## Anexo IV

## Holt-Winters multiplicativo con tendencia amortiguada

$$\widehat{Y}_{t+h} = [l_t + (\phi + \phi^2 + \dots + \phi^h)b_t]S_{t-M+h_M^+}$$
(1)

$$l_{t} = \alpha \frac{Y_{t}}{S_{t-M}} + (1 - \alpha)(l_{t-1} + \phi b_{t-1})$$
(2)

$$b_t = \beta(l_t - l_{t-1}) + (1 - \beta)\phi b_{t-1}$$
(3)

$$S_t = \gamma \frac{Y_t}{(l_{t-1} + \phi b_{t-1})} + (1 - \gamma)S_{t-M}$$
(4)