

RMB Global Markets Data Platform

Documentation & Governance

1. Business Context & Assumptions

- The platform supports Global Markets operations across multiple asset classes (FX, Bonds, Money Markets).
- Data originates from multiple transactional systems with varying formats and quality levels.
- Manual reconciliation processes historically introduced operational risk and reporting delays.
- Assumptions made in this platform include:
 - Daily snapshots are sufficient for reconciliation (T+0).
 - Trade identifiers are unique and stable across systems.
 - KPIs are calculated based on current vs previous day snapshots.
 - All data is simulated and anonymised for demonstration purposes.

2. KPI Definitions

KPI	Definition	Calculation Logic	Frequency
T+0 Reconciliation Rate	Percentage of trades matched same-day	$(\text{Cleared trades} / \text{Total trades}) * 100$	Daily
Unmatched Trade Count	Number of trades not reconciled	Count of trades classified as Unmatched	Daily
Exposure Value	Financial value associated with unmatched trades	Sum of Trade Value for unmatched trades	Daily
Aging Buckets	Trades classified by age (T+1, T+2, T+3+)	Based on Trade Date vs Reporting Date	Daily
Late Settlement Rate	Percentage of trades settled after expected date	$(\text{Late Settlements} / \text{Total Settlements}) * 100$	Daily
Estimated Penalty Exposure	Potential penalty value from late settlements	Sum of penalty amounts for trades in breach	Daily
Daily Operational Breaks	Count of discrepancies by asset class	Count by FX, Bonds, Money Markets	Daily

3. Design Decisions

- **Layered Architecture:** Source ingestion → Transformation → Reconciliation → Curated datasets → Reporting
 - **Snapshot-Based Reconciliation:** Compares current-day vs previous-day snapshots to classify trades as New, Cleared, or Unmatched
 - **Role-Based Reporting:** Power BI dashboards designed for Operations, Risk, and Executive users
 - **Reusability:** ETL pipelines and reconciliation logic are modular and reusable across asset classes
 - **Auditability:** All datasets maintain control totals, validations, and audit-friendly design
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4. Data Governance & Audit Considerations

- **Data Quality Checks:** Validation of trade identifiers, timestamps, and monetary values
 - **Control Totals:** Aggregates are reconciled to source system totals
 - **Audit Trails:** Snapshots of reconciled and unmatched trades are maintained daily
 - **Compliance:** The platform demonstrates adherence to enterprise governance and regulatory requirements
 - **Data Privacy:** All datasets are simulated and anonymised — no proprietary or client-sensitive data is included
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5. Folder Usage

- docs/ → Documentation & governance files
 - etl/ → ETL scripts, SQL, and diagrams
 - power_bi/ → Dashboard wireframes and mockups
 - analytics/ → Supporting analysis scripts and notebooks
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Note: This documentation provides context and supporting information for reviewers, recruiters, and auditors exploring the RMB Global Markets Data Platform.