceeded actual pre-funded default resources (in excess of initial margin)	Amount Exceeded (on each day)	-
4.4.6	The <b>actual</b> largest aggregate credit exposure (in excess of initial margin) to any <b>single</b> participant and its affiliates (including transactions cleared for indirect participants)	Peak Day Amount In Previous 12 Months	1,893,289,604
		Mean Average Over Previous 12 Months	44,840,249
4.4.7	The <b>estimated</b> largest aggregate stress loss (in excess of initial margin) that would be caused by the default of any <b>two</b> participants and their affiliates (including transactions cleared for indirect participants) in extreme but plausible market conditions.	Peak Day Amount In Previous 12 Months	539,000,000 Please refer to note 4.4
		Mean Average Over Previous 12 Months	500,000,000 Please refer to note 4.4
4.4.8	Number of business days, if any, on which the above amount (4.4.7) exceeded actual pre-funded default resources (in excess of initial margin).		-
4.4.9	The amount in 4.4.7 which exceeded actual pre-funded default resources (in excess of initial margin)	Amount Exceeded	-
4.4.10	The <b>actual</b> largest aggregate credit exposure (in excess of initial margin) to any <b>two</b> participants and their affiliates (including transactions cleared for indirect participants)	Peak Day Amount In Previous 12 Months	1,893,649,278
		Mean Average Over Previous 12 Months	66,141,594

## COLLATERAL

<b>5.1</b>	<b>Assets eligible as initial margin and the respective haircuts applied</b> <i>Update as changes are made</i>		
5.1.1	Assets eligible as initial margin and the respective haircuts applied		<a href="#">Link</a> <a href="#">Link</a>

<b>5.2</b>	<b>Assets eligible for pre-funded participant contributions to the default resources, and the respective haircuts applied (if different from 5.1)</b> <i>Update as changes are made</i>		
5.2.1	Assets eligible for pre-funded participant contributions to the default resources, and the respective haircuts applied (if different from 5.1)		Same assets and haircuts as 5.1.1, except by US dollars and US treasuries.

<b>5.3</b>	<b>Results of testing of haircuts</b> <i>Quarterly</i>		
5.3.1	Confidence interval targeted through the calculation of haircuts		99.96% See note 5.3.1
5.3.2	Assumed holding/liquidation period for the assets accepted		From 1 to 10 days
5.3.3	Look-back period used for testing the haircuts		See note 5.3.3
5.3.4	Number of days during the look-back period on which the fall in value during the assumed holding/liquidation period exceeded the haircut on an asset.		See note 5.3.4

## MARGIN

<b>6.1</b>	<b>For each clearing service, total initial margin required, split by house and client (or combined total if not segregated)</b> <i>Quarterly - As at quarter end</i>		
6.1.1	Total initial margin required At BM&FBOVESPA Clearinghouse initial margin is required at the individual client level (i.e. initial margin is provided for the positions of each individual client's own positions).	House net	Not applicable. See note 6.1
		Client gross	131,945,531,141
		Client net	Not applicable. See note 6.1
		Total	131,945,531,141

<b>6.2</b>	<b>For each clearing service, total initial margin held, split by house and client</b> <i>Quarterly - As at quarter end</i>			
6.2.1	Cash deposited at a central bank of issue of the currency concerned		Not applicable	
6.2.2	Cash deposited at other central banks		Not applicable	
6.2.3	Secured cash deposited at commercial banks (including reverse repo)	House IM - Pre haircut	See note 6.1	
		House IM - Post haircut		
		Client IM - Pre haircut		812,250
		Client IM - Post haircut		812,250
		Total IM - Pre haircut		812,250
		Total IM - Post haircut		812,250
6.2.4	Unsecured cash deposited at commercial banks	House IM - Pre haircut	See note 6.1	
		House IM - Post haircut		
		Client IM - Pre haircut		46,004,177
		Client IM - Post haircut		46,008,500
		Total IM - Pre haircut		46,004,177
		Total IM - Post haircut		46,008,500
6.2.5	Non-cash Sovereign government bonds - Domestic	House IM - Pre haircut	See note 6.1	
		House IM - Post haircut		
		Client IM - Pre haircut		160,225,889,250
		Client IM - Post haircut		160,423,428,357
		Total IM - Pre haircut		160,225,889,250
		Total IM - Post haircut		160,423,428,357
6.2.6	Non-cash Sovereign government bonds - Other	House IM - Pre haircut	See note 6.1	
		House IM - Post haircut		
		Client IM - Pre haircut		-
		Client IM - Post haircut		-
		Total IM - Pre haircut		-
		Total IM - Post haircut		-
6.2.7	Non-cash Agency bonds	House IM - Pre haircut	Not eligible	
		House IM - Post haircut		
		Client IM - Pre haircut		
		Client IM - Post haircut		
		Total IM - Pre haircut		
		Total IM - Post haircut		

6.2.8	Non-cash State/municipal bonds	House IM - Pre haircut	Not eligible	
		House IM - Post haircut		
		Client IM - Pre haircut		
		Client IM - Post haircut		
		Total IM - Pre haircut		
		Total IM - Post haircut		
6.2.9	Non-cash Corporate bonds	House IM - Pre haircut	Not eligible	
		House IM - Post haircut		
		Client IM - Pre haircut		
		Client IM - Post haircut		
		Total IM - Pre haircut		
		Total IM - Post haircut		
6.2.10	Non-cash Equities	House IM - Pre haircut	See note 6.1	
		House IM - Post haircut		
		Client IM - Pre haircut	6,651,968,135	
		Client IM - Post haircut	5,036,052,147	
		Total IM - Pre haircut	6,651,968,135	
		Total IM - Post haircut	5,036,052,147	
6.2.11	Non-cash Commodities - gold	House IM - Pre haircut	See note 6.1	
		House IM - Post haircut		
		Client IM - Pre haircut		9,323,650
		Client IM - Post haircut		8,556,592
		Total IM - Pre haircut		9,323,650
		Total IM - Post haircut		8,556,592
6.2.12	Non-cash Commodities - other	House IM - Pre haircut	Not eligible	
		House IM - Post haircut		
		Client IM Pre haircut		
		Client IM - Post haircut		
		Total IM - Pre haircut		
		Total IM -Post haircut		
6.2.13	Non-cash Mutual funds / UCITs	House IM - Pre haircut	Not eligible	
		House IM - Post haircut		
		Client IM - Pre haircut		
		Client IM - Post haircut		
		Total IM - Pre haircut		
		Total IM - Post haircut		
6.2.14	Non-cash Other	House IM - Pre haircut	See note 6.1	
		House IM - Post haircut		
		Client IM - Pre haircut		4,170,460,685
		Client IM - Post haircut		4,170,460,685
		Total IM - Pre haircut		4,170,460,685
		Total IM - Post haircut		4,170,460,685
6.2.15	Total initial margin held	HouseIM_PreHaircut	See note 6.1	
		HouseIM_PostHaircut		
		ClientIM_PreHaircut		171,104,458,146
		ClientIM_PostHaircut		169,685,318,532

<b>6.3</b>	<b>Initial margin rates on individual contracts, where the CCP sets such rates</b> <i>Update as changes are made</i>		
6.3.1	Initial margin rates on individual contracts where the CCP sets such rates		<a href="#">Link</a> See note 6.3.1

<b>6.4</b>	<b>Type of initial margin model used and the key model design parameters for each initial margin model</b> <i>Quarterly (all changes made during the quarter, including effective dates, shall be listed)</i>		
6.4.1	Type of initial margin model		See note 6.4.1
6.4.2	Type of initial margin model change - effective date		August 18, 2014
6.4.3	Initial margin model name		CORE - Closeout Risk Evaluation
6.4.4	Initial margin model name change - effective date		August 18, 2014
6.4.5	Single tailed confidence level targeted		99.96%
6.4.6	Single tailed confidence level targeted change - effective date		August 18, 2014
6.4.7	Sample/data look back period for calibrating the model		January 2002 to May 2016
6.4.8	Sample/data look back period for calibrating the model change - effective date		July 15, 2016
6.4.9	Adjustments or scalars or weighting, if any, applied to historical data (e.g. to reflect changes in volatility)		See note 6.4.9
6.4.10	Adjustments change - effective date		July 15, 2016
6.4.11	Close out/holding periods by product (or, if varying, contract type)	Futures	From 2 to 10 days
		Options - exchange traded	5th day
		OTC derivatives (swaps, forward contracts, flexible options)	10th day
6.4.12	Close out/holdng period change - effective date		August 18, 2014
6.4.13	Initial margin rates link (margin rate per contract and details of the offsets between different contracts)		See 6.3.1
6.4.14	Frequency of parameter review		Daily
6.4.15	Frequency of parameter review change - effective date		August 18, 2014

6.5 Results of back-testing of initial margin Quarterly - Peak and average amount of excess			
6.5.1.1	Number of times over the past 12 months that margin coverage held against any account fell below the actual marked-to-market exposure of that member account - based on daily back-testing results		275 (the back testing applies at the individual client account)
6.5.1.2	Frequency of daily back-testing result measurements.		Once a day
6.5.1.3	Time of daily back-testing result if measured once a day.		End of day
6.5.2	Number of observations		7.194 (average of observations per day; an observation means an individual client's portfolio)
6.5.3	Achieved coverage level		99.98%
6.5.4	Where breaches of initial margin coverage have occurred, size of uncovered exposure - peak size		1,442,967
6.5.5	Where breaches of initial margin coverage have occurred, size of uncovered exposure - average size		38,295

6.6 Average total variation margin paid to the CCP by participants each business day Quarterly - Average per business day over the quarter			
6.6.1	Average total variation margin paid to the CCP by participants each business day		1,259,272,970

6.7 Maximum total variation margin paid to the CCP on any given business day over the period Quarterly - Maximum over quarter			
6.7.1	Maximum total variation margin paid to the CCP on any given business day over the period		4,931,009,977

6.8 Maximum aggregate initial margin call on any given business day over the period Quarterly - Maximum over quarter			
6.8.1	Maximum aggregate initial margin call on any given business day over the period		1,960,705,742

## LIQUIDITY RISK

7.1 Liquidity risk - size and composition of qualifying liquid resources Quarterly - As at quarter end			
7.1.1	Sufficiency of liquid resources maintained by the clearing service: 'Cover 1' or 'Cover 2'		Cover 2
7.1.2	Cash deposited at a central bank of issue of the currency concerned		Not applicable
7.1.3	Cash deposited at other central banks		Not applicable
7.1.4	Secured cash deposited at commercial banks (including reverse repo)		-
7.1.5	Unsecured cash deposited at commercial banks		-
7.1.6	Secured committed lines of credit (those for which collateral/security will be provided by the CCP if drawn) including committed foreign exchange swaps and committed repos		11,500,000,000
7.1.7	Unsecured committed lines of credit (which the CCP may draw without providing collateral/security)		2,240,000,000
7.1.8	Highly marketable collateral held in custody and investments that are readily available and convertible into cash with prearranged and highly reliable funding arrangements even in extreme but plausible market conditions.		592,000,000
7.1.9	Other (please specify)		1,200,000,000
7.1.10	CCP routine access to central bank liquidity or facilities		Yes, via BM&FBOVESPA BANK
7.1.11	Details regarding the schedule of payments or priority for allocating payments, if such exists, and any applicable rule, policy, procedure, and governance arrangement around such decision making.		-

7.2 Liquidity risk - Size and composition of any supplementary liquidity risk resources above those qualifying liquid resources above Quarterly - As at quarter end			
7.2.1	Size and composition of any supplementary liquidity risk resources for each clearing service above those qualifying liquid resources in 7.1		Not applicable

7.3 Liquidity risk - multiple items Quarterly			
7.3.1	Estimated largest same-day and, where relevant, intraday and multiday payment obligation in total that would be caused by the default of any single participant and its affiliates (including transactions cleared for indirect participants) in extreme but plausible market conditions; Forward looking measure reported quarterly	Same Day Payment Total	9,304,000,000
		Same Day Payment	9,304,000,000
		Intra Day Payment	Not applicable
		Multi Day Payment	Not applicable
7.3.2	Report the number of business days, if any, on which the above amount exceeded its qualifying liquid resources (identified as in 7.1, and available at the point the breach occurred), and by how much.	No. of days in quarter	-
		Amount Exceeded	-

7.3.3	<b>Actual</b> largest intraday and multiday payment obligation of a single participant and its affiliates (including transactions cleared for indirect participants) over the past twelve months Peak day amount in previous twelve months	Same Day Payment Total	2,726,988,020
		Same Day Payment	2,726,988,020
		Intra Day Payment	Not applicable
		Multi Day Payment	Not applicable
7.3.4	<b>Estimated</b> largest same-day and, where relevant, intraday and multiday payment obligation in each relevant currency that would be caused by the default of any single participant and its affiliates (including transactions cleared for indirect participants) in extreme but plausible market conditions; Forward looking measure reported quarterly	Same Day Payment Total	Clearing members settle exclusively in local currency. Please refer to the above items.
		Same Day Payment	
		Intra Day Payment	
		Multi Day Payment	
7.3.5	Number of business days, if any, on which the above amounts exceeded its qualifying liquid resources in each relevant currency (as identified in 7.1 and available at the point the breach occurred), and by how much	Number Of Days USD	
		Number Of Days EUR	
		Number Of Days GBP	
		Amount Exceeded	

## EXCHANGE-OF-VALUE SETTLEMENT SYSTEMS

<b>12.1</b>	Percentage of settlements by value effected using a DvP, DvD or Pvp settlement mechanism <i>Quarterly</i>		
12.1.1	Percentage of settlements by value effected using a DvP settlement mechanism		See note 12.1.1
12.1.2	Percentage of settlements by value effected using a DvD settlement mechanism		Not applicable
12.1.3	Percentage of settlements by value effected using a Pvp settlement mechanism		Not applicable

<b>12.2</b>	Percentage of settlements by volume effected using a DvP, DvD or Pvp settlement mechanism <i>Quarterly</i>		
12.2.1	Percentage of settlements by volume effected using a DvP settlement mechanism		See note 12.1.1
12.2.2	Percentage of settlements by volume effected using a DvD settlement mechanism		Not applicable
12.2.3	Percentage of settlements by volume effected using a Pvp settlement mechanism		Not applicable

## DEFAULT RULES AND PROCEDURES

<b>13.1</b>	Quantitative information related to defaults <i>Ad-hoc</i>		
13.1.1	Amount of loss versus amount of initial margin		No default during the relevant quarter
13.1.2	Amount of other financial resources used to cover losses		
13.1.3.1	Proportion of client positions closed-out		
13.1.3.2	Proportion of client positions ported		
13.1.4	Appropriate references to other published material related to the defaults		

## SEGREGATION AND PORTABILITY

<b>14.1</b>	Total client positions held as a share of notional values cleared or of the settlement value of securities transactions <i>Quarterly - As at quarter end</i>		
14.1.1	Total client positions held in individually segregated accounts		100%
14.1.2	Total client positions held in omnibus client-only accounts, other than LSOC accounts		0%
14.1.3	Total client positions held in legally segregated but operationally comingled (LSOC) accounts		0%
14.1.4	Total client positions held in comingled house and client accounts		0%

## GENERAL BUSINESS RISK

<b>15.1</b>	General business risk <i>Annual</i>		
15.1.1	Value of liquid net assets funded by equity		700,000,000
15.1.2	Six months of current operating expenses		307,174,500

<b>15.2</b>	General business risk - financial disclosures <i>Annual</i>		
15.2.1	Total Revenue		2,412,603,000
15.2.2	Total Expenditure		831,698,000
15.2.3	Profits		2,202,238,000
15.2.4	Total Assets		25,911,666,000
15.2.5	Total Liabilities		7,569,567,000
15.2.6	Explain if collateral posted by clearing participants is held on or off the CCP's balance sheet		See note 15.2.6
15.2.7	Additional items as necessary		Not applicable

<b>15.3</b>	General business risk - income breakdown <i>Annual</i>		
15.3.1	Percentage of total income that comes from fees related to provision of clearing services		See note 15.3.1
15.3.2	Percentage of total income that comes from the reinvestment (or rehypothecation) of assets provided by clearing participants		3.8%

## CUSTODY AND INVESTMENT RISKS

<b>16.1</b>	Total cash (but not securities) received from participants, regardless of the form in which it is held, deposited or invested, split by whether it was received as initial margin or default fund contribution <i>Quarterly - As at quarter end</i>		
16.1.1	Total cash (but not securities) received from participants, regardless of the form in which it is held, deposited or invested, received as <b>initial margin</b>		1,352,773,085
16.1.2	Total cash (but not securities) received from participants, regardless of the form in which it is held, deposited or invested, received as <b>default fund</b> contribution		-

16.2	How total cash received from participants (ie the combined total of initial margin and default fund contributions in 16.1) is held/deposited/invested, including; Quarterly - As at quarter end		
16.2.1	Percentage of total participant cash held as cash deposits (including through reverse repo)		3.46%
16.2.2	Percentage of total participant cash held as cash deposits (including through reverse repo); as cash deposits at central banks of issue of the currency deposited		Not applicable
16.2.3	Percentage of total participant cash held as cash deposits (including through reverse repo); as cash deposits at other central banks		Not applicable
16.2.4	Percentage of total participant cash held as cash deposits (including through reverse repo); as cash deposits at commercial banks (Secured, including through reverse repo)		0.06%
16.2.5	Percentage of total participant cash held as cash deposits (including through reverse repo); as cash deposits at commercial banks (Unsecured)		3.40%
16.2.6	Percentage of total participant cash held as cash deposits (including through reverse repo); in money market funds		0%
16.2.7	Percentage of total participant cash held as cash deposits (including through reverse repo); in other forms		0%
16.2.8	Percentage of total participant cash held as cash deposits (including through reverse repo), split by currency of these cash deposits (including reverse repo) and money market funds by CCY	Percentage_USD	100.00%
		Percentage_EUR	0%
		Percentage_GBP	0%
16.2.9	Percentage of total participant cash held as cash deposits (including through reverse repo) - weighted average maturity of these cash deposits (including reverse repo) and money market funds		Not applicable
16.2.10	Percentage of total participant cash invested in securities Domestic sovereign government bonds		96.54%
16.2.11	Percentage of total participant cash invested in securities Other sovereign government bonds		0%
16.2.12	Percentage of total participant cash invested in securities Agency Bonds		0%
16.2.13	Percentage of total participant cash invested in securities State/municipal bonds		0%
16.2.14	Percentage of total participant cash invested in securities Other instruments		0.00%
16.2.15	Percentage of total participant cash invested in securities, split by currency of these securities Specify local currency in comments	BRL	100.00%
16.2.16	Weighted average maturity of securities		128,39 days
16.2.17	Estimate of the risk on the investment portfolio (excluding central bank and commercial bank deposits) (99% one-day VaR, or equivalent)		Not applicable See note 16.2.17
16.2.18	Does the CCP investment policy set a limit on the proportion of the investment portfolio that may be allocated to a single counterparty? Size of that limit		BM&FBOVESPA's investment policy only allow investments in Brazilian government Bonds
16.2.19	Number of times over the previous quarter in which this limit has been exceeded.		Not applicable
16.2.20	Percentage of total participant cash held as securities.		96.54%

16.3	Rehypothecation of participant assets (ie non-cash) by the CCP where allowed, split by initial margin and default fund Quarterly - As at quarter end		
16.3.1	Total value of participant non-cash rehypothecated (Initial margin)		Not applicable. BM&FBOVESPA does not rehypotecate participant's assets
16.3.2	Total value of participant non-cash rehypothecated (Default fund)		Not applicable. BM&FBOVESPA does not rehypotecate participant's assets
16.3.3	Rehypothecation of participant assets (ie non-cash) by the CCP where allowed - initial margin Over the following maturities: Overnight/one day; one day and up to one week; One week and up to one month; One month and up to one year; One year and up to two years; Over two years	ON_1D	Not applicable. BM&FBOVESPA does not rehypotecate participant's assets
		1D_1W	
		1W_1M	
		1M_1Y	
		1Y_2Y	
16.3.4	Rehypothecation of participant assets (ie non-cash); default fund Over the following maturities: Overnight/one day; one day and up to one week; One week and up to one month; One month and up to one year; One year and up to two years; Over two years	ON_1D	Not applicable. BM&FBOVESPA does not rehypotecate participant's assets
		1D_1W	
		1W_1M	
		1M_1Y	
		1Y_2Y	
		2Y+	

## OPERATIONAL RISK

17.1	Operational availability target for the core system(s) involved in clearing (whether or not outsourced) over specified period for the system (e.g. 99.99% over a twelve-month period) Quarterly		
17.1.1	Operational availability target for the core system(s) involved in clearing (whether or not outsourced) over specified period for the system		99.8%
17.2	Actual availability of the core system(s) over the previous twelve month period Quarterly		
17.2.1	Actual availability of the core system(s) over the previous twelve month period		99.989%
17.3	Total number of failures Quarterly		
17.3.1	Total number of failures and duration affecting the core system(s) involved in clearing over the previous twelve month period	Duration of Failure	Number of failures is not available 20:14:00
17.4	Recovery time objective(s) (e.g. within two hours) Quarterly		
17.4.1	Recovery time objective(s)		Two hours

## ACCESS AND PARTICIPATION

18.1	Number of clearing members, by clearing service Quarterly - As at quarter end		
18.1.1.1	Number of general clearing members		51
18.1.1.2	Number of direct clearing members		4
18.1.1.3	Number of other categories (describe in comments)		See note 18.1.1.3
18.1.2.1	Number of central bank participants		-
18.1.2.2	Number of CCP participants		-
18.1.2.3	Number of bank participants		27
18.1.2.4	Number of other participants (describe in comments)		28
18.1.3.1	Number of domestic participants		55
18.1.3.2	Number of foreign participants		-

18.2	Open position concentration Quarterly		
18.2.1	For each clearing service with 10 to 25 members, percentage of open positions held by the largest 5 clearing members, including both house and client, in aggregate	Average In Quarter	Not applicable
		Peak In Quarter	Not applicable
18.2.2	For each clearing service with 25 or more members, percentage of open positions held by the largest 5 clearing members, including both house and client, in aggregate	Average In Quarter	10%
		Peak In Quarter	21%
18.2.3	For each clearing service with 25 or more members, percentage of open positions held by the largest 10 clearing members, including both house and client, in aggregate	Average In Quarter	16%
		Peak In Quarter	27%

18.3	Initial margin concentration Quarterly		
18.3.1	For each clearing service with 10 - 25 members, percentage of initial margin posted by the largest 5 clearing members, including both house and client, in aggregate	Average In Quarter	Not applicable
		Peak In Quarter	Not applicable
18.3.2	For each clearing service with 25 or more members, percentage of initial margin posted by the largest 5 clearing members, including both house and client, in aggregate	Average In Quarter	30%
		Peak In Quarter	49%
18.3.3	For each clearing service with 25 or more members, percentage of initial margin posted by the largest 10 clearing members, including both house and client, in aggregate	Average In Quarter	48%
		Peak In Quarter	65%

18.4	Segregated default fund concentration Quarterly		
18.4.1	For each segregated default fund with 10 to 25 members, percentage of participant contributions to the default fund contributed by largest 5 clearing members in aggregate		Not applicable
18.4.2	For each segregated default fund with 25 or more members, percentage of participant contributions to the default fund contributed by largest 5 clearing members in aggregate		10%
18.4.3	For each segregated default fund with 25 or more members, percentage of participant contributions to the default fund contributed by largest 10 clearing members in aggregate		20%

## TIERED PARTICIPATION ARRANGEMENTS

19.1	Tiered participation arrangements, measures of concentration of client clearing Quarterly - As at quarter end		
19.1.1	Number of clients (if known)		11,908
19.1.2	Number of direct members that clear for clients		55
19.1.3.1	Per cent of client transactions (by total gross notional for derivatives or total cleared value of securities transactions or similar) attributable to the top 5 clearing members (if the	Peak	100%
19.1.3.2		Average	100%
19.1.4.1	Per cent of client transactions (by total gross notional for derivatives or total cleared value of securities transactions or similar) attributable to the top 10 clearing members (if the	Peak	100%
19.1.4.2		Average	100%

## FMI LINKS

20.1	FMI links - value of trades Quarterly		
20.1.1	Value of trades cleared through each link – as a share of total trade values/total notional values cleared		Not applicable
20.2	FMI links - initial margin or equivalent financial resources provided Quarterly - As at quarter end		
20.2.1	Initial margin or equivalent financial resources provided to each linked CCP by the CCP to cover the potential future exposure of the linked CCP on contracts cleared across link		Not applicable

20.3	FMI links - initial margin or equivalent financial resources collected Quarterly - As at quarter end		
20.3.1	Initial margin or equivalent financial resources collected from each linked CCP to cover potential future exposure to the linked CCP on contracts cleared across link (at market value and post haircut)		Not applicable

20.4	FMI links - results of back-testing coverage Quarterly		
20.4.1.1	Number of times over the past twelve months that coverage provided by margin and equivalent financial resources held against each linked CCP fell below the actual marked-to-market exposure to that linked CCP – based on daily back testing results; Intraday or Continuous or Once-a-day		Not applicable
20.4.1.2	Back-testing results frequency - state if measured intraday/continuously/once a day		Not applicable
20.4.1.3	If 20.4.1.2 is 'once a day' then the time of day measure is taken, otherwise blank		Not applicable
20.4.2	Number of observations (i.e. number of accounts multiplied by number of days covered in the back test); Intraday or Continuous or Once-a-day		Not applicable
20.4.3	Achieved coverage level $[(20.4.2)-(20.4.1.1)]/(20.4.2)$		Not applicable

20.5	FMI links - additional pre-funded financial resources provided to each linked CCP Quarterly - As at quarter end		
20.5.1.1	Additional pre-funded financial resources (if any) beyond initial margin and equivalent financial resources <b>provided to</b> each linked CCP, that are available to the linked CCP to cover exposures to the CCP		Not applicable
20.5.1.2	Whether part of, additional to, or separate from the standard default fund (please specify)		Not applicable

20.6	FMI links - additional pre-funded financial resources collected from each linked CCP Quarterly - As at quarter end		
20.6.1.1	Additional pre-funded financial resources (if any) beyond initial margin and equivalent financial resources <b>collected from</b> each linked CCP, that are available to the linked CCP to cover exposures to the CCP		Not applicable
20.6.1.2	Whether part of, additional to, or separate from the standard default fund (please specify)		Not applicable

20.7	FMI links - cross margining Quarterly / Quarterly - As at quarter end		
20.7.1	Value of trades subject to cross margining, by clearing service, as a percentage of total trade values/total notional values cleared		Not applicable
20.7.2	Reduction in total initial margin held by the CCP as a result of cross margining, as a percentage of total initial margin that would otherwise have been held.		Not applicable

## DISCLOSURE OF RULES, KEY PROCEDURES, AND MARKET DATA

23.1	Disclosure of rules, key procedures, and market data - average daily volumes Quarterly - Average per business day over the quarter		
23.1.1	Average daily volumes of new trades by asset class, instrument, CCY, split by OTC or ETD	OTC - swap	4,709
		OTC - flexible option	6,422
		OTC - FX forward	184
		ETD - Futures - interest rates	1,655,907
		ETD - Options - interest rates	226,843
		ETD - Futures - FX	799,377
		ETD - Options - FX	31,237
		ETD - Futures - Equities	926,717
		ETD - Options - Equities	12
		ETD - Futures - Commodities	4,851
		ETD - Options - Commodities	1,736
		ETD - Spot - Commodities	216
23.1.2	Average notional value of new trades cleared by asset class, CCY, split by OTC or ETD	OTC - swap	235,469,909
		OTC - flexible option	1,964,171,331
		OTC - FX forward	371,202
		ETD - Futures - interest rates	166,847,761,044
		ETD - Options - interest rates	9,306,370
		ETD - Futures - FX	78,560,405,165
		ETD - Options - FX	87,945,851
		ETD - Futures - Equities	16,895,817,426
		ETD - Options - Equities	53,431
		ETD - Futures - Commodities	163,910,161
		ETD - Options - Commodities	753,815
		ETD - Spot - Commodities	1,089,189

23.2 Disclosure of rules, key procedures, and market data - Non-yet-settled Quarterly - At end of quarter			
23.2.1	Gross notional outstanding / total settlement value of novated but not-yet settled securities transactions by asset class, instrument, CCY, split by OTC or ETD	OTC - swap	203,074,997,391
		OTC - flexible option	102,173,595,085
		OTC - FX forward	57,171,694
		ETD - Futures - interest rates	2,413,975,764,065
		ETD - Options - interest rates	629,280,872
		ETD - Futures - FX	162,142,310,553
		ETD - Options - FX	5,173,418,945
		ETD - Futures - Equities	21,398,366,237
		ETD - Options - Equities	497,902
		ETD - Futures - Commodities	1,208,972,160
		ETD - Options - Commodities	21,753,659
		ETD - Spot - Commodities	169,550

23.3 Disclosure of rules, key procedures, and market data - execution facility Quarterly			
23.3.1	Average daily volumes submitted by execution facility or matching / confirmation venue	BM&FBOVESPA OTC Registration System	11,315
		BM&FBOVESPA PUMA Trading System	3,646,896
23.3.2	Average notional contract values submitted by execution facility or matching / confirmation venue	BM&FBOVESPA OTC Registration System	305,305,764,171
		BM&FBOVESPA PUMA Trading System	2,604,550,533,945

Principle	Qualitative Notes Statement
General	The figures reported herein refer to BM&FBOVESPA Clearinghouse.
4	4.1.6 - The figure reported herein consists in the sum of (i) the contributions of brokerage houses and clearing members as Minimum Nonoperational Collateral (pre-funded and nonmutualized access requirement), (ii) collateral posted for Operating Balance adjustment purposes (nonmutualized) and (iii) BM&FBOVESPA's own resources dedicated to support the activities of its clearinghouses, in addition to its contribution to default funds. Item iii represents 40% of the total reported under 4.1.6. For further details about the sequence of use of collateral, please refer to the BM&FBOVESPA Clearinghouse Risk Management Manual. The amount of the contribution required of brokerage houses and clearing members as Minimum Nonoperational Collateral is established in the BM&FBOVESPA Access Manual. Both manuals are available on BM&FBOVESPA's website ( <a href="http://www.bmfbovespa.com.br/en_us/regulation/regulations-and-manuals/#item-4">http://www.bmfbovespa.com.br/en_us/regulation/regulations-and-manuals/#item-4</a> ).
4	4.1.9 - Total to be replenished by default event (total amount of required contributions minus the largest contribution). Replenished resources can only be used in future defaults. During any 20-day period, a clearing member's total replenishment obligation cannot surpass 3 times such clearing member's required contribution, regardless of the number of default events that may have occurred. Please refer to the BM&FBOVESPA Clearinghouse Rule – articles 110 thru 113.
4	4.2. US regulation.
4	4.3.5 - The figure reported herein includes mutualized, nonmutualized and BM&FBOVESPA's own resources. Please refer to note 4.1.6. With regard to BM&FBOVESPA's own resources, it is worth mentioning that according to the BM&FBOVESPA's Financial Investment Policy, such resources must comply with allocation limits relating to: (i) the type of asset (100% in Brazilian government bonds, Brazilian government bond repos, and investment funds with same-day redemption that hold in portfolio only such bonds and repos, and have as managers, administrators and custodians only institutions authorised by the policy (basically institutions with high credit ratings)); (ii) the type of return (at least 85% floating rate); and (iii) liquidity (at least 90% with immediate liquidity, i.e. same-day redemption).
4	4.3.14 - The figure reported herein includes bank letters of credit and certificates of deposit. No haircuts apply.
4	4.4 - In mid-December 2016, the CCP implemented methodological changes to its credit stress test, adding new stress testing scenario and increasing the frequency of stress testing. Considering that data under the new methodology are not available before mid-December 2016, it was decided to report the available data. Therefore, note that data have not been reported over the previous 12 months, but over the period from mid-December 2016 to the end of the reference period of this Quantitative Disclosure.
5	5.1.1 - Collateral limits: The limits defined by BM&FBOVESPA to restrict the use of assets in the constitution of collateral are: (i) Limits for bank letters of credit and certificates of deposit; (ii) Limits for the deposit of assets as third-party collateral; (iii) Acceptance limits for shares, ETF shares and units; and (iv) Utilization limits for illiquid collateral. For the relevant criteria, please refer to section 6.3 of the BM&FBOVESPA Clearinghouse Risk Management Manual.
5	5.3.1 - Haircuts are given by the same scenarios (for risk factors) used in the valuation of positions for margin calculation (CORE) purposes. Therefore, collateral valuation is inherent in margin calculation, being evaluated jointly with positions. Considering that margin is calculated by individual client, the joint assessment of positions and collateral means that the same asset may be valued at different prices for different clients (for instance, if customers A and B have posted asset X as collateral, CORE may assign one value for X when calculating customer A's margin and another value for X when calculating customer B's margin). Hence, haircut tests are embedded in the CORE backtesting.
5	5.3.2 - The assumed holding/liquidation period for the assets accepted as collateral vary from 1 to 10 days, depending on the volume to be liquidated and on the daily liquidity of collateral, considering an orderly liquidation process.

5	5.3.3 - As explained in note 5.3.1, haircut tests are embedded in margin backtesting. Margin backtesting is performed daily at individual client level – the closeout of each client’s portfolio is simulated based on the actual prices observed in the closeout period (the previous 10 days), and the financial outcome, if negative, is compared with the client’s posted collateral. The haircuts are also tested in risk factor testing (the haircuts applicable to an asset are determined by the scenarios for the risk factors of this asset). The margin methodology stress tests assess positions and collateral jointly, and the asset posted as collateral may be valued at different prices, depending on the portfolio to which it belongs. The scenarios for the risk factors are of three types – historical, quantitative and prospective – and are limited by the envelope scenarios. The CCP compares on a daily basis the actual variation of each risk factor with the corresponding current envelope scenario.
5	5.3.4 - Collateral haircut must be considered within CORE methodology. CORE calculates the risk of collateral and positions jointly, which means that the same scenarios (for variations in risk factor prices) are used to define collateral value and to evaluate positions held in the same portfolio. The value of collateral will be determined not only by the collateral itself but also by the other positions that make up an investor’s portfolio. Therefore a backtesting of the collateral haircuts alone may not be a meaningful measure for the evaluation of the robustness of the risk model. Results for a backtesting of the risk model can be found in 6.5.
6	6.1 - BM&FBOVESPA adopts an individual client segregation model, meaning that positions and collateral are registered in individually segregated accounts and margins are calculated at individual client level ("client gross" margin model). A clearing member's proprietary portfolio (house ) is deemed as an individual customer's portfolio, since it corresponds to a CM acting as a customer, and therefore the individual margin requirement applies. For the purposes of this report, the sum of margins required of CMs due to their proprietary portfolios is informed in note 6.1.1.
6	6.2 -Collateral haircut must be considered within CORE methodology. CORE assesses collateral and positions jointly, which means that the same scenarios (for variations in primitive risk factors) are used in the definition of collateral amounts and in the evaluation of positions. The value of collateral will be determined not only by the collateral itself but also by the other positions that make up an investor’s portfolio, which means that collateral may be valued at higher prices than mark-to-market prices. The possible occurrence of such an event must not be understood as a "negative haircut," but as a feature of the CORE methodology.
6	6.2.5 - The information reported herein includes Brazilian sovereign government bonds and also shares of the investment fund named "FIC Garantia," which is managed by BM&FBOVESPA through the BM&FBOVESPA Bank. The acquired “FIC Garantia” shares are automatically pledged in favor of the clearinghouse as collateral. The “FIC Garantia”'s resources are invested in Brazilian sovereign government bonds, either directly or via financial instruments backed by such bonds.
6	6.2.14 - The information reported herein includes letters of credit and certificates of deposit issued by commercial banks and also cash collateral that is received as cash but is held as an investment (resources from such investment are made available on the same day, for the most part within the hour). No haircuts apply to letters of credit, certificates of deposit, or cash collateral.
6	6.3.1 - BM&FBOVESPA discloses on a daily basis, on its website, the maximum theoretical margin required of any instrument. Such maximum theoretical margin represents the value of margin that would be required of a portfolio made up of a unit of the relevant instrument and no collateral.
6	6.4.1 - CORE, or Closeout Risk Evaluation (proprietary model): The CORE methodology consists in a portfolio (positions and collateral) stress test model where market, liquidity and cash flow risks are modeled so as to provide a measure for collateral deficit as the worst financial outcome of the portfolio closeout process, if negative. The stress test is based on a set of 10,000 scenarios for the price variations of risk factors, among prospective, historical and quantitative scenarios. Positions and collateral are jointly valued across the scenarios.
6	6.4.9 - A weighing scheme is applied to the time series of Brazilian nominal and real interest rates, in order to adjust for structural breaks in interest rate volatility. This weighing scheme works by splitting the time series in three different time periods (2002-2004, 2004-2005 and 2005 onwards), standardizing the rate variations in each period by the maximum and minimum variations observed in the relevant period and then using the envelope scenario for the risk factors to scale back the variations.
6	6.4.14 - Every two weeks the BM&FBOVESPA Market Risk Technical Committee (internal committee) reviews all key margin methodology parameters (such as stress scenarios and risk horizons), reexamining the more stable or less important parameters at least once a month. Additionally the parameters are monitored in a daily basis and can be reviewed/changed whenever the committee deems necessary.
6	6.5.1.1 - Back testing applies at the individual client account. Therefore, the figure reported herein refers to the total number of times over the past 12 months that margin coverage held against any individual client account fell below the actual marked-to-market exposure of that individual client account (violation) - based on daily back-testing results. The information reported here does not refer to violations at clearing member’s level.
7	7.1.6 - Out of the amount reported in 7.1.6, BRL10 billion represents committed lines with the BM&FBOVESPA Bank, through which the CCP accesses the Central Bank of Brazil’s intraday liquidity mechanism; although a limit of BRL10 billion is set up in the agreement, liquidity may be provided up to the total government bonds the CCP provides as collateral. The other committed lines are established with major banks, and they are also backed by Brazilian federal government bonds.
7	7.1.7 - Unsecured committed lines of credit are not clearinghouse-specific, in the sense that they may be used by any of BM&FBOVESPA's clearinghouses.
7	7.1.8 - The figure reported in 7.1.8 does not include collateral reported in 6.2.
7	7.1.10 - Under the legal framework in force in Brazil, only financial institutions such as banks may have full access to the services provided by the Central Bank of Brazil. This provision excludes clearinghouses.
7	7.2.1 - In addition to collateral posted by participants, liquid funds are available to the BM&FBOVESPA Clearinghouse through (i) indirect access to the Central Bank of Brazil’s discount window via the BM&FBOVESPA Bank, (ii) liquidity assistance facilities from financial institutions and (iii) BM&FBOVESPA’s own cash. Other than such resources, there are no supplementary liquid resources.
7	7.3 - In October 2016, the CCP implemented methodological changes to its liquidity stress test, adding liquidity-specific stress testing scenarios.
12	12.1.1 - The BM&FBOVESPA Clearinghouse adopts the principle of delivery-versus-payment (DvP) only in the settlement of transactions involving physical delivery (arabica coffee, anhydrous ethanol, and gold). When compared with cash settlement volumes, figures from settlement by physical delivery are irrelevant. The percentages for 12.1.1 and 12.2.2 would be really close to 0%.
15	15.2 - The figures presented herein refer to individual BM&FBOVESPA information. Consolidated figures for both BM&FBOVESPA and its subsidiaries may be looked up in the BM&FBOVESPA financial statements ( <a href="http://ri.bmfbovespa.com.br">http://ri.bmfbovespa.com.br</a> , Financial Information, Results Release).
15	15.2.6 - Considering BM&FBOVESPA's financial statements, collateral received in cash is recorded as a liability under “Collateral for transactions” and other non-cash collateral is recorded under memorandum accounts.
15	15.3.1 - The percentage of total income that comes from fees related to provision of post-trading services is 34.88%, where post-trading services include clearing and depository services. The company does not disclose the fees related to clearing and depository services separately.
16	16.2.10 - This cash is invested in Brazilian government bonds or in financial instruments backed by such bonds, with floating-rate returns, immediate liquidity, and minimal exposure to private credit risk.
16	16.2.17 - BM&FBOVESPA maintains cash collateral invested in fixed-income investment funds, which are mostly made up of floating-rate Brazilian government bonds and floating-rate repo transactions (backed by Brazilian government bonds) for 1 day. Hence, given the portfolio's characteristics, the returns on the portfolio are always positive, thus preserving the amount received as third-party collateral, being VaR calculations not applicable.
17	17.1.1 - The BM&FBOVESPA Clearinghouse is considered as systemically important in Brazil. Therefore, it must achieve an operational availability index greater than or equal to 99.8%, as required under article 10 of Circular #3057 issued by the Central Bank of Brazil.

17	17.2.1 - The methodology used in the measurement of the actual availability of BM&FBOVESPA's core systems has been modified. The data presented in this item refer to the period from January 2016 on.
18	<p>18.1.1.3 - The BM&amp;FBOVESPA Clearinghouse has three types of clearing members: 1, 2 and 3, which are defined as follows:</p> <p>A type 1 clearing member settles proprietary transactions and transactions ordered by any other member of its financial conglomerate, as well as transactions executed for the portfolios of funds to which this clearing member or any member of its financial conglomerate has been formally appointed as manager or administrator (fund manager or portfolio manager).</p> <p>A type 2 clearing member settles any of the transactions permitted for the type 1 clearing member, as well as transactions executed for customers by any member of its financial conglomerate when acting in the capacity of a full trading participant.</p> <p>A type 3 clearing member settles any of the transactions permitted for the type 1 or the type 2 clearing member, as well as transactions executed for customers by any full trading participant, regardless of the financial conglomerate membership.</p> <p>For the purposes of this report, we have considered type 1 clearing members as Direct Clearing Members, and type 2 and type 3 clearing members as General Clearing Members.</p>
18	18.1.2.4 - "Other participants" basically include Brokerage Firms and Broker-Dealer Firms.
18	18.1.3.2 - Please note that the parent company of a participant (clearing member) can be established in a foreign country. The figures reported herein refer to clearing members only, and not to their parent companies.
23	23.1 and 23.2 - Figures reported in these items are not double counted, i.e. it is been reported: absolute value of long plus absolute value of short divided by two.