New Ways in Reporting for Austrian Banks

Guenther Sedlacek
Senior Advisor Statistics Department
Oesterreichische Nationalbank

www.oenb.at
Why new ways in data reporting?

- In the field of central banks’ statistics and supervision user and hence data reporting requirements have grown significantly.
- They are getting more granular and complex.

- Traditionally, each body used to devise its own approach to data collection.
- This often leads to redundant data collection schemes and a lack of data consistency.
- Internal and external reporting often diverge.

- Need for high-quality, comparable and timely data on the one hand (BCBS 239) and cost efficiency on the other-hand motivate for
- New ways in data reporting.
Components of the Austrian integrated data model

"BasicCube" (input layer)

transmission release through credit institutions

"SmartCubes" (primary reporting)

transmission in OeNB

Secondary statistics and templates

Interfaces operational systems

physically implemented

Selection, Aggregation

Basic Cube is mainly based on single business cases
- Loans
- Derivatives
- Off-balance sheet
- Securities

ISIN, Loan Cube (micro data) & aggregated cubes

ISIN, Loan Cube (micro data) & aggregated cubes

Transformation rules

Supervisory (EBA-ITS)

Statistics

National Needs

Reference data

Meldewesen Wiki: Joint data model documentation
Basic Cube

- Provides an exact, **standardised**, unique and hence unambiguous definition of individual business transactions and their attributes
- Establishes a **harmonised** database model at a very **granular** level
- **Consistency**, the absence of redundancy and ease of **expandability** are key features of the Basic Cube
- Has been **developed jointly** by banks and the OeNB, but OeNB staff will not be allowed to access the Basic Cube
- Will be the basis for (almost) all **reporting obligations** and it is the harmonised basis for additional data requests
- Is **not** a legally binding but banks committed to its implementation in a cooperation agreement
### Main differences between Smart Cubes and “Templates”

<table>
<thead>
<tr>
<th>Smart Cubes</th>
<th>Templates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multidimensional → Minimising of redundancies</td>
<td>Max. 3 dimensions in one table →</td>
</tr>
<tr>
<td>Integration of different requirements in one cube</td>
<td>Silo solution (Templates of different areas are independent from each other)</td>
</tr>
<tr>
<td>More flexibility in analysis</td>
<td>Less flexible in analysis</td>
</tr>
<tr>
<td>Higher granularity due to combination of dimensions</td>
<td>Less granularity</td>
</tr>
<tr>
<td>Risk of data combinations which will never be analysed</td>
<td>1:1 picture of current user requirements</td>
</tr>
<tr>
<td>More complex in data processing</td>
<td>„Easy“ data processing</td>
</tr>
</tbody>
</table>
Evolution of data collection in the OeNB

Using the example of unconsolidated securities assets of banks

Banks' source systems

OeNB

- Isin-by-Isin (multi use)
- b-by-b (credit register)
- Monetary statistics
- Remaining maturity statistics
- Balance sheet
- Securitisation (s-b-s)

Till 2015

Today

Basic Cube

Selection, Aggregation

Securities-Cube (Isin-by-Isin)

Balance sheet

FinRep solo

Drill Down

Statistics

Supervision
Smart Cubes – Integrating EBA/SSM requirements

- **Current situation**: Granular data respectively “statistical” data are collected **in parallel** to some EBA/SSM requirements, e.g.
  - FinRep vs. SHS(Group) – SHSG contains a lot of FinRep securities’ data at a sec-by-sec level
  - Asset encumbrance vs. AnaCredit/SHS(G) – both contain information about encumbered assets
  - FinRep “solo” vs. AnaCredit – AnaCredit contains a lot of FinRep loans’ data at a loan-by-loan level

In case of extension of AnaCredit to risk (phase 2) and consolidated data (phase 3)
  - CoRep (incl. Large Exposure) vs. AnaCredit
  - FinRep (incl. non-performing and forbearance) vs. AnaCredit

- **To alleviate reporting burden** and **foster consistency**, granular data and/or statistical data could be used in future to **reduce dimensions** in EBA/SSM templates
Expectations on the new data model

- Multi-dimensional cubes allow the **re-use of data** for different needs
  - More **flexibility** in reporting and analysis
  - **Consistency** of input- and output data (*internal, external reporting*)

- **Quality**
  - More clarity regarding definitions and “automatically” higher quality through Basic Cube
  - **Reduction of costs** for the whole market (i) to apply new requirements and (ii) for quality assurance
  - **Passive data** – less burdensome for both sides and better response times in case of ad hoc requests

- It’s **too early** to judge whether all expectations can be fulfilled
- However, first cube-based reporting as well as AnaCredit modelling meetings give evidence that we are on the **right way**
Key factor cooperation with banks/software firms

SCom*
Joint development

Banks
Service/software providers
OeNB

*Standing Committee with regard to reporting

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oenb.info@oenb.at
Reporting documentation system

- **Purpose**: Joint documentation of SmartCubes, BasicCube and other related objects (e.g. algorithms, transformation)
- **Benefit**: simple and uncomplicated collaboration of OeNB’s and banks’ staff on a joint document; advanced software skills are not required
- Nominated staff members have a reading, some even more a writing access
- Parts of Wiki are summarised to a single pdf-document, which is (i) a **reporting guideline** and (ii) a **business specification** for software providers
- Updated **full and tracked versions** of this documentation are published several times a year based on an agreed road map at the OeNB homepage (https://www.oenb.at/Statistik/Meldewesen/gemeinsames-meldewesen-datenmodell.html)
 Advantages/Challenges for banks  

- Precise, consistent specifications  $\rightarrow$ easier implementation  
- Less redundancies  $\rightarrow$ less comparisons and inquiries from OeNB  
- No burdensome ex-post corrections of aggregated reporting templates  
- Higher flexibility in case of new requirements  
- Higher efficiency regarding the implementation of ad hoc requests  
- Consistency between internal and external (management) reporting  

- Rethinking in organisation and processes of reporting  
- Not the aggregated final reporting template (e.g.: FinRep, BSI) but the single business case is in focus  
- Less degrees of freedom in implementation
Data quality

- Medium- to long term improvement of data quality with less costs/efforts for the whole market is expected, because ...

- the use of reporting data for internal purposes will increase banks‘ own interest in high quality reporting data

- precise definitions und clear specifications lead to less inquiries from banks and to better results

- a central implementation concentrates efforts and leads to unique solutions → simplifies the communication between banks and OeNB

- the data model requires better quality at the level of a single business case, whereby quality problems are solved at the root

- redundancy-free collections minimise the efforts of burdensome ex post comparisons
Specific challenges - OeNB

- Higher **compilation efforts** in the OeNB
- **Dependencies** between processes due to integration
- **Increasing data volume**
- Higher **complexity** of processes, acknowledgement messages, analysis
- **Maintenance** of the data model documentation
- Higher **responsibility** due to precise data model and mapping rules
- **New quality assurance** methods
- Higher **Know How** needs with regard to the banking business
- **Legal** boundaries with regard to integration of different requirements
- **Initial costs**
Components of a successful paradigm change

- Integration of all organisational units with standardised data collection tasks as a first step
- Top management support
- Integration of contents and detailed definition of requirements
- Transparent communication
- Inclusion of banks concerning the development
- Stepwise approach and a well planned transition period with a parallel testing phase
Conclusions

- Integrative data model of OeNB represents a **paradigm shift** in bank supervision and statistical **data remittance**
- It requires on both sides (OeNB, reporting banks) a **rethinking** with regard to existing reporting processes and …
- … jointly developed **innovative solutions** in the areas of data processing and quality assurance
- It fosters two-way **understanding** and **transparency** of the reporting process
- Finally, it will lead to
  - higher **data quality**
  - less **redundant** data deliveries, and to
  - higher **flexibility** in case of new requirements
  - expected **lower costs**