Preparing for data migration: a step-by-step guide.

Factbook

Migrating data to a new system is one of the most important, and riskiest, projects an organisation can undertake. In investment reporting, where data is complex, often regulated, and business-critical, the stakes are even higher.

Drawing on Factbook's extensive experience supporting reporting transformations for leading asset managers, this guide provides a seven-phase framework to help you prepare and execute a data migration with confidence, covering the steps to take, the risks to avoid, and the support needed at every stage.

The seven steps of data migration

1. Define scope and objectives
2. Audit existing data
3. Clean and validate data
4. Map data to the new system
5. Test migration in a sandbox
6. Plan the cutover
7. Post migration validation

PHASE 1: Define scope and objectives

Steps

- **Clearly define the project's scope:** which systems, data domains, and processes are included.
- **Establish success criteria** and clear, measurable KPIs (e.g. accuracy levels, timelines, regulatory compliance).
- **Appoint accountable owners:** typically a project sponsor, programme director, data owners etc
- **Engage client side assurance** or compliance teams early, especially if regulated data is involved.
- **Review licensing agreements** to ensure legal use of all third-party data or content in the target reporting output.

Risks

- **Scope creep** caused by poor or changing definitions.
- **Unclear objectives** that can lead to a lack of common understanding among team members.
- **Weak accountability** and unclear ownership could impact the buy-in of all stakeholders.
- **Undefined KPIs** leading to lack of direction and momentum.

Support

- **Leverage vendor expertise** and experience early to test assumptions and validate your plan.
- Vendors can play a key role in **collaborative project management** that will help adherence to scope and objectives.

PHASE 2: Audit existing data

Steps

- **Profile your data** to establish quality, completeness, consistency, accuracy, duplicates, and outliers. Is the data actually ready for migration?
- **Inventory data sources**, interfaces, and dependencies (e.g. market data, positions, benchmarks).
- **Capture data lineage** and ownership for each dataset.
- **Classify data** by security and privacy requirements (GDPR, PII, special categories, retention).
- **Identify external vendors** and dependencies such as custodians or fund accountants.
- **Again, confirm that all necessary licensing agreements** are in place.

Risks

- **Unclear data lineage** leading to difficulty in issue resolution.
- **Duplicate or orphaned records** due to mismatched identifiers.
- **Floating point inaccuracies** from poor precision at source (e.g. too few decimal places).
- **Mismatched data** (truncated codes, aliases).
- **Extended project timelines** due to incomplete documentation of source content structure and constituents.

Support

- **Vendors can provide thorough reviews** of reporting data at source.
- Work with vendors to **uncover and address these risks early** and plan any resolutions necessary to ensure data is fit for migration.

PHASE 3: Clean and validate data

Steps

- **Ensure consistent date stamping** (consider time zones, holidays, and business days).
- **Define a duplicate removal strategy**.
- **Data standardisation**, for example using ISO standards or recognised categorisation frameworks and levels, geography, region, market classification date formats.
- **Confirm and standardise mappings** for identifiers (ISIN, SEDOL, Bloomberg, internal IDs).
- **Validate** pricing, valuations, benchmarks, mandates, and regulatory data.
- **Standardise hierarchies** and clean static data.
- **Align metadata** across systems for consistent tagging (fund codes, client codes, portfolio IDs).
- **Validate document links** to factsheets, KIIDs, etc.

Risks

- **Inconsistencies or duplications** left unresolved can undermine the entire migration.
- **Misapplied date stamps** can damage reporting quality.
- **Failure to address standardisation** early may require costly fixes later.

Support

- Deploy **automated “clean and check” tools** wherever possible.
- Vendors can provide both **ready-made tools for common issues and custom solutions** where required.

PHASE 4: Map data to the new system

Steps

- Use **case-specific data maps**.
- **Define field-level mapping rules**, from source to target, with transforms, code sets, and units.
- **Test completeness** against findings from Phases 1 to 3.

Risks

- Selecting **an inflexible or incomplete** data model.
- A model that **meets current requirements, but fails as needs evolve**, will create future inefficiencies and additional project costs and resource over time.

Support

- **Choose a sophisticated, flexible solution** underpinned by flexible tools and, if necessary, custom plug-ins to handle custom data.
- The new solution **needs to support advanced data structures, hierarchies, and transformation rules**, as well as complex custom mappings and aggregation routines.

PHASE 5: Test migration in a sandbox

Steps

- **Run unit and integration tests** on mappings, transforms, and exception handling.
- **Conduct system and performance tests** (throughput, timings, retry mechanisms).
- **Test with historical production data** to confirm accuracy, rendering and robustness.
- Plan a **suitable duration and scope** for parallel runs.

Risks

- **Insufficient testing** or reliance on “happy path” data may hide issues until after go-live.
- **Failure to adequately test**, using a complete range of “real world” content, will inevitably lead to unanticipated issues once live.

Support

- **Ensure vendors provide UAT** environments as standard.
- Allow for **thorough, full cycle testing**.
- **Maintain flexibility** to introduce new customisations quickly if issues emerge.

PHASE 6: Plan the cutover

Steps

- Decide between **phased or wholesale migration** depending on project scope.
- Roll out to **all process contributors**.
- **Establish fallbacks and mitigation strategies** in case of failure.

Risks

- **Lack of adequate resources**; can additional resource be allocated or should the task be broken into phases?
- **Stakeholders or contributors not prepared** for rollout. Communication with stakeholders is critical to the success of any project.
- **Unresolved issues** leading to delays or failures in cutover, most likely due to resource challenges.

Support

- **Ensure vendors commit resources** for rollout touchpoints and real-time issue resolution.
- **Provide user training and documentation** well in advance.
- **Plan strong follow-up support** immediately after cutover.

PHASE 7: Post-migration validation

Steps

- Decide between **phased or wholesale migration** depending on project scope.
- Roll out to **all process contributors**.
- **Establish fallbacks and mitigation strategies** in case of failure.

Risks

- **Lack of adequate resources**; can additional resource be allocated or should the task be broken into phases?
- **Stakeholders or contributors not prepared** for rollout. Communication with stakeholders is critical to the success of any project.
- **Unresolved issues** leading to delays or failures in cutover, most likely due to resource challenges.

Support

- **Ensure vendors commit resources** for rollout touchpoints and real-time issue resolution.
- **Provide user training and documentation** well in advance.
- **Plan strong follow-up support** immediately after cutover.

Conclusion

A data migration is never just about moving content from one system to another. It is about protecting business continuity, ensuring compliance, and creating a strong foundation for future reporting. By following this seven-phase guide, organisations can mitigate risks, maintain quality, and achieve successful outcomes that deliver measurable long-term benefits.

Find out more about Factbook and how we can help with any upcoming data migration projects you might have at: www.factbook.co.uk.

Factbook