Dynamic early risk detection
- Key to business success -

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   - Indicators for early risk detection (risk objects)
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   - Visualisation of connections and interdependencies

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**Dynamic early risk detection**
1. Why is a dynamic early risk detection necessary?
   - Counterparties / issuer -
1. Why is a dynamic early risk detection necessary?

- Countries -
1. Why is a dynamic early risk detection necessary?
   - Companies (borrower) -
2. Current challenges of early risk detection
   - Risk universe -

- Market risk
- Credit risk
- Liquidity risk
- Compliance risk
- Business risk
- Operational risk
- Information risk
- Oversight risk
- Risk culture
- Reputational risk
2. Current challenges of early risk detection
- Extended regulatory requirements: Basel III -

- Chargeable of equity
- New indicator Leverage Ratio
- Anti-cyclical assembly of capital-cache
- Advanced capital requirements for counterparty risk
- Correlation risk / counterparty-specific default risk

Need of dynamic early risk detection
2. Current challenges of early risk detection

- Extended regulatory requirements: MaRisk

Early risk detection in the MaRisk

AT 2.2.1 – Integrated observation of risk situation

AT 4.3.2.1 – Risk identification / risk monitoring

AT 4.3.2.2 – Early risk detection of risk concentrations

AT 4.3.2.5 – Prompt information transfer due to risk handling

AT 4.3.3 – Provision for extreme situation

AT 4.1.3 – Early risk detection of parameter which have an negative effect on risk bearing ability

BTO 1.3 – Credit business / treatment of early risk detection

Dynamic early risk detection
2. Current challenges of early risk detection
- Risk assignment to single divisions -
2. Current challenges of early risk detection
- Cross linking of risks through the divisions -

Dynamic early risk detection
3. Elements of successful dynamic early risk detection
- Risk strategy and risk governance -

![Diagram showing the integration of elements for successful dynamic early risk detection](image-url)
3. Elements of successful early risk detection
- Definitions of risk management and early risk detection -

<table>
<thead>
<tr>
<th>Risk management</th>
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<tbody>
<tr>
<td>Risk management is the systematic capture and assessment of risks as well as the control of reactions on ascertained risks. It is a systematic procedure which finds application in varied areas.</td>
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<tr>
<th>Early risk detection</th>
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<tr>
<td>Early recognising of negative changes in the risk profile of the business partner by means of suitable risk early risk detection triggers with the aim after the recognition still sufficient room to maneuver measures for risk minimisation.</td>
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</table>
3. Elements of successful early risk detection
- Organisation -

- Authority
- Responsibility

- Account manager
- §18 officer
- Credit analyst
- Management

Accountability

Dynamic early risk detection
3. Elements of successful early risk detection

- Process -

- Trigger development
- Trigger usage
- Trigger indicator definition
- Trigger validation
- Trigger audit & signal generation
- Signal tracking & relevance check
- Action tracking
- Reporting

Early risk detection process
3. Elements of successful early risk detection

- Indicators for early risk detection (risk objects) -

- Counterparties / issuer
- Countries
- Borrower
- Shareholdings
- Industries
- Providers / Vendors
- Projects
- Employees, processes, systems
- ...
3. Elements of successful early risk detection  
- System -

<table>
<thead>
<tr>
<th>Trigger definition &amp; validation</th>
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<tr>
<td>• Fast and easy entry of trigger definitions and thresholds</td>
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<td>• Trigger validation</td>
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<td>• Trigger simulation</td>
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<tr>
<td>• Backtesting</td>
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<th>Automated signal generation &amp; notification</th>
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<td>• Automatic generation of early warning signals with the excess or undercut of the threshold</td>
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<td>• Automatic generation of e-mail notifications to inform all relevant contacts (incl. description of initiating circumstances)</td>
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<th>Relevance check &amp; action tracking</th>
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<tr>
<td>• Relevance check of generated early warning signals and if necessary commented &quot;rejection&quot;</td>
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<td>• Entry of the planned measures for risk management by relevant contacts</td>
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<td>• Support of measure status</td>
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<td>• Monitoring of implementation</td>
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<th>Early warning cockpit</th>
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<td>• Central provision of all relevant information (early warning signals, risk management measures)</td>
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<td>• Notification and documentation system of defined events</td>
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<td>• Comprehensive picture on the business partner</td>
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3. Elements of successful early risk detection
- Visualization of connections and interdependencies -

Early detection of contagion effects
4. Conclusion and forecast

- Business success
- Room to maneuver
- Basis of information
- Early risk detection
- Integration
- Risk & Opportunity
- Shareholder & Stakeholder

Dynamic early risk detection
Discussion