Nowcasting GDP with Machine Learning — the Reserve Bank of New Zealand's Real-Time Test Against ~600 Economic Indicators

AI in the Public Sector · Good practice · New Zealand

Quality score: 60/100

Evidence strength: Observational / pre–post

Summary

RBNZ tested machine-learning algorithms against ~600 real-time indicators to nowcast quarterly GDP growth. Published in a 2019 paper, peer-reviewed in the International Journal of Forecasting, the best models cut nowcast error ~20-30% versus an autoregressive benchmark.

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	1/3
Governance, capability & sustainability	1/3

Evaluated by C-NAPSE

Data sources

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

Reserve Bank of New Zealand – Te P■tea Matua, Economics Department — accessed 2026-07-19

RBNZ Discussion Paper DP2019/03 — accessed 2026-07-19

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

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