Consider the irrigation problem by Lagrangian of Section 3.3:

This is an equation with automatic numbering :

$$\mathbb{L} = \sum_{t=0}^{\infty} \rho^t \{ax_t - (b/2)x_t^2 - (c/2)u_t^2 + \rho\lambda_{t+1}[(1-d)x_t + u_t - x_{t+1}]\}. \tag{1}$$

I refer to this last equation by its automatic number as Equation 1.

Placing an asterisk does not number an equation

$$x_{t+1} = abc$$

This similarly produces a display equation without a number

$$x_{t+1} = abcefg$$

This similarly produces an inline equation $x_{t+1} = abcefg$ (never has a number)

This is bunch of equations in the same block that are counted, but tagged my way The FOCs are

$$\begin{aligned} \partial\mathbb{L}/\partial u_t &= \rho^t\{-cu_t + \rho\lambda_{t+1}\} = 0 \\ &\Rightarrow u_t = \rho\lambda_{t+1}/c \end{aligned} \tag{FOC1}$$

$$\begin{aligned} \partial\mathbb{L}/\partial x_t &= \rho^t\{a - bx_t + (1-d)\rho\lambda_{t+1}\} - \rho^t\lambda_t = 0 \\ &\Rightarrow \lambda_t = a - bx_t + (1-d)\rho\lambda_{t+1} \end{aligned} \tag{FOC2}$$

$$\begin{aligned} \partial\mathbb{L}/\partial[\rho\lambda_{t+1}] &= \rho^t\{(1-d)x_t + u_t - x_{t+1}\} = 0 \\ &\Rightarrow x_{t+1} = u_t + (1-d)x_t + \end{aligned} \tag{FOC3}$$

This is regular text with inline equations in (x_t, u_t).

Nothing special is required to reference a numbered but specially tagged Equation like FOC3 .

This is how you do easy enumerations with capital letter and parentheses for labels. The default is arabic*. The indentation was defined in the header but you can modify other parameters as well, either locally or globally (i.e. in the header)

(A) first item
(B) second item
(C) third item

This is how you do easy bullet lists

- first item
- second item

- third item

Here are matrices

$$\begin{bmatrix} u_{t+1} \\ x_{t+1} \end{bmatrix} = \begin{bmatrix} \frac{c+b\rho}{(1-d)\rho c} & \frac{b}{c} \\ 1 & (1-d) \end{bmatrix} \begin{bmatrix} u_t \\ x_t \end{bmatrix} + \begin{bmatrix} -\frac{a}{c(1-d)} \\ 0 \end{bmatrix}$$

I include Figure 1 because it is very useful.[1]

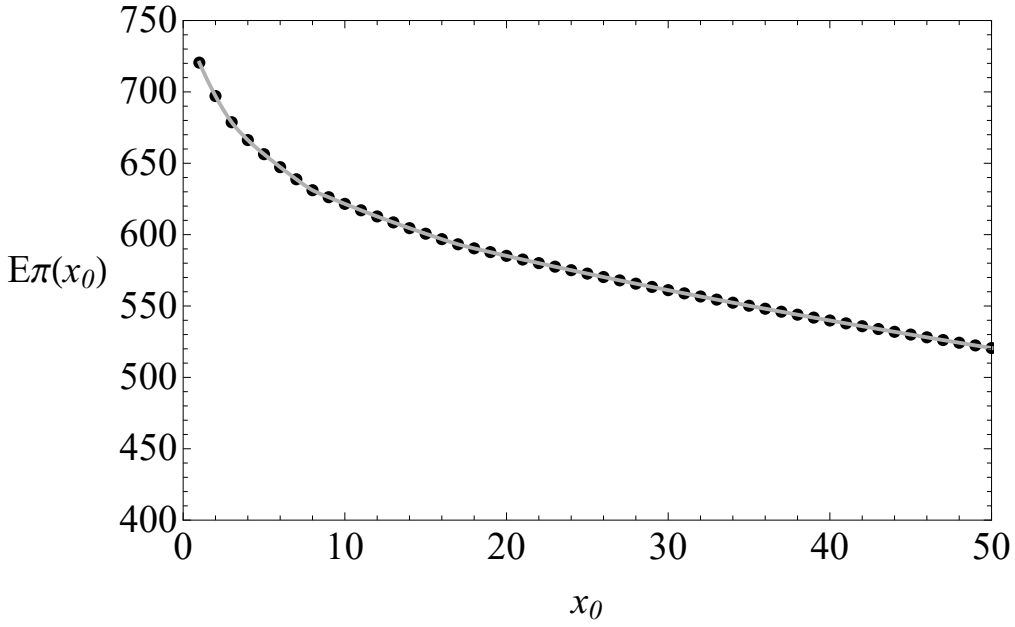

Figure 1: The very useful graph

Controlling the placement of figures can be a bit of a pain! I most often use [!h] as the option as it tends to place the figure closest to where it is coded.

% comments out a line in the code.

This is a Table

Table 1: Adjustment of Round 1 to Round 2 Offers for Subjects Choosing Incorrectly in BDM1

	Exposed to Round 1 Error	Not Exposed to Round 1 Error
Total Subjects	41 (100%)	109 (100%)
Move onto optimum ($2)	3 (7.3%)	8 (7.3%)
Move Toward Optimum	25 (61.0%)	35 (32.1%)
Choose same offer ratio	7 (17.1%)	25 (22.9%)
Move away from optimum	6 (14.6%)	41 (37.6%)

For references, all of this is due to Sims et al. (2016). There are different ways of citing depending on what you need in your text:

Sims et al. (2016)

(Sims et al., 2016), do cool shit.

[1] You place the text of a footnote midtext, exactly where you want the reference to it.

Sims et al. are cool dudes

The bibliography follows. It needs a database called myref that you populate as well as a bibliography style file. Here, the style is wsc and the required file is wsc.bst

References

Sims, C., D. Finnoff, and J. F. Shogren. 2016. Bioeconomics of invasive species: using real options theory to integrate ecology, economics, and risk management. *Food Security* 8 (1): 61–70.