Regulatory Compliance and Insight in One Solution

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INTRODUCTION

What do ALL of these have in common?

- Eurozone Conversion 1999
- Y2K Date Problem 1997-2000
- Financial Regulation Crisis 2007

OPPORTUNITY?  THREAT?
INTRODUCTION

Regulatory Insight vs Business Insight

- Cross functional aggregation
- Alien data models
- Hard dates for delivery
- Very visible failure

POOR CROSS FUNCTIONAL OVERSIGHT

COMPLETE, ACCURATE, TIMELY CROSS FUNCTIONAL VIEW
Immediate Challenge

Evolving Regulatory Demands
IMMEDIATE CHALLENGE

Reporting Landscape

Basal III

Commodity Futures Trading Commission
Securities Equities Commission

European Securities & Markets Authority

Local Competent Authorities

FRTB

DODD FRANK

CCAR

MiFID II

EMIR

BCBS 239
IMMEDIATE CHALLENGE

Oversight Evolution

BCBS 239

FRTB

WHAT

WHAT & HOW & MORE
IMMEDIATE CHALLENGE

Market Risk Capital Charge

Strengthen Risk Evaluation

INTERNAL MODEL APPROACH

- Default Risk Charge
- Stressed Capital Charge
- Requires Back Testing
- Requires P&L Attribution
- Per Desk Supervisor Approval

NEW! EXPOSED SHORTFALL CHARGE

- Scalable Liquidity Horizon

STANDARD APPROACH

- Default Risk Charge
- Residual Risk Charge

NEW! SENSITIVITY CHARGE

- Mapping of Regulatory Risk Factors
IMMEDIATE CHALLENGE

Blue Pill vs Red Pill

Strengthens Risk Evaluation

INTERNAL MODEL APPROACH

-3% Capital Charge

STANDARD APPROACH

+80% Capital Charge?

FAIL
IMMEDIATE CHALLENGE

Data Demands

- Verifiable pricing data
- Increased pricing observation
- Less data at rest
- Wider functional aggregation
- Granular data exposure
- Increased data diversity
- Variable eligibility demands
- Model supply chain

INTERNAL MODEL APPROACH

-3% Capital Charge
Is this one of ‘those’ items?

Firms can deal with data by investing heavily now to realise the long term-term benefits, or by using ever-bigger “sticking plasters”.

The ultimate winners will be firms that bite this bullet soon.

- Deloitte
The Sticking Plaster

IMMEDIATE CHALLENGE

DEPARTMENTS

- UNIQUE DATA MODELS FOR DIFFERENT DEPARTMENTS
- DECREASED MODEL FLEXIBILITY
- INCREASED CHANGE CONTROL

BUSINESS VIEW

- KNOWN DATA AGGREGATION ONLY
- LOST BUSINESS AGILITY
- SLOWER DATA
- LOST DEPARTMENTAL AGILITY
How Can I Solve this Problem?

And make a strategic leap?
Step 1

Aggregate
AGGREGATE

External Logic

- Attribute tagging within upstream logic
- Calculations over multiple business functions
- Enrichments are ‘decorated’
- Processing retrieval based on flag

Daily Calculations
- Liquidity Horizon
- P&L Attribution
- Stressed Capital
- Default Capital
- Stressed Shortfall

Pre-tagged transaction loads

A-Synchronous risk calculations
In-situ Harmonization

Attribute Processing
- Normalize attribute values
- Business thesaurus /dictionary
- Maintain immutability

One
Valid
Yes
True
Enabled

- MATERIALIZE
  - Envelope Pattern
  - Semantic Triples
  - Row Index
Internal Logic

- Define concepts within the database itself
- Expose concepts to consumers via templates
- Abstracted data
- Dimensional Control
Step 2
Operationalize
Yes, it seems redundant to create data describing your data, but metadata is what actually brings your data to life.

Many companies are currently finding themselves with huge pools of data that provide very little actual value.
Successful Outcomes

- Increase information available to all functions
- Increase it’s meaning and relevance
- Reduce the time to deliver
- Increase (guarantee) quality
Metadata is the Key

MarkLogic provides a simple integrated solution for delivering both business insight and regulatory solutions.
Metadata Automation

- Simple rules engines
- Complex event processing
- Cognitive analytics
- Language processing
- Artificial intelligence
- Machine learning

Business Rules & Logic

Functionally Specific Meta Data
Step 3

Presentation
Consumption & Supply Chain

FUNCTIONAL LENSE

LINEAGE & PROVENANCE
Functional Lenses

- Semantic metadata mapping
- Lenses evolve over time
- They evolve rapidly
- Functionality independent
- Commonality
Metadata ‘Lenses’

Query & Transform

Order_ID
Trade_ID
Contract_ID

Order
Order ID

Trade Event
Trade ID

Contract
Contract_ID

Customer
Has Contract
Contract
Has Order
Order
Has Trade
Trade
Lineage & Provenance

Extend metadata use to provide full supply chain of data

- Agent
- Entity
- Activity

- Started At
- Ended At
- Generated By
- Derived From
- Used By
- Informed By
- Attributed to

WHAT & HOW

WHAT
Questions?
Summary

Deliver immediate regulatory demands

Operationalize cross functional data

Develop and agile publishing process