

EXECUTIVE BOARD'S PRINCIPLES FOR RISK MANAGEMENT IN NBIM

Laid down by the Executive Board 10 June 2009,
last amended 2 September 2009.

1. PURPOSE AND OBJECTIVES

Norges Bank is entrusted with the task of managing several portfolios. The bank is responsible through separate assignments for management of the Government Pension Fund – Global and the Petroleum Insurance Fund. Furthermore, Norges Bank manages the foreign exchange reserves through its function as a central bank and owner of the reserves.

The Executive Board recognises that the investment activities differ in nature from the other functions performed by Norges Bank in the capacity as central bank. Furthermore, the risks arising from the investment management activities are of a different nature, than those relating to such other functions. These risk principles address the manner in which the portfolios shall be managed with respect to such risks and represents our objectives and commitment to risk management. The principles are in line with internationally recognised standards, as well the Norwegian Regulation on risk management and internal control (22.09 2008 no.1080) and supplement the framework regulations laid down by the fund owners for the respective portfolios.

Our approach to risk management applies similarly to all portfolios, unless a separate approach is required due to the purpose, investment universe or risk profile of the respective portfolio.

2. MAIN PRINCIPLES

a. Roles and responsibilities

Norges Bank's Executive Board is responsible for the overall management of the funds. Such responsibility for the investment management activities are, in accordance with the Executive Boards powers as described in Act on Norges Bank (24 May 1985 no. 28), delegated to the Chief Executive Officer of NBIM, through investment mandates for each fund under management. Norges Bank organizes its investment management activities to reflect the recognised standards for division of responsibilities between the board and the company's executive offers and administration.

The Executive Director of NBIM is not to take part in discussions by the management of Norges Bank concerning monetary and credit policy issues or international organisations' assessments of such issues. NBIM employees shall not have access to confidential information from other parts of Norges Bank.

In the light of this, our investment activities are established in a separate division of Norges Bank; Norges Bank Investment Management (NBIM), with a clear structure for delegation of responsibility and reporting between the different departments of NBIM. The structure is based on an appropriate segregation of duties between the investment activities (1st line of defence) and the control functions (2nd line of defence).

Norges Bank's internal and external auditors (3rd line of defence) perform their own independent controls of NBIM's operations and of external service providers.

b. Risk categories

Norges Bank shall have an approach to risk management which is:

- tailored to Norges Bank's specific tasks and responsibilities and which take into account the distinguishing features of Norges Bank as a central bank and government institution
- systematic and structured throughout the organisation
- integrated into the organizational processes and internal decision making processes
- in compliance with legal and regulatory requirements, as well as guidelines laid down by fund owners

We view the following categories as the main risk categories relating to Norges Bank's investment management activities: Market Risk, Credit Risk, Counterparty Risk and Operational Risk

Each of these categories of risks is further defined below. Portfolio specific risk tolerance limits and requirements for each risk category are laid down in the investment mandate for the respective portfolios.

Market Risk

Market risk is defined as the risk of loss/change in market value of a fund as a result of movements in financial market variables. This also includes movements in the credit spreads.

To the extent possible, the risk principles apply equally to the absolute and the relative market risk of the portfolios.

Market risk is limited and allocated to investment strategies through investment mandates from the NBIM CEO.

NBIM shall put in place a set of complementary market risk measurements to capture all relevant market risk in the management of the portfolios. The four main dimensions of market risk are:

Benchmark Deviation Risk (concentration risk)

Volatility/Correlation Risk

Factor Risk

Liquidity Risk

To the extent possible similar methods and principles should be applied across asset classes. The principles should be in accordance with internationally recognized standards. Within each market risk dimension the measurement methodology applied should decompose the risk to adequate levels of detail and be measured at regular intervals, to be decided by the CEO of NBIM.

For ex. ante volatility and correlation measurement, NBIM shall apply methods, parameters and confidence intervals tailored to the investment strategies and risk prediction horizon. Instruments not appropriately modelled by part of or all of the risk measurement systems shall be limited and thoroughly documented and logged. Aggregation of such positions with the modelled part of the portfolio should be based on realistic but conservative estimates and methods.

NBIM shall be able to document that the market risk of the portfolios are within the risk limits laid down.

Credit Risk

Credit risk is defined as the risk that the issuer of a security may default on interest and/or principal payments or become bankrupt.

To the extent possible, the risk principles apply equally to the absolute and the relative credit risk of the portfolios.

Credit risk is limited and allocated to investment strategies through investment mandates from the NBIM CEO.

NBIM shall put in place a set of complementary credit risk measurements to capture all relevant credit risk in the management of the portfolios. The two main categories of credit risk are:

Single issuer risk exposures *Portfolio Credit Risk*

The principles for credit risk measurement shall follow internationally recognized standards. Within each credit risk dimension the measurement methodology applied should decompose the risk to adequate levels of detail and be measured at regular intervals, to be decided by the CEO of NBIM.

Instruments not appropriately modelled by part of or all of the credit risk measurement systems shall be limited and thoroughly documented and logged. Aggregation of such positions with the modelled part of the portfolio should be based on realistic but conservative estimates and methods.

NBIM shall be able to document that the credit risk of the portfolios are within the risk limits laid down.

Counterparty Risk

A counterparty is defined a financial institution or company with whom Norges Bank trade or has approved for trading in financial instruments with, including custodian banks.

Counterparty exposure is the cost of replacing the value of a transaction or a number of transactions entered into with a counterparty, due to the counterparty's non-payment or default under its obligations towards Norges Bank. Counterparty exposure includes exposure arising from bank deposits.

Counterparty risk is limited and allocated through investment mandates.

The principles for counterparty credit risk measurement shall follow internationally recognized standards. The measurement methodology applied shall calculate both gross - and net potential future exposure, aggregate and decompose the counterparty credit exposure to adequate levels of detail and be measured at regular intervals, to be decided by the CEO of NBIM.

NBIM shall at all time have in place routines and systems that ensure satisfactory selection and evaluation of counterparties. Furthermore NBIM shall have documented processes for handling of collateral and netting arrangements.

Operational Risk

Operational risk is defined as the risk of loss, financial or reputational for NBIM, or the funds management by NBIM, resulting from inadequate or failed internal processes, people and systems or from external events.

Operational risk management in NBIM shall be systematic and structured. Operational risk management shall address uncertainty and be part of the decision making processes in NBIM. Operational risk management shall create value as an integral part of NBIM's processes, and support continual improvement of all processes.

NBIM shall establish a policy statement for operational risk management, supported by a framework for operational risk. The framework shall be based on internationally recognised standards and frameworks.

NBIM shall define risk criticality related to the achievement of strategic and operational objectives, as well as for compliance with all relevant requirements, laws and regulations.

*Risk criticality shall be the product of
the probability of an operational risk event occurring and
the consequence of the event.*

Separate scales for *probability and consequence* shall be maintained by NBIM, defined by qualitative and / or semi-quantitative terms. *Consequence* shall be defined along financial, operational, and reputational as well as for personnel related impacts.

High risks shall be targeted by NBIM with relevant internal controls and actions to reduce the risk level. This shall be done through reducing the probability of the event occurring and / or reducing the consequence through contingency measures in case incidents occurs.

All operational risks and risk mitigation actions shall be monitored and followed-up, and operational incidents shall be recorded and followed-up in a structured manner.

d. Risk framework components

NBIM's risk framework reflects certain common features that run across all risk categories, as set out below:

- **Risk identification** which consist of clear methodologies and processes for identification and capturing of all main categories of risk. All new investment activities or organisational changes shall be subject to an assessment in order to identify risks and their potential consequences. Prior to the implementation of investments in new instruments or markets, a thorough process must have been completed, which in each individual case provide an overview of relevant issues relating to valuation, return measurement, as well as the management and control of risks associated with investments in each individual market and currency.
- Models, structures and methods for **assessment, monitoring and management of risks**. Such assessments, monitoring and management shall be based on international standards. Management of risks shall be embedded in NBIM's practices and business processes, strategic planning and change management processes and include measure for controlling and validating the ongoing status of risks and the controls put in place to minimise such risks.

Norges Bank acknowledges that risk is to be regarded as retained by Norges Bank, also for investment activities which are outsourced to external service providers or agents. NBIM shall establish and maintain policies and guidelines which ensure that all outsourcing arrangements shall be integrated into NBIM's routines and systems for risk management.

- **Supporting technology and systems** which standardises the processes of risk identification, assessment, measurement, monitoring and management. To ensure system and modelling robustness, both internally built and vendor systems should overlap and complement each other to the extent possible. The systems and processes, and any changes to them, shall be documented with regards to their structure and functioning.
- NBIM shall regularly report the results from **stress testing** the portfolios both from a market-, credit- and counterparty risk perspective. Such tests shall constitute both historic actual market events as well as defined future scenarios. Tests shall be run on both single and multiple risk factors and, and compared against pre set limits. Such limits are laid down in investment mandates. Stress tests should take into account liquidity risk.

- NBIM shall on a regular basis compare its risk predictions within market, credit and counterparty risk with the realized portfolio returns and/or portfolio losses (**back testing**).

3. Areas of special concern

Executive Board acknowledges that for certain areas within the investment activity, special considerations and further principles needs to be established. These relate to:

- Leverage
- Derivatives trading
- Securities lending
- Shorting

NBIM is responsible for defining the purpose and objectives of such activities in the relevant investment strategy plans.

Within the four main categories of risk as listed above, all these activities shall be addressed specifically through the establishment of clear processes and routines, regular reporting as well as an annual written evaluation of risks and incidents relating to each activity. Limits for all activities shall be established in the investment mandates for all these activities. List of approved counterparties shall identify counterparties permitted to be used by NBIM in relation to each of the activities.

4. Risk reviews

Internal control in Norges Bank is defined as all measures and systems established and implemented by the Executive Board, administration and employees, in order to achieve Norges Bank objectives and missions. Norges Bank's systems for risk reviews and internal controls shall be based on the Regulation on risk management and internal controls, as issued by Norwegian FSA 22 September 2008.

NBIM shall at all times have in place systems and routines for internal controls and ensure that controls are performed on a regular basis. All control measures shall be subject to appropriate documentation and filing. Such documentation shall contain references to applicable guidelines, instructions, authorisation and routine descriptions.

NBIM shall carry out an annual evaluation of its risk management systems. The outcome of such evaluation shall be documented and subject to internal review and assessment.

The Executive Board's review of the routines and systems for internal controls in NBIM, will be carried out in accordance with Norges Bank's system for risk management and internal control.

5. Risk reporting

The Executive Board shall receive reports on the risk management in NBIM.. Such reporting shall as a minimum contain:

- Monthly reporting of
 - Status with respect to performance for all funds, including a description of the most important risk and return drivers
 - Utilization of limits for market risk and credit risk in accordance with the risk limits as set out in the respective investment mandates, as well as any breaches relating to such risk limits
 - Information about non-compliance with investment restrictions as set out in investment mandates for the respective portfolios, fund owner guidelines or regulatory requirements.

- Quarterly reporting of
 - The status of the Operational Risk Framework and processes, including any significant operational risks and incidents in the period
 - Risk elements and incidents relating to the investment activities listed as areas of special concern
 - Utilization of limits for counterparty risk, as set out in the respective investment mandates, as well as any breaches relating to such risk limits
 - Information on new instruments or new investment activities implemented in the period
 - Information about companies excluded from the portfolios' investment universe

The Executive Board must also be informed about matters of particular importance or of an unusual nature.