

Macroeconomía

Dinámica

EC3024.1 (Santa Fe)

CLASE 9

1

RECESO



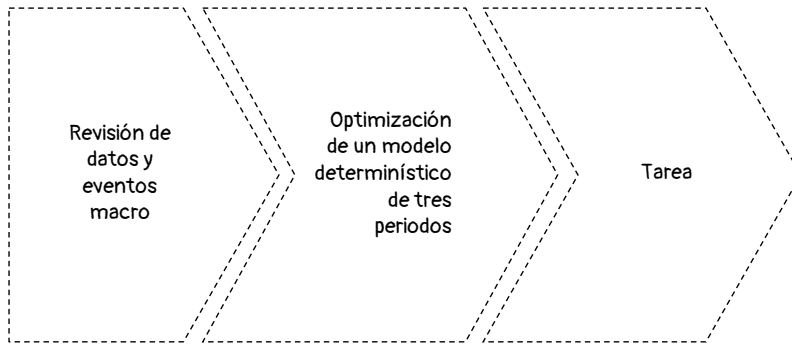
Hoy habrá **dos** descansos de 10 minutos:

4:50pm y 5:50pm

2

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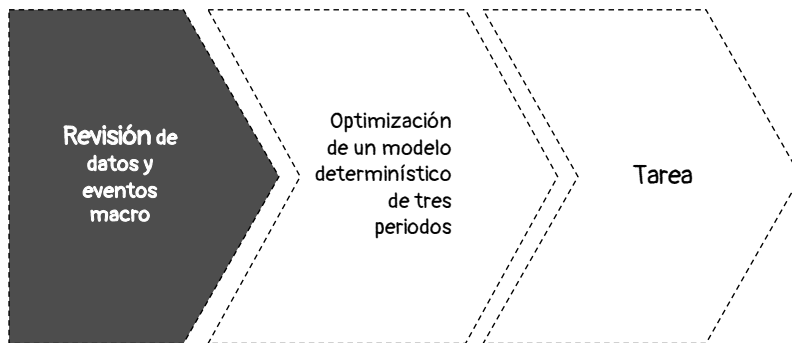
Nuestra agenda de hoy



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Nuestra agenda de hoy



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¿Qué es la desestacionalización?

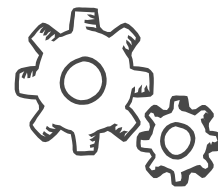
SERIE = Tendencia
+ Ciclo
+ Componente Estacional
+ Componente Irregular



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Ventas al menudeo...



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Nuestra agenda de hoy



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Problema de optimización con función de utilidad logarítmica

$$\max_{\{C_t\}_{t=1}^3, \{A_t\}_{t=2}^4} \sum_{t=1}^3 \beta^{t-1} \ln C_t$$

sujeto a:

$$A_{t+1} = (1 + r_t) A_t + w_t - C_t, \text{ para toda } t$$

$$A_4 = 0$$

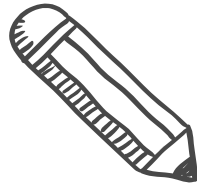
(El individuo se termina su riqueza al final de su vida)

$$\mathcal{L} = \sum_{t=1}^3 \beta^{t-1} \ln C_t + \sum_{t=1}^3 \lambda_t [(1 + r_t) A_t + w_t - C_t - A_{t+1}]$$

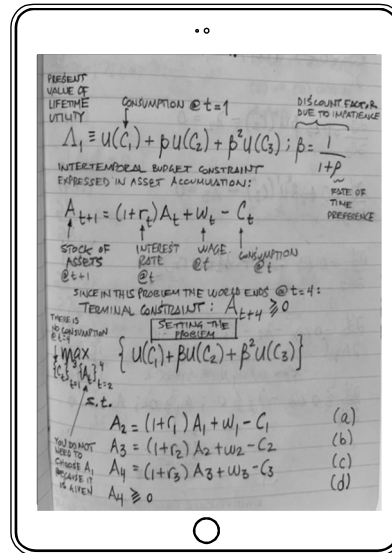
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Vamos al pizarrón,
virtual...



$$\mathcal{L} = \sum_{t=1}^3 \beta^{t-1} \ln C_t + \sum_{t=1}^3 \lambda_t [(1+r_t)A_t + w_t - C_t - A_{t+1}]$$



$$\mathcal{L} = \beta^0 \ln C_1 + \beta \ln C_2 + \beta^2 \ln C_3 + \lambda_1 [(1+r_1)A_1 + w_1 - C_1 - A_2] + \lambda_2 [(1+r_2)A_2 + w_2 - C_2 - A_3] + \lambda_3 [(1+r_3)A_3 + w_3 - C_3 - A_4]$$

max $\{C_t\}_{t=1}^3 \{A_t\}_{t=2}^4$

FOC ← FIRST-ORDER CONDITIONS

$$\frac{\partial \mathcal{L}}{\partial C_1} = 0 \Leftrightarrow u'(C_1) - \lambda_1 = 0$$

$$\frac{\partial \mathcal{L}}{\partial C_2} = 0 \Leftrightarrow \beta u'(C_2) - \lambda_2 = 0$$

$$\frac{\partial \mathcal{L}}{\partial C_3} = 0 \Leftrightarrow \beta^2 u'(C_3) - \lambda_3 = 0$$

$$\frac{\partial \mathcal{L}}{\partial \lambda_1} = 0 \Leftrightarrow (1+r_1)A_1 + w_1 - C_1 - A_2 = 0$$

$$\frac{\partial \mathcal{L}}{\partial \lambda_2} = 0 \Leftrightarrow (1+r_2)A_2 + w_2 - C_2 - A_3 = 0$$

$$\frac{\partial \mathcal{L}}{\partial \lambda_3} = 0 \Leftrightarrow (1+r_3)A_3 + w_3 - C_3 - A_4 = 0$$

$$A_4^* = 0$$

$$\frac{\partial \mathcal{L}}{\partial A_2} = 0 \Leftrightarrow -\lambda_1 + \lambda_2(1+r_2) = 0 \quad \frac{\partial \mathcal{L}}{\partial A_4} = 0 \Leftrightarrow A_4^* = 0$$

$$\frac{\partial \mathcal{L}}{\partial A_3} = 0 \Leftrightarrow -\lambda_2 + \lambda_3(1+r_3) = 0$$

FOC ← FIRST-ORDER CONDITIONS

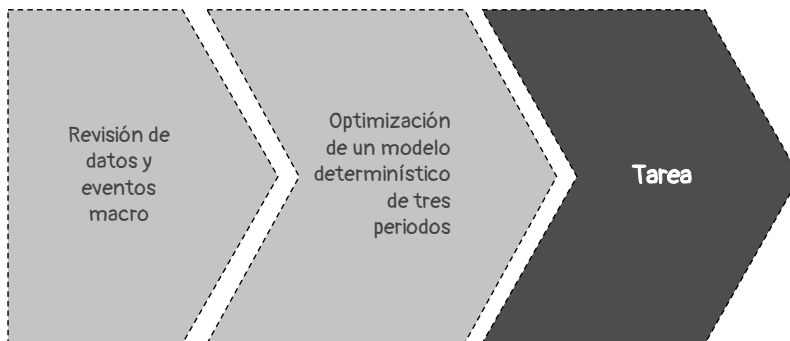
$$\frac{\partial \mathcal{L}}{\partial c_1} = 0 \Leftrightarrow u'(c_1) - \lambda_1 = 0 \quad (1) \quad \left| \quad \frac{\partial \mathcal{L}}{\partial \lambda_1} = 0 \Leftrightarrow (1+r_1)A_1 + w_1 - c_1 - A_2 = 0 \quad (4)$$

$$\frac{\partial \mathcal{L}}{\partial c_2} = 0 \Leftrightarrow \beta u'(c_2) - \lambda_2 = 0 \quad (2) \quad \left| \quad \frac{\partial \mathcal{L}}{\partial \lambda_2} = 0 \Leftrightarrow (1+r_2)A_2 + w_2 - c_2 - A_3 = 0 \quad (5)$$

$$\frac{\partial \mathcal{L}}{\partial c_3} = 0 \Leftrightarrow \beta^2 u'(c_3) - \lambda_3 = 0 \quad (3) \quad \left| \quad \frac{\partial \mathcal{L}}{\partial \lambda_3} = 0 \Leftrightarrow (1+r_3)A_3 + w_3 - c_3 - A_4 = 0 \quad (6)$$

$A_4^* = 0$

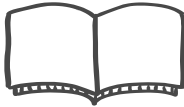
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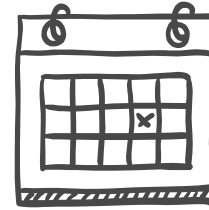
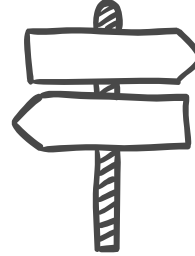
(1) Estar atentos y revisar los datos y eventos económicos que se van a publicar en la semana

2 páginas
https://www.banorte.com/cms/casadebolsabanorteixe/analisisyestrategia/analisiseconomico/otros/20210419_Calendario.pdf



(2) Leer el discurso de recibimiento del Premio Nobel de Economía de Robert E.

Lucas, Jr.
19 páginas (3 páginas de referencias bibliográficas)
<https://www.nobelprize.org/uploads/2018/06/lucas-lecture.pdf>



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Muchas
gracias!



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