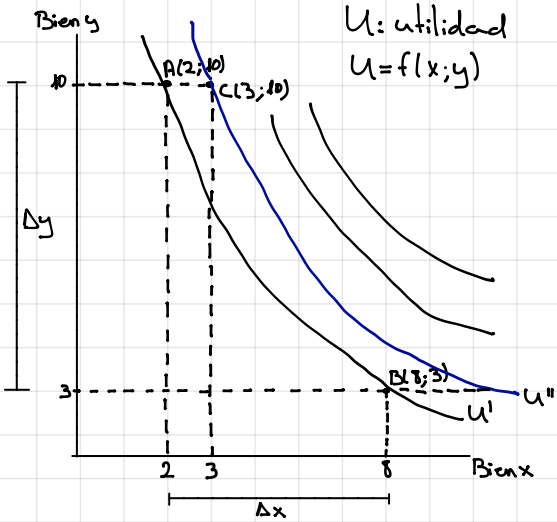


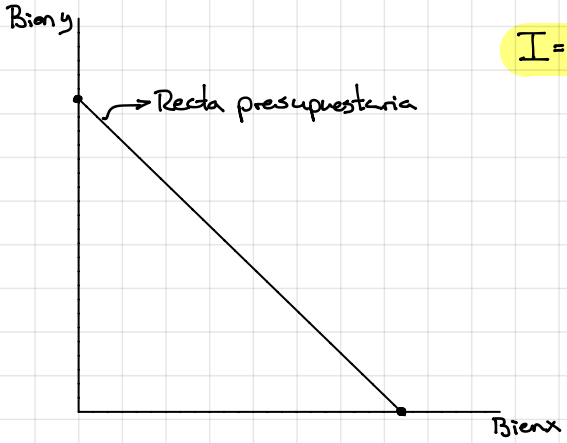
U: utilidad

$U = f(x;y)$

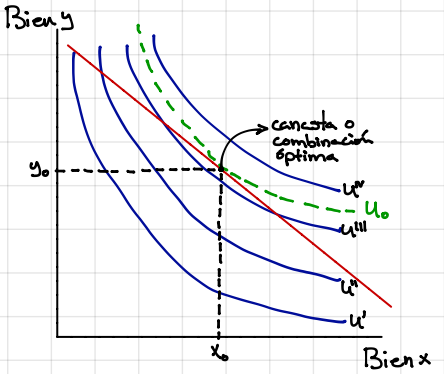
Mientras más alejada del origen esté una curva, más utilidad tiene.

Mapa de curvas de indiferencia

Recta Presupuestaria:



$$I = P_x \cdot Q_x + P_y \cdot Q_y$$



Tasa Marginal de Sustitución Técnica (TMST):

$$TMST = \frac{\Delta y}{\Delta x} = -\frac{UMg_x}{UMg_y} = -\frac{P_x}{P_y}$$

Utilidad Marginal:

$$UMg_x = \frac{\Delta U}{\Delta x} \qquad UMg_y = \frac{\Delta U}{\Delta y}$$

En recta presupuestaria:

$$y = \frac{I}{P_y} - \frac{P_x}{P_y} x$$

1. Bien x: camisas
   Bien y: pollo

a. $I = 10 \times 30 = 300$ (renta)

b. $I = 60 \cdot x$
   $300 = 60 \cdot x$
   $x = 5$ camisas

c. $P_1(0;30)$, $P_2(5;0)$ $\rightarrow \frac{x-0}{0-5} = \frac{y-30}{30-0} \rightarrow 30x = -5y + 150$
   $150 = 30x + 5y \quad (\times 2)$
   $300 = 60x + 10y$

d. Ec. Demanda: $P = 90 - 10Q_x$
   Si $P = 60 \rightarrow 60 = 90 - 10Q_x$
   $Q_x = 3$ (x)
   $300 = 60 \cdot 3 + 10y$
   $y = 12$
   Combinación óptima: (3; 12)

2. Bien x: atún
Bien y: frejoles

$I = P_x \cdot X + P_y \cdot y$
$50 = P_x \cdot 8 + P_y \cdot 3$
$TMST = -2/3$

$$TMST = -\frac{P_x}{P_y} = -\frac{2}{3} \rightarrow P_x = \frac{2P_y}{3}$$

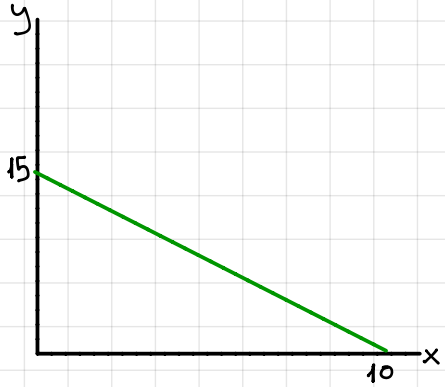
$$50 = \frac{2}{3}P_y \cdot 8 + P_y \cdot 3$$

$$P_y = 6 \; ; \; P_x = 4$$

4. Bien x: queso crema
Bien y: mantequilla
$U = 3x + 2y$

Si: $U = 30 \rightarrow 30 = 3x + 2y$
$y = 15 - 1{,}5x$

x	y
0	15
1	13,5
2	12
3	10,5
4	9
5	7,5
⋮	⋮
10	0



b. $TMST = \frac{\Delta y}{\Delta x} = \frac{UM_{gy}}{UM_{gx}} = -\frac{P_x}{P_y}$

$TMST = -1{,}5 = -\frac{3}{2}$

$UM_{gx} = \frac{\Delta U}{\Delta x} = \frac{\partial U}{\partial x}$

$UM_{gy} = \frac{\Delta U}{\Delta y} = \frac{\partial U}{\partial y}$