RJL SOLUTIONS

FIELD GUIDE / REGULATORY REPORTING

Regulatory Reporting with Governed Context

From approved meaning to a Call Report line a reviewer can trace, with a fictional bank as the worked example.

MEANING · METRICS · EVIDENCE

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IN BRIEF

Regulatory Reporting with Governed Context

A line on a regulatory report looks like one number, but it rests on decisions about which loans count, what each source code means, which balance and period are used and whether the period is final. This field guide shows how to make those decisions once, with named owners, before an AI assistant helps prepare or explain a report. It works through a fictional bank whose data feed FFIEC 041 and FR Y-9C lines: each line keyed by its MDRM code, meaning approved before the number is computed, metrics compiled to fixed SQL, preliminary and final values never combined, edit checks that cite their sources, and a sealed record of every call. Each section says what RJL's working implementation does today.

WHO IT'S FOR	Heads of regulatory reporting, finance and data leaders at US banks, and the architects who support them.
YOU'LL BE ABLE TO	Key every line by its MDRM code, decide what each source code means before anyone asks, keep the arithmetic out of the model, label every value with its period and status, and give a reviewer the evidence behind a reported figure.
SHORT ON TIME?	Read sections 01 and 03, then section 10, the readiness checklist.

The full paper follows.

01 / THE ANSWER FIRST

A reported number is a chain of decisions.

A line on a regulatory report looks like one number. Behind it sit several decisions: which loans count, what each code in the source system means, which balance is used, which period it belongs to and whether that period is final. When an AI assistant helps prepare or explain the report, each of those decisions has to be made by an accountable person before the question is asked, and the answer has to show which ones it used.

Three findings

- The meaning has to be approved before the number is computed. A model should never decide what an accrual flag means or which loans a line includes.
- The arithmetic belongs in fixed, versioned metrics, not in the model. The same question then gives the same figure on every run.
- Evidence is part of the answer. A reviewer should be able to trace a reported figure back to the source column, the approved definition and the policy decision that allowed the call.

I wrote this for heads of regulatory reporting, finance and data leaders at US banks, and the architects who support them. It uses RJL's own working implementation as the worked example: a fictional mid-size bank whose loan and deposit data feed lines of the FFIEC 041 Call Report and the FR Y-9C.

SCOPE This paper describes a method and a reference implementation on fictional data. It is not legal or regulatory advice, it does not describe a client deployment, and nothing in it files a report. Check every reporting requirement against the current official instructions.

02 / THE REPORTS

Two reports, one catalogue of item codes.

The worked example uses two US reports. Which one an institution files, and how often, is set by the official instructions, not by this paper.

REPORT	WHAT IT IS	WHO FILES, AS THE CITED SOURCE SUMMARIZES IT	FREQUENCY
FFIEC 041	Call Report for banks with domestic offices only	Generally, banks with domestic offices only and total consolidated assets from $5 billion to under $100 billion [1]	Quarterly
FR Y-9C	Consolidated financial statements for holding companies	Top-tier holding companies with total consolidated assets of $3 billion or more [2]	Quarterly

Item codes come from the MDRM

The Federal Reserve's Micro Data Reference Manual (MDRM) catalogues the items collected on Federal Reserve and FFIEC reports [3]. Each item has a code: a four-letter mnemonic and a four-digit item number. RCON2122 and BHCK2122 share the item number 2122 and appear on the Call Report and the FR Y-9C respectively [5]. Using the MDRM code as the key for each line, rather than a caption someone retyped, gives every system the same identifier for the same item.

RJL's engine bundles an MDRM snapshot with its notice. Ontology Studio carries the same download of 12 November 2026: 22,432 active line items on 28 Federal Reserve and FFIEC reports, each with its code, a cleaned definition, its item type and the other reports that use the same item number [4].

RULE Key every reported line by its MDRM code, and keep the code, the caption and the definition you used with each value you report.

03 / THE WORKED EXAMPLE

A fictional bank, nine lines and one approved metric each.

The fictional bank keeps loans in a legacy core banking system, deposits in a separate export and customers in a third file. Each report line is fed by exactly one approved metric. The report date in the example is 30 September 2026.

FFIEC 041	FR Y-9C	APPROVED METRIC	DEFINITION
RCON2122	BHCK2122	total_loans	Total loans held for investment at current balance
RCON1766	BHCK1766	ci_loans	Commercial and industrial loans at current balance
RCON5367	BHDM5367	residential_first_lien	Closed-end loans secured by 1-4 family residential property, first liens
RCON1797	BHDM1797	home_equity_lines	Revolving open-end loans secured by 1-4 family residential property
RCON1406	BHCK1406	past_due_30_89	Loans past due 30 to 89 days and still accruing
RCON1407	BHCK1407	past_due_90_plus_accruing	Loans past due 90 days or more and still accruing
RCON1403	BHCK1403	nonaccrual_loans	Loans on nonaccrual status
RCON2200		total_deposits	Total deposits at ledger balance
	BHDM6631	noninterest_bearing_deposits	Deposits that pay no interest

Call Report amounts are reported in thousands of dollars [1], so the report converts each metric's value once, in one place. The fictional bank's total loans are $32,288,000,000; RCON2122 carries 32,288,000.

IN RJL'S WORKING IMPLEMENTATION: LIVE. MDRM-CODED FFIEC 041 AND FR Y-9C LINES FED BY APPROVED METRICS, SERVED THROUGH A GOVERNED REGULATORY_REPORT TOOL.

04 / MEANING BEFORE THE NUMBER

Decide what each code means before anyone asks.

Most reporting errors I have seen start with meaning, not arithmetic. A source system holds a flag, a product code or a status, and somebody has to decide what it means for the report. Make that decision once, with an owner, and make the system refuse to guess.

ONE REPORTED NUMBER, TRACED FROM SOURCE TO LINE

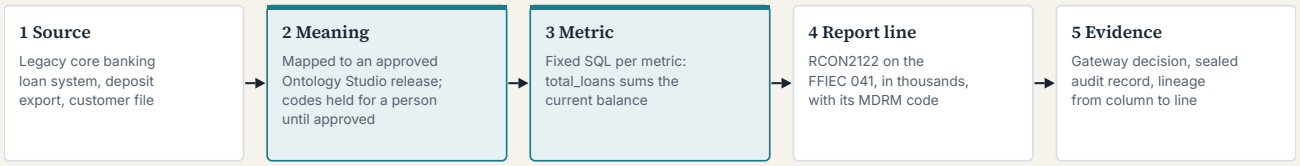


Exhibit: one reported number, from the source to the report line. The meaning and the metric are where a person approves; everything after them is computed and recorded.

What the example does

- Source fields are mapped to an approved business model from an Ontology Studio release. Ambiguous codes are held for a person, and the build refuses until every mapping is approved.
- The accrual flag is a governed code list: in the fictional bank, N means nonaccrual. Asked "What does the accrual flag N mean?", the assistant answers from the approved meaning or the procedure document, and says when it cannot find either.
- Each metric has a named owner: the regulatory reporting owner for loan balances, the credit risk reporting owner for delinquency and nonaccrual, the treasury reporting owner for deposits.
- A term that is only proposed, such as net charge-offs in the example, is refused at resolution. It cannot feed a line until it is approved.

IN RJL'S WORKING IMPLEMENTATION: LIVE FOR APPROVED MEANING FROM AN ONTOLOGY STUDIO RELEASE AND REFUSAL OF PROPOSED TERMS.

05 / FIXED METRICS

Let the model ask for the number, never compute it.

Every metric in the example compiles to fixed SQL in a semantic layer that is versioned apart from the ontology. The model calls a typed tool with a metric name. It never writes SQL, and free-text SQL is refused at the gateway.

METRIC	HOW IT IS COUNTED
total_loans	Sum of current balance over all loans held for investment
past_due_30_89	Sum of current balance where days past due are 30 to 89 and the loan is accruing
past_due_90_plus_accruing	Sum of current balance where days past due are 90 or more and the loan is accruing
nonaccrual_loans	Sum of current balance where the accrual status is nonaccrual

Definitions change; keep their history

Definitions carry versions with effective dates. In the example, nonaccrual_loans had an earlier version that excluded loans restructured in the quarter, effective to 30 June 2026, and the current version from 1 July 2026. The history is a demonstration record, but the pattern matters: a figure for a past quarter should be explained with the definition in force for that quarter.

RULE A figure that will be reported comes from a named, versioned metric. If the model computes it, it isn't ready to report.

IN RJL'S WORKING IMPLEMENTATION: LIVE FOR THE SEMANTIC LAYER AND TYPED TOOLS. AS-OF ANSWERS FOR A PAST FILING DATE ARE BUILT AND WAIT FOR A REVIEWER SIGN-OFF.

06 / PERIOD STATUS

Never add a preliminary number to a final one.

Reporting periods have a status. In the example, the first quarter of 2026 is restated, the second is final and the third is preliminary until the reporting sign-off. A question that spans quarters can easily mix them.

PERIOD	STATUS	WHAT THE ASSISTANT DOES
2026 Q1	Restated	Returns the restated value, labelled restated
2026 Q2	Final	Returns the final value, labelled final
2026 Q3	Preliminary	Returns the current build, labelled preliminary, before sign-off
Q1 to Q3 together	Mixed	Shows each value with its period and status, and withholds any total

Values with different statuses are never combined. Depending on the use case, a call that mixes them is either labelled, with each value shown separately and no total, or refused.

IN RJL'S WORKING IMPLEMENTATION: LIVE IN THE BANKING USE CASE.

07 / EDIT CHECKS

Run the checks a filer runs, and say where each came from.

Filers run validity and consistency checks before they submit. The example carries two kinds, each bound to the approved meaning it reads.

CHECK	EXAMPLE
Report edits	Loans by type do not exceed total loans: RCON1766 + RCON5367 + RCON1797 is not above RCON2122. Delinquency does not exceed total loans: RCON1406 + RCON1407 + RCON1403 is not above RCON2122. The same pair runs on the FR Y-9C codes
Validity checks	Amounts are not negative; commercial and industrial loans are not above total loans; deposits equal noninterest-bearing plus interest-bearing
Intra-series checks	A change against the last final quarter above 25 or 50 percent is flagged. The thresholds are illustrative

Cite the source, and say whether it was verified

Each check names its source and a verification status. In RJL's implementation only the bundled MDRM snapshot and the pack's own metrics are confirmed as primary sources; the published FFIEC and Federal Reserve edit documents are listed as not yet verified. That is the honest state, and it belongs on the check, where a reviewer sees it.

IN RJL'S WORKING IMPLEMENTATION: BUILT. EDIT CHECKS RUN AT PACKAGING AND ARE NOT YET SERVED WITH THE REPORT; REGULATORY RULES ARE BOUND TO MEANING IN WARN MODE.

08 / ACCESS AND EVIDENCE

Decide every call before the read, and keep the record.

A reporting assistant reads sensitive figures. Each call goes through a governed gateway that decides it against the person's role, the tool, the purpose and the metric before anything is read.

CONTROL	IN THE EXAMPLE
Role and purpose	A regulatory reporter asks under the regulatory reporting purpose; the product lists its allowed purposes and excludes credit decisions, marketing and model training
Typed tools	regulatory_report, query_metric and resolve_term take named arguments; no free-text SQL
Audit	Every call is sealed in a keyed hash chain before the answer returns; if the record cannot be written, the call fails
Lineage	Element-level lineage runs from the source column to the product and the report line, and answers cite it
Replay	Any audited call can be replayed for a reviewer

Ask "What is total loans?" and the answer gives the figure, the metric and its definition, the release of the meaning it used, the period and its status, and a reference to the audit record.

IN RJL'S WORKING IMPLEMENTATION: LIVE FOR THE GATEWAY DECISION, THE SEALED AUDIT, LINEAGE AND REPLAY. ROW-LEVEL RULES AND DELEGATED IDENTITY PER ANSWER ARE BUILT AND RUN IN WARN MODE.

09 / MAPPING YOUR TERMS

Map your business terms to what regulators ask for.

Before a bank can feed a line from an approved metric, it has to agree which of its own terms the line corresponds to. Start from the regulator’s catalogue rather than from a blank page.

- Ontology Studio’s industry models browser lists the MDRM report items alongside FIBO and gist. Each report shows who files and how often, summarized from a cited public source.
- Imported items are always proposals. Your owners decide which apply and how your business uses them, and approve them into a release.
- The approved release is what the engine loads. A changed definition reaches the report only through a new, reviewed release.

NOT LEGAL ADVICE The who-files summaries are a starting point tied to their sources. Confirm your obligations against the current instructions with your compliance function.

IN RJL’S WORKING IMPLEMENTATION: BUILT. THE MDRM BROWSER AND PROPOSAL IMPORT ARE IN ONTOLOGY STUDIO; APPROVALS RECORD A REVIEWER NAME THE USER ENTERS.

What to have before an assistant touches a report.

Use this before a reporting assistant goes beyond a sandbox. Each row is something a reviewer can inspect.

REQUIREMENT	EVIDENCE
Lines keyed by MDRM code	Each line names its code, caption source and metric
Approved meaning	Every source code mapped and approved; ambiguous codes held, not guessed
Fixed metrics	Each figure from a named, versioned metric; no model arithmetic
Period status	Every value labelled with period and status; mixed statuses never totalled
Edit checks	Each check bound to the meaning it reads, with its source and verification status
Access	Role and purpose decided at the gateway before any read; negative tests pass
Evidence	Sealed audit record, lineage from column to line, and a replay of one allowed and one denied call
Ownership	A named owner per metric, and a person who signs off the report

In RJL's implementation the reporting product sits in a managed sandbox. It is not certified, because certification needs a run kit rehearsal by people who did not build it. That is the right state for a demonstration, and the right test for a real one.

RULE An assistant can prepare, explain and check. A person signs the report.

Sources and notes.

Prepared by Richard White. Version 1.0, 20 November 2026. Product statements come from RJL's product records of 20 November 2026 and use their status words: Live where a live check is recorded, Built where it is not yet. The bank, its data and its figures are fictional. Regulatory facts come from the public sources below; who-files summaries are as the cited source states them. Nothing here is legal or regulatory advice.

[1] FFIEC Consolidated Reports of Condition and Income (Call Report) forms FFIEC 031, 041 and 051: information collection documents, OMB reference 202609-7100-003. omb.report

[2] Board of Governors of the Federal Reserve System, Reporting forms: FR Y-9C, Consolidated Financial Statements for Holding Companies. federalreserve.gov

[3] Board of Governors of the Federal Reserve System, Micro Data Reference Manual (MDRM). federalreserve.gov

[4] Board of Governors of the Federal Reserve System, MDRM download (snapshot used by RJL: 12 November 2026). federalreserve.gov

[5] MDRM data dictionary, item RCON2122. federalreserve.gov

See what runs, feature by feature, at rjlsol.com/reference-implementation.

ABOUT

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I was Global Chief Data Officer at McKinsey & Company, where I led the firm's internal data and AI function and built capabilities such as its data products. Before that I was chief data officer at New York Life, where I built the chief data office and reported data risk to risk committees at multiple levels. Earlier I led data at the Federal Reserve Bank of New York and enterprise data governance at Citigroup. I founded RJL Solutions in 2024. My book, *The Day After the Demo*, is free at rjlsol.com/book.

RJL Solutions connects strategy, architecture, engineering, governance and operation through Frame, Prove, Build, then Operate and transfer. Each phase is separately scoped and priced in a written proposal before you commit. The first conversation is free.

MEANING **Ontology or Semantic Layer?**
What each one tells an AI, and which to build first.

CONTEXT **Context Before Query**
Approved meaning before the call, policy at the data.

EVIDENCE **AI Governance Evidence**
What US bank and insurance reviewers inspect.

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This paper describes no client engagement and no client result. The bank and its figures are fictional. Nothing here is legal or regulatory advice; confirm reporting obligations against the current official instructions.