

Nowcasting GDP with Machine Learning — the Swiss National Bank's Head-to-Head Test Against 1,100+ Indicators

AI in the Public Sector · Good practice · Switzerland

Quality score: 47/100

Evidence strength: Quasi-experimental

Summary

SNB researchers tested eight machine-learning methods against 1,100+ time series to nowcast Swiss GDP. For the post-2008 period, every ML technique beat the standard univariate benchmark by up to 28% on out-of-sample RMSE, with ridge, elastic net and SVR performing best.

Key dimensions

Dimension	Score
Evidence of impact / measured public value	2/3
Transparency, fairness & accountability	2/3
Transferability / demonstrated replication	1/3
Scalability beyond pilot	1/3
Governance, capability & sustainability	1/3

Evaluated by C-NAPSE

Data sources

C-NAPSE web research — accessed 2026-08-14

Swiss National Bank (SNB), Research — accessed 2026-08-14

SNB Working Paper 2024-06: Nowcasting GDP: what are the gains from machine learning algorithms? — accessed 2026-08-14

SSRN: Nowcasting GDP: What are the Gains from Machine Learning Algorithms? — accessed 2026-08-14

IDEAS/RePEc: Nowcasting GDP: what are the gains from machine learning algorithms? — accessed 2026-08-14

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