Regulatory reporting
Evolution of maturity at banking institutions
Preparing high-quality regulatory reports that meet the needs and expectations of regulators has been a long-standing challenge for banking organizations. From the regulators’ perspectives, the data necessary to meet regulatory requirements are foundational to monitoring firms’ safety and soundness and are critical to developing and implementing sound public policy, including providing input to ongoing supervisory monitoring. Without consistent, fit-for-purpose data, these objectives likely cannot be met. Yet data integrity problems continue to exist at many banking organizations. The larger, more diverse, and more complex an organization, the greater the challenge to meet accuracy, timeliness, and completeness standards over sustained periods. These challenges often emanate from changes to a business’ operating model, service delivery across jurisdictions, interpretative changes due to turnover, and systems changes.

Overall, root causes that contribute to not meeting data requirements and regulatory expectations commonly reflect issues in the following areas:

- A governance structure that enforces accountability, measures data quality, mitigates reporting and operational risks, and allocates resources to address data and financial reporting challenges
- Firm-wide data programs that include policies for creating and maintaining standard data and account definitions, including integrated accounting, risk, and data repositories
- Firm-wide data integrity and quality assurance programs
- End-to-end change programs that identify optimal impact across business, finance, risk, operations systems, and processes

Historically, the remediation of regulatory reporting weaknesses has focused on tactical fixes and does not typically reflect addressing root causes, often since they would involve multi-year transformation. Many of the original plans were to replace the tactical with long-term strategic solutions. Unfortunately, over time, the focus on the strategic solutions often waned because of cost constraints or competing priorities. Further, sponsors could not appropriately build long-term business cases for these strategic solutions. The result was that tactical approaches became the solution. These processes—often manual—were inefficient, created significant risk and data quality issues, and in the long run were inadequate.

The financial crisis highlighted the weakness of data programs at financial institutions. Data problems became more acute as more complex, frequent, granular data requirements were mandated. The outputs from these data collections created binding constraints on banking institutions, without recognition of critical data elements and end-to-end regulatory change management.

At the same time, regulators’ expectations for data significantly increased. The regulatory pressure for high-quality data resulted in a new requirement for a CFO attestation of the quality and internal controls for the capital planning data collections (i.e., the FR Y-14 series).1 The collective consequence of these events has been the creation of an environment where data integrity and enterprise data management are now institutional imperatives.

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1. The FR Y-14 series includes an annual, monthly, and quarterly set of schedules that are required under the grouping of “Capital Assessments and Stress Testing.” Additional information is available on the Federal Reserve’s website at [https://www.federalreserve.gov/apps/reportforms/default.aspx](https://www.federalreserve.gov/apps/reportforms/default.aspx).
Target-state regulatory environment

Recognizing the strategic impact and long-term efficiency gains, banking institutions began to take a transformative approach to managing data, implementing formal data quality programs, and increasing controls across regulatory reporting. In terms of maturity, the objectives of most firms have been to reach an “optimized” regulatory reporting environment where:

- There is a firm-wide regulatory reporting framework overseen by senior management and managed in partnership by finance and risk, and business lines.
- There is an end-to-end data governance framework where data is managed centrally, which includes setting standards for storing data, defining data definitions, measuring data quality, enforcing data standards, and testing data.
- There is a regulatory data architecture and strategy infrastructure that is highly automated where material manual processes addressed within a standard time period that is integrated with internal data architecture.
- There is a firm-wide change management framework that identifies reporting requirements related to regulators’ policy initiatives, new products, or institutional policy changes.

The maturity of regulatory reporting is following a cultural shift where data and reporting are firm-wide activities. The diagram below is our view of looking at key components through a maturity model lens.
The banking industry’s journey toward an optimized environment is underway. The first step of this transformative journey is cultural change and disciplined end-to-end change management that aligns to a strategic architecture and regulatory data strategy. That is, acceptance that regulatory and financial reporting is an enterprise-wide activity, with accountability by senior management business lines and corporate functions such as finance, operations, and risk. This differs from the traditional approach where source data was managed in siloes in each business line. Business lines held data as their own, defined and designed for their own purposes. Corporate finance (where regulatory reporting functions were typically reporting from an organizational standpoint) would request reportable data and owned the process for compiling the data. The result of this approach is:

- A limited understanding of data needs,
- Low awareness of the institutional impact of data,
- Ineffective accountability for data integrity, and
- Lack of integration in finance and risk architectures and hierarchies built.

The banking industry has made progress in bringing real accountability to the business lines and data owners across the organization. Today, governance of regulatory reporting is generally positioned between a level of “foundational controls” and “moderate.” Firms with a foundational controls environment have a well-defined regulatory reporting frame, with an inventory of data owners and accountability that is defined for all aspects of the data life cycle. Some firms have reached a moderate reporting environment where the institution has an end-to-end regulatory framework, where roles and responsibilities are defined across the report production process. These firms also have accountability policies where effective actions are taken when the policy is breached. To achieve an optimized state, firms should implement a governance structure that brings:

- Active oversight of firm-wide data to the executive level
- Partnership in business lines and corporate finance functions in managing the data life cycle

### Reporting dimensions

- Accuracy
- Completeness
- Integrity and quality
- Timelines

### Cross functional stakeholders

- Finance and risk
- Operations and technology
- Legal/compliance
- Lines of business
Infrastructure and technology investments

Strategic transformation of data and reporting infrastructure are high investments that have long runways. The level of effort needed ranges from three to five years. The scale and cost of infrastructure investment is driven by the size and complexity of each firm, taking into account legacy of system integration, history of mergers and acquisitions, and technology changes and implementation of “regulatory reporting software” compared to other automation capabilities. That is, it is costlier and takes longer for a universal firm to migrate to a strategic platform than a mono-line firm. Firms that have legacy systems from mergers and acquisitions will have more challenges than those that have less complex business/product/legal entities and combined operating models.

Many institutions are in the process of planning strategic investments in source systems and firm-wide data solutions (e.g., data lakes and data warehouses). Since most firms’ implementations of these solutions are not complete—or in some cases not started—the industry is at a foundational execution level. That is, the data acquired from each business line’s source systems and process are built (often manually) to transform these data to the definitions and formats to meet regulatory requirements. Some institutions have moved to an infrastructure where their data is stored in a central repository. Institutions continue to source data based on the specifications for each data collection. And while firms are adopting holistic strategies, well-controlled tactical solutions are needed to meet the appropriate level of quality.

A key obstacle for many firms is understanding data sources and transformation of data before it enters the report preparation process. Based upon our industry interactions, we view the banking industry as still struggling with maintaining end-to-end lineage. Without knowing where all of the source data resides and where data transformation occurs, it is impossible to effectively integrate all of the needed data sources or assess the risk of material misstatement of reported data.

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**Transactional data and systems**

- Data source 1
- Data source 2
- Data source 3
- Data source 4

**Data aggregation**

- Customer data
- Risk data
- Finance and treasury data
- General ledger
- Counterparty

**Processing and calculations**

- Stress testing
- Risk data aggregators
- Regulatory reporting
- SEC reporting

**Output and reporting**

- FRY-14A/Q/M
- FFIEC 101, FR Y-9C
- FFIEC 101
- 10K/Q
Data quality and assurance programs

Data quality programs have significant variation across banking organizations and internally within firms. At many firms, substantial strides have been made in implementing transaction testing programs and designing FR Y 14 attestation processes. At many institutions, the coordination of these programs has not been adopted firm-wide. However, transaction testing is only a component of an effective data quality program and broader assurance program.

Most of the data quality work is conducted at the corporate level with minimum quality assurance conducted by business lines. Also, data quality-checking is mostly organic without well-defined methodologies or standard frequencies. A firm reaching an optimized level should have a holistic data quality program that occurs at business lines and corporate. An effective program is typically built on four components:

- Reconciliations
- Transactions testing
- Qualitative business rules
- Quantitative analysis

Until firms build these four components and integrate these activities with accountability policies and risk assessment, they will likely remain at the foundational level.
Change management: A critical activity

The complexity and rate of change to regulatory reporting makes change management a critical competency for regulatory and financial reporting organizations. Many firms are operating at the foundational control level by having corporate responsible for monitoring revisions and proposals for reporting requirements. These regulatory change processes are also not typically end-to-end and are not linked from proposal, to comment stage, to final requirements and then working through interpretative issues with regulators.

End-to-end regulatory change management for regulatory reporting should be linked across government affairs, regulatory policy, and legal, compliance, and regulatory reporting functions. Regulatory change processes should evaluate changes across regulatory agencies and legal entities, including financial, risk, product/transaction, and market information.

Optimized organizations place the responsibilities for these activities firm-wide. Corporate and business lines are charged with monitoring, addressing, and communicating the impact of changes on reporting responsibilities. This extends beyond the regulatory reporting requirements to regulatory rules and policies that are interpreted into business rules in automation and procedures. In addition to external factors, internal activities from new product development, system implementation, changes to the legal entity structure, and internal policy changes must be incorporated into the change management process.
Human capital: Key to transformation

Without highly-skilled staff, many firms are unlikely to achieve an optimized regulatory organization. Typically, banking institutions have realized that the skillsets historically used to prepare regulatory reports are no longer enough to have an effective regulatory reporting function. Buying these skills is not a realistic option since the high demand for skilled people in this area has led to a shortage of highly competent resources. This presents opportunities for developing robust training programs, as well as creative retention tactics of key regulatory reporting personnel. In short, building data and regulatory reporting teams will take time and commitment from all stakeholders.

Many firms have achieved a foundational control level, changing their staffing model to have a mixture of business acumen and subject-matter expertise. Effective training programs are seen by regulators as a key control and an important component of effective accountability policies. Therefore, training has become an imperative in order to build the skills of business lines and corporate staff. Many firms are in the midst of developing training that provides ongoing training to staff that touch the regulatory reporting process. To reach an optimized environment, information sharing between business lines and corporate must be developed through formal programs. Additionally, clear career paths should be developed for corporate regulatory reporting staff.
The journey will continue

The last several years have seen considerable progress in advancing the regulatory function. Achieving further progress requires continued commitment to data management and improved data reporting processes. It also requires operating with a framework that is aligned to business strategy and is fit-for-purpose.
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