Session 1: The information model of the Banco de Portugal

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The information model of Banco de Portugal

1. The value of information for central banks
2. Integrated management of information
3. Banco de Portugal's strategy
4. The model's main features
5. Concluding remarks
The information model of the Banco de Portugal

The value of information for central banks

Integrated Management of Information Model

GOALS
- Increase data efficiency and quality
- Building a data-driven culture
- Integrating and sharing information

Banco de Portugal’s strategy

Governance

Emphasis on Microdata + Metadata + Integration

The model’s main features

Concluding remarks
The value of information for central banks

Information is a core asset for fulfilling central banks' functions.

Different needs...
- Maintaining price stability
- Assuring the stability of the financial sector
- Acting as lender of last resort
- Supervising banking institutions
- Issuing and managing the currency in circulation
- Managing the country's external reserve assets

... in different business areas...
- Banking Prudential Supervision
- Financial Stability
- Research
- Payment Systems
- Markets and Reserve Management
- Statistics
- Other

... and the Board of Directors...

... and different sources of information.

External

Internal
Different needs...

Information is necessary for the fulfillment of several central banks' functions, inter alia:

- Maintaining price stability
- Assuring the stability of the financial sector
- Acting as lender of last resort
- Supervising banking institutions
- Issuing and managing the currency in circulation
- Managing the country's external reserve assets
... in different business areas...

- Banking Prudential Supervision
- Financial Stability
- Research
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- Markets and Reserve Management
- Statistics
- Other

... and the Board of Directors...
... and different sources of information.
External

Banks

Non-financial Corporations

Non-banks Credit Institutions

Other institutions

Financial Stability

Statistics

Payments Systems

Supervision

Research

Other
The value of information for central banks

Information is a core asset for fullfilling central banks' functions

Different needs...
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... in different business areas...
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... and the Board of Directors...

... and different sources of information.

External

Internal
How to cope efficiently with these information needs?

Taking into account...
GOALS

Improving the quality and integrity of data

Fostering a swift access to relevant information

Eliminating unjustified redundancies

Increasing the efficiency of the compilation mechanisms
Constraints

- Ensuring the strict protection of confidentiality
- Meeting tight reporting deadlines flawlessly
- Attracting, retaining and training skilled human resources
- The traditional stovepipe information model
- Dealing with IT tools development
Our solution?
Integrated Management of Information Model

From Direct Data Integration...

... to a fully integrated data warehouse
From Direct Data Integration...

... to a fully integrated data warehouse
Integrated Management of Information Model

From Direct Data Integration...

... to a fully integrated data warehouse

Banco de Portugal's strategy

Emphasis on Microdata

- Microdata database managed by Banco de Portugal
- Central Credit Register (SCR)
- Central Insurance Register (CIR)
- Securities Depository Integrated System (SID)
- Other databases

Metadata

- Metadata is key element to fully take the benefits of microdata databases
- Fundamental to securing data privacy
- Legal and governance framework
- Economic activity classification
- Governance Board
- Legal framework

Integration

Governance
Banco de Portugal's strategy

**Emphasis on Microdata**
- Microdata databases managed by Banco de Portugal
  - Central Credit Register (CCR)
  - Central Balance Sheet Database (CBSD)
  - Securities Statistics Integrated System (SSIS)
  - Other databases

**Metadata**
Metadata is a key element to fully reap the benefits of microdata databases:
- International Securities Identification Number (ISIN)
- Legal Entity Identifier (LEI)
- Economic Activity Classification (EAC)
- Corporate Fiscal Number (CFN)
- Reference Tables
- Other

**Integration**
- Strategic Objectives
- Projects

**Governance**
- Levels 1
- Levels 2
- Levels 3
Emphasis on Microdata

Microdata databases managed by Banco de Portugal

- Central Credit Register (CCR)
- Central Balance Sheet Database (CBSD)
- Securities Statistics Integrated System (SSIS)
- Other databases
Session 2. Sources and uses of information

Paula Casimiro
The road to integrate microdatabases
Emphasis on Microdata

Microdata databases managed by Banco de Portugal

- Central Credit Register (CCR)
- Central Balance Sheet Database (CBSD)
- Securities Statistics Integrated System (SSIS)
- Other databases
CCR

- 50 € reporting threshold
- 194 participating institutions
- 15 different types of loans
- 440 thousand corporations registered
- 7.4 million private individuals registered
- 20 million records reported per month
Emphasis on Microdata

Microdata databases managed by Banco de Portugal

- Central Credit Register (CCR)
- Central Balance Sheet Database (CBSD)
- Securities Statistics Integrated System (SSIS)
- Other databases
CBSD

Quarterly Data
Survey - ITENF

Annual Data
financas
Ministry of Finance

Ministry of Justice

Instituto Nacional de Estatística

Banco de Portugal Eurosistema
Emphasis on Microdata

Microdata databases managed by Banco de Portugal

- Central Credit Register (CCR)
- Central Balance Sheet Database (CBSD)
- Securities Statistics Integrated System (SSIS)
- Other databases
SSIS

Issuances:
Stocks and flows relative to securities issued by resident entities, on a security-by-security and issuer-by-issuer basis

Holdings:
Stocks and flows relating to securities held by residents and non-residents, reported on an investor-by-investor and security-by-security framework
**Banco de Portugal's strategy**

**Emphasis on Microdata**
- Central Credit Register (CCR)
- Central Balance Sheet Database (CBSD)
- Securities Statistics Integrated System (SSIS)
- Other databases

**Metadata**
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- International Securities Identification Number (ISIN)
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- Reference Tables
- Other

**Integration**

**Governance**
Metadata

Metadata is a key element to fully reap the benefits of microdata databases.

- International Securities Identification Number (ISIN)
- Legal Entity Identifier (LEI)
- Economic Activity Classification (SICAE)
- Corporate Fiscal Number (NIF)
- Reference Tables
- SPAI - Bank of Portugal’s reference information
- Other
Session 3. Financial information management: standards, initiatives and best practices

Luís Morais Sarmento

The importance of business identifiers for economic and financial statistics
Metadata

Metadata is a key element to fully reap the benefits of microdata databases

International Securities Identification Number (ISIN)

Legal Entity Identifier (LEI)

Economic Activity Classification (SICAE)

Corporate Fiscal Number (NIF PT)

Reference Tables

SPAIP - Bank of Portugal’s reference information

Other
Integration

Strategical Objectives

Business Layer
- Information Domains
- Value Chain

Conceptual Layer
- Data Repositories
- Functional Components

Technology Layer
- Infrastructure
- Aplicational Components

Projects
Special Session. Roundtable about the challenges in building national financial accounts

Filipa Lima
Challenges in building financial accounts
Governance

Level 1
Board

Level 2
Specialised Committee of Information and Technology Management
Strategic Management and Control

Level 3
Integrated Management of Information
IT Management

Statistics Department
Departments
IT Department

Decision
Strategic Coordination
Operational Coordination

The Statistics Department is in charge of the operational management of information
The Statistics Department is in charge of the operational management of information.
Major tasks underlying the role of "operational management of information"

- Coordinating and monitoring the processes of collecting quantitative information from external entities
- Ensuring a central point of contact with external entities on the reporting of quantitative information
- Monitoring the interaction and timely reporting of information to and from external entities
- Analysing the changing needs of quantitative information identified by other departments
- Ensuring the quality of information, defining indicators of its use and ensuring its relevance and auditability
- Working in close cooperation with the IT department
Coordinating and monitoring the processes of collecting quantitative information from external entities
Ensuring a central point of contact with external entities on the reporting of quantitative information
Monitoring the interaction and timely reporting of information to and from external entities
Analysing the changing needs of quantitative information identified by other departments
Ensuring the quality of information, defining indicators of its use and ensuring its relevance and auditability
Working in close cooperation with the IT department
The model's main features

Data Acquisition → Data Production → Data Exploration → Data Dissemination

Microdata → Staging Data → Operational Data Store → Statistical Data Warehouse → Published Data Marts

Other Data Sources

Reference Tables, Metadata, Catalogues

Examples of the success of the new system:
- New statistical products
- Changeover to BPM6 and ESA 2015
- Adherence to SDS+1
- Self-service Business Intelligence (BI)
main features

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Other Data Sources

Reference Tables, Metadata, Catalogues

Examples of the success of the new system

- New statistical products
- Changeover to BPM6 and ESA 2010
Session 4. Dissemination of Information

Luís Teles Dias

Boosting the accessibility to central banks' statistics
The model's main features

Data Acquisition → Data Production → Data Exploration → Data Dissemination

Microdata → Staging Data → Operational Data Store → Statistical Data Warehouse → Published Data Marts

Other Data Sources → Reference Tables, Metadata, Catalogues

Examples of the success of the new system:
- New statistical products
- Changeover to BPM6 and ESA 2010
- Adherence to GDPR
- Self-service Business Intelligence (BI)
Examples of the success of the new system

- New statistical products
- Changeover to BPM6 and ESA 2010
- Adherence to SDDS+
- Self-service Business Intelligence (BI)
February 2012
New chapter of the Statistical Bulletin on non-financial sector indebtedness
✓ Monthly data @ T+45 days
✓ New chapter to the Statistical Bulletin
Examples of the success of the new system

- New statistical products
- Changeover to BPM6 and ESA 2010
- Adherence to SDDS+
- Self-service Business Intelligence (BI)
Banco de Portugal releases new statistical series

Banco de Portugal publishes today new statistical series on the following domains:

- Statistics on non-monetary financial institutions, except insurance corporations and pension funds (Chapter B.8 of the Statistical Bulletin);
- Central Credit Register statistical information (Chapter B.9);
- Balance of payments and international investment position statistics (Chapter C);
- National financial accounts (Chapter F);
- Statistics on non-financial corporations from the Central Balance-Sheet Database (Chapter G);
- Non-financial sector indebtedness (Chapter K).

Examples of the success of the new system

- New statistical products
- Changeover to BPM6 and ESA 2010
- Adherence to SDDS+
- Self-service Business Intelligence (BI)
November 2014: SDDS Plus adherence

February 2015: SDDS Plus data transmission

Portugal Adheres to the International Monetary Fund’s Special Data Dissemination Standard Plus
Press Release No. 15/46
February 11, 2015

Portugal has completed the requirements for adherence to the International Monetary Fund’s (IMF’s) Special Data Dissemination Standard (SDDS) Plus—the highest tier of the Data Standards Initiatives.

Louis Marc Ducharme, Director of the IMF’s Statistics Department, welcomed Portugal’s adherence and noted that “the dissemination of the new data sets under the SDDS Plus will be invaluable in fostering a deeper understanding and assessment of the performance of Portugal’s financial sector, the cross-border financial linkages of Portugal, and the vulnerabilities of the economy to shocks.”
SDDS Plus - Reported categories
February 2015

Portugal

Netherlands Spain France

USA

Germany Italy Sweden

Categories: 8 9 7 6
Examples of the success of the new system

- New statistical products
- Changeover to BPM6 and ESA 2010
- Adherence to SDDS+
- Self-service Business Intelligence (BI)
Concluding remarks

- Improved quality standards
- More detailed/complex and tailor-made statistics
- Higher consistency across different statistical domains
POSTGRADUATE PROGRAMME IN
Statistical Systems
specialisation in Central Banks’ Statistics
with access to Master Degree Programme
The information model of the Banco de Portugal

The value of information for central banks

GOALS

Integrated Management of Information Model

Banco de Portugal's strategy

The model's main features

Concluding remarks
Gracias por su atención

Thank you for your attention

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