Managing Operational and Credit Risk

Brussels
April, 2014
CREDIT RISK MANAGEMENT
Credit Risk Management

- Credit Risk of Contingent Liabilities
  - Treasury guarantees
  - Exposures in PPP projects
    - Implicit – Explicit
  - Other liabilities of the government

- Credit Risk of the Receivables Portfolio
  - Previous assumptions from guarantees
  - On-lent loans
Credit Risk Management Measures

Guarantee and On-lent Loan Limit:

- A guarantee limit is imposed on the Treasury guarantees since 1998 through the Annual Budget Laws.
- This limit is expanded to cover the on-lent loans starting from 2009.

Guarantee/On-lent Fee:

- A fee of up to 1% of the total guaranteed/on-lent amount is charged to the beneficiary institution.
Credit Risk Management Measures

Partial Guarantee:

- The guarantee amount provided by the Treasury is limited to 95% of the total amount.

Risk Account:

- A Risk Account was established for the redemption of the undertaken guarantees in 2003.
Credit Risk Management Measures

External Debt Payment Account:
- Municipalities have to establish an external debt payment account in commercial bank for debt service of guaranteed and on-lent credits.

Receivable Interest Rate:
- There is an interest rate on receivables which reflects the Treasury rates.
Credit Rating Model

- Data Collection
- Credit Scoring Model $P(D / ND)$
  - Prob. of Default $(PD)$
  - Past Def. Performance $P(D / D)$
- Past Collection Performance
- Expected Loss
- Internal Credit Rating
  - Partial Guarantee
  - Risk Account Appropriation
  - Guarantee/On-lent Fee
  - Guarantee and on-lent Limit
Guaranteed Debt and Undertaken Amounts

[Chart showing guaranteed external debt and undertaken debt from 2003 to 2013.]

- Guaranteed External Debt (Million USD)
- Undertakings Arising From Treasury Guarantees (Million USD)

Key:
- Guaranteed External Debt
- Undertaken Debt

Undertaken Debt and Utilization of Risk Account Budget Allocation
Credit Risk Management- Disclosure

Monthly Public Debt Management Report

- Guaranteed Stock/Receivables Stock
- Undertaken Amounts
- Guaranteed Stock Debt Service Projections
- Guarantees Provided
- Risk Account Realizations
OPERATIONAL RISK MANAGEMENT
What is Operational Risk?

Operational Risk (OR) is

- the risk of direct or indirect loss resulting from inadequate or failed internal processes, people, system or from external events.

Operational Risk Management (ORM) is

- defined as a continual cyclic process resulting in acceptance, mitigation or avoidance of risk.
Operational Risk Factors

- Personnel risk
- Technological risk
- Institutional risk
- Legal risk
- External risk
How Operational Risks are Managed?

Identifying Operational Risks
- Strategy
- Objective
- Risk Appetite

Developing Appropriate New Control Mechanisms

Measuring
- Likelihood
- Impact
- Risk Matrix

Incident Reports
- Risk Bulletin

Monitoring Reports
- Monitoring and Reporting

Operational Risk Management

Risk Profile Table
Identifying Operational Risks

Risk Profile Table

- Fields of Activities (Scope of business),
- Activities and Aim of Activities,
- Risks faced,
- Source of Risks,
- Current Controls,
- Likelihood of Risks (Level of Risk Probability)
- Impact of Risks
- New Control Mechanisms
Measuring Operational Risks

- Likelihood and Impact
  - Importance Level of Risks
    - Total Risk Area
    - High Level Risk Area

- Setting Up Risk Matrices

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<th>Likelihood</th>
<th>Frequency</th>
<th>Impact</th>
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<td>4</td>
<td>Major</td>
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<tr>
<td>Very High</td>
<td>5</td>
<td>Catastrophic</td>
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Importance Level:
1. Insignificant
2. Minor
3. Moderate
4. Major
5. Catastrophic

Frequency:
1. Very Low
2. Low
3. Medium
4. High
5. Very High
Monitoring and Reporting Operational Risks

- **Monitoring ORs**
  - Updating risk profile table
  - Incident reports (Users)
  - Monitoring reports (Heads of Department)

- **Reporting ORs**
  - Monthly Operational Risk Bulletin (Heads of Department)
  - Quarterly Operational Risk Bulletin (Debt and Risk Management Committee)
Monitoring and Reporting Operational Risks

ORM Information System (ORMIS)

- Developed by ORM Unit and IT department
- System is used by ~150 staff

Benefits
- User friendly
- Safety
- Monitoring and reporting risks effectively
Monitoring and Reporting Operational Risks

![Image of a risk management interface]

### T.C. Başbakanlık Hazine Müsteşarlığı
### Operasyonel Risk Yönetimi

#### Sürçüler | Rapor | Kullanıcı İşlemleri | Admin | Yardım | Çıkış

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<th>Risk Kaynağı No</th>
<th>Aktif/Pasif</th>
<th>Risk Tarih Aralığı (From)</th>
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**Excel'e Aktar**  **Çıkı Al**

[Buttons: Yeni Kayıt, Tüm Kayıt, Ara, Kaydet, Pasif Yap, Sil, Güncelle, Kapat]
Developing Appropriate Management Strategies

- Check Lists
- Technology Based Solutions
- Protocols/Agreements
- New Plans/Updates for Business Processes
- Training Programs
- Internal Control
- Business Guides
- Business Continuity Plan
Business Continuity Plan (BCP)

- **Business Continuity:**
  strategic and tactical capability of the organization to plan for and respond to incidents and business disruptions in order to continue business operations at an acceptable pre-defined level

- **BCP:**
  documented collection of procedures and information that is developed, compiled and maintained in readiness for use in an incident to enable an organization to continue to deliver its critical activities at an acceptable pre-defined level

BS: 25999 – Business Continuity Management – Code of Practice
Business Continuity Plan (BCP)

- BCP
  - Business impact analysis
    - How would our business be affected in disruptions occur?
    - What would be the results?
  - Critical processes
    - Which processes are required to continue?
  - Critical resources
    - What is needed to continue critical processes?
  - Critical infrastructure
    - What infrastructural set-up is required?
  - Emergency scenarios
    - What can trigger disruptions?
Business Continuity Plan (BCP)

- BCP
  - Work-flow charts
    - How will business continue in a given scenario?
  - Duties of units and staff (including back-up staff)
    - What are the responsibilities of staff?
    - Who will replace whom?
    - The decision making structure?
  - Data back-up and recovery plan
    - set of procedures to recover and protect a business IT infrastructure in the event of a disaster
  - Secondary operation site
    - Where will we operate if offices are not available?
  - Maintenance and updating of the plan
    - Rehearsals/exercises and training
    - Frequency of updates?
Benefits

- Risk awareness of DG staff
- Manage risks efficiently [Operational Risk Management Information System (ORMIS)]
- Provide consistency with senior management priorities
- Decreased number of errors
- Ensure that relevant DGs are aware of risks