

Figures for model selection lecture

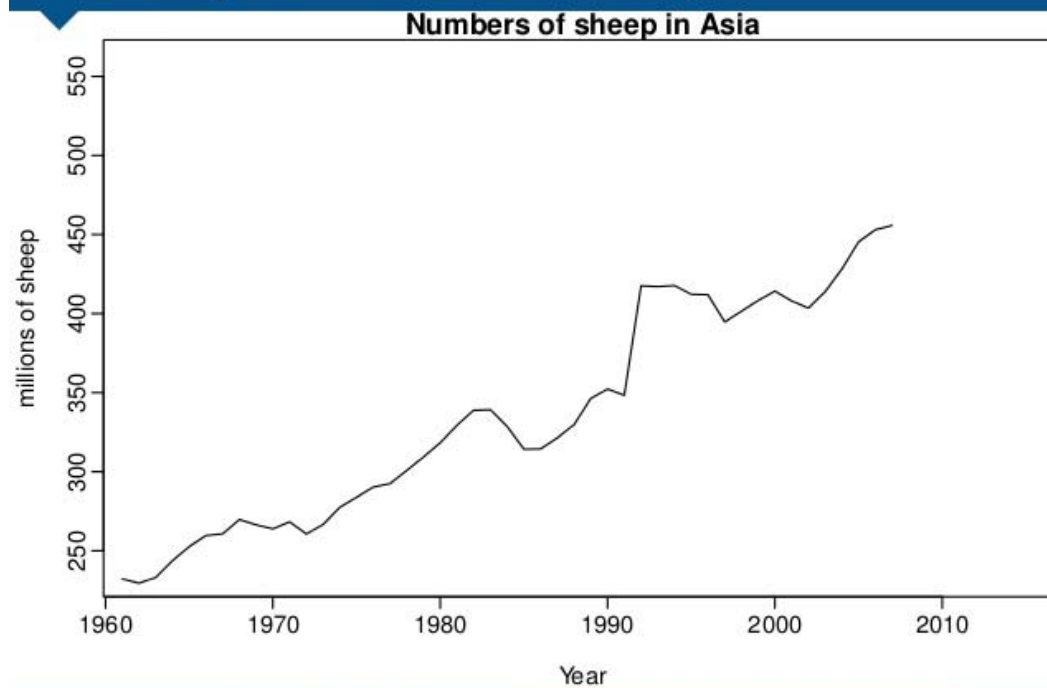
James D. Hamilton

Exponential smoothing methods

		Seasonal Component		
		N (None)	A (Additive)	M (Multiplicative)
Trend Component				
N	(None)	N,N	N,A	N,M
A	(Additive)	A,N	A,A	A,M
A _d	(Additive damped)	A _d ,N	A _d ,A	A _d ,M
M	(Multiplicative)	M,N	M,A	M,M
M _d	(Multiplicative damped)	M _d ,N	M _d ,A	M _d ,M

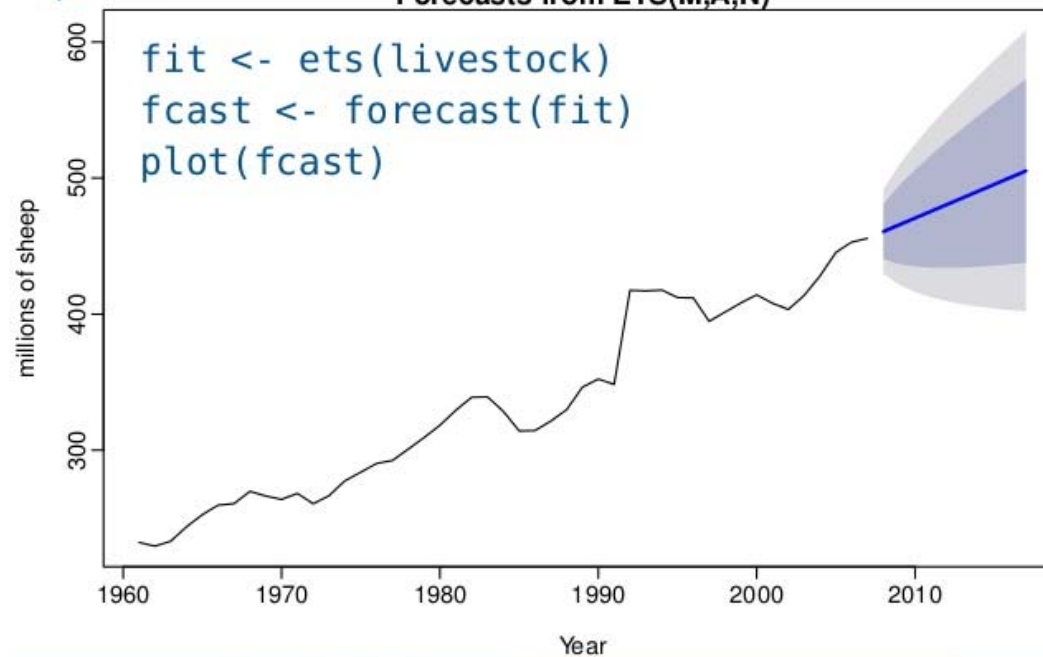
- N,N: Simple exponential smoothing
- A,N: Holt's linear method
- A_d,N: Additive damped trend method
- M,N: Exponential trend method
- M_d,N: Multiplicative damped trend method
- A,A: Additive Holt-Winters' method
- A,M: Multiplicative Holt-Winters' method

Example: Asian sheep



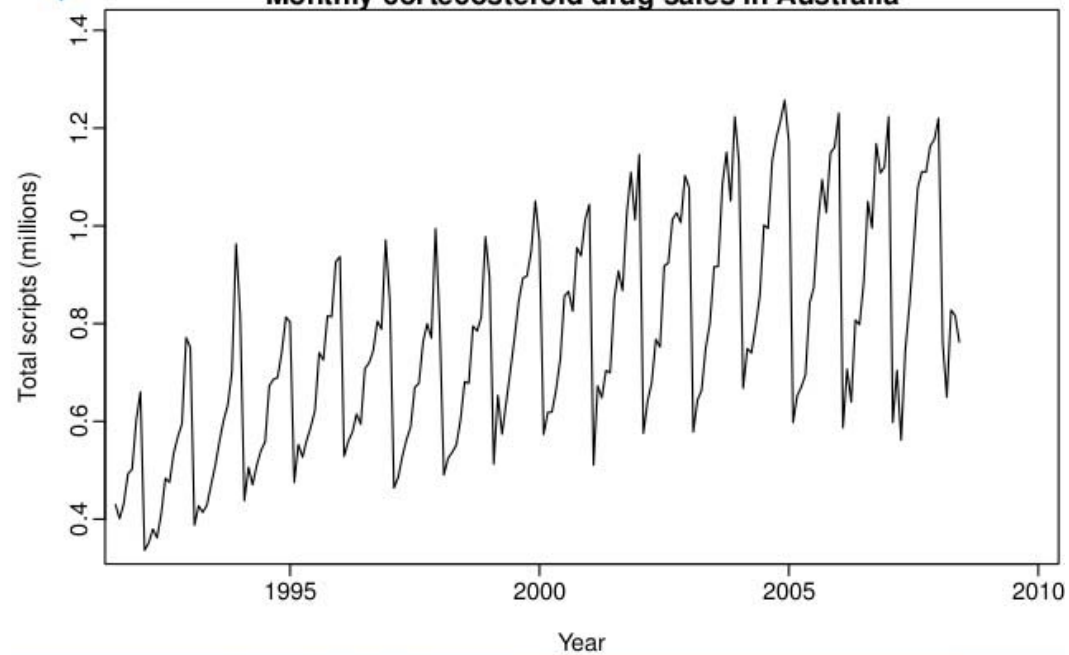
Exponential smoothing

Forecasts from ETS(M,A,N)



Example: Cortecosteroid sales

Monthly cortecosteroid drug sales in Australia



Exponential smoothing

Forecasts from ETS(M,Md,M)

