World Bank Webinar: What should you look for in an information system for public debt management

Debt Management Information System in the Republic of Macedonia

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Why Debt Management Information System

- Development and implementation of standard business processes related to debt management
- Improving the efficiency of business processes related to debt management
- Increasing control over financial and operational risks related to debt management
Introduction of PDMIS

- Operational since 2012 (implementation started in 2008)
- System name: Public Debt Management Information System (hereinafter “PDMIS”)
- In-house build by a domestic company (ASSECO)
- No. of users: 10 employees involved in debt management activities
- No. of people involved in software development/maintenance: team of 8 people/2 people
- Cost for maintenance: 10-20% of the costs for software development
Main characteristics of PDMIS

- Web based application model
- Database platform independent (using hibernate to make data access transparent)
- Support to debt management activities
- Provides integrated database of public external and domestic debt (including guarantees), debt servicing and reporting
- Straight-through transaction processing
- Interfaces with TRIS (Treasury Information System) and NBRM platform (E-bank)
Debt management activities in the MoF organisational scheme

Ministry of Finance

International Financial Relations and Public Debt Management Department

Borrowing and Investment Unit (Front Office)
Debt Management Policy and Risk Analysis Unit (Middle Office)
Recording, Monitoring and Servicing of Public Debt Liabilities Unit (Back Office)
Unit for Multilateral Financial Cooperation
Unit for Bilateral and European Financial Cooperation
Unit for IPA & NPAA

Debt Management activities
Debt management activities

- Financing budget needs
- Timely servicing of debt liabilities
- Core debt management activities
- Designing Debt Management Strategy
- Debt recording
## Debt instruments used for debt management activities

<table>
<thead>
<tr>
<th>Debt instruments</th>
<th>Number of entries in PDMIS per debt instrument (approximate) as %</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>1.345 100.0%</td>
</tr>
<tr>
<td>Loans</td>
<td>235 17.5%</td>
</tr>
<tr>
<td>Central government</td>
<td>144 10.7%</td>
</tr>
<tr>
<td>Local government</td>
<td>28 2.1%</td>
</tr>
<tr>
<td>SoE’s*</td>
<td>63 4.7%</td>
</tr>
<tr>
<td>Eurobond</td>
<td>3 0.2%</td>
</tr>
<tr>
<td>T-bills</td>
<td>695 51.7%</td>
</tr>
<tr>
<td>T-bonds</td>
<td>275 20.4%</td>
</tr>
<tr>
<td>Structural bonds</td>
<td>17 1.3%</td>
</tr>
<tr>
<td>On-lending loans</td>
<td>120 8.9%</td>
</tr>
</tbody>
</table>

*SoE’s debt instruments includes both guaranteed and non-guaranteed loans*
Main modules of PDMIS

- Front Office
  - Registers and classifications

- Back Office
  - TRIS (Treasury system)
  - E-bank (Central Bank platform)

- Middle Office
  - Analytical reporting

- Data Exchange module

- Interfaces
  - PDMIS
  - Middle Office
  - Back Office
  - Front Office

- Analytical reporting
Main functionalities of PDMIS

- Standard reports
- User-defined reports
- Sensitivity to interest rate movements
- Sensitivity to exchange rate movements
- Risk measures: ATM, ATR
- On-lending agreement
- Disbursements
- Amortization schedule
- Payment notifications
- Request for borrowing
- Loan agreement
- Loan disbursements
- Amortization schedule
- Payment orders
- Settlement of loan transactions
- Auctions calendar
- Recording auctions results
- Ownership book of GS holders
- Recording of structural bonds
Processing in PDMIS

- **Generation of amortization plans**
  (in accordance with data entered in loan register)

- **Payments calendar**
  (loans, government securities and on-lending)

- **Invoices and payment orders**
  (in original currency, domestic currency, EUR)

- **Settlements**
### Mode New: Credit Registry

**Version:** 1.0.6  
**Date:** 11.01.2010

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
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<tbody>
<tr>
<td>Name</td>
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<tr>
<td>Tranche</td>
<td></td>
</tr>
<tr>
<td>Date</td>
<td></td>
</tr>
<tr>
<td>Credit Group</td>
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<tr>
<td>Loan Registry Type</td>
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<td>Loan Registry Date</td>
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<tr>
<td>Effective Date</td>
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<tr>
<td>Name</td>
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<tr>
<td>Short Name</td>
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<tr>
<td>Loan Registry Number</td>
<td></td>
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<tr>
<td>Loan Request Number</td>
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</tr>
<tr>
<td>Agreement Type</td>
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<tr>
<td>Agreement Date</td>
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<tr>
<td>Loan Amount</td>
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<td>Currency</td>
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<td>Credit Type</td>
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<tr>
<td>Credit Dept Sign</td>
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<tr>
<td>Interest Effective Date</td>
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</tbody>
</table>
Benefits

- Offers an integrated view of the debt portfolio by centralizing the debt data
- Automation of business processes related to debt management (mainly Back Office)
- Reduced operational risks
- Improves the skills of employees in charge of debt related operations
- Improves both the quality and the flow of work related to debt management, including settlement of debt management transactions
- Improved transparency in the field of debt management
- Provides support for decision making
Further challenges

- Development of new functionalities or adjusting the existing one, as the business processes evolves
- Improvement of the existing functionalities
  - development of projections on GS net issuance and repayments
  - development of new analytical tools
  - development of new reports according to international standard methodologies
  - further automation of payment and settlement processes
- Development of new module related to financial derivatives
- Improvement of existing interfaces and establishing new one (Central Securities Depository)
- On-line access to PDMIS (public debt issuers could submit their reports through direct access to PDMIS)
Thank you for your attention

Ministry of Finance of the Republic of Macedonia
Department for International Financial Relations
and Public Debt Management Department

www.finance.gov.mk