

**THE NATIONAL BANK OF THE REPUBLIC OF BELARUS**  
**THE RESOLUTION OF THE BOARD**

January 22, 2018, No. 25

The city of Minsk

On organization of internal capital adequacy assessment and risk management processes by banks and the Development Bank of the Republic of Belarus JSC

(as amended by the Resolution of the Board of the National Bank dated 03.12.2018, No.571)

By virtue of the twenty seventh paragraph of Article 26, the third paragraph of the fourth part of Article 34 and the first part of Article 39 of the Banking Code of the Republic of Belarus, the Board of the National Bank of the Republic of Belarus hereby RESOLVES:

1. To approve the enclosed Instruction on Organization of Internal Capital Adequacy Assessment and Risk Management Processes by Banks and the Development Bank of the Republic of Belarus JSC.

2. To make amendments and additions to the following Resolutions of the Board of the National Bank of the Republic of Belarus:

2.1. in the Resolution of the Board of the National Bank of the Republic of Belarus dated October 31, 2006, no. 172, “On Establishing the Reporting Forms and Approval of the Instruction on the Procedure of Preparation and Submission of Prudential Reporting to the National Bank of the Republic of Belarus by Banks, the Development Bank of the Republic of Belarus Joint-Stock Company and Non-Bank Credit and Financial Institutions” (the National Register of Legal Acts of the Republic of Belarus, 2006, No. 201, 8/15355; 2009, No. 55, 8/20511; the National Legal Internet Portal of the Republic of Belarus, 10.08.2012, 8/26247; 20.05.2014, 8/28673; 31.12.2015, 8/30517):

from Clause 1, remove the word “normative”;

in Appendix 1 to this Resolution:

from the name of the Form 2801, remove the word “normative”;

add lines 19<sup>1</sup> – 19<sup>3</sup> to this Appendix, with the content as follows:

”	Adequacy of the capital calculated within the scope of the internal procedure of assessment of capital adequacy				
19 <sup>1</sup>	Available capital	8743			

19 <sup>2</sup>	Economic capital	8744	<input type="text"/>		
19 <sup>3</sup>	Amount by which the available capital exceeds the economic capital (column 4 = line 19 <sup>1</sup> – line 19 <sup>2</sup> , column 4)	8745	<input type="text"/>		“;”

Subclause 6.1 of Clause 6 of the Instruction on the Procedure of Preparation and Submission of Prudential Reporting to the National Bank of the Republic of Belarus by Banks, the Development Bank of the Republic of Belarus Joint-Stock Company and Non-Bank Credit and Financial Institutions, approved by this Resolution, shall be reworded as follows:

“6.1. Form 2801 “Calculation of Capital Adequacy and Leverage Amount” (hereinafter referred to as Form 2801), used for implementation of supervision by the National Bank over the banks’ compliance with norms of minimal amount of the regulatory capital, regulatory capital adequacy and the leverage norm as well as the requirements for the internal assessment of capital adequacy and risk management.

The amount of bank’s registered statutory fund taken into consideration for calculation of bank’s regulatory capital shall be the amount of registered statutory fund recorded on bank’s accounts.

The accompanying note for the bank’s reporting shall contain stricter requirements for the regulatory capital adequacy specified by the bank, as well as information as follows regarding the results of the internal procedure of capital adequacy assessment:

list of significant types of bank’s risks;

amount of contingent losses arising from significant types of risks taken into consideration for calculation of the economic capital of a bank;

procedures of calculation of contingent losses arising from significant types of risks.

Data describing the amounts of available and economic capital and the amount by which the bank’s available capital exceeds the economic capital as well as information about the results of the internal procedure of capital adequacy assessment listed in the second – fourth paragraph of the third part of this Subclause shall be included respectively into the Form 2801 and the accompanying note for the bank’s reporting to be prepared as of the 1<sup>st</sup> day of the month following the last month in each quarter of the reporting year;”;

2.2. the third part of Clause 29 of the Instruction on Organization of the Risk Management System in Banks, the Development Bank of the Republic of Belarus Joint-Stock Company, Non-Bank Credit and Financial Institutions, Bank Groups and Bank Holdings, approved by the Resolution of the Board of the National Bank of the Republic of Belarus dated October 29, 2012,

No.550 (the National Legal Internet Portal of the Republic of Belarus, 08.12.2012, 8/26605), shall be reworded as follows:

“The bank must carry out the internal procedure of assessment of capital adequacy to cover not only expected but also contingent losses in case of arising of non-standard (crisis) situations. Within the scope of this procedure, the bank must assess the additional capital demand and provide availability of the required amount of capital, taking this demand into consideration, during implementation of its day-to-day activity and in cases when, in accordance with the strategy and(or) policy, plans exist for the development of new types (areas) of activities (products), development of new markets or sharp increase of scopes of transactions carried out, involving higher level of risks.”.

3. This Resolution shall come into force since April 1, 2018.

The Chairperson of the Board

P.V. Kallaur

APPROVED  
Resolution of the Board  
of the National Bank  
of the Republic of Belarus

January 22, 2018 No. 25

## INSTRUCTION

On organization of internal capital adequacy assessment and risk management processes by banks, the Development Bank of the Republic of Belarus JSC

(as amended by the Resolution of the Board of the National Bank of the Republic of Belarus, 03.12.2018, No.571)

## ARTICLE 1 GENERAL PROVISIONS

1. This Instruction establishes requirements to organization of internal capital adequacy assessment and risk management processes in banks, Development Bank of the Republic of Belarus Joint Stock Company (hereinafter “the Banks”).

2. For the purposes of this Instruction the below stated terms shall have the following meanings:

validation – means confirmation, by the Bank on the basis of objective evidence, of compliance of instruments used for evaluation (assessment) with specific requirements to use thereof;

internal capital adequacy assessment process – means actions performed by the Bank on a regular basis with a view to assessing total exposure of assumed risks and economic capital of the Bank, maintaining sufficient level of available capital of the Bank to ensure its safe functioning;

available capital – means the amount of capital at the disposal of the Bank, used to cover contingent loss from material risks in case of abnormal (crisis) situations;

negligible risks – means the risks inherent to activities of the Bank but not deemed material risks;

risk-adjusted return on capital – means an indicator describing the ratio of gross revenue adjusted for under-established reserves for risks to economic capital of the Bank; this indicator is used alongside with other profitability (yield) indicators within the risk management system, in particular, for optimization of capital structure and management of key performance indicators;

material risks means the risks recognized as material by the Bank on the basis of material risks identification performed by the same;

economic capital means the amount of capital of the Bank used to cover contingent loss from material risks in case of abnormal (crisis) situation.

The terms “risk”, “inherent risk”, “risk profile”, “risk management system”, “risk sentiment (risk appetite)”, “risk tolerance”, “stress test” (stress testing), “management accounting” shall have the meanings defined by the Instruction on organization of the risk management system in banks, Development Bank of the Republic of Belarus Joint Stock Company, non-bank credit financial institutions, banking groups and bank holding companies, approved by Resolution of the Board of the National Bank of the Republic of Belarus No. 550 dated October 29, 2012 (National Legal Internet Portal of the Republic of Belarus, December 08, 2012, 8/26605).

The terms “regulatory capital”, “adequacy of regulatory capital” shall have the meanings defined in the Instruction on secure functioning requirements for banks, Development Bank of the Republic of Belarus joint Stock Company, and non-bank credit financial institutions, approved by Resolution of the Board of the National Bank of the Republic of Belarus No. 137 dated September 28, 2006 (National Register of Legal Acts of the Republic of Belarus, 2006, No. 186, 8/15213).

## ARTICLE 2 ORGANIZATION OF INTERNAL CAPITAL ADEQUACY ASSESSMENT PROCESS

3. The internal capital adequacy assessment process is an element of the risk management system, the general requirements to which were set forth in the Instruction on organization of the risk management system in banks, Development Bank of the Republic of Belarus Joint Stock Company, non-bank credit financial institutions, banking groups and bank holding companies.

4. To implement the internal capital adequacy assessment process, the Bank shall ensure consistent achievement of the following objectives:

assessment of adequacy of capital at the disposal of the Bank, used to cover material risks of the Bank;

planning of available and economic capitals based on the results of overall assessment of material risks of the Bank, stress-testing of Bank's tolerance to internal and external risk exposure, business development benchmarks set forth in the Bank development strategy;

integration of the internal capital adequacy assessment process into the Bank's strategic planning system, so that the results of the internal capital adequacy assessment process could be used as a basis for assessment of amount of capital required to the Bank for material risk covering, when making decisions on business development (formation of development strategy) of the Bank.

5. To organize the internal capital adequacy assessment process, the Bank shall consider the following core principles:

proportionality (capital adequacy assessment of a certain bank requires its correspondence to the risk level, complexity and scope of activities of the Bank);

forecasting (capital adequacy assessment considers both existing risks to which the Bank is susceptible, and potential risks with due regard for the Bank's future business strategies);

dynamism (capital adequacy assessment is not static but rather dynamic and repeatable on continuing basis, so that to provide the Bank with adequate capital to cover risks at any time);

development (capital adequacy assessment is reviewed from time to time with a view to identifying vulnerability, enhancing efficiency and updating methods and instruments, so that to ensure their

correspondence to the volatile nature of risks and internal plans of the Bank).

6. The internal capital adequacy assessment process includes the following:
  - identification of material risks;
  - calculation of available and economic capitals of the Bank;
  - assessment of capital adequacy;
  - use of economic capital for calculation of risk-adjusted return on capital, material risk limits setting and monitoring;
  - management accounting.
7. The Board of Directors (supervisory board), a collective executive body of the Bank (hereinafter “the governing body of the Bank”) shall at least once a year consider the issue to introduce amendments in local regulatory legal acts governing the internal capital adequacy assessment process.

In the course of formulation of the Bank development strategy, the internal capital adequacy assessment process shall be evaluated to ensure that it complies with new operation environment of the Bank, changing nature and scope of effected transactions, level and combination of assumed risks.

### ARTICLE 3 IDENTIFICATION OF MATERIAL RISKS

8. Identification of material risks involves the Bank’s independent analysis of own risk profile and identification of risks most material for the Bank. The credit risk, market risk, liquidity risk and transaction risk may not be recognized as negligible by the Bank.
9. The methods of material risk identification shall be specified by local regulatory legal acts of the Bank, where the following shall be specified:
  - procedure of formation of the list of Bank inherent risks;
  - grounds (criteria) applied by the Bank for recognizing the risks as material ones;

procedure of identification of new risks arising in the course of the Bank's operation, in particular, due to launch of new types of transactions (introduction of new products), entry into new markets and revision of the list of inherent risks (at least once a year);

functions and authorities of the Bank's management bodies involved in identification of new risks.

10. The list of material risks and changes introduced therein after review shall be approved by the management body of the Bank.

#### ARTICLE 4 CALCULATION OF AVAILABLE AND ECONOMIC CAPITALS. CAPITAL ADEQUACY ASSESSMENT

11. Within the internal capital adequacy assessment process, local regulatory legal acts of the Bank shall specify the methods of available and economic capital assessment.

12. The amount of available capital shall be calculated on the basis of sources included into calculation of regulatory capital according to the Instruction on secure functioning requirements for banks, Development Bank of the Republic of Belarus Joint Stock Company, and non-bank credit and financial institutions, with due regard for the following conditions:

any raised subordinated loan (borrowing) shall be included in full (without limitation of its amount as against tier I capital and irrespective of the time of full return (repayment) of such loan (borrowing);

profit of prior years and any funds generated therefrom shall be included in full (without limitations associated with availability of auditor confirmation and its submission period);

total reserves to cover contingent loss shall be included in full (without limitation of its amount as against tier II additional capital).

13. To calculate economic capital across all material risks, the bank shall use the method set forth in Annex 1 to this Instruction or other any approaches, subject to compliance with the requirements to economic capital quantification (assessment) instruments according to Annex 2 to this Instruction.
14. The Bank shall apply the calculated value of economic capital for:



covering of contingent loss if material risks occur;

pricing with allowance for risks;

effective allocation of capital with allowance for all risks material for the Bank.

15. Capital adequacy is assessed by comparison of amounts of the Bank's available and economic capitals.

Should the amount of economical capital exceed the amount of available capital, the Bank shall take measures to increase its available capital and/or reduce the level of material risks.

16. To assess capital adequacy under stress conditions, stress testing of material risks shall be performed. Stress-testing procedure shall be indicated in the regulatory legal acts of the Bank developed in the context of the internal capital adequacy assessment process, and shall be reviewed depending on changes of internal and external factors affecting operation of the Bank, but at least once a year.

## ARTICLE 5 USE OF ECONOMIC CAPITAL. SETTING AND CONTROL OF LIMITS

17. The Bank shall set the risk tolerance level (value) in accordance with the Instruction on organization of the risk management system in banks, Development Bank of the Republic of Belarus Joint Stock Company, non-bank credit financial institutions, banking groups and bank holding companies.
18. The Bank shall (with due regard for risk tolerance so fixed) identify risk sentiment (risk appetite) in the form of a set of qualitative and quantitative indicators by risk types, areas of activity and business units of the Bank, and ensure ongoing compliance therewith in the long-term, in particular, in stressful situations.
19. Risk sentiment (risk appetite) indicators shall be identified by the Bank with no outside help.
20. Based on risk sentiment (risk appetite) indicators, the Bank shall decide on its planned (target) capital, planned capital structure, sources of its

generation, planned (target) level of capital adequacy, planned (target) risk levels and risk profile of the Bank.

21. In the course of implementation of measures aimed at risk limitation (reduction) according to paragraph 31 in the Instruction on organization of the risk management system in banks, Development Bank of the Republic of Belarus Joint Stock Company, non-bank credit financial institutions, banking groups and bank holding companies, and also for the purpose of capital adequacy control, the Bank's local regulatory legal acts shall provide for the procedure of capital allocation via the system of limits by risk profiles, areas of activity (business lines) and risk-generating business units. In particular:

such limits shall be set by risk types for which capital adequacy requirements are specified, for all areas of activity (business lines), risk-generating business units of the Bank;

in the calculation of limits a focus shall be made on assessment of capital requirement with respect to material risks (with due regard to risk-adjusted return on capital, using the formulas for calculation of risk-adjusted return on capital index) for the bank in general and its separate business line (business unit) according to Annex 3 to this Instruction or using any other approaches specified by the Bank;

the system of limits shall have a multilayered architecture including the limits:

by material risks, including credit risk, market risk, transaction risk and liquidity risk;

by business units generating material risks;

by volume of operations (transactions) conducted with any one counterparty (a counterparty engaged in a separate activity);

by volume of conducted operations (transactions) in financial instruments;

by loss ceiling across the material risk-generating business units of the Bank.

22. The Bank shall control compliance with the established limits. Such control provides for determination of benchmarks and their threshold values, approaching which evidences of the extent to which the limit is used.

The list of corrective measures for each benchmark shall be specified depending on the extent to which the limit approaches such threshold, for example:

reduction of assumed risk;

allocation of capital extended for covering material risks, by types of such risks, areas of activity (business lines), material risk-generating business units of the bank;

increase in the amount of available capital.

## ARTICLE 6 GENERATION OF MANAGEMENT ACCOUNTING

23. The Bank shall generate management accounting regarding the internal capital adequacy assessment process, containing information on:

the amount of the Bank's economic capital, in particular, volumes of its allocation by material risks;

the amount of available capital of the Bank and the extent to which it exceeds economic capital; capital adequacy assessment;

violation of respective limits, implemented (taken) corrective actions;

results of stress testing of material risks and assessment of its impact on adequacy of the Bank's capital.

Management accounting regarding the internal capital adequacy assessment process shall enable to consolidate information on material risk types for the purpose of complex analysis of risk exposure of the Bank, assessment of capital adequacy and prospective capital requirement.

24. Management accounting regarding the internal capital adequacy assessment process shall be submitted at least once a year to the Board of Directors (supervisory board), and monthly to the risk committee under the supervisory board and to the collective executive body.

Information on violations of established limits (threshold reaching) shall be monthly submitted to the heads of material risk-generating business units of the Bank and the heads of business units engaged in

management of specific risks and/or risks related to certain areas of activity (business lines).

Annex 1  
to Instruction on organization of internal  
capital adequacy assessment and risk  
management processes by the banks, the  
Development Bank of the Republic of  
Belarus JSC

Method  
of economic capital calculation

1. The amount of economic capital (EC) of the Bank is calculated by the method of simple summation of the amounts of contingent losses from material risks of the bank by the following formula:

$$EC = CL_{cr} + CL_{mr} + CL_{tr} + CL_{or}$$

where  $CL_{cr}$  – is the amount of contingent loss arising from credit risk;  
 $CL_{mr}$  – is the amount of contingent loss arising from market risk, liquidity risk, interest risk of bank portfolio;  
 $CL_{tr}$  – is the amount of contingent loss arising from transaction risk;  
 $CL_{or}$  – is the amount of contingent loss arising from other material risks.

2. The amount of contingent loss arising from credit risk shall be calculated according to one of the following scenarios of calculation:

Scenario I

The amount of contingent loss ( $CL_{cr}$ ) shall be calculated by summation of the debt under assets (contingent liabilities) less the amount of special reserves formed for covering thereof and risk-weighted using risk weights, by the following formula:

$$CL = \sum 0.1 \times (\text{debt} - \text{reserve})^* \times K,$$

where the debt – means the outstanding principal debt under assets (contingent liabilities);  
 reserve – means the amount of formed special reserve to cover potential losses (contingent liabilities);  
 K – means the risk weight of assets (contingent liabilities).

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\* The amount of debt under contingent liabilities shall be adjusted for the credit equivalent of contingent liabilities through multiplying of difference between the amount of contingent liabilities and the amount of special reserves for covering possible loss by the respective credit risk equivalent factor established by the Instruction on secure functioning requirements for banks, Development Bank of the Republic of Belarus Joint Stock Company, and non-bank credit financial institutions.

To calculate risk weight of assets (contingent liabilities):

for assets exposed to credit risk and contingent liabilities regarding legal entities and natural persons of the Republic of Belarus the risk ratio shall be determined in accordance with Table 2 of this Annex depending on the type of assets (contingent liabilities) and the value of default probability determined depending on the reserve group to which such assets (contingent liabilities) are assigned in accordance with Table 1 of this Annex;

for other assets (contingent liabilities) the risk ratio shall be determined in accordance with Table 2 of this Annex depending on the type of assets (contingent liabilities) and the value of default probability determined depending on the short-term sovereign rating of counterparty in accordance with Table 1 of this Annex (when short-term sovereign ratings differ from each other, the worst rating shall be applied).

Table 1

Ratio  
of the value of probability of counterparty default depending on  
the sovereign rating determined by international rating agencies  
or on the risk group at formation of special reserves

Risk group at formation of special reserves*	Probability of counterparty default, percent	International rating agencies		
		Moody's	S&P	Fitch
–	0.03	Aaa	AAA	AAA
–	0.03	Aa1	AA+	AA+
–	0.03	Aa2	AA	AA
–	0.03	Aa3	AA–	AA–
–	0.03	A1	A+	A+
–	0.03	A2	A	A
–	0.03	A3	A–	A–
–	0.05	Baa1	BBB+	BBB+

\* The risk group shall be indicated, determined at formation of special reserves in accordance with the Instruction on the procedure for formation and employment of special reserves for probable losses on assets and operations not reported on the balance sheet by the banks, Development Bank of the Republic of Belarus JSC, and non-bank credit financial institutions No. 138 dated September 28, 2006 (National register of legal acts of the Republic of Belarus, January 21, 2018, 8/32739).

Risk group at formation of special reserves*	Probability of counterparty default, percent	International rating agencies		
		Moody's	S&P	Fitch
–	0.10	Baa2	BBB	BBB
–	0.25	Baa3	BBB–	BBB–
–	0.50	Ba1	BB+	BB+
–	1.00	Ba2	BB	BB
–	1.30	Ba3	BB–	BB–
–	2.00	B1	B+	B+
–	2.50	B2	B	B
1	3.00	B3	B–	B–
2	6.00	Caa1	CCC+	CCC+
3	10.00	Caa2	CCC	CCC
4	15.00	Caa3	CCC–	CCC–
5	20.00	Ca	CC	CC
6**	40.00	C	C	C
6***	100.00	D	D	D

\* The risk groups are indicated which determined at formation of special reserves in accordance with the Instruction on the procedure for formation and employment of special reserves for probable losses on assets and operations not reported on the balance sheet by the banks, Development Bank of the Republic of Belarus JSC, and non-bank credit financial institutions.

\*\* When the assets (contingent liabilities) are assigned to VI risk group for the period not exceeding 30 days.

\*\*\* When the assets (contingent liabilities) are assigned to VI risk group for the period exceeding 30 days.

Risk weights under assets (contingent liabilities)  
for calculation of contingent loss

(percent)

Probability of counterparty default	Assets exposed to credit risk regarding to legal entities and individual entrepreneurs, banks, governments, countries' central (national) banks, international financial institutions and development banks	Real estate purchase loans provided to natural persons	Loans provided to natural persons (excluding real estate purchase loans and overdraft loans)	Overdraft loans provided to natural persons
0.03	11.30	2.30	8.41	1.85
0.05	15.39	3.46	12.52	2.86
0.10	23.30	5.94	21.08	5.12
0.25	39.01	11.83	39.96	10.88
0.40	49.49	16.64	53.69	15.88
0.50	54.91	19.49	61.13	18.97
0.75	65.14	25.81	75.74	26.06
1.00	72.40	31.33	86.46	32.53
1.30	78.77	37.22	95.95	39.70
1.50	82.11	40.80	100.81	44.19
2.00	88.55	48.85	109.53	54.63
2.50	93.43	55.91	115.03	64.18
3.00	97.58	62.22	118.61	73.03
6.00	119.48	90.29	127.94	116.37
10.00	146.51	113.56	142.69	158.47
15.00	171.91	130.96	167.36	196.23
20.00	188.42	140.62	189.41	222.86
40.00	204.93	150.28	211.46	249.49



## Scenario II

The amount of contingent loss arising from credit risk ( $CL_{cr}$ ) shall be calculated by summation of the debts under assets (contingent liabilities) weighted by risk using risk weights by the following formula:

$$CL_{cr} = \sum \text{debt} \times K,$$

where the debt means the outstanding principal debt under assets (contingent liabilities);

$K$  means the risk weight of assets (contingent liabilities).

The risk weight shall be calculated by the following formula:

$$K = \left[ LGD \times N \left[ \frac{1}{\sqrt{1-R}} \times G(PD) + \sqrt{\frac{R}{1-R}} \times G(0.999) \right] - PD \times LGD \right] \times \frac{1+(M-2,5) \times b}{1-1,5 \times b},$$

where

$PD$  – is the value of probability of default;

$LGD$  (Loss Given Default) – is the weight of loss;

$N(x)$  – is the cumulative distribution function for a standard normal random variable, for which the probability that such normal random variable has zero mean value and dispersion of one is less than or equal to  $x$ ;

$G(z)$  – is the inverse cumulative distribution function for a standard normal random variable, for which  $x$  value is such that  $N(x) = Z$ ;

$b$  – adjustment of maturity;

$M$  – period to maturity (in years);

$R$  – coefficient of correlation.

Coefficient of correlation ( $R$ ) shall be calculated by the following formula:

$$R = 0,12 \times \frac{1 - \frac{1}{e^{50PD}}}{1 - \frac{1}{e^{50}}} + 0,24 \times \left( 1 - \frac{1 - \frac{1}{e^{50PD}}}{1 - \frac{1}{e^{50}}} \right),$$

where

$PD$  – is the value of probability of default;

$e$  – is a mathematical invariable ( $e$  character).

Adjustment of maturity ( $b$ ) shall be calculated by the following formula:

$$b = (0,11852 - 0,05478 \times \log PD)^2,$$

where

$PD$  – is the value of probability of default;

$e$  – is the mathematical invariable ( $e$  character).

To calculate risk weight:

for assets exposed to credit risk and contingent liabilities regarding legal entities and natural persons of the Republic of Belarus the value of default probability shall be determined depending on the reserve group to which such assets (contingent liabilities) are assigned in accordance with Table 1 of this Annex;

for other assets (contingent liabilities) the value of default probability shall be determined depending on the short-term sovereign rating of counterparty in accordance with Table 1 of this Annex (when short-term sovereign ratings differ from each other, the worst rating shall be applied).

For each asset (contingent liability) the loss given default (weight of loss) in the event of default shall be equal to 45% on secured assets (contingent liabilities), 75% on under-secured assets (contingent liabilities), 85% on unsecured assets (contingent liabilities)\*.

3. The amount of contingent loss of the Bank from market risk, liquidity risk, interest risk of bank portfolio shall be calculated by summation of contingent loss from each mentioned risk determined subject to the following conditions:

the amount of contingent loss shall be determined separately for each material risk using VaR assessment model;

the amount of contingent loss from currency risk and other market risks (if deemed material) shall be calculated as VaR risk in accordance with the method applied in the Bank as of the date of calculation, providing for:

level of confidence – at least 99 percent;

horizon period – at least three months;

should any material adverse changes be anticipated, assessment of contingent loss from currency risk can be adjusted upwards on the grounds of results of risk stress testing or reasoned judgment of the risk management;

the amount of contingent loss from interest risk of bank portfolio shall be calculated on the grounds of risk stress testing in the amount of lost (negative) net capital income incurred from implementation of crisis scenarios within three months horizon (the most negative scenario in view of the results of stress testing shall be taken as a basis);

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\*Assets (contingent liabilities) shall be assigned to secured, under-secured and unsecured in accordance with the Instruction on the procedure for formation and employment of special reserves for probable losses on assets and operations not reported on the balance sheet by the banks, Development Bank of the Republic of Belarus JSC, and non-bank credit financial institutions.

the amount of contingent loss from liquidity risk shall be calculated on the basis of stress testing and determined by calculation of interest paid for raising of inter-bank loans required for safe operation of the Bank. The most negative scenario in view of the results of stress testing shall be taken as a basis (at least 30 percent outflow of funds from customer on call accounts; at least 20 percent outflow of funds from customer fixed-term deposits; repayment and impossibility of refinancing of banks' raised funds with remaining maturity up to one month);

total assessment of the amount of contingent loss from mentioned risk profiles may be adjusted upwards with due consideration to the expert commentary of the risk management.

4. The amount of contingent loss from transaction risk shall be calculated as the average annual net loss incurred from operational incidents of the Bank for the period of at least five years (net loss shall be determined as difference between direct loss and operational incident indemnity).
5. The amount of contingent loss from other material risks shall be determined on the basis of expert judgment or other Bank's internal calculation methods, but it may not be less than 5 percent of contingent loss from other material risks of the Bank.

## Annex 2

to Instruction on organization of internal capital adequacy assessment and risk management processes by the banks, the Development Bank of the Republic of Belarus JSC

## Requirements

to quantitative instruments for measuring (assessment) of economic capital

The Bank uses its own method of economic capital calculation across material risks, subject to compliance with the following requirements to quantitative instruments for measuring (assessment) of economic capital

in terms of calculation of contingent losses from credit risk:

quantitative instruments for measuring (assessment) of contingent losses shall have a certain prediction accuracy, i.e. predicted values of probability of borrowers default shall correspond to real frequency of defaults of the Bank borrowers, and predicted values of default losses shall correspond to actual values of real losses from borrowers of the Bank;

input variables (parameters) of quantitative instruments for measuring (assessment) shall be adequate for obtaining predicted values of default probability and default losses;

the bank shall carry out regular internal validations of quantitative instruments for measuring (assessment), which includes analysis of their quality and resilience, performance analysis, testing of predicted values of default probability and default losses obtained from correlation with real frequency of defaults of the Bank borrowers and actual values of real losses from borrowers of the Bank;

the Bank shall verify statistical information used as input variables (parameters) of quantitative instruments for measuring (assessment), in particular, assess accuracy and adequacy of statistical information;

calculation of values of contingent loss from credit risk considering probability of borrower default shall be based on statistical information of the Bank for the maximum period possible (at least three years);

the Bank may engage external (independent) experts for internal validation of quantitative instruments for measuring (assessment);

in terms of all risks:

the bank shall independently elaborate, introduce and follow internal procedures and rules for analysis of quality of statistical information;

quality of statistical information shall ensure its veracity, adequacy and relevance (with due regard for the time of entry and use);

quantitative instruments for measuring (assessment) developed by any outside suppliers shall be applied by the Bank subject to compliance thereof with the requirements set forth in this Annex;

the Bank's internal audit unit shall regularly inspect compliance with the process of elaboration, introduction and internal validation of quantitative instruments for measuring (assessment). The procedure, form and regularity of such inspections shall be stipulated in local regulatory acts of the Bank.

## Annex 3

to Instruction on organization of internal capital adequacy assessment and risk management processes by the banks, the Development Bank of the Republic of Belarus JSC

Calculation  
of risk-adjusted return on capital index

1. The risk-adjusted return on capital index for the Bank as a whole (*RAROC*) shall be calculated by the following formula:

$$RAROC = \frac{NI-EL}{ECap} ,$$

where *NI* (net income) – is income (loss);  
*EL* (expected losses) – is the amount of under-established reserves (difference between the amounts of required and established reserves to cover contingent losses from material risks);  
*ECap* (economic capital) – is the amount of the Bank's economic capital.

2. The risk-adjusted return on capital index for the Bank for a separate business line (business unit) of the Bank (*RAROC<sub>i</sub>*) shall be calculated by the following formula:

$$RAROC_i = \frac{NI_i-EL_i}{ECap_i} ,$$

where *NI<sub>i</sub>* – is income (loss) from a separate business line (business unit) of the Bank;  
*EL<sub>i</sub>* – is the amount of under-established reserves (difference between the amounts of required and established reserves to cover contingent losses from material risks under a separate business line (business unit) of the Bank);  
*ECap<sub>i</sub>* – is the amount of the Bank's economic capital of a separate business line (business unit) of the Bank.