Project LaTeX Explainer and Navigational Guide

Documentation Index for the Shaikh & Tonak Replication

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Abstract

This guide explains where to find every major piece of information in the project: methodology, code, data, generated reports, and build instructions. Use it as a map to quickly locate what you need.

Contents

1 Project Structure Overview

Path	Purpose
`data/`	All data sources: extracted book tables, unified historical database, and modern extension data.
`data/extracted_tables/book_tables/`	Chapter 5 tables extracted from the book (replication targets).
`data/unified_database/`	Integrated cross-source database for analysis and validation.
`src/`	All code (extraction, analysis, replication, validation, extension).
`src/analysis/replication/`	Scripts to reproduce Table 5.4 and related results.
`src/analysis/validation/`	Cross-validation tools comparing sources and checking accuracy.
`docs/methodology/`	Core methodology in LaTeX (complete technical description).
`docs/latex/`	Focused LaTeX documents: code explainer, validation, this explainer, and bird's-eye view.
`docs/reports/`	Generated reports and summaries.
`.github/workflows/`	CI configuration for building PDFs (artifacts uploaded on push/PR).

2 Key LaTeX Documents and What They Contain

Document	Contents
`docs/methodology/SHAIKH_TONAK_METHODOLOGY.tex`	Complete methodology: variable definitions, data sources, formulas, validation metrics, quality checks.
`docs/latex/SHAIKH_TONAK_METHODOLOGY_WITH_CODE.tex`	Methodology with side-by-side implementation notes and code-oriented details.
`docs/latex/SHAIKH_TONAK_CODE_EXPLAINER.tex`	Book description, LaTeX formulas, and Python listings outside tables for clarity.
`docs/latex/SHAIKH_TONAK_VALIDATION_REPORT.tex`	Unified cross-statistical validation; compiles even if plots are missing.
`docs/latex/PROJECT_LATEX_EXPLAINER.tex`	This navigational guide to all project resources.
`docs/latex/PROJECT_BIRDS_EYE_VIEW.tex`	Strategic overview: replication story, comparisons, updates, implementation reasoning, and charts.

3 Where to Find Data

- **Book Tables**: `data/extracted_tables/book_tables/`

- **Unified Historical DB**: `data/unified_database/`
- **Modern Extension Inputs**: `data/modern/`
- **Source PDFs**: `data/source_pdfs/`

4 Where to Find Code

- **Replication**: `src/analysis/replication/`
- **Validation**: `src/analysis/validation/`
- **Extraction**: `src/extraction/`
- **Core Utilities**: `src/core/`
- **Extension**: `src/extension/`

5 How to Build the LaTeX Documents

Build Commands

Use the project script (requires `latexmk`):

```
./scripts/build-latex.sh --outdir build/pdf
```

Builds all `.tex` in `docs/latex/` and `docs/methodology/` (outputs under `build/pdf`).

Continuous Integration builds PDFs automatically on push/PR via `.github/workflows/latex.yml` and uploads them as artifacts.

6 Quick Links (Paths)

- Methodology: `docs/methodology/SHAIKH_TONAK_METHODOLOGY.tex`
- Code Explainer: `docs/latex/SHAIKH_TONAK_CODE_EXPLAINER.tex`
- Validation Report: `docs/latex/SHAIKH_TONAK_VALIDATION_REPORT.tex`
- Bird's-Eye View: `docs/latex/PROJECT_BIRDS_EYE_VIEW.tex`

7 Troubleshooting

Common Issues

- Missing images: documents are robust to missing plots and will compile without them.
- Package availability: `latexmk` and common LaTeX packages are required; CI installs TeX Live groups that satisfy them.
- Clean build: run `latexmk -C` in the output directory for a fresh build.