In order to foster better understanding and more efficient implementation of *point 15, paragraph 1, indent 2) of the Decision on Internal Control and Risk Management Systems in the Operations of Insurers (Official Gazette of the Republic of Serbia No. 12/07)*, in line with the core principles of insurance supervision promoted by the International Association of Insurance Supervisors (IAIS), the National Bank of Serbia has adopted this

GUIDANCE PAPER No. 4
ON ASSET-LIABILITY MANAGEMENT IN INSURANCE

I. BASIC PROVISIONS

Addressees

This Guidance Paper is addressed to insurers.

Reasons for adoption of the Guidance Paper

The reasons for the adoption of this Guidance Paper include: changes in the business environment due to expedited development of the domestic insurance market; emergence of more complex operations, both in terms of depth and in terms of coverage; and increasing range of available financial instruments in the market.

Objectives of the Guidance Paper

The objective of this Guidance Paper is to establish an integrated system for managing and monitoring the risk of inadequate asset-liability management (hereinafter referred to as asset-liability risk) at the insurers' level, so as to enable the insurance sector to respond adequately to the relevant changes in the new environment, to use the opportunities and to avoid the threats, with a view to ensuring stable development and protection of interests of all stakeholders.

II. ASSET LIABILITY MANAGEMENT AND KEY RISKS

Asset Liability Management (ALM) can be defined as **the ongoing process of formulating, implementing, monitoring and revising strategies related to assets and liabilities to achieve an organization's financial objectives, given the organization's risk tolerances and other constraints**.

Pursuant to the Decision on Internal Control and Risk Management Systems in the Operations of Insurers, insurance companies should focus on key risk management when developing their ALM functions, namely:

1) market risk, including primarily:
(1) interest rate risk,
(2) real estate value risk,
(3) currency risk;
2) risk of unmatched maturity and structure of assets and liabilities, including primarily:
(1) solvency risk,
(2) solvency risk;
3) underwriting risk.

ALM is focused on *ex ante* risk monitoring, proactive responding and the economic value of future cash flows. Risk quantification involves testing of the effects of various possible scenarios of future events and cash flow sensitivity to those changes. ALM is a comprehensive risk monitoring system with *direct* impact on the result. A number of quantitative financial and statistical instruments are available for ALM risks measurement and their concretization and comparison.

III. ORGANIZATIONAL ADJUSTMENT TO THE ALM SYSTEM

The organizational adjustment of a company to the ALM system takes place on two major levels. One of these levels is higher, more generalized, strategic and corporative, affecting the company as a whole. The second level concerns individual product lines with their specificities.

When organizing the ALM system at the **corporate level**, the starting point should be a comparative analysis of the company's strategic directions, vision, mission, strategic goals, size and limitations in the external and internal environment on the one side and the company's risk tolerance on the other, i.e. it is necessary to define the risk level the company can assume to achieve its targets, bearing in mind the limitations and the dynamic analysis of its environment.

The analysis of risks in connection with **individual product lines** should take into account the nature and specific characteristics of those product groups and the investment risk of those product groups. Concretization and defining of risk by each product line should, in terms of ALM, enable an insurer to better manage its risks at the corporate level.

The boards of directors of insurance companies are expected, in a special enactment pertaining to this area or within the existing enactments pertaining to risk monitoring and management, based on a comparative analysis of their operating goals and internal and external limitations, to concretize the application of ALM by implementing an ALM strategy by defining the critical factors, mechanisms, procedures, instructions and short-term and ling-term strategic policies for successful asset-liability risk monitoring and management, bearing in mind both the issue as a whole and the detailed coverage of each of the three key fields of insurance risks. An ALM strategy implies that the instruments and internal control systems are put in place and that risk measurement, monitoring and management is made functional in organizational term. The dynamism in which specific risks will be covered should correspond to the current needs of the insurer, although it is advisable to start with the concretization of market risk or liquidity risk monitoring and management processes. It is also necessary to ensure organizational independence of the ALM function from management and decision-making functions, so as to ensure objective information on risks (operating risk).

IV. IMPLEMENTATION GUIDELINES

It is of vital importance to take a dynamic approach to this issue and to ensure that the ALM strategy permeates all aspects of insurers' operations both at the level of individual functions and at the corporate level, so as to ensure maximum monitoring efficiency and minimization of asset-liability risks. Such approach implies that the ALM system is required to:

1) set the insurer's risk/reward objectives (in terms of risk tolerance),
2) identify all material risks arising from the insurer's assets and liabilities and their interaction; analyze and assess the underlying causes of each risk and the relationships between risks and external factors,
3) quantify the level of risk exposure (e.g. according to changes in key risk factors) as the maximum expected loss with the given degree of probability or as a range of outcomes (e.g. discounted future cash flows) obtained through the simulation of different scenarios,
4) apply business and professional judgment to the results in order to formulate and implement optimal ALM strategies,
5) monitor risk exposures and revise ALM strategies and modelling assumptions as appropriate.

The actual organizational arrangement will depend on the size, complexity and nature of operations carried out by an insurer. Generally, in larger and more complex companies ALM can be organized at several different organizational levels. As ALM is a corporate process that is essentially integrated at the highest organizational level, a member of senior management should be responsible for it. in smaller and simpler companies, the ALM function can be delegated to actuarial, investment and finance, risk or other departments.

Furthermore, insurers are expected to pay particular attention to ensuring adequate staff training levels, establishing an adequate internal reporting and control system and a clear hierarchy of accountability and responsibility of organizational units for every aspect of asset-liability risk monitoring and management. ALM is an ongoing process of learning and application of knowledge, so that the key factors for its successful implementation and maximization of its effects are ongoing improvements in the existing arrangements, strategies, mechanisms for anticipation of events burdened with potential risk, as well as promotion of knowledge and awareness of the importance of this process along all responsibility lines within an organization.

In this context, the Annex to this Guidance Paper contains IAIS requirements set out in the Standard on Asset Liability Management Supervision, which should help the insurers define in closer detail the necessary directions for their efforts, with a view to ensuring maximum effectiveness in ALM implementation.

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Responsible, transparent and market-oriented insurers of good business repute which operate in a competitive and modern market are the aim pursued by the National Bank of Serbia in the field of insurance supervision. Such insurers and market will give our citizens access to higher-quality insurance services in connection with various risks, while at the same time enabling them to lucratively invest their free assets with absolute certainty that their interests will be safeguarded.

The National Bank of Serbia, as a supervisory body, will not enforce this Guideline in insurers, but the implementation and proper understanding of the Guideline will, however, result in improvements in other fields under direct and indirect supervision and prevent situations in which insurers might be subjected to specific supervision measures.

Annex:
– IAIS requirements set out in the Standard on Asset Liability Management Supervision

ANNEX

IAIS REQUIREMENTS
SET OUT IN THE STANDARD ON ASSET LIABILITY MANAGEMENT SUPERVISION

“REQUIREMENT I

The supervisor requires that insurers have in place effective procedures for monitoring and managing their asset-liability positions to ensure that their assets and investment activities are appropriate to their liability and risk profiles and their solvency positions.

REQUIREMENT II

ALM should be based on economic value and should consider the change in economic value that will arise from a range of plausible scenarios.

REQUIREMENT III

The insurer should examine all risks requiring the coordination of its assets and liabilities. The ones that are significant in terms of their potential impact on economic value should be covered by an ALM framework. These may include, in whole or in part:

1) **market risk**, which includes:
   (1) interest rate risk
   (2) equity, real estate and other asset value risk
   (3) currency risk
2) **liquidity risk**
3) **underwriting risk,** which includes
   (1) risk from policyholders’ actions
   (2) risk of new product (business).

REQUIREMENT IV

The insurer should use appropriate metrics to measure exposure to market risk and related credit risk. More sophisticated models should be used for more complex portfolios of products and investments in order to model the portfolios reliably.

REQUIREMENT V

The insurer should take into account risks posed by options embedded in new and in-force policies. It should identify ways to mitigate the impact of the options, while ensuring that policyholders are treated fairly. ALM should assess the possible effects such embedded options can have throughout the life of the insurance policies.

REQUIREMENT VI

The insurer should structure its assets so that it has sufficient cash and diversified marketable securities to meet its obligations as they fall due.

The insurer should have a plan to deal with unexpected cash outflows, by such means as holding sufficient liquid or readily marketable assets or by having a formal credit facility.

REQUIREMENT VII

The board of directors should approve the insurer’s strategic ALM policy, taking account of asset-liability relationships, the insurer’s overall risk tolerance, risk and return requirements, solvency position and liquidity requirements. Senior management is responsible for implementing the ALM policy.

REQUIREMENT VIII

In formulating its overall strategy, an insurer should consider the ALM strategies appropriate to the characteristics of each distinct block of business, and should also take into account the interaction between blocks.

REQUIREMENT IX

The ALM measurement tools used should be appropriate to the nature and circumstances of the insurer and the risk characteristics of the line of business.

REQUIREMENT X

The insurer should be organised so that there is a close and continuing liaison between the different areas that need to be involved with ALM. The organisational structure depends on the nature, size and complexity of the insurer, and should enable the organisation to maintain effective ALM.
To the extent practicable, the monitoring of ALM risk and processes should be organisationally separate from the functions overseeing investments, pricing and management of in-force business.
The mandate, roles and responsibilities of the ALM function should be clear, appropriate and well understood within the insurer.
The supervisor should examine whether the interrelationship of functions is appropriate.

REQUIREMENT XI

The insurer should develop and implement controls and reporting procedures for its ALM policies that are appropriate for its business and the risks to which it is exposed. These should be monitored closely and reviewed regularly.”