BRASIL BOLSA BALCÃO

Quantitative Disclosure

As of December 28th, 2018 - 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	600,000,000
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	665,000,000
4.1.5	Prefunded resources - Aggregate participant contributions - posted amount - Post-haircut	732,355,499
4.1.6	Prefunded resources - Other	2,058,460,127 *See note 4.1.6*
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	650,000,000 *See note 4.1.9*
4.1.10	Committed resources - Other	-

4.2	**K_{CCP}** **Quarterly - As at quarter end**	
4.2.1	K_{CCP} (reported only by CCPs which are or seek to be a "qualifying CCP" under relevant law)	13,933,426

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	-
		PostHaircut	-
4.3.5	Non-cash Sovereign government bonds - Domestic	Pre-haircut	3,429,956,152
		Post-haircut	3,429,956,152
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	*Not eligible*
		PostHaircut	
4.3.11	Non-cash Commodities - gold	Pre-haircut	*Not eligible*
		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	-
		Post-haircut	-
4.3.15	Total	Pre-haircut	3,429,956,152
		Post-haircut	3,429,956,152

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 **estimated** largest aggregate stress loss (in excess of initial margin) 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.	Peak Day Amount In Previous 12 Months	1,000,000,000
		Mean Average Over Previous 12 Months	291,000,000
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 **actual** largest aggregate credit exposure (in excess of initial margin) to any **single** participant and its affiliates (including transactions cleared for indirect participants)	Peak Day Amount In Previous 12 Months	346,883,346
		Mean Average Over Previous 12 Months	16,679,255
4.4.7	The **estimated** largest aggregate stress loss (in excess of initial margin) that would be caused by the default of any **two** participants and their affiliates (including transactions cleared for indirect participants) in extreme but plausible market conditions.	Peak Day Amount In Previous 12 Months	1,291,000,000
		Mean Average Over Previous 12 Months	432,000,000
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 **actual** largest aggregate credit exposure (in excess of initial margin) to any **two** participants and their affiliates (including transactions cleared for indirect participants)	Peak Day Amount In Previous 12 Months	348,777,986
		Mean Average Over Previous 12 Months	20,423,497

COLLATERAL

5.1	**Assets eligible as initial margin and the respective haircuts applied** **Update as changes are made**	
5.1.1	Assets eligible as initial margin and the respective haircuts applied	Link Link

5.2	**Assets eligible for pre-funded participant contributions to the default resources, and the respective haircuts applied (if different from 5.1)** **Update as changes are made**	
5.2.1	Assets eligible for pre-funded participant contributions to the default resources, and the respective haircuts applied (if different from 5.1)	*See note 5.2.1*

5.3	**Results of testing of haircuts** **Quarterly**	
5.3.1	Confidence interval targeted through the calculation of haircuts	99.5% - *Commodities derivatives* 99.96% - *Other products* *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

6.1	**For each clearing service, total initial margin required, split by house and client (or combined total if not segregated)** **Quarterly - As at quarter end**		
6.1.1	Total initial margin required	House net	*See note 6.1.1*
		Client gross	215,873,949,745
		Client net	*See note 6.1.1*
		Total	215,873,949,745

6.2	**For each clearing service, total initial margin held, split by house and client** **Quarterly - As at quarter end**		
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 6.1.1*
		House IM - Post haircut	
		Client IM - Pre haircut	967,700
		Client IM - Post haircut	967,700
		Total IM - Pre haircut	967,700
		Total IM - Post haircut	967,700
6.2.4	Unsecured cash deposited at commercial banks	House IM - Pre haircut	*See note 6.1.1*
		House IM - Post haircut	
		Client IM - Pre haircut	207,496,377
		Client IM - Post haircut	182,897,993
		Total IM - Pre haircut	207,496,377
		Total IM - Post haircut	182,897,993
6.2.5	Non-cash Sovereign government bonds - Domestic *(See note 6.2.5)*	House IM - Pre haircut	*See note 6.1.1*
		House IM - Post haircut	
		Client IM - Pre haircut	255,897,607,809
		Client IM - Post haircut	254,464,886,695
		Total IM - Pre haircut	255,897,607,809
		Total IM - Post haircut	254,464,886,695
6.2.6	Non-cash Sovereign government bonds - Other	House IM - Pre haircut	*See note 6.1.1*
		House IM - Post haircut	
		Client IM - Pre haircut	3,918,624,984
		Client IM - Post haircut	3,443,152,530
		Total IM - Pre haircut	3,918,624,984
		Total IM - Post haircut	3,443,152,530
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 6.1.1*
		House IM - Post haircut	
		Client IM - Pre haircut	53,017,855,761
		Client IM - Post haircut	46,197,601,310
		Total IM - Pre haircut	53,017,855,761
		Total IM - Post haircut	46,197,601,310
6.2.11	Non-cash Commodities - gold	House IM - Pre haircut	*See note 6.1.1*
		House IM - Post haircut	
		Client IM - Pre haircut	18,097,910
		Client IM - Post haircut	16,017,924
		Total IM - Pre haircut	18,097,910
		Total IM - Post haircut	16,017,924
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 *(See note 6.2.14)*	House IM - Pre haircut	*See note 6.1.1*
		House IM - Post haircut	
		Client IM - Pre haircut	5,833,224,124
		Client IM - Post haircut	5,833,224,124
		Total IM - Pre haircut	5,833,224,124
		Total IM - Post haircut	5,833,224,124
6.2.15	Total initial margin held	HouseIM_Pre haircut	*See note 6.1.1*
		HouseIM_Post haircut	
		ClientIM_Pre haircut	318,893,874,666 *See note 6.2*
		ClientIM_Post haircut	310,138,748,278 *See note 6.2*

6.3	**Initial margin rates on individual contracts, where the CCP sets such rates** **Update as changes are made**		
6.3.1	Initial margin rates on individual contracts where the CCP sets such rates		Link *See note 6.3.1*

6.4	**Type of initial margin model used and the key model design parameters for each initial margin model** **Quarterly (all changes made during the quarter, including effective dates, shall be listed)**		
6.4.1	Type of initial margin model		*Stress test* *See note 6.4.1*
6.4.2	Type of initial margin model change - effective date		*August 18, 2014* *See note 6.4.2*
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		99.5% - *Commodities derivatives* 99.96% - *Other products* *See note 6.4.5*
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		*See note 6.4.7*
6.4.8	Sample/data look back period for calibrating the model change - effective date		*See note 6.4.7*
6.4.9	Adjustments or scalars or weighting, if any, applied to historical data (e.g. to reflect changes in volatility)		*Not applicable*
6.4.10	Adjustments change - effective date		*Not applicable*
6.4.11	Close out/holding periods by product (or, if varying, contract type)	Equity options	*2 days*
		Futures, securities lending, equity forwards, cash equities	*From 2 to 10 days*
		Financial options	*5 days*
		OTC derivatives (swap, non-deliverable forward, flexible option)	*10 days*
6.4.12	Close out/holding period change - effective date		*August 18, 2014* *See note 6.4.12*
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* *See note 6.4.14*
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	7,774 *(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	14,148,135
6.5.3	Achieved coverage level	99.95%
6.5.4	Where breaches of initial margin coverage have occurred, size of uncovered exposure - peak size	47,014,057
6.5.5	Where breaches of initial margin coverage have occurred, size of uncovered exposure - average size	52,197

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	2,728,659,073 *See note 6.6.1*

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	10,378,988,507 *See note 6.6.1*

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	3,857,983,600

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	21,850,000,000 *See note 7.1.6*
7.1.7	Unsecured committed lines of credit (which the CCP may draw without providing collateral/security)	4,340,000,000
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.	2,039,000,000
7.1.9	Other (please specify)	1,200,000,000
7.1.10	CCP routine access to central bank liquidity or facilities	*Yes, via B3 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	-

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	7,586,000,000
		Same Day Payment	7,586,000,000
		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	**Actual** 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	2,608,431,822
		Same Day Payment	2,608,431,822
		Intra Day Payment	*Not applicable*
		Multi Day Payment	*Not applicable*
7.3.4	**Estimated** 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

12.1	**Percentage of settlements by value effected using a DvP, DvD or PvP settlement mechanism** **Quarterly**	
12.1.1	Percentage of settlements by value effected using a DvP settlement mechanism	53.50%
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*

12.2	**Percentage of settlements by volume effected using a DvP, DvD or PvP settlement mechanism** **Quarterly**	
12.2.1	Percentage of settlements by volume effected using a DvP settlement mechanism	22.63%
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

13.1	**Quantitative information related to defaults** **Ad-hoc**	
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

14.1	**Total client positions held as a share of notional values cleared or of the settlement value of securities transactions** **Quarterly - As at quarter end**	
14.1.1	Total client positions held in individually segregated accounts	100.00%
14.1.2	Total client positions held in omnibus client-only accounts, other than LSOC accounts	0.00%
14.1.3	Total client positions held in legally segregated but operationally comingled (LSOC) accounts	0.00%
14.1.4	Total client positions held in comingled house and client accounts	0.00%

GENERAL BUSINESS RISK

15.1	**General business risk** **Annual**	
15.1.1	Value of liquid net assets funded by equity	725,000,000
15.1.2	Six months of current operating expenses	591,473,000

15.2	General business risk - financial disclosures Annual	
15.2.1	Total Revenue	5,260,039,000
15.2.2	Total Expenditure	2,401,181,000
15.2.3	Profits	2,087,444,000
15.2.4	Total Assets	38,221,034,000
15.2.5	Total Liabilities	13,188,065,000
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*

15.3	General business risk - income breakdown Annual	
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	1.43% *See note 15.3.2*

CUSTODY AND INVESTMENT RISKS

16.1	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 Quarterly - As at quarter end	
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 **initial margin**	2,085,913,033
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 **default fund** 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 Quarterly - As at quarter end		
16.2.1	Percentage of total participant cash held as cash deposits (including through reverse repo)		8.81%
16.2.2	At central banks of issue of the currency deposited		*Not applicable*
16.2.3	At other central banks		*Not applicable*
16.2.4	As cash deposits at commercial banks (Secured, including through reverse repo)		0.05%
16.2.5	As cash deposits at commercial banks (Unsecured)		8.77%
16.2.6	In money market funds		0.00%
16.2.7	In other forms		0.00%
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 Specify local currency in comments	Percentage_USD	100.00%
		Percentage_EUR	0.00%
		Percentage_GBP	0.00%
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		91.19%
16.2.11	Percentage of total participant cash invested in securities Other sovereign government bonds		0.00%
16.2.12	Percentage of total participant cash invested in securities Agency Bonds		0.00%
16.2.13	Percentage of total participant cash invested in securities State/municipal bonds		0.00%
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 (local currency)	100.00%
16.2.16	Weighted average maturity of securities		*317.62 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		*Yes. B3's investment policy only allows investments in Brazilian government bonds or floating-rate repo transactions (backed by Brazilian government bonds).*
16.2.19	Number of times over the previous quarter in which this limit has been exceeded.		-
16.2.20	Percentage of total participant cash held as securities.		91.19%

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. B3 does not rehypothecate participant's assets*
16.3.2	Total value of participant non-cash rehypothecated (Default fund)		
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	
		1D_1W	
		1W_1M	
		1M_1Y	
		1Y_2Y	
		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	
		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	99.80%

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	99.94%

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	31 failures 125h44min *See note 17.3.1*

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	*See note 18.1.1*
18.1.1.2	Number of direct clearing members	*See note 18.1.1*
18.1.1.3	Number of other categories (describe in comments)	68
18.1.2.1	Number of central bank participants	*See note 18.1.2.1*
18.1.2.2	Number of CCP participants	-
18.1.2.3	Number of bank participants	32
18.1.2.4	Number of other participants (describe in comments)	36
18.1.3.1	Number of domestic participants	68
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	59.78%
		Peak In Quarter	61.32%
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	82.97%
		Peak In Quarter	84.25%

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	44.53%
		Peak In Quarter	45.85%
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	60.83%
		Peak In Quarter	62.89%

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	11.28%
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	22.56%

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)		132,701
19.1.2	Number of direct members that clear for clients		68
19.1.3.1	Percent 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 CCP has 10 or more clearing members).	Peak	63.35%
19.1.3.2		Average	67.79%
19.1.4.1	Percent 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 CCP has 25 or more clearing members).	Peak	86.16%
19.1.4.2		Average	89.02%

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	*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 **provided to** 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 **collected from** 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	Link
23.1.2	Average notional value of new trades cleared by asset class, CCY, split by OTC or ETD	Link

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	Link

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	Link
23.3.2	Average notional contract values submitted by execution facility or matching / confirmation venue	Link

Principle	Qualitative Notes Statement
4	4.1.6 - The figure reported herein consists in the sum of (i) the contributions of brokerage houses as minimum nonoperating collateral (pre-funded and nonmutualized access requirement) and (ii) B3's own resources earmarked to support the activities of its clearinghouses, in addition to its contribution to default fund. Item (ii) represents 58% of the total reported under 4.1.6. For further details about the sequence of use of resources, please refer to the BM&FBOVESPA Clearinghouse Risk Management Manual (http://www.b3.com.br/en_us/regulation/regulatory-framework/post-trade/). The amount of the contribution required of brokerage houses as minimum nonoperating collateral is established in the BM&FBOVESPA Access Manual (http://www.b3.com.br/en_us/regulation/regulatory-framework/access/).
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 is limited to 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 Rules – articles 110 thru 113.
4	4.2.1 - The figures reported here refer to Brazilian regulation (BCBS 282 methodology). As of December 28, 2018: KCCP under US regulation is BRL 4,840,431 and KCCP under European regulation is BRL 2,771,815 for BM&FBOVESPA Clearinghouse; regarding the Foreign Exchange Clearinghouse KCCP under US and European regulation is zero.
4	4.3.5 - The figure reported herein includes mutualized, nonmutualized and B3's own resources. Please refer to note 4.1.6. With regard to B3's own resources, it is worth mentioning that according to the B3'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 here for the BM&FBOVESPA Clearinghouse refers to bank letters of credit, bank certificates of deposit, real estate letters of credit, agribusiness letters of credit and local currency which is not held as cash.
5	5.1.1 - Collateral limits: The limits defined by B3 to restrict the use of assets in the constitution of collateral are: (i) Limits for bank letters of credit, bank certificates of deposit, real estate letters of credit and agribusiness letters of credit; (ii) Limits for the deposit of assets as third-party collateral; (iii) Acceptance limits for shares of stocks, ETF shares and units; (iv) Utilization limits for illiquid collateral; and (v) Utilization limits for assets deposited abroad. For the relevant criteria, please refer to section 6.3 of the BM&FBOVESPA Clearinghouse Risk Management Manual.
5	5.2.1 - Pre-funded participant contributions to the default resources are the contributions to the settlement fund (default fund) and minimum nonoperating collateral. Only FILCB shares are eligible to the mentioned collateral purposes. Collateral made up of FILCB shares are valuated at their opening price on T-1, except for the valuation of FILCB shares on the day of deposit, in which case the T+0 opening price apply. FILCB is an investment fund managed by B3 Bank, which exclusive purpose is to provide liquidity to the clearinghouse in the case of one or more participant default. FILCB invests in post-fixed Brazilian federal government securities indexed to the SELIC rate. For further information on FILCB's investment policy, please refer to FILCB's Bylaws: http://www.b3.com.br/data/files/BA/A5/72/EF/8697061099BE5706790D8AA8/By-Laws-FILCB.pdf.
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 in the closeout period (the previous 10 days), and the financial outcome, if negative, is compared with the client's 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 consists of a stress test that assesses 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 risk model robustness. Results for a backtesting of the risk model can be found in 6.5.
6	6.1.1 - a) B3 adopts an individual client segregation model, meaning that positions are registered in individually segregated accounts and risk is calculated at individual client level. 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. 6.1.1 - b) B3 requires collateralization by the client in case of (a) derivatives market and securities lending market and (b) house positions; for the cash equitiy market it allows two collateralization modes: (1) collateralization by the client or (2) collateralization by the brokerage house, at the discretion of the client and the brokerage house. In all cases, the margin methodology calculates risk at the client level, where in mode (2) an aggregation of the N largest client risks applies (for further details on margin methodology please refer to the BM&FBOVESPA Clearinghouse Risk Management Manual). In case (2), collateral (posted by brokerage houses) are registered in accounts segreggated by brokerage houses and in the other cases collateral are registered in accounts segregated by clients. The figure reported in 6.1.1 includes initial margin required on all collateralization modes.
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 figures include Brazilian sovereign government bonds and also shares of the investment fund named "FIC Garantia," which is managed by B3 through the B3 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 figures include bank letters of credit, fixed-income securities issued by commercial banks and also cash collateral that is received as cash but is held as an investment (same day liquidity, for the most part within the hour). No haircuts apply to bank letters of credit, fixed-income securities, or cash collateral.
6	6.3.1 - B3 discloses on a daily basis, on its website, the maximum theoretical margin on individual contracts / instruments. 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 - Closeout Risk Evaluation (proprietary model): 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. For further information, please refer to the BM&FBOVESPA Clearinghouse Risk Management Manual, Chapter 7 - Risk Calculation and to B3's website: http://www.b3.com.br/en_us/products-and-services/clearing-and-settlement/clearing/risk-management/modelo-de-risco/core/.
6	6.4.2 - On August 28th, 2017 B3 completed the project to integrate into BM&FBOVESPA Clearinghouse the markets previously cleared and settled through the CBLC (the equities clearinghouse operated by B3). A relevant part of the integration project was to prepare CORE to deal with the specificities of these markets.
6	6.4.5 - The confidence level targeted for commodities' derivatives is 99.5%. All other products have a targeted level of 99.96%. Margin calculation of portfolios exposed to commodities related risk factors is expected to have a confidence level of at least 99.5%. Margin calculation of portfolios without exposure to commodities related risk factors is expected to follow a confidence level of at least 99.96%.
6	6.4.7 - Model parameters are calibrated with historical data available from 2004 up to the latest parameter revision date. Since different model parameters may be revised at different points in time, look back period for model calibration may vary depending on the parameter in question. The look back period is at least from 2004 to 2017.
6	6.4.12 - Due to the integration of the equity markets to the BM&FBOVESPA Clearinghouse, on August 28th, 2017 became effective the holding periods for the new contracts / products.
6	6.4.14 - Every week the CCP Risk Internal Technical 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 by the risk management team on 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.
6	6.6.1 - BM&FBOVESPA Clearinghouse serves the following markets: financial, commodities and equities derivatives markets (ETD), cash equity market, securities lending market and OTC derivatives market. However figures reported herein refer only to variation margin paid to the CCP.
7	7.1.6 - Out of the amount reported in 7.1.6, BRL 20 billion represents committed line with the B3 Bank, through which the CCP accesses the Central Bank of Brazil's intraday liquidity mechanism; although a limit of BRL 20 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 - The use of unsecured committed lines provided to B3 is not limited to CCP service.
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.
15	15.2 - For further information, please refer to the B3 financial statements (http://ir.bmfbovespa.com.br, Financial Information, Results Release).
15	15.2.6 - Considering B3'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 38.29%, where post-trading services include clearing and depository services. B3 does not disclose income from clearing and depositary services separately.
15	15.3.2 - The figure reported herein refers to reinvestment of cash collateral (in local currency, BRL) posted by participants.
16	16.1.1 - The figure reported herein consists in the sum of cash received from participants, regardless of the form in which it is held, deposited or invested, received as (i) initial margin, (ii) minimum nonoperating collateral (pre-funded and nonmutualized collateral required as access requirement), and (iii) collateral posted for operating balance purposes (nonmutualized). Item (i) represents 99.99% of the total reported under 16.1.1.
16	16.2.10 - Investment 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 - B3 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	17.3.1 - B3's methodology for measuring unavailability considers all system's interfaces with external clients, which means that the unavailability duration for one system is counted for each interface with external clients that became unavailable. Supposing a system with three interfaces with external clients (e.g. message, website and screen) and an one-hour-failure affecting the three interfaces, that would be counted as three hours of unavailability. This approach implies multiple counting but it seems more accurate, once the external clients accessing B3's systems use different interfaces. It is worth mentioning that the total duration of failures reported herein may seem elevated, however it is irrelevant if compared to the total amount of over 180,000 hours of availability over the last 12 months.
18	18.1.1 - BM&FBOVESPA Clearinghouse does not distinguish membership categories between clearing members. Figures reported in 18.1.1.3 refer to the total number of clearing members, except the Central Bank of Brazil (BCB).
18	18.1.2.1 - The Central Bank of Brazil (BCB) is a clearing member of BM&FBOVESPA Clearinghouse which settles only its own positions / transactions and it does not contribute to the default fund. The figure reported in 18.1.1.3 represents total number of clearing members that contribute to the default fund.
18	18.1.2.4 - "Other participants" basically include Brokerage Firms and Broker-Dealer Firms.
18	18.1.3.1 - The figure includes clearing members whose parent companies are Brazilian or foreign institutions.
19	19.1.1 - The figure reported herein was adjusted for the 4th quarter of 2018 publication onwards in order to include clients from cash equities market, which were not considered on previous publications. By client BM&FBOVESPA Clearinghouse considers both direct and indirect participants.