BANCO CENTRAL DO BRASIL

CIRCULAR 3,636 OF MARCH 4, 2013

> Establishes the proceedings to calculate the component of risk-weighted assets (RWA) relative to exposures subject to the variation in price indices coupon rate, for which the capital requirement is calculated using the standardised approach (RWA$_{JUR3}$), as instituted by Resolution 4,193 of March 1, 2013.

The Board of Directors of the Central Bank of Brazil, in a special meeting held on March 1, 2013, based on the provisions of arts. 9, 10, item IX, and 11, item VII, of Law 4,595, of December 31, 1964, and in arts. 3, paragraph 2, and 15 of Resolution 4,193, of March 1, 2013,

D E C I D E D:

Art. 1. The calculation of the daily value of the risk-weighted assets (RWA) component relative to the exposures subject to a variation in price indices coupon rate for which capital requirement is calculated using the standardised approach (RWA$_{JUR3}$), as instituted by Resolution 4,193 of March 1, 2013, is based on the following formula:

$$RWA_{JUR3} = \frac{M^{pco}}{F} \cdot \left[\sum_{p=1}^{p1} \left(\left| \sum_{i=1}^{11} EL_i \right| + \sum_{i=1}^{11} |DV_i| + \sum_{j=1}^{3} |DHZ_j| + DHE \right)_p \right],$$

where:

I - F = factor set forth in art. 4 of Resolution 4,193 of 2013;

II – M^{pco} = multiplier by exposure subject to variation in price index coupon rate to be published by the Central Bank of Brazil;

III – p$_1$ = number of price indices wherein there is exposure subject to variation in price indices coupon rate;

IV - EL$_i$ = net exposure in vertex "i" and in price index coupon rate "p";

V - DV$_i$ = vertical disallowance in vertex "i" and in price index coupon rate "p";

VI - DHZ$_j$ = horizontal disallowance in the price index coupon rate "p" within the maturity zone "j"; and

VII - DHE = horizontal disallowance in the price index coupon rate "p" between the maturity zones.

Sole paragraph. The calculation referred to in the heading applies to trading book positions, in accordance with Resolution 3,464 of June 26, 2007, including derivatives, and subject to variation in price indices coupon rate, defined as the prefixed interest rates of the instruments referenced on price indices coupon rate "p".

Art. 2. To calculate the daily value of RWA_{JUR3}, each position is defined as the cash flow corresponding to the net result of the value of asset positions less the value of liability positions maturing on the same day, referred to the set of open operations on the immediately preceding business day.

Paragraph 1. Cash flows shall be obtained by decomposing each open operation in an equivalent time structure of receipts and payments, considering the contracted maturity dates.

Paragraph 2. The number of cash flows will correspond to the number of maturities in which the net results calculated according to this article are different from zero.

Paragraph 3. The values of assets and liabilities of the cash flow must include principal, interest and other amounts related to each operation.

Paragraph 4. The values of the assets and liabilities of the cash flow must be marked to market by means of a term structure of interest rates which represents the prevailing rates in the market on the immediately preceding business day.

Paragraph 5. Operations without a defined maturity or with a maturity that depends on the application of specific contractual clauses must have their corresponding cash flows obtained in accordance with consistent criteria that can be verified by the Central Bank of Brazil.

Paragraph 6. For the purpose of obtaining cash flows, derivatives must be included in the calculation and the following criteria regarding operations with options referenced in price index coupon must be observed:

I – the value of each position shall be obtained by multiplying the number of contracts by their size and by the value of the change in the price of option relative to a change in the price of the underlying asset (delta); and

II – the cash flows relative to each operation must be obtained separately, and their outcome must be included in the cash flow of the contract maturity date.

Paragraph 7. An exemption applies to cash flows arising from credit derivatives used as hedge to market value adjustment of derivatives as a result of change in the counterparty credit quality (CVA).

Paragraph 8. The values of positions held as a result of acquisitions of shares of investment funds must consider the proportional composition of the funds' portfolios or, if not feasible, they must be treated as a position in a price index coupon, assigned to vertex P_{11} defined on art. 3 of this Circular.

Art. 3. Cash flows must be grouped in the following vertices (P_i), according to the number of business days remaining until the date of their maturity (T_i):

I – P_1, corresponding to one business day;

II – P_2, corresponding to 21 business days;

III – P_3, corresponding to 42 business days;

IV – P_4, corresponding to 63 business days;

V – P_5, corresponding to 126 business days;

VI – P_6, corresponding to 252 business days;

VII – P_7, corresponding to 504 business days;

VIII – P_8, corresponding to 756 business days;

IX – P_9, corresponding to 1,008 business days;

X – P_{10} corresponding to 1,260 business days; and

XI – P_{11}, corresponding to 2,520 business days.

Paragraph 1. Cash flows with a maturity corresponding to P_i must be allocated to the corresponding vertices P_i.

Paragraph 2. Cash flows with a maturity above 2,520 business days must be allocated to vertex P_{11}, in a proportion corresponding to $T_i / 2,520$ of their marked-to-market value.

Paragraph 3 Cash flows with a maturity ranging from one business day to 2,520 business day must be allocated to the previous (P_i) and subsequent (P_j) vertices, according to the following criteria:

I – the ratio $(P_j - T_i) / (P_j - P_i)$ of the marked-to-market value of the cash flow must be allocated in the vertex P_i; and

II - the ratio $(T_i - P_i) / (P_j - P_i)$ of the marked-to-market value of the cash flow must be allocated in the vertex P_j.

Art. 4. Exposure in the price index coupon "p", in the vertex P_i, is defined by the allocation of each position in such index, either long or short, on such vertex, as defined on art. 3 of this Circular, weighted by the following Y_i factors:

I - for positions in vertex P_1, Y_i equals 0% (zero per cent);

II - for positions in vertex P_2, Y_2 equals 0.50% (fifty hundredths percent);

III - for positions in vertex P_3, Y_3 equals 0.70% (seventy hundredths percent);

IV - for positions in vertex P_4, Y_4 equals 0.80% (eighty hundredths percent);

V - for positions in vertex P_5, Y_5 equals 1.20% (one point twenty percent);

VI - for positions in vertex P_6, Y_6 equals 2% (two percent);

VII - for positions in vertex P_7, Y_7 equals 4% (four percent);

VIII - for positions in vertex P_8, Y_8 equals 6% (six percent);

IX - for positions in vertex P_9, Y_9 equals 8% (eight percent);

X - for positions in vertex P_{10}, Y_{10} equals 10% (ten percent); and

XI - for positions in vertex P_{11}, Y_{11} equals 18% (eighteen percent).

Art. 5. The vertices mentioned in art. 3 of this Circular are grouped into three maturities zones, each one associated with one W_j factor:

I - Zone 1 corresponds to vertices P_1 to P_5, with a W_1 equal to 40% (forty percent);

II - Zone 2 corresponds to vertices P_6 to P_8, with a W_2 equal to 30% (thirty percent); and

III - Zone 3 corresponds to vertices P_9 to P_{11}, with a W_3 equal to 30% (thirty percent).

Art. 6. Each long or short exposure in the price index coupon rate "p", in each vertex P_i, must be weighted by its respective Y_i factor, resulting in the weighted exposure.

Sole paragraph. The value of the net exposure EL_i is calculated considering the net value of the sum of weighted exposures in each vertex P_i, for each price index coupon rate "p".

Art. 7. The value of the vertical disallowance DV_i corresponds to 10% (ten per cent) of the smaller value between the absolute value of the sum of the weighted long exposures and the absolute value of the sum of the weighted short exposures in each vertex P_i, for each price index coupon rate "p".

Art. 8. The value of the horizontal disallowance within the maturity zone DHZ_j corresponds to the smaller value between the sum of positive EL_i and the sum of the absolute values of negative EL_i of each vertex P_i belonging to zone "j", multiplied by factor W_j, for each price index coupon rate "p".

Art. 9. The value of the horizontal disallowance between the maturity zones DHE corresponds to the sum of the following values:

I - 40% (forty per cent) of the smaller absolute value between the total exposures of Zone 1 and Zone 2, in case they have opposite total exposures;

II - 40% (forty per cent) of the smaller absolute value between the total exposures of Zone 2 and Zone 3, in case they have opposite total exposures; and

III - 100% (one hundred per cent) of the smaller absolute value between total exposures of Zone 1 and Zone 3, in case they have opposite total exposures.

Art. 10. The value of the total exposures of zone "j" mentioned in art. 9 corresponds to the sum of the net exposures EL_i of each vertex P_i belonging to zone "j", for price index coupon rate "p".

Article 11. In calculating RWA_{JUR3}, exposures subject to variations in coupons of the Extended National Consumer Price Index (IPCA) and in the General Market Price Index (IGP-M) must be calculated separately.

Paragraph 1. Exposures subject to changes in coupons rates of price indices not mentioned in the heading may be calculated jointly – as if they were subject to changes in the coupon rate of a single price index in $RWAP_{JUR3}$.

Paragraph 2. Exposures subject to changes in coupons rates of price indices mentioned in the heading whose value does not exceed 5% (five percent) of the total of the exposures subject to changes in prices indices coupon rate may receive the treatment mentioned on Paragraph 1.

Art. 12. The methodology used to obtain the rates used for marking to market the exposures subject to changes in prices indices coupon rates must be based on consistent and verifiable criteria, in accordance with rules in force.

Paragraph 1. Operations in which the institution acts exclusively as a mediator and does not assume any rights or obligations with parties do not constitute the base for calculating RWA_{JUR3}.

Paragraph 2. The consolidated calculation of RWA_{JUR3} is imputed to the institution in the conglomerate in charge of forwarding accounting information to the Central Bank of Brazil.

Art. 13. A report detailing the calculation of RWA_{JUR3} must be forwarded to the Central Bank of Brazil, in accordance with the form to be established.

Sole paragraph. Institutions must keep available to the Central Bank of Brazil for five years the data used to calculate the daily value of RWA_{JUR3}, as well as the methodology used to calculate the market value of the involved transactions.

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Art. 14. This Circular enters into force on October 1, 2013.

Art. 15. As of October 1, 2013, the Circular 3,363 of September 12, 2007 shall be revoked.

Sole paragraph. Citations to Circular 3,363 of 2007 must be replaced with a reference to this Circular.

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