Analysis with Structured Data

Brought to you through a partnership between AGA and XBRL US

https://www.agacgfm.org/DataActHub
## Agenda

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Framing the Discussion

Marcel Jemio, Solutions Architect, Office of the Fiscal Assistant Secretary, U.S. Department of the Treasury
The Broker/What Will Government Agencies Be Able to Do with Structured Data?

Kaitlin Devine, Product Owner of the DATA Act, U.S. Department of the Treasury
Better Together
Spending Data, Oversimplified

- High-level accounts that money is assigned to and debited from
- Individual awards & modifications
Where Did Each Dollar Go???

*Not enough detail*

- One appropriations account funds many awards
- An award can be funded by multiple appropriations accounts
Connecting the Dots

Appropriation Account
  - Object Class
  - Program Activity

Award
  - Appropriation Account
  - Object Class
  - Program Activity
Will Answer Questions Like...

• Within the appropriations account that funds my program, what percentage of the money has already been obligated this fiscal year?
• What other agency initiatives does that appropriations account fund, and how does the breakdown compare to previous years?
• List every contractor who has received money (and how much) from a specific account.
Treasury’s Data Broker

• Ingests agency-produced structured files:
  – Awards (similar to current USAspending)
  – Award amounts by appropriations account, object class, and program (optional)
  – Appropriations + object class + program

• Valid, linked data translated to XBRL
  – Submitted to Treasury/USAspending
  – Standardized data returned to agency as XBRL, JSON, etc.
Treasury’s Data Broker

*Built With Agencies*

- **Current prototype**
  - Central validation and translation service
  - Emphasizes agency needs so they can focus on data extract and linking
  - De-emphasizes specific data standard syntax
  - MVP

- **Status**
  - Agency testing
  - Feedback informs next development cycle
Source Code: https://github.com/18f/data-act-pilot

Data Standard:
http://fedspendingtransparency.github.io/data-exchange-standard/
FDIC Taxonomy: Mapping and Analysis

- Data Validation
  - Pre, post and final validation
  - Data re-use to downstream applications
- Enterprise Architecture Service Broker
  - Bulk load of financial data
  - Accessible to all internal systems and applications
- Examiner Toolkit Suite
  - Access to financial data in ‘real-time’
Data Validation

• Data are considered ‘clean’
  • Data checks at the source (pre-validation)
  • Data checks prior to storage (post-validation)
  • Financial analyst review (final validation)

• Data re-use
  • Data accessible via web services
  • Available for downstream application development
**Enterprise Architecture Service Broker**

- **What is a Service Broker**
  - Allows developers to build applications solutions without innate knowledge of the data.
  - Applications are developed to an interface
- **Bulk load of financial data**
  - Nightly loads from the FFIEC Central Data Repository
- **Accessibility**
  - Downstream systems and applications
The Examiner Toolkit Suite

• What is the Examiner Toolkit Suite (ETS)
  • Shared by federal and state regulatory agencies
  • Enhanced capabilities
  • Faster access to financial data

• New technologies
  • Bank financial Call Report (XBRL)
  • Uniform Bank Performance Report (Inline XBRL)
The Big Picture (original)

Original data request and preparation process

1. ACF2 Login
2. XDS
3. CBIS, CALL, IER, IRRSA MIRA, RECON, DSC Hours
4. Data assembled
5. Genesys Dataset
6. Data encrypted

The national consortium for the business reporting standard.
Original data update, save and export process
The Big Picture (current)

• Putting the pieces together
  • ‘Clean’ financial data from the FFIEC Central Data Repository (CDR)
  • Enterprise Architecture Service Broker
  • Examiner Toolkit Suite (ETS)
The Big Picture
CDR and the Enterprise Architecture Service Broker

Diagram:
- CDR
- Web Services
- EA Service Broker
- IER
- IRRSA/MIRA
- RECON
- DSC Hours
- ETS
The Big Picture (current)
Enterprise Architecture Service Broker and ETS
Examiner Toolkit Suite: XBRL Technologies

• Call Report
  • XBRL instances (quarter, year, multi-year)
  • XBRL taxonomies (calculations, report instructions)

• Uniform Bank Performance Report
  • XBRL instances (bank peer groups)
  • Inline XBRL (report presentation)
### Schedule RC-R Part I - Regulatory Capital Components and Ratios

1. Common stock plus related surplus, net of treasury stock and unearned employee stock ownership plan (ESOP) shares | 1,252
2. Retained earnings | 4,727
3. Accumulated other comprehensive income (AOCI)
   - a. AOCI opt-out election (enter “1” for Yes; enter “0” for No) (Advanced approaches institutions must enter “0” for No) | 0
4. Common equity tier 1 minority interest includable in common equity tier 1 capital | 1
5. Common equity tier 1 capital before adjustments and deductions (sum of items 1 through 4) | 0
6. LESS: Goodwill net of associated deferred tax liabilities (DTLs) | 0
7. LESS: Intangible assets (other than goodwill) and mortgage servicing assets (MSAs), net of associated DTLs | 0
8. LESS: Deferred tax assets (DTAs) that arise from net operating losses and tax credit carryforwards, net of any related valuation allowances and net of DTLs | 0
9. AOCI-related adjustments (items 9a through 9e are effective January 1, 2019) (if entered “1” for Yes in item 3a, complete only items 9a through 9e; if entered “0” for No in item 3a, complete only item 9f):
   - a. LESS: Net unrealized gains (losses) on available-for-sale securities (if a gain, report as a positive value; if a loss, report as a negative value) | 0
   - b. LESS: Net unrealized loss on available-for-sale preferred stock classified as an equity security under GAAP and available-for-sale equity exposures (report loss as a positive value) | 0
   - c. LESS: Accumulated net gains (losses) on cash flow hedges (if a gain, report as a positive value; if a loss, report as a negative value) | 0
   - d. LESS: Amounts recorded in AOCI attributed to defined benefit postretirement plans resulting from the initial and subsequent application of the relevant GAAP standards that pertain to such plans (if a gain, report as a positive value; if a loss, report as a negative value) | 0
   - e. LESS: Net unrealized gains (losses) on held-to-maturity securities that are included in AOCI (if a gain, report as a positive value; if a loss, report as a negative value) | 0
   - f. LESS: Accumulated net gain (loss) on cash flow hedges included in AOCI, net of applicable income taxes, that relate to the hedging of items that are not recognized at fair value on the balance sheet (if a gain, report as a positive value; if a loss, report as a negative value) | NR
10. Other deductions from (additions to) common equity tier 1 capital before threshold-based deductions:
   - a. LESS: Unrealized net gain (loss) related to changes in the fair value of liabilities that are due to changes in own credit risk (if a gain, report as a positive value; if a loss, report as a negative value) | 0
   - b. LESS: All other deductions from (additions to) common equity tier 1 capital before threshold-based deductions | 0
11. LESS: Non-significant investments in the capital of unconsolidated financial institutions in the form of common stock that exceed the 10 percent threshold for non-significant investments | 0
12. Subtotal (item 5 minus items 6 through 11) | 6,095
13. LESS: Significant investments in the capital of unconsolidated financial institutions in the form of common stock, net of associated DTLs, that exceed the 10 percent common equity tier 1 capital deduction threshold | 0
14. LESS: DTLAs, net of associated DTLs that exceed the 10 percent common equity tier 1 capital deduction threshold | 0
15. LESS: DTLAs arising from temporary differences that could not be realized through net operating loss carrybacks, net of related valuation allowances and net of DTLs, that exceed the 10 percent common equity tier 1 capital deduction threshold | 0
16. LESS: Amount of significant investments in the capital of unconsolidated financial institutions in the form of common stock, net of associated DTLAs, net of associated DTLAs, and DTLAs arising from temporary differences that could not be realized through net operating loss carrybacks, net of related valuation allowances and net of DTLs, that exceed the 15 percent common equity tier 1 capital deduction threshold | 0
17. LESS: Deductions applied to common equity tier 1 capital due to insufficient amounts of additional tier 1 capital and tier 2 capital to cover deductions | 0
18. Total adjustments and deductions for common equity tier 1 capital (sum of items 12 through 17) | 0

**OUT OF BALANCE**
Examiner Toolkit Suite: 
Examiner Analysis

• Call Report
  • ROI, ROE and ROA for a bank
  • Liquidity, assets, capital and earning ratios
  • CAMEL ratings

• Uniform Bank Performance Report
  • Trend Analysis
  • How a bank compares with peer groups
Case Study: Public Company Analysis

Campbell Pryde, President and CEO, XBRL US
CPE Questions
Summary

Herschel Chandler, Managing Principal, Information Unlimited
Questions?
Ask the Experts ...

- Herschel Chandler, Managing Principal, Information Unlimited, Inc. (IUI)
- Kaitlin Devine, Product Owner of the DATA Act, U.S. Treasury
- Christina Ho, Deputy Assistant Secretary, Accounting Policy and Financial Transparency, U.S. Department of the Treasury
- Marcel Jemio, Product Owner of the DATA Act, U.S. Treasury
- Mark Montoya, Senior Business Analyst, FDIC
- Campbell Pryde, President and CEO, XBRL US