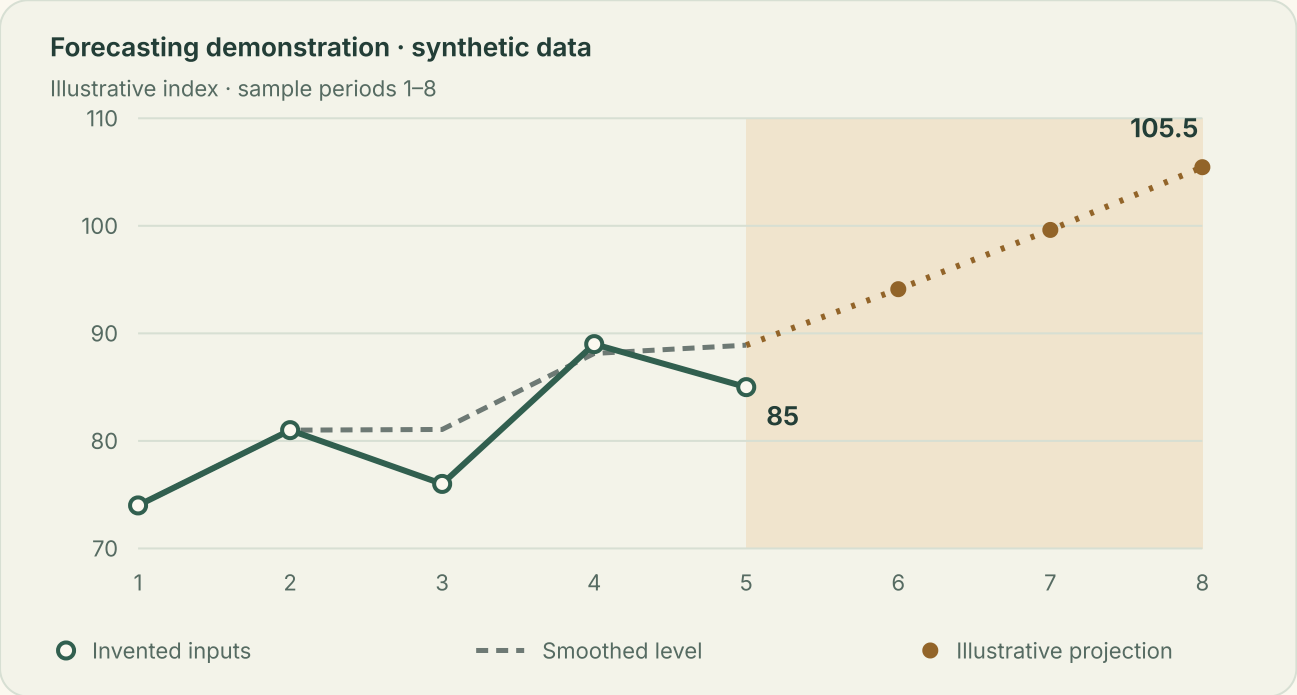
DATA OFFICER · SYNTHETIC DATA DEMONSTRATION

Exploring a forecasting approach.

My historical Python study used public Census data to explore exponential smoothing. Here, invented index values demonstrate the approach.

Historical notebook: 24 March 2023

Synthetic data · sample periods 1–8



All inputs are invented. A simple multiplicative-trend smoothing calculation generates the projection; the shaded area shows the next three sample periods.

01 / SELECT

Start with a source

Retrieve Statistics Canada's livestock table, select Canada and dairy cows, and isolate the number of farms reporting.

02 / PREPARE

Make time explicit

Index the observations by year, interpolate an annual series and separate a training period from a comparison period.

03 / EXAMINE

Fit and compare

Explore exponential smoothing with a multiplicative trend, plot the comparison and calculate error measures before extending the series.

> The steps describe the historical study. The chart is a new synthetic example: its index values, sample periods and projection are not farm counts or estimates for any place or year.

Historical study source, not chart data: Statistics Canada, Table 32-10-0155-01 — Selected livestock and poultry, Census of Agriculture historical data.

Thomas Eapen
nowlabs.net/data-officer

One-page illustration of a historical forecasting approach. Chart data and calculations were newly created for this portfolio.