Risk Management Framework at the Central Bank of Azerbaijan

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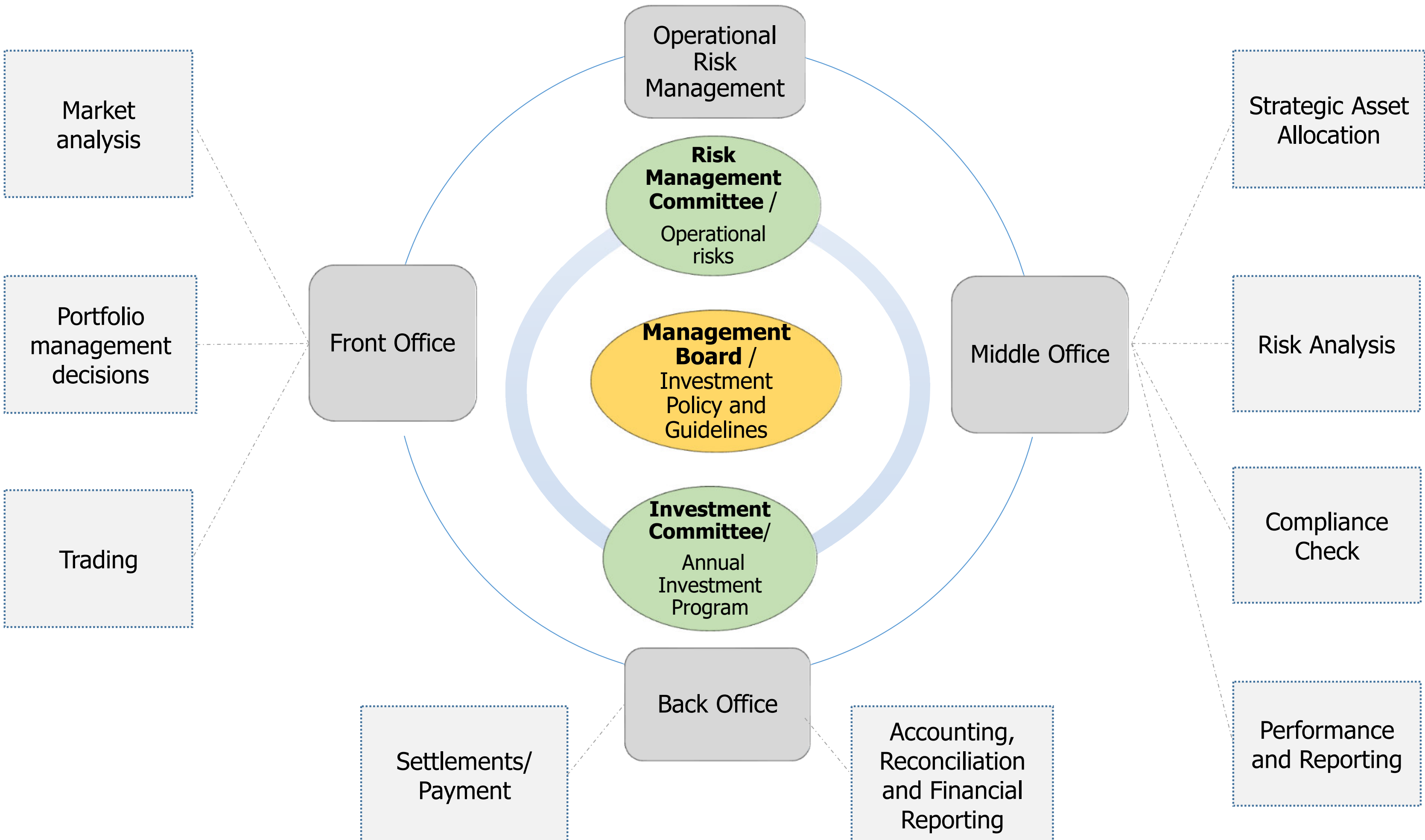
Organizational Framework of Risk Management



Financial Risk Management at Strategy Level

Safety

High probability that the invested amount will get back

- Investing only in investment grade fixed income assets;
- Maximum limit applies to the non-government (or non-benchmark) instruments;
- Diversification limit applies to each non-government (or non-benchmark) instrument.

Liquidity

Converting the invested assets to cash within a reasonable period by incurring the lowest possible cost

- Tranching approach is used by dividing reserves into Operational (Liquidity) and Investment tranches;
- Determining the minimum daily liquid amount;
- Maximum limit applies to non-marketable instruments.

Return

Positive return at the end of the investment horizon(s)

- Investing only in bonds and money market instruments;
- Benchmarks are selected based on the risk tolerance of portfolios till the end of the investment horizon;
- Duration and tracking error management is used to beat the benchmark return.

Investment Approach based on Risk Tolerance

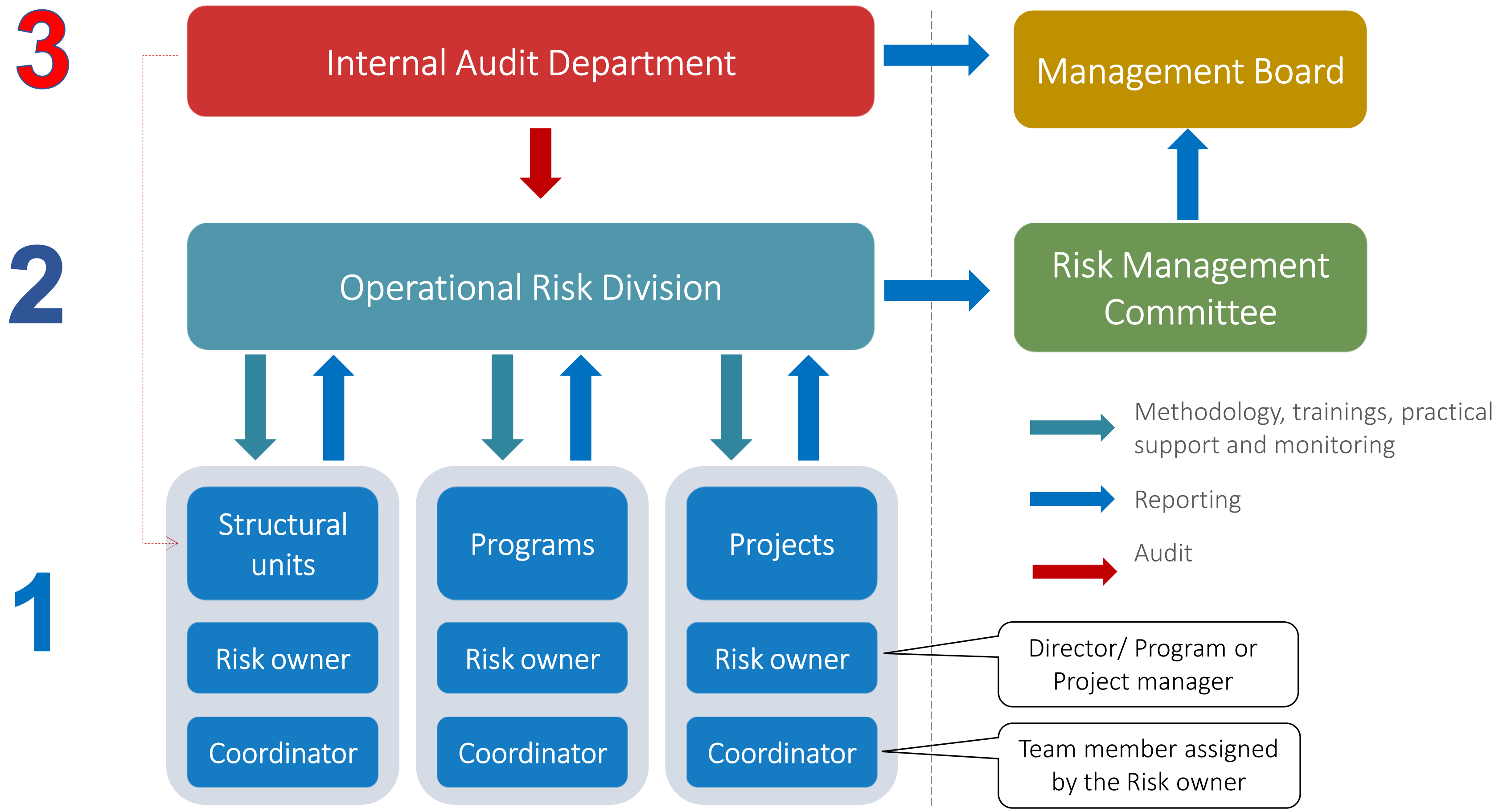
	High conservative	Conservative	Less conservative
Investment horizon	Less than 1 year	1 year	1 - 2 years
Liquidity needs	Very high	High	Low
Goal	Capital preservation and immediate liquidity	Capital preservation and low return	Capital preservation and maximization of excess return
Strategy	Money market	Short duration	1 - 3 year duration
Expected annual return	0,65%	0,80%	1,00%
Expected standard deviation (annual)	0,30%	0,45%	0,65%

Maximize the excess return at the end of the investment horizon while preserving capital and liquidity

Financial Risk Management Tools

	Key points	Risk Management Tools
Credit risk	▪ Avoidance of credit event ▪ Potential for credit rating downgrades ▪ Idiosyncratic events ▪ Counterparty exposure	○ Credit rating constraints ○ Credit model based on credit rating and CDS ○ Counterparty limits for exposure ○ Concentration limits ○ Issuer specific analysis on both parent and issuer level
Liquidity risk	▪ Monetary policy liquidity requirements ▪ Market depth: bid/offer spreads, ability to transact ▪ Liquidity profile of portfolio (% of overnight, % of government, etc.) ▪ Management around statement dates ▪ Counterparty exposure	○ Daily liquidity limit ○ Liquidity/issuance ○ Views on issuers, sectors, countries ○ Maturity profile ○ Instrument selection (secured vs. unsecured, fixed vs. floating)
Market risk	▪ Interest rate risk ▪ Volatility ▪ Correlations ▪ Basis risk	○ Duration management relative to the benchmarks ○ VaR, CVaR and tracking error ○ Weekly stress testing – shock scenarios on interest rate moves, credit spread widening ○ Regular meetings/discussions

Operational Risk Management Framework



Operational Risk Management Process

Risk identification →
- Main method: discussion sessions;
- Questionnaires, interviews, analysis of business process and etc.

Risk evaluation →
- Main method: discussion sessions;
- Based on the Probability Rating Scale and Impact Rating Scale.

Risk treatment →
- Selection of response strategy (avoid, accept, mitigate or transfer);
- Preparation of Action Plan;
- Implementation of Action Plan.

Risk monitoring →
- The Risk treatment and effectiveness of implementation of Action Plan are monitored

Risk reporting
- Reported to the Management Board;
- Prepared by Operational RM team;
- Incident reports, Reports about structural units, Summary reports are prepared.

Organized by Risk coordinators and results are reflected in Risk Register

ERM - from Traditional to Integrated Approach

- Silo behavior of departments and lack of risk information integration
- Irregular and reactive risk assessment
- Focusing on analyzing and treating “pure” risks
- Limited impact of RM to strategic planning
- Non-uniform prioritization of strategies and adhoc resource allocation

- Centralized risk management
- Frequent and proactive risk assessment
- Focus on the threats and the opportunities
- Effective support of RM to strategic planning
- Prioritization of strategies on resources allocation

Building Blocks of Integrated Approach

Governance

- Build risk culture at organization
- Use risk information in decision making
- Transparent and integrated resource allocation policy
- Clear set of roles, responsibilities and risk owners
- Accountability

Strategy & Objectives

- Defines risk appetite
- Evaluate strategies based on risk information
- Formulate business objectives

Performance

- Risk assessment (financial, operational, strategic etc.)
- Risk responses and prioritization
- Portfolio view of projects

Building Blocks of Integrated Approach

Review

- Emerging risks for the organization
- Risk and performance
- Periodic gap analysis

Information
& Reporting

- Leverage and optimize information and technology
- Reports on risk
- Reports on performance
- Annual gap analysis

Resources Needed During the Implementation

Board Support

Board support is critical

Board Decisions

Board should adopt new policies or update existing ones

Stakeholders Participation

Involvement of relevant departments

Communication to Change Culture

Frequent communication

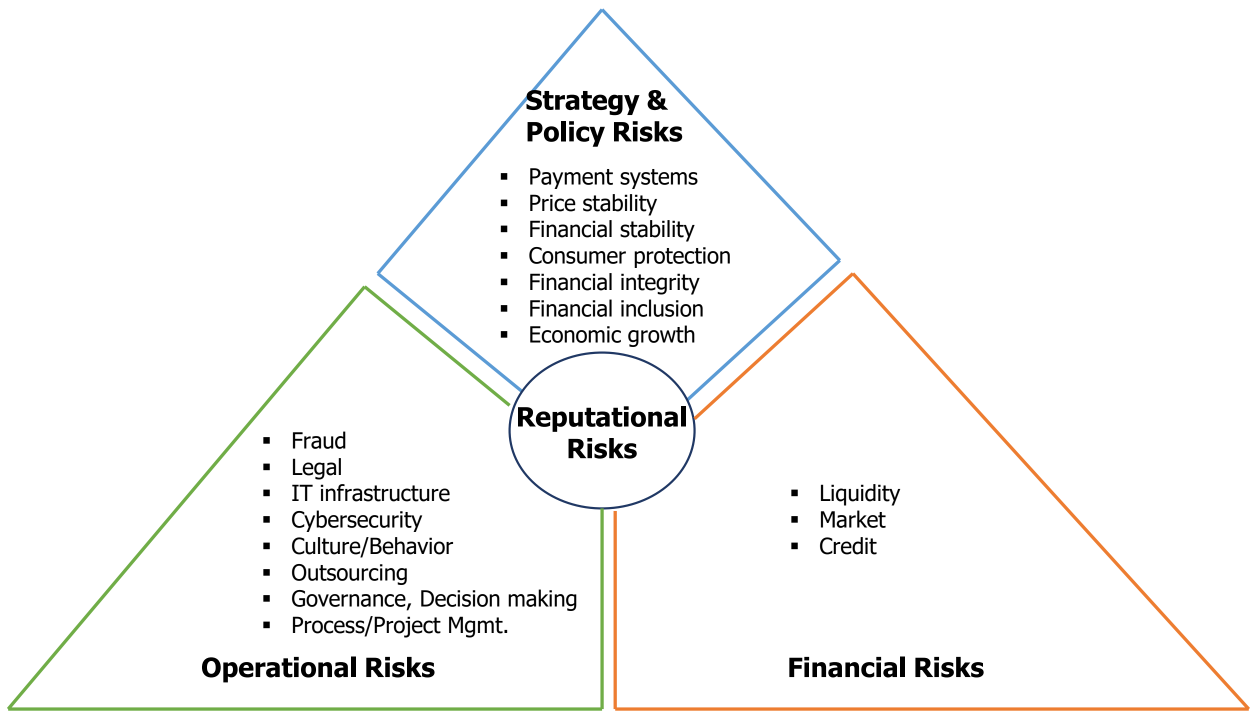
Human Resources in Risk

Number of employees in risk management

IT Tools

Software tools are critical for the automation process.

Central Bank Risk Landscape



Source: A Survey of Research on Retail Central Bank Digital Currency, WP/20/104, June 2020, Washington, D.C.: International Monetary Fund.

Thank you for your attention!