

Time Series and Forecasting

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Poll: How experienced are you in forecasting?

- 1 Guru: I wrote the book, done it for decades, now I do the conference circuit.
- 2 Expert: It has been my full time job for more than a decade.
- 3 Skilled: I have been doing it for years.
- 4 Comfortable: I understand it and have done it.
- 5 Learner: I am still learning.
- 6 Beginner: I have heard of it and would like to learn more.
- 7 Unknown: What is forecasting? Is that what the weather people do?

Install required packages

```
install.packages("fpp", dependencies=TRUE)
```

Brief bio

- Director of Business & Economic Forecasting Unit
- Editor-in-Chief, *International Journal of Forecasting*

How my forecasting methodology is used:

- Pharmaceutical Benefits Scheme
- Cancer incidence and mortality
- Electricity demand
- Ageing population
- Fertilizer sales

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Key reference

Hyndman, R. J. & Athanasopoulos, G. (2014) *Forecasting: principles and practice*.

OTexts.org/fpp/

- Free and online
- Data sets in associated R package
- R code for examples

Approximate outline

Topic	Session	Chapter
Visualizing time series	1	2
Benchmark forecasting	2	2
Time series decomposition	2	6
Exponential smoothing	3	7
ARIMA models	4	8