

Demonstration of 'piar' Package in R for Price Index Aggregation

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WHAT IS PIAR?

Open-source R package

In-house developed & on CRAN

Supports elementary & aggregate methods

Reproducible & transparent compilation

Integrates with tidy R workflows

PIAR FUNCTIONALITIES

Index Calculation

Contributions

Rebasing

Imputation

Aggregation & Advanced Features

 • Elementary & upper-level aggregation
• Any generalized mean • Superlative
• Multilateral indices (gpinde) • Product contributions • Aggregate contributions
• Single period • Multiple periods

• Parental • Carry-forward • Borrow

• Linking

 • Aggregating across baskets (different methods)
• Multiple data sources
• Cost-of-living differences • Spatial price indexes

WHY USE PIAR?

Methodology can evolve quickly

Code is auditable

Fast calculations

Easier experimentation

Integrates with Git

Reduces manual processing

OUR EXPERIENCES

Allows us to develop Reproducible Analytical Pipelines (RAPs)

More efficient production processes

Improved adaptability of production systems

Upskilling and modernizing workforce

Doing more with less

Greater transparency and auditability

Reduced vendor and platform dependency

Innovation

WHAT PIAR ENABLES

REPRODUCE
Consistent, transparent and auditable index production

AUTOMATE
Streamline workflows and reduce manual effort

ADAPT
Easily adapt methods and structures to evolving needs

INNOVATE
Build new solutions and drive better insights