Food Inflation Nowcasting with Web-Scraped Prices — Narodowy Bank Polski's Big-Data Model for Real-Time CPI Estimates

AI in the Public Sector · Good practice · Poland

Quality score: 80/100

Evidence strength: Observational / pre–post

Summary

Narodowy Bank Polski scrapes millions of online retail prices to nowcast food inflation ahead of official CPI releases. Peer-reviewed tests cut forecast error by up to 30% against standard models, with gains re-confirmed during COVID-19 and the 2022 food-price shock.

Key dimensions

Dimension	Score
Evidence of impact / measured public value	2/3
Transparency, fairness & accountability	2/3
Transferability / demonstrated replication	3/3
Scalability beyond pilot	3/3
Governance, capability & sustainability	2/3

Evaluated by C-NAPSE

Data sources

C-NAPSE web research — accessed 2026-07-19

Narodowy Bank Polski (National Bank of Poland), Economic Analysis and Research Department — accessed 2026-07-19

NBP Working Paper No. 302 (2019) — accessed 2026-07-19

Journal of Forecasting (Wiley, 2025) — Is Big Data a Big Help? — accessed 2026-07-19

International Journal of Forecasting (ScienceDirect, 2023) — accessed 2026-07-19

SUERF Policy Brief No. 698 — accessed 2026-07-19

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