A comprehensive risk appetite framework for banks
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What is risk appetite and why does it matter now?

Definition and objective of risk appetite

The global financial crisis has demonstrated clearly that many banks lacked a proper understanding of their true risk profile and realized too late that it was not in line with their desired risk profile. This forced senior management to explain losses that were a multiple of what shareholders had expected to face. The key lesson learned from this crisis is that financial institutions need to have a comprehensive risk appetite framework in place that helps them better understand and manage their risks by translating risk metrics and methods into strategic decisions, reporting, and day-to-day business decisions.

Risk appetite is considerably more than a sophisticated key performance indicator (KPI) system for risk management. It’s the core instrument for better aligning overall corporate strategy, capital allocation, and risk. Regulators, rating agencies, and professional investors are aggressively pushing banks to advance their risk management practices. A comprehensive risk appetite framework is the cornerstone of a new risk management architecture.
A comprehensive risk appetite framework is embedded in the corporate strategy and risk culture of the bank

Five elements of a risk appetite framework

1. Stakeholder objectives

2. Corporate strategy
   - Corporate risk culture
     - Corporate level
       - Business portfolio decisions (strategic/non-strategic)
       - Key performance indicators
       - Corporate level risk tolerances

3. Corporate level
   - Risk tolerances per risk category
     - Credit risk
     - Financial risk
     - Operational risk
     - Reputation risk
     - Other risk

4. Capabilities
   - Measurement infrastructure and indicators
   - Reporting and monitoring infrastructure
   - Policies and guidelines
   - Accountabilities and consequences

5. Business unit level
   - Risk tolerances per risk category
     - Credit risk
     - Financial risk
     - Operational risk
     - Reputation risk
     - Other risk

6. Department/product level
   - Risk limits/targets per risk category
     - Credit risk
     - Financial risk
     - Operational risk
     - Reputation risk
     - Other risk

Risk appetite process

- Set risk appetite
- Embed risk appetite
- Monitor risk appetite/mitigate risks
- Revise risk appetite

Source: Strategy& analysis
Regulators and rating agencies now require banks to align various stakeholder objectives to better balance strategy, capital, and risk

Conversion of stakeholder objectives into KPIs

In the past, alignment with stakeholder objectives centered on strategy and capital; now risk is also a key consideration.

Each stakeholder objective will have a different influence on the optimal trade-offs among capital, risk, and strategy.

KPIs translate stakeholder objectives into a metric that can be measured and managed.

Potential KPIs include: capital adequacy; earnings volatility, shareholder value (e.g., RAROC, EPA), reputation, and creditworthiness.
High-level KPIs are defined and operationalized, with risk appetite and tolerances established for each.

### Key performance indicators

<table>
<thead>
<tr>
<th>Potential KPIs</th>
<th>Risk level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low (1)</td>
</tr>
</tbody>
</table>

- **Capital adequacy** (e.g., Tier 1 capital/economic capital)
- **Earnings volatility** (e.g., % earnings at risk per annum)
- **Shareholder value** (e.g., RAROC or EPA)
- **Creditworthiness** (e.g., S&P long-term debt rating)
- **Regulatory standing** (e.g., Camels)
- **Reputation** (e.g., reputation index)

Once a core set of KPIs are defined in alignment with stakeholder objectives, those KPIs must be translated into measurable categories. For example, capital adequacy can be measured by looking at these three ratios:

- Tier 1 common capital/risk-weighted assets
- Tier 1 total/risk-weighted assets
- Tier 1 total/economic capital

Next, risk appetite levels need to be set, and risk tolerances established, for the core KPIs.

Senior management and the board need to review and approve both risk appetite and tolerances for selected KPIs.

Source: Strategy& analysis
The desired risk appetite helps facilitate business portfolio decisions based on a comparison of risk/return profiles.

For each business ask:
- Are there clear intentions (continue, review, or divest)?
- Should it be grown, contracted, or maintained?
- Should its risk be increased, decreased, or maintained?
- Should controls be increased, decreased, or maintained?

Note: Size of bubble indicates net profit (2008) of business unit. Lighter blue in bubble shading indicates medium-high-risk or high-risk businesses.

Source: Strategy& analysis
For specific risk management purposes, risk appetite and tolerances are defined for all major risk categories.

Corporate-level risk appetite and tolerances

<table>
<thead>
<tr>
<th>Risk categories</th>
<th>Risk appetite</th>
<th>Economic capital allocated (in % of total EC)</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credit risk</td>
<td>Low 1</td>
<td>Medium 2</td>
<td>High 3</td>
</tr>
<tr>
<td>Financial risk</td>
<td>Low 1</td>
<td>Medium 2</td>
<td>High 3</td>
</tr>
<tr>
<td>- Market risk</td>
<td>Medium 2</td>
<td>High 3</td>
<td></td>
</tr>
<tr>
<td>- Interest rate risk</td>
<td>Low 1</td>
<td>Medium 2</td>
<td>High 3</td>
</tr>
<tr>
<td>- Liquidity risk</td>
<td>Low 1</td>
<td>Medium 2</td>
<td>High 3</td>
</tr>
<tr>
<td>- Counterparty risk</td>
<td>Low 1</td>
<td>Medium 2</td>
<td>High 3</td>
</tr>
<tr>
<td>Operational risk</td>
<td>Low 1</td>
<td>Medium 2</td>
<td>High 3</td>
</tr>
<tr>
<td>- Operational risk</td>
<td>Low 1</td>
<td>Medium 2</td>
<td>High 3</td>
</tr>
<tr>
<td>- Compliance risk</td>
<td>Low 1</td>
<td>Medium 2</td>
<td>High 3</td>
</tr>
<tr>
<td>- Corporate security risk</td>
<td>Low 1</td>
<td>Medium 2</td>
<td>High 3</td>
</tr>
<tr>
<td>- Technology risk</td>
<td>Low 1</td>
<td>Medium 2</td>
<td>High 3</td>
</tr>
<tr>
<td>Reputation risk</td>
<td>Low 1</td>
<td>Medium 2</td>
<td>High 3</td>
</tr>
<tr>
<td>Other risks</td>
<td>Low 1</td>
<td>Medium 2</td>
<td>High 3</td>
</tr>
<tr>
<td>- Strategic risk</td>
<td>Low 1</td>
<td>Medium 2</td>
<td>High 3</td>
</tr>
<tr>
<td>- Legal risk</td>
<td>Low 1</td>
<td>Medium 2</td>
<td>High 3</td>
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</tbody>
</table>

Risk appetite is usually expressed in risk measures (e.g., value at risk), nominal measures (e.g., $ amount of credit outstanding), or outcomes (e.g., capital level).

Efforts to manage risk appetite and risk tolerance will necessarily focus on those risk categories that have the highest percentage of total economic capital allocated to them.

Aggregation of risk tolerances ensures that the bank operates in line with its desired overall risk appetite.

Source: Strategy& analysis
Corporate-level risk appetite and tolerances are drilled down to business units with limits and targets for departments and products

Drill-down of risk appetite and tolerances

- **Corporate-level credit risk**
  - Economic capital: $12B

- **Business unit commercial credit risk**
  - Economic capital: $6B

- **Business unit retail credit risk**
  - Economic capital: $4B

- **Business unit investment credit risk**
  - Economic capital: $2B

**Examples of business unit–specific risk indicators**
- Concentration limits
- Single name limits
- Asset quality
- Average rating score
- Credit bureau score
- Asset quality
- External credit rating
- Concentration limits
- Single name limits
- Asset quality

This example illustrates the trade-offs between capital, strategy, and risk. To meet the growth targets of their respective strategic plans, each business unit must pitch corporate for additional economic capital, incorporating a risk-based view.

Targets are set on the basis of desired risk/return profile and management’s capacity to manage each risk.

Limits help translate appetite and tolerances into practical constraints on business activity.

Source: Strategy& analysis
### Specific capabilities are required to successfully implement and manage a risk appetite framework

#### Capability requirements

<table>
<thead>
<tr>
<th>Measurement infrastructure and indicators</th>
<th>At the corporate level, develop a comprehensive set of KPIs and high-level tolerances for all risk categories.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>At the business unit and product level, develop risk tolerances for all relevant risk categories.</td>
</tr>
<tr>
<td></td>
<td>Ensure that all data for defined KPIs is readily available as needed.</td>
</tr>
<tr>
<td>Reporting and monitoring infrastructure</td>
<td>Develop a high-level corporate risk appetite and tolerances dashboard for senior management and board as well as individual dashboards for major business units with detailed appendixes, covering all relevant risk categories.</td>
</tr>
<tr>
<td></td>
<td>Define monitoring responsibilities and frequencies within business units and the risk management function.</td>
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<tr>
<td>Policies and guidelines</td>
<td>Risk appetite and tolerance adherence needs to be consistently embedded in all risk-related policies and guidelines.</td>
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<tr>
<td></td>
<td>Ensure that risk appetite statement is aligned with overall corporate risk philosophy and culture.</td>
</tr>
<tr>
<td>Accountabilities and consequences</td>
<td>Define clear responsibility for setting, approving, and reviewing risk appetite and tolerances.</td>
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<tr>
<td></td>
<td>Establish and communicate escalation mechanisms and consequences for breaches of limits and tolerances.</td>
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<tr>
<td></td>
<td>Put in place good communication, understanding, and agreement across all organizational levels.</td>
</tr>
</tbody>
</table>

Source: Strategy& analysis
5. Risk appetite process

Once the risk appetite is set, it needs to be embedded, and then continuously monitored and revised

Ongoing risk appetite process

<table>
<thead>
<tr>
<th>Set risk appetite</th>
<th>Embed risk appetite</th>
<th>Monitor risk appetite/mitigate risks</th>
<th>Revise risk appetite</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Key activities</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Set desired risk appetite by considering:</td>
<td>Cascade the risk appetite down through the bank:</td>
<td>Regularly monitor as-is risk profile against the risk appetite.</td>
<td>Review risk appetite in light of:</td>
</tr>
<tr>
<td>– Business strategy</td>
<td>– At the portfolio level</td>
<td>– Changing business and economic conditions</td>
<td></td>
</tr>
<tr>
<td>– Economic conditions</td>
<td>– At the BU level within portfolios (e.g., for retail, corporate, investment banking)</td>
<td>– Evolving group- and portfolio-level strategic priorities</td>
<td></td>
</tr>
<tr>
<td>Ensure alignment with business strategy.</td>
<td>Align compensation and culture with risk appetite.</td>
<td>– Changing competitive conditions</td>
<td></td>
</tr>
<tr>
<td>Obtain board signoff of risk appetite statement.</td>
<td>Embed governance.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Output</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clearly defined risk appetite statement containing both qualitative and quantitative elements.</td>
<td>Clear understanding of the risk appetite by all executives:</td>
<td>Risk profile reports containing:</td>
<td>Revised risk appetite statement.</td>
</tr>
<tr>
<td></td>
<td>– At the portfolio level</td>
<td>– Assessment of risk profile against risk appetite</td>
<td></td>
</tr>
<tr>
<td></td>
<td>– At the BU level within portfolios</td>
<td>– Mitigating actions to align risk profile with risk appetite</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Buy-in from executives to run their businesses in line with the risk appetite.</td>
<td>– Other key findings</td>
<td></td>
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</tbody>
</table>

Source: Strategy& analysis
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