NATIONAL BANK OF THE REPUBLIC OF MACEDONIA

Pursuant to Article 64 paragraph 1 item 22 of the Law on the National Bank of the Republic of Macedonia ("Official Gazette of RM" no. 3/2002, 51/2003, 85/2003, 40/2004, 61/2005 and 129/2006) and Article 68 paragraph 1 of the Banking Law ("Official Gazette of the Republic of Macedonia" no. 67/2007), the National Bank of the Republic of Macedonia adopted the following

DECISION
on managing the interest rate risk in the banking book
("Official Gazette of RM" no. 163/2008)

I. GENERAL PROVISIONS

1. This Decision shall set forth the methodology for managing the interest rate risk in the banking book, which encompasses the following:

- system for managing the interest rate risk in the banking book;
- determining the change in the economic value of the banking book; and
- manner and contents of reporting to the National Bank of the Republic of Macedonia (hereinafter referred to as: the National Bank).

II. DEFINITIONS

2. Individual terms used in this Decision shall have the following meaning:

- Interest rate risk in the banking book shall denote the risk of loss arising from the adverse movements in the interest rates, and which have influence on the items in the bank's banking book.
- Repricing risk of the interest sensitive asset and liabilities items shall denote risk of maturity mismatch (for items with fixed interest rate), i.e. the repricing (for items with variable interest rate) of the asset and liabilities items.
- Yield curve risk shall denote a risk of unanticipated changes in the yield curve, that can have adverse effects on the bank's profitability and own funds.
- Basis risk (relative to the maturity or the time-band for the future change in the interest rate) shall denote a risk of mismatch of the adjustment period between interest rate at which it earns and the interest rates at which the bank pays for various instruments of similar maturity. These differences can cause unexpected changes in the cash flows from the asset, liabilities and off-balance sheet items (for example, credit with maturity of one year and interest rate based on the movement of the interest rates on Treasury bills funded with deposit with maturity of one year and interest rate based on the interest rate on the interbank market).
- Optionality risk incorporated in the interest sensitive positions shall denote a risk of the influence that the options embedded in certain instruments can have on their cash flows (for example, credits that may be early repaid, deposits with early withdrawal possibility, etc.).
- The banking book shall include all on-balance sheet and off-balance sheet items that are not included in the bank's trading book.

- The trading book shall include all items in financial instruments and commodities held for trading, or items due to the hedging on other items in the trading book. These items shall be maintained for the purpose of generating income based on their sale on a short-term basis and/or to generate income as a result of the occurred or anticipated short-term fluctuations in the market prices.
- The economic value of the financial instrument or portfolio of instruments shall represent the current value of the expected net cash flows of the instrument/portfolio discounted with the market interest rate.
- Significant currency shall be every currency the participation of which in the total on-balance sheet and off-balance sheet assets, i.e. in the total on-balance sheet and off-balance sheet liabilities equals at least 5%.
- Standardised interest rate shock shall be a positive or negative 200 basis points parallel shift in the interest rates.
- One basic point shall be equal to the hundredth part of 1% (0.01).

III. SYSTEM FOR MANAGING THE INTEREST RATE RISK IN THE BANKING BOOK

3. The bank shall be required to establish a system for managing the interest rate risk in the banking book that corresponds to the nature, the volume and the complexity of the financial activities it performs.

The system under paragraph 1 of this item should encompass at least the following components:

- organizational structure for managing the interest rate risk in the banking book;
- policies and procedures for managing the interest rate risk in the banking book;
- assessment, monitoring and control of the interest rate risk in the banking book, which includes also establishment of appropriate information system;
- steps and procedures for internal control and audit.

4. In case the bank is subjected to consolidated supervision, in conformity with the Banking Law, the system for managing the interest rate risk in the banking book shall encompass also the management of this risk at the level of the banking group.

III.1. Organizational structure for managing the interest rate risk in the banking book

5. The bank shall be obliged to establish organizational structure, with clearly defined competences and responsibilities given taking and managing the interest rate risk in the banking book, which corresponds to the nature, volume and the complexity of the financial activities it performs.

The appropriate organizational structure shall mean the following:

- clearly defined competencies and responsibilities of the bank bodies;
- defining the tasks and the responsibilities of the appropriate bank's organizational parts, or persons, responsible for measuring, monitoring and controlling the interest rate risk in the banking book;
- clear distinction and independence of the function of measuring and monitoring the interest rate risk in the banking book from the function of investment in positions that imply exposure to the interest rate risk in the banking book.

6. The bank's Supervisory Board shall perform at least the following activities:

- approving of the policy for managing the interest rate risk in the banking book and monitoring its implementation;
- assessment of the policy adequacy at least on an annual basis, in conformity with the risk profile, the type and the scope of the bank's financial activities and external environment;
- review of the reports on the exposure to interest rate risk in the banking book;
- approving of the exposure limits for the interest rate risk in the banking book and the body or the person that may decide on exceeding particular limits;
- providing of conditions and monitoring of the internal control efficiency, as an integral part of the system for managing the interest rate risk in the banking book.

7. The Risk Management Committee shall perform at least the following activities:

- establishment and implementation of the policy for managing the interest rate risk in the banking book and proposing its revision;
- regular estimation of the management of the interest rate risk in the banking book;
- analysis of the reports on the bank's exposure to the interest rate risk in the banking book and monitoring of the undertaken activities for the purpose of management of this risk;
- determining and regular revision of the exposure limits to the interest rate risk in the banking book;
- defining of the allowed exceptions regarding the defined limits and confining responsibilities for decision-making regarding the implementation of those exceptions;
- establishing procedures and the manner of performing stress-tests.

8. The Board of Directors shall be responsible for the following:

- adoption and implementation of the procedures for managing the interest rate risk in the banking book;
- providing conditions for assessment, monitoring and control of the interest rate risk in the banking book per individual significant currencies;
- establishing procedure for estimating the influence of the new products and services on the exposure to the interest rate risk in the banking book;
- establishment of information system, as well as the system for reporting to the Supervisory Board and Risk Management Committee, with regard to the possible excess of the prescribed exposure limits.

III. 2. Policies and procedures for managing the interest rate risk in the banking book

9. The bank shall be obliged to have clearly defined policies and procedures for managing the interest rate risk in the banking book which are in conformity with the nature and the complexity in the banking book.

The policies and the procedures should:

- define the lines of competence of individual bank bodies in managing the interest rate risk in the banking book;
- define the bank's approach for hedging the exposure to the interest rate risk in the banking book, which can include also defining of the financial instruments for managing and hedging of the interest rate risk in the banking book;
- identify the parameters (limits) on the basis of which the acceptable level of exposure to the interest rate risk in the banking book can be determined, as well as the allowed exceptions and authorizations for their overcoming;

- identify the techniques used for estimating (measurement) of the interest rate risk in the banking book;
- identify the manner of conducting stress-tests;
- determine the procedure for introducing new product or service, utilization outsourcing services, etc.

10. The policies and the procedures should be reviewed and revised periodically in order to provide their compliance with the current condition of the bank and the environment it operates in.

III. 3. Assessment, monitoring and control of the interest rate risk in the banking book

11. When assessing the exposure to the interest rate risk in the banking book, the bank shall take into consideration all items in the banking book that are sensitive to the fluctuations of the interest rates, because of which they can influence the bank's profit and own funds.

The bank shall be obliged the make assessment of all significant sources of the interest rate risk in the banking book, including the following:

- repricing risk of the interest sensitive asset and liabilities items;
- yield curve risk;
- basis risk;
- optionality risk.

12. For the purpose of assessing and monitoring the exposure to interest rate risk in the banking book, the bank shall be obliged to determine the change in the economic value of the banking book as a result of the exposure to interest rate risk in the banking book, at least in the manner set forth in Chapter IV of this Decision.

For its own needs of managing the interest rate risk in the banking book, the bank may apply also different techniques for assessing the interest rate risk in the banking book, as well as develop internal model for assessing and monitoring of the exposure to interest rate risk in the banking book.

13. Regardless of the techniques the bank uses, their effectiveness and efficiency depend on the adequacy of the assumptions and the database used for assessing the exposure to interest rate risk in the banking book. The assumptions have to be accurately defined, documented and altered only under strictly determined conditions. All significant changes in the assumptions should be documented and well elaborated and approved by the bank's Board of Directors.

14. The bank shall be obliged to define the exposure limits to interest rate risk in the banking book in order to reduce the negative effects on the bank's revenues and the own funds, having in mind also the results of the executed stress testing.

The exposure limits to the interest rate risk in the banking book can refer to individual instruments, portfolios, business lines or bank's activities.

Besides determining the exposure limits to the interest rate risk in the banking book, the bank shall be required to define also the allowed excess of certain limits, the maximum amount of allowed excess, the period in which the excess of limits is allows and the body or the person that may adopt decision on excising each limit.

15. The bank shall conduct regular stress testing of the influence of the large interest rate changes (shocks) on the bank's profit and own funds. The stress testing (the stress

scenarios) shall be based on the real worst case scenarios, encompassing all material sources of interest rate risk. The Risk Management Committee shall take into consideration the results of the conducted stress tests when revising the policies and the determined limits of the interest rate risk.

The bank shall be required to conduct stress tests at least on an annual basis, in order to estimate the potential influence of one or more internal or external factors of the interest rate risk in the banking book, on the bank's profitability and own funds.

The stress testing shall include at least the following: the effects of the interest rates movements on the financial markets, the effects of the change in the relations between the significant market rates (encompassing the basis risk), the effects of the change in the form and the movement of the yields curve, the effects of the change in the liquidity of individual financial markets the bank has investments in, etc. In case of the stress tests, the bank should especially pay attention to the instruments or markets that dominate in the bank's portfolio, as well as the instruments or markets the bank has dominant influence in.

III. 3.1 Information system

16. The bank shall be required to establish information system that will enable appropriate assessment of interest rate risk in the banking book, as well as the reporting of the size and the structure of the bank's exposure to this risk.

The bank shall establish information system that shall provide generation of the following reports and data:

- report on the amount and the structure of the interest sensitive assets and liabilities in certain time-bands;
- report on the level of adherence to the internal policies and limits;
- features of the assumptions used for assessing the exposure to interest rate risk in the banking book;
- the level of exposure to the interest rate risk given different simulations, i.e. reports on the results of the performed stress tests;
- reports on the findings of the internal and external audit in regard to the adequacy of the system for managing the interest rate risk in the banking book;
- other necessary reports for managing the interest rate risk in the banking book.

III. 4. Steps and procedures for internal control and audit

17. The bank shall be required to establish appropriate internal control system over the system for managing the interest rate risk in the banking book. The control over the system for managing the interest rates risk in the banking book shall be an integral part of the bank's entire internal control system.

The efficient internal control system over the system for managing the interest rate risk in the banking book shall include:

- appropriate identification and risk assessment process;
- establishing control activities, such as policies and procedures with clearly defined authorizations and acceptable level of exposure to the interest rate risk in the banking book;
- adequate information system for monitoring the exposure to the interest rate risk in the banking book;
- regular audit on the compliance of the established policies and procedures.

18. The audit on the system for managing the interest rate risk in the banking book shall be an integral part of the annual plan of the bank's Internal audit department. The audit shall estimate whether the bank's employees adhere to the policies and the procedures and the internal exposure limits pertaining to the interest rate risk in the banking book.

The audit on the system for managing the interest rate risk in the banking book shall include also the assessment of the assumptions and the techniques the bank uses for measuring the interest rate risk in the banking book.

IV. DETERMINING THE CHANGE IN THE ECONOMIC VALUE OF THE BANKING BOOK

19. The bank shall be obliged to determine the change in the economic value of the banking book as a result of the exposure to the interest rate risk, by applying the standardised interest rate shock.

20. The bank shall distribute the interest sensitive asset and liabilities items which are part of the banking book in 13 time-bands. The bank's net position (difference between the asset and liabilities items) in each time-band shall be multiplied with the suitable weight defined in table 1.

Table 1. Weighting factors per time-band for determining the change in the economic value of the banking book

Time-band	Middle of time-band	Proxy of modified duration	Assumed change in the interest rate	Weighting factor
Up to 1 month	0.5 months	0.04 years	200 bp	0.08%
1-3 months	2 months	0.16 years	200 bp	0.32%
3-6 months	4.5 months	0.36 years	200 bp	0.72%
6-12 months	9 months	0.71 years	200 bp	1.43%
1-2 years	1.5 years	1.38 years	200 bp	2.77%
2-3 years	2.5 years	2.25 years	200 bp	4.49%
3-4 years	3.5 years	3.07 years	200 bp	6.14%
4-5 years	4.5 years	3.85 years	200 bp	7.71%
5-7 years	6 years	5.08 years	200 bp	10.15%
7-10 years	8.5 years	6.63 years	200 bp	13.26%
10-15 years	12.5 years	8.92 years	200 bp	17.84%
15-20 years	17.5 years	11.21 years	200 bp	22.43%
Over 20 years	22.5 years	13.01 years	200 bp	26.03%

21. The positions with fixed interest rate shall be distributed in appropriate time-band, in conformity with the residual maturity.

The positions with variable interest rate shall be distributed in the appropriate time-band, in conformity with the period until the next repricing date.

The bank shall be required to show separately the positions where the interest rate is changed on the basis of the decision of appropriate bank body (hereinafter referred to as: positions with adjustable interest rate).

22. The positions with adjustable interest rate and the positions having no maturity, or where the maturity i.e. the reprising date cannot be determined with certainty (ex. current accounts, sight deposits, positions with possibility for early repayment or withdrawal, etc),

shall be distributed in appropriate time-bands through determining the possibility and frequency of the change in the interest rates on these positions, at least on the basis of the following elements:

- previous experience in the change in the interest rates;
- the influence of the change in the market interest rates on the change in the interest rates on these positions;
- the average maturity of these positions (for the items having no maturity, or have early repayment or withdrawal option). On the side of the assets, such items shall be the mortgage loans, or other claims having an early repayment option. On the side of the liabilities, these items shall include the sight deposits that can be withdrawn any moment, without any additional expenses for the depositors;
- the cyclicality of individual positions;
- the movement of other internal (for ex. net interest margin, the bank's strategy) and the external factors (reputational risk, competitiveness), which influence the interest rates level and the maturity;
- the currency in which the positions are presented.

The database for the probability and the frequency of change in the interest rates must contain time series of at least five years. By exception, the bank which is founded and operates less than five years shall be required to have a database encompassing the entire period of its operating.

The bank shall be required to prescribe, in its policies and procedures, the procedure for determining the probability and the frequency of the change in the interest rates of these positions and to make regular revision of this procedure for the purpose of its adjustment to the current internal and external conditions.

23. The bank shall be required to submit report to the National Bank regarding the procedure for determining the probability and the frequency of the change in the interest rates, as a proof for meeting the elements stipulated in item 22.

For the purpose of appropriate determining of the maturity of individual positions, the National Bank may require from the bank to apply different procedure or to prescribe corrective factors the bank is obliged to adhere to in determining of the change in the economic value of the banking book.

24. By using the weights under table 1, the bank shall identify the change in the economic value of the banking book, by individual significant currency, or cumulatively for all other currencies, which in line with this Decision shall not be considered significant.

The sum of the weighted net long or short positions by individual significant currencies, or cumulated for other currencies, shall represent the total weighted value of the banking book.

The total weighted value of the banking book, set forth in this Chapter of the Decision shall be presented in the absolute amount and it shall show the change in the economic value of the banking book, as a result of the estimation of the change in the interest rates by using the standardised interest rate shock.

25. The bank shall be required to determine the ratio between the total weighted value of the banking book (the change in the economic value of the banking book) and the amount of the bank's own funds.

If the ratio under paragraph 1 of this item is equal or larger than 20%, the bank shall be required within three days to submit draft measures to the National Bank for reducing this ratio.

The National Bank may accept the measures proposed by the bank and/or to impose the bank other measures and deadlines for reduction of the ratio between the total weighted value of the banking book and the amount of the bank's own funds.

V. MANNER AND CONTENTS OF REPORTING TO THE NATIONAL BANK

26. The bank shall be required to prepare reports on the exposure to the interest rate risk in the banking book on a monthly basis and to submit them to the National Bank.

The deadline for submission of the reports under paragraph 1 of this item shall be fifteen days after the expiration of the reporting month.

The Governor of the National Bank shall prescribe with instructions, the individual positions, which are included in the exposure to the interest rate risk in the banking book and the form of the reports under paragraph 1 of this item.

27. Upon special request of the National Bank, the bank shall be required to prepare the reports under item 26, as of another day and in other deadlines, which are different from the date and the deadline stated in item 26 of this Decision.

VI. TRANSITIONAL AND CLOSING PROVISIONS

28. The bank shall be required to submit the report under item 23 of this Decision to the National Bank, until November 30, 2009, at the latest.

29. The provisions of this Decision shall refer to the foreign banks branches and savings houses, as well.

30. This Decision shall enter into force the eight day from the day of its publishing in the "Official Gazette of RM", and its implementation shall start on January 01, 2010.

D. no. 02-15/XIII - 4/2008
December 25,2008
Skopje

Petar Goshev, M.Sc.
Governor
and President
of the National Bank of the
Republic of Macedonia Council