

# **Disclaimer**

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# Challenges & Purposes for Regulatory Reporting Kenneth Lamar

# Data Collections Support the Mission of the Federal Reserve System

- Data Collected to Support the Core Mission of the Federal Reserve System Including:
  - Bank Supervision
  - Monetary Policy
  - Compliance
  - International Activities
  - Financial Stability
  - Economic Measurement



# **Collected Data Characteristics**

- Collected Data
  - Highly Defined
  - Recurring



# **Purposes of Reports**

- Many Reports Contribute to Monitoring of the Financial System and, Indirectly, the Economy. Examples:
  - Wide Range of Monetary and Credit Reports
  - Flows of Funds Domestically; International Flows of Funds
  - Detecting Structural Change, Innovation in the Financial System



# **Purposes of Reports**

- Condition of Individual Institutions
  - Regulatory Capital
  - Exposure to Assets Classes and Sectors
  - Liquidity
  - Sources of Income



# **Purposes of Reports**

- Systemic and Market Measures
- Many Regulatory and Financial Reports Assist in Monitoring Key Points of Risk for the Financial System -- Examples:
  - Real Estate Financing
  - Foreign Exchange Activity
  - Derivatives
  - Country Exposure



## **Data Types and Uses**

- Data are Often Combined from Different Sources to Compile Analytical Output
  - Examples:
    - Bank Supervision Combines Reported Financial and Organization Structure Data with Examination Data
    - Cross Border Securities Data Uses Collected Data with Vendor Data for Consistent Valuation



## **Banking Structure Reports**

- FR Y 6/FR Y 7 and the Associated FR Y 10 Supports these Objectives by Providing the Supporting Information for the Financial Data and Associated Analysis such as:
  - Location of Assets and Liabilities
  - Types of Offices
    - Subsidiaries, Branches
  - Ultimate Parent Company
  - Activity (Business Lines)
  - Functional Regulator
- These Data Determine Who Should File What Reports (Stand Alone Reports)
- Helps Determine the Complexity of the Organization

# **Collected Data Result Sharing**

- Data Aggregation Often Shared
  - UBPR
  - BIS Databank
  - BIS Derivative Statistics (Including Market Concentration)
  - Primary Dealer Market Share
  - F/X Turnover Statistics



# **Collected Data -- Design Issue**

- Comparability/Consistently Critical
  - Requires Clear Data Concepts and Data Definitions
  - Allows for Aggregations
  - Often Follows Statistical Conventions
    - For Example, BIS Consolidated Banking Statistics
- Data Definition Process Add to Implementation Time
  - Data Users
  - Data Providers
- Focus on Standardization of Definition

# **Regulatory Reporting -- Design Issues**

- To Meet Data Users Needs Regulatory Reports Require:
  - Different Consolidation Rules
    - Domestic
    - Consolidated
    - Stand Alone
  - Clear Data Presentation
    - Well Defined
  - Materiality Issues



#### **Regulatory Reporting Issues -- Consolidation Issues**

- Different Reports Have Different Consolidation Rules
- This is Based on How the Data is Used
- For Example:
  - Monetary Policy Reports Focus Only On U.S. Offices
  - Reports That Cover Banking or Broad Market Risk are Consolidated Globally
  - Risk Reports Covering Material Entities

# **Regulatory Reporting -- Data Presentation**

- Report Items All Have Specific Definitions
  - U.S. GAAP Based
  - But Specific Presentation Required
    - Insures Comparability and Understanding by Data Users
  - Requires Understanding By Corporate and Business Lines
    - Education and Communication Key Aspect For All Report Preparers

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# **Regulatory Reporting -- Data Presentation**

- Data Splits are Burdensome
- These are Critical to Data Users
  - Examples:
    - Loan Classifications
    - Deposit Ownership
    - Instrument Type
- Often Have Other Implications (Capital or Other Regulatory Impact)
  - Key Reason For Corporate Reporting Staff to Be Involved in New Product Development and Accounting Policy

# **Regulatory Reporting -- Materiality Issues**

- All Data Series Are Analyzed on an Aggregated Basis
- Changes in Data Are Often Driven By a Few Large Reporters
- The Review of Regulatory Reports Process Should Focus On the Entire Report and Not Just "Material Items"



**Current State – Challenges and Demands** 

Kenneth Lamar

# **Regulatory Reporting Environment**

- Has been:
  - Static
  - Incremental changes occurring over long periods of time
- Now
  - Increasing data demands
  - Implementation time quicker
- Demands results in staffing and IT resource challenge



# **Key Question**

- Strategic issues to consider:
  - What reference data will be needed?
  - How will risk and accounting systems be used as a source for data collections?
  - How will the global LEI affect financial and regulatory reporting?
  - How can data definitions be standardized more effectively?

# **Four Key Principles**

- The outcome of these issue make the long standing principles more applicable to maintain data quality:
  - Ensure high quality reference data
  - Place responsibility for data quality enterprise-wide
  - Emphasis on quality assurance as part of the data preparation process
  - Ensure enterprise-wide data infrastructures converges with business line infrastructures (when appropriate)



#### **Good Reference Data**

- Foundation of data reporting
- Source of the most frequent and material errors

# **Good Reference Data**

- Mitigants
  - Business lines need to understand the reference data definitions
  - One source for reference data should exist
  - A central reference data base should be seen as strategic investment and leverage across the firm
  - Reference data should be continually validated



#### **Data Quality Across Business Lines**

- Accountability is critical to insuring high quality data
- The firm's Accountability Policy should be:
  - Measurable and actionable
  - Enforceable at the business line level
- Dictated by the firm's culture and overall risk management framework
- Quality of training of the business line a key success criteria
  - Outlines reporting requirements, processes, and procedures
  - Tracking and re-certification key practice

# **Quality Assurance Process**

- Robust quality assurance process most accompany an effective data collection process
- Effective QA process starts with efficient compilation process
- Analytical tools a must
- Effective staff resources:
  - Numbers and skill level
  - Knowledge of product business lines
  - Professional skepticism
  - Documentation from the analysis important output for the firm
- Independent party review is an effective quality process
  - Internal audit, Quality Assurance unit or combination of both

# **Quality Assurance Process**

- Point of Origin
  - Reporting Errors Often Start at the Inception of Transactions
- Transaction Testing Effective In Uncovering Gaps:
  - Data Quality
  - Internal Controls

# **Quality Assurance Process**

- Report Reconciliation Key Control
  - FR Y 9C to Public Financial Statements
  - FR Y 9C to FR Y 14
- Documenting Differences and Analyzing Differences Over Time



#### **Data Infrastructure**

- Close alignment between business lines and enterprise wide data infrastructure:
  - Improves data quality
  - Increases data availability
  - Increases data standardization across the enterprise

# **Closing Thoughts**

- There are a lot of data initiatives occurring
- Collecting and validating is difficult and reaches all parts of the institution
- Data collection and quality improvements require both a tactical and strategic outlook over a multi-year time line.



# **High Quality Reference Data**

Patricia Selvaggi

# **Good Reference Data**

- Foundation of data reporting
  - Legal Entities
  - Product
  - Customer
- Source of the most frequent and material errors



# **Good Reference Data**

- Mitigants
  - A single source for reference data should exist
  - A central reference data base should be seen as strategic investment and leverage across the firm

# **Best Practices**

- General Ledger (G/L)
  - Account titles and definitions
  - Governance: New or closed G/L account approval process
  - Validation & Review
  - Not just a Finance Issue



# **General Ledger**

#### **Best Practices**

G/L accounts should contain clear titles, comprehensive account definitions and describe the nature of the account.

New G/L accounts should be in compliance with regulatory reporting instructions

- Correctly mapped on regulatory reports
- The account opening process should be well documented



# **General Ledger**

- G/L account titles and definitions
  - Unclear or misleading
  - Missing
- New G/L account review process



#### **General Ledger**

Example: G/L CHART OF ACCOUNTS

Cash and Due from Banks

Reserves with Federal Reserve Bank

Due from commercial banks in the U.S.

Due from banks in foreign countries

Deferred debits-DDA related

Securities

U.S. Treasury securities-HTM

U.S. Government sponsored agencies-AFS

MBS-Pass through securities: guaranteed by GNMA-trading

Deposits

Demand deposits-commercial banks in the U.S.

Demand deposits-IPC

**NOW** 

Stockholders' Equity

Common stock

Additional paid-in-capital (Surplus)

Retained earnings (Undivided profits)

# **General Ledger**

Example

G/L DESCRIPTION OF ACCOUNT

Section Assets

Account name/#: Deferred Debits-DDA related; 006-xxx Applicable to: Demand deposits in domestic offices

#### Description

Deferred debits represent **cash items** in Bank's possession **drawn on Bank's demand deposit** accounts which **cannot be charged** to the proper account on the day received. The item may have been **received late** or with **insufficient/inaccurate information** to determine the proper account. Although the work cannot be processed to the proper G/L account on the day received, it will be **recorded on the books of the Bank by the use of a holding account**. The **following day**, the item will be debited to the **customer's demand deposit account**.

#### **General Ledger**

Example

G/L DESCRIPTION OF ACCOUNT

Section Assets

Account name/#: Deferred Debits-DDA related; 006-xxx Applicable to: Demand deposits in domestic offices

**Accounting Entries** 

Debit: Deferred debits-DDA related 006-xxx

Credit: Various accounts

All deferred entries should be reversed on the following business day. Bank policy dictates items in deferred accounts may not be rolled over a fourth day. Any deferred item that cannot be processed to the proper account at the end of the third business day must be charged off as follows:

Debit: Difference and Fine-Debit, Account 466-xxx (Expense)

Credit: Deferred Debits-DDA related 006-xxx



Diane Iacopelli

# **Internal Control Guidelines**

- Definition
  - Methods and procedures to provide reasonable assurance for the accuracy of regulatory reports
- 2002 Sarbanes-Oxley Act, Section 404
  - Internal controls over financial reporting
- 2013 COSO Framework
  - Expanded to reflect changes and greater complexities of business.

Control Type Description

Preventive Policies and procedures to

prevent errors. Normally applied to individual transactions (customer information files, FX,

interest rate swaps, etc.)

Detective Policies and procedures designed to

detect and correct errors that might preclude the achievement of the relevant process. Generally **applied more broadly** (review and analysis

of regulatory reports).

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#### **Internal Control Guidelines**

- Control Principles
  - Review and Approval
  - Interpretation of Instructions
  - Regulatory Reporting Committee
  - Documentation and Reconciliation
  - Training Program
  - Accounting
  - Record Retention

- Review and Approval
  - Management review and approval of regulatory reports

As a result of an inadequate review and approval process, errors may be overlooked.

#### **Best Practice**

A review process of reports should be performed by senior level management to detect potential problems with data.



#### **Internal Control Guidelines**

- Interpretation of regulatory reporting instructions
  - Understanding of instructions
    - Relationship between regulatory reports and public financial statements

Limited understanding of regulatory reporting instructions and lack of reconciliation between reports/schedules result in inaccurate regulatory reports.

Interpretation of regulatory reporting instructions
 Best Practices

Review the report specifications for all regulatory reports and compare to regulatory reporting instructions to ensure specifications are in compliance with the instructions.

Obtain clarification of instructions in writing. Attend FRB seminars.



#### **Internal Control Guidelines**

- Regulatory Reporting Committee
  - Cross functional committee that includes regulatory reporting staff, controllers, internal audit, risk, compliance, finance, and operations (data providers)
  - Quarterly meeting to review regulatory reports, discuss issues identified during reconciliation and review of reports, and address changes needed to workflow.

#### **Best Practices**

A Regulatory Reporting Committee improves communication and management awareness of regulatory reporting issues.



- Documentation and Reconciliation
  - Procedure Manual

A lack of written or inaccurate procedures could result in inconsistent practices among employees and inaccurate and unreliable reports.

#### **Best Practices**

The procedure manual should include:

- (1) Procedures for <u>all</u> regulatory reports;
- (2) Adequate descriptions for all adjustments; and
- (3) Process to review new/complex banking products from regulatory reporting perspective.



#### **Internal Control Guidelines**

- Documentation and Reconciliation
  - Regulatory Reporting Policy Manual
    - Provides guidelines and overall framework to ensure uniformity and standardization

Inadequate policies could result in inconsistent practices leading to inaccurate regulatory reports.

- Documentation and Reconciliation
  - Reconciliation
    - Process to compare financial data to regulatory reporting to identify inconsistencies in reporting.

Lack of reconciliation procedures can result in data quality issues that go undetected and resulting in regulatory reporting errors.



# **Internal Control Guidelines**

- Training program
  - Regulatory reporting staff
  - Staff across functional areas responsible for providing regulatory reporting information

- Accounting
  - Accurate posting
  - Adequate account review and reconciliation

Inadequate controls result in misstated regulatory reports and inaccurate and unreliable financial records.

#### **Best Practices**

Employees are properly trained on performing accounting functions.

Automated accounting systems have adequate input and processing controls.



#### **Internal Control Guidelines**

- Record Retention
  - Comply with internal policies and procedures

Inadequate policies could result in inconsistent practices leading to inaccurate regulatory reports.

# **Data Integrity Issues**

- Data integrity issues
  - Inter-company (related party transactions)
  - Systems integration/interface issues
  - Reconciliations
  - Incorrect use of G/L accounts by business lines or cost centers

#### **Best Practice**

Management should ensure the integrity of information by enforcing accountability.



# **Internal Audit**

Diane Iacopelli

# **Internal Audit**

- Working with auditors is critical
  - Obtain valuable feedback
  - Improve controls



# **Internal Audit**

# **Improving Communication with Auditors**

- Communicate and coordinate with the Auditors
  - Appoint an Audit Coordinator:
    - Meet with the Audit Team
    - Compile the information requested
    - Discuss priorities with staff



# **Internal Audit**

#### Internal Audit Adds Value to Regulatory Reporting

- Ensure senior management is aware of reporting risks not covered by the audit plan
- Add value to regulatory reporting
  - Evaluate accuracy of reports by reducing the risk of misreporting (transaction testing)
  - Effectiveness of the controls over the reporting process



#### **Internal Audit**

#### Internal Audit Adds Value to Regulatory Reporting

- Continued education and training
- Maintain a dialogue with supervisors
- Follow-up on prior findings and recommendations

# **Internal Audit**

- "Management self-assessments" or "control self-assessments"
  - Internal Audit involvement
- Frequency of regulatory reporting audits



# Accountability

Henry Castillo

# **Objectives**

- Accountability
- Data Ownership
- Corrective Action



# Accountability

- Collaborate to achieve high quality reporting
- Create a culture of accountability
- Establish Accountability Policy, including enforcement and monitoring

# **Accountability**

- Firm-wide awareness and involvement in the reporting process
  - Regulatory Reporting
  - Accounting Policy
  - Operations
  - Information Technology
  - Business lines



# **Data Ownership**

 Individuals responsible for regulatory reporting data may not be well versed in regulatory reporting requirements

#### **Best Practice**

Regulatory reporting management should distribute roles and responsibilities to data owners.



# **Data Ownership**

- Individuals responsible for regulatory reporting data
  - Accountable for data integrity provided
  - Responsible for analyses



## **Corrective Action**

Incorrect reporting by businesses and data owners

#### **Best Practices**

Create an escalation process to identify and resolve issues in a timely manner.

Document all incorrect and inconsistent reporting.

Create an accountability model to enforce compliance with requirements.



# **Corrective Action**

- Establish a system to ensure accountability
  - Timeframe
  - Initiatives to resolve the problem
  - Short and long-term action plan(s)
  - Individual(s) responsible
  - Consequences
- Meet with senior management regularly



# **Quality Assurance**

Henry Castillo

# **Quality Assurance**

- The objectives of Quality Assurance (QA) processes include the validation and enhancement of regulatory reporting data integrity
  - QA effectiveness is directly linked with:
    - Technical and business skill sets of QA staff
    - Top-down corporate <u>and</u> business executive management understanding of, and commitment to, QA over the long term



#### **Quality Assurance**

- Comprehensiveness of QA review procedures scope/timing/granularity/end-to-end/cross-report impacts
- Reporting forums reports/committees/metrics
- QA organization reporting lines
- Governance and consequences to identified weaknesses/ability to enforce corrective actions
- Alignment/coordination of scope with Internal Audit, as appropriate

# **Quality Assurance Process**

#### **Best Practices**

QA staff are independent of corporate regulatory reporting management

QA staff are technically competent and possess business acumen

QA review procedures are standardized across processes and customized as necessary

Appropriate reporting mechanisms are in place to enforce fixes to identified errors and weaknesses



Break

# Data Infrastructure

Anthony Guglielmo

# **Objectives**

- Information system controls
- Data collection process
- Systems' interface and legacy systems
- Data integrity
- Manual adjustments
- Early detection system
- Systems overview
- Transaction Level Data Base (Data Warehouse)
- Systems overview
- Challenges

# **Information System Controls**

- General Control Systems (e.g., regulatory reporting, G/L) are appropriately implemented, maintained and operated and only authorized changes are made to the system
- Application Control Specific application control, ensures that transactions are recorded and are processed completely, accurately and timely



# **Information System Controls**

- Staff should have an adequate knowledge of regulatory reporting systems or software
- Backup or succession plan should be in place for key personnel
- New specifications or new systems should be formally reviewed, tested and comply with new requirements and controls



# **Information System Controls**

- New software or database package should meet all reporting requirements
- The software package should include adequate security and control features and it should be on the network with restricted access



# **Data Collection Process**

- Establish a standardized data collection process with sufficient quality controls and accountability for data
- A process lacking standardization with high level of manual intervention is susceptible to significant errors.

# **Data Collection Process**

#### **Best Practices**

- Automate and stream-line the process
- Set and enforce regulatory reporting standards
- Establish a process to monitor the accuracy of information submitted for regulatory report
- Implement controls over the reporting process



#### **Data Collection Process**

 Granularity of information required for regulatory reporting is not always available

#### **Best Practices**

Design a system/process where sufficient level of detail is available

Design a system with an option to accommodate future changes (Sustainability & Flexibility)



#### **Manual Collection Process**

 The information necessary to prepare regulatory reports is collected manually

#### **Best Practice**

Establish sufficient internal controls to compensate for the weaknesses inherent in the manual data collection processes



# **Manual Adjustments**

 Adjustments applied to the system generated information must contain sufficient details concerning the nature of the adjustment

- Review adjustments to determine the cost-benefit of automating adjustments
- Develop a centralized facility to streamline, review and control manual aspects of the reporting process with a direct feed to the Reporting Application

# **Systems Interface**

- Inadequate systems interface (e.g., G/L, subsystems and regulatory reporting system)
- Multiple systems to capture the same information increases processing time, maintenance and support

#### **Best Practices**

- Consistent reporting of financial products from a single source or few sources
- Reduce month-end closing period and eliminate or minimize reconciliation among systems

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## **Data Integrity**

- Implement sufficient controls to ensure information captured by subsystems is accurate
- Review subsystems and identify and resolve any programming issues
- Ensure the integrity of the information housed by subsystems prior to pursuing an automated solution
- Develop mechanism to maintain integrity of the system (periodic review, training and support)

# **Data Integrity**

 Coding of Customer Information Files (CIFs) and general report mappings

#### **Best Practices**

- Review the accuracy of data and identify discrepancies in coding on a regular basis.
- Improve methodology for coding of new customers/financial products



# **Data Integrity**

- Incorrect assignment of risk characteristics
  - Market Risk
  - Credit
  - Domicile
- Incorrect assignment of loan classification
- Incorrect data elements or reference data in sub-ledger systems



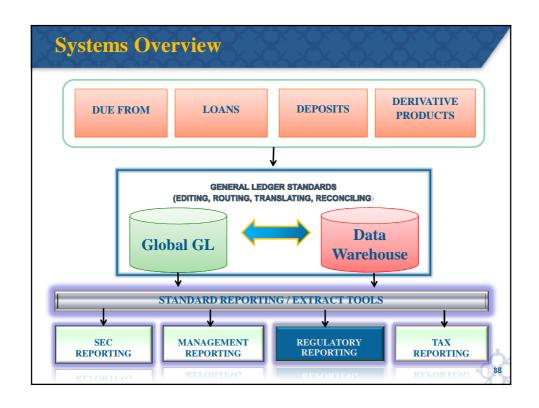
# **Early Detection System**

Analysis can detect potential issues with reporting

#### **Best Practice**

Implement an early detection system for a business related analysis and detection of potential errors and inconsistencies





#### **Transaction Level Data Base**

- Consolidated source for bank's subsystems
- Allows the firm to move from a manual to an automated process
- Required data are centrally stored
- Drill-down capability
- Granular information can be easily extracted



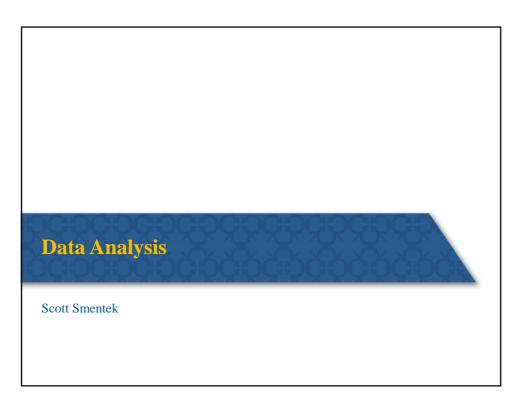
#### **Controlled and Unconsolidated Entities**

- Challenges in reporting controlled and unconsolidated entities meeting filing requirements for nonbank legal entity reporting
- Although entities are controlled based on the Regulation Y definition, the ability to influence timely reporting is a challenge

#### **Best Practice**

Develop a single reporting platform, including incorporating firm's general ledger chart of accounts for non-consolidated controlled nonbank entities





# **Data Collections Post-Crisis**

- "Since the financial crisis and the passage of the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act), supervisory policies for the largest firms have become increasingly more data-driven, horizontal, and centrally coordinated."
  - Governor Daniel K. Tarullo<sup>(1)</sup>

# **Data Collection Refinements**

■ "Considerable work is needed, first, to develop better data on assets under management, liquidity, and leverage, in order to fill the information gaps that have concerned so many academics and policy analysts." – Governor Daniel K. Tarullo<sup>(1)</sup>

 January 30, 2015 At the Office of Financial Research and Financial Stability Oversight Council's 4th Annual Conference on Evaluating Macroprudential Tools: Complementarities and Conflicts, Arlington, Virginia



# **Common Data Challenges for Reporters**

- Aligning Data Across Different Business Lines
- Maintaining Data Quality in an Evolving Regulatory Landscape
- Addressing Different Accounting and Valuation Requirements



# **Common Data Challenges for Reporters**

- Legal Entity Reporting
  - Regulatory reporting are based on legal entities
  - This may differ from internal business line controls and measurement
  - The greater the complexity of an institution, the greater the difficulty in reporting by legal entity
  - Availability of reporting details for material legal entities versus smaller entities



# **Common Data Challenges for Reporters**

- Evolving regulatory reporting landscape
  - Flexibility to adapt to changes
  - Data elements at varying levels of detail across report forms
  - Domestic requirements and international requirements



### Common Data Challenges for Reporters – Data Elements Across Reports

- Securities
  - FR Y-9C: Broad categories of AFS/HTM securities [Schedule HC-B]
  - FR Y-14-Q: Securities at CUSIP-level [securities 1 template], as well as broad categories of AFS/HTM securities [securities 2 template]
  - FR 2052B: Investment securities categorized by type and risk weight
  - FR 2052A: Securities categorized by HQLA/non-HQLA by risk weight in some instances and by type in more granularity than 2052B
  - TIC: Different securities classes
  - SHC(A): Security by Security detail, with information of CUSIP, type of holder, type of issuer, type of owner, type of securities, maturity, price information, currency denomination, fair value, security description, # of shares held

# **Common Data Challenges for Reporters**

- Data Splits
  - Critical to Data Users and ensuring comparability and measurement
  - Burdensome



# **Common Data Challenges for Reporters**

- Consolidation rules are driven by the use of the data
  - Monetary Policy reports focus on U.S. offices
  - Reports that cover broad market risk or banking are consolidated globally



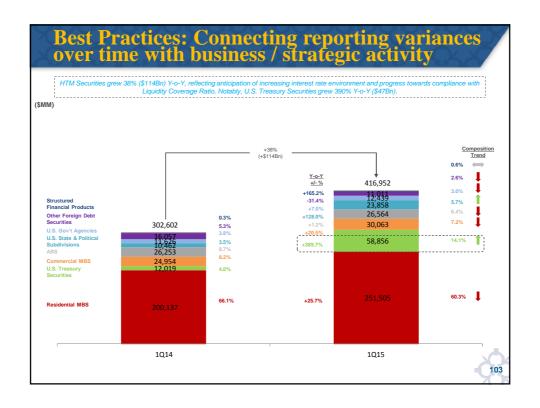
- Data should be thoroughly reviewed by regulatory management and business lines before submission
- Include ability to conduct analysis in regulatory reporting systems
- Recognize importance of structure reporting as foundation for regulatory reporting – data determines who should file what reports

#### **Best Practices**

- Reconciliation
  - Differences among reports should be analyzed, explained, and clearly documented – differences should be analyzed over time
    - Regulatory Reports
    - External Reports (SEC, GAAP, IFRS)
    - "Like" data collected internally
  - Policies and account and product descriptions should be clear and readily available to preparers



- Reasonableness
  - Ensure data reflect current business activity
    - Mergers, Acquisitions or Sales
    - Earnings Announcements / Accounting Changes
  - Document drivers of unusual or significant changes or trends
  - Analyze data at the legal entity and business level
  - Anticipate questions in advance
  - Connecting reporting variances over time with business / strategic activity



- Review how data are collected periodically
  - Data are only as good as their source
  - Leverage business solutions for regulatory reporting

#### **Best Practices**

- Ensure regulatory reporting implications are clear to business lines
  - Business areas understand regulatory reporting requirements
  - Open communication and partnership with business lines, accounting policy, audit, and regulatory reporting area
  - Business involvement in regulatory reporting data quality



- Communicate (Ask & Learn)
  - Ensure open communication lines with regulators
  - Stay apprised on accounting and regulatory changes
  - Document complex issues and regulatory reporting of new/complex products
  - Explain notable reporting changes

# Questions & Answers