What is Microeconomics?

It is the theory about the determinants of

agents' actions **and about their consequences in:**

single markets: partial analysis

economy as a whole general economic equilibrium

economic environments in which agents have no market power are analysed by means of

parametric theories: **the information used by agents to take their decisions is summarized by a set of known parameters. For instance, the set of market prices is taken as given by a firm without market power.**

market-power → non-parametric th.

agents behave 'strategically'

example: 'oligopoly' , markets with asymmetric information

Theory of Consumer Choice

(1) type and number of goods $x_1, x_2, x_3 \cdots$

(2) good's prices $p_1, p_2, p_3, \cdots$

(3) endowment $\begin{cases} \text{money income } m \\ \text{physical endowment} \end{cases}$

$m(p_1, p_2) = \omega_1 \cdot p_1 + \omega_2 p_2 \quad (\omega_1, \omega_2)$

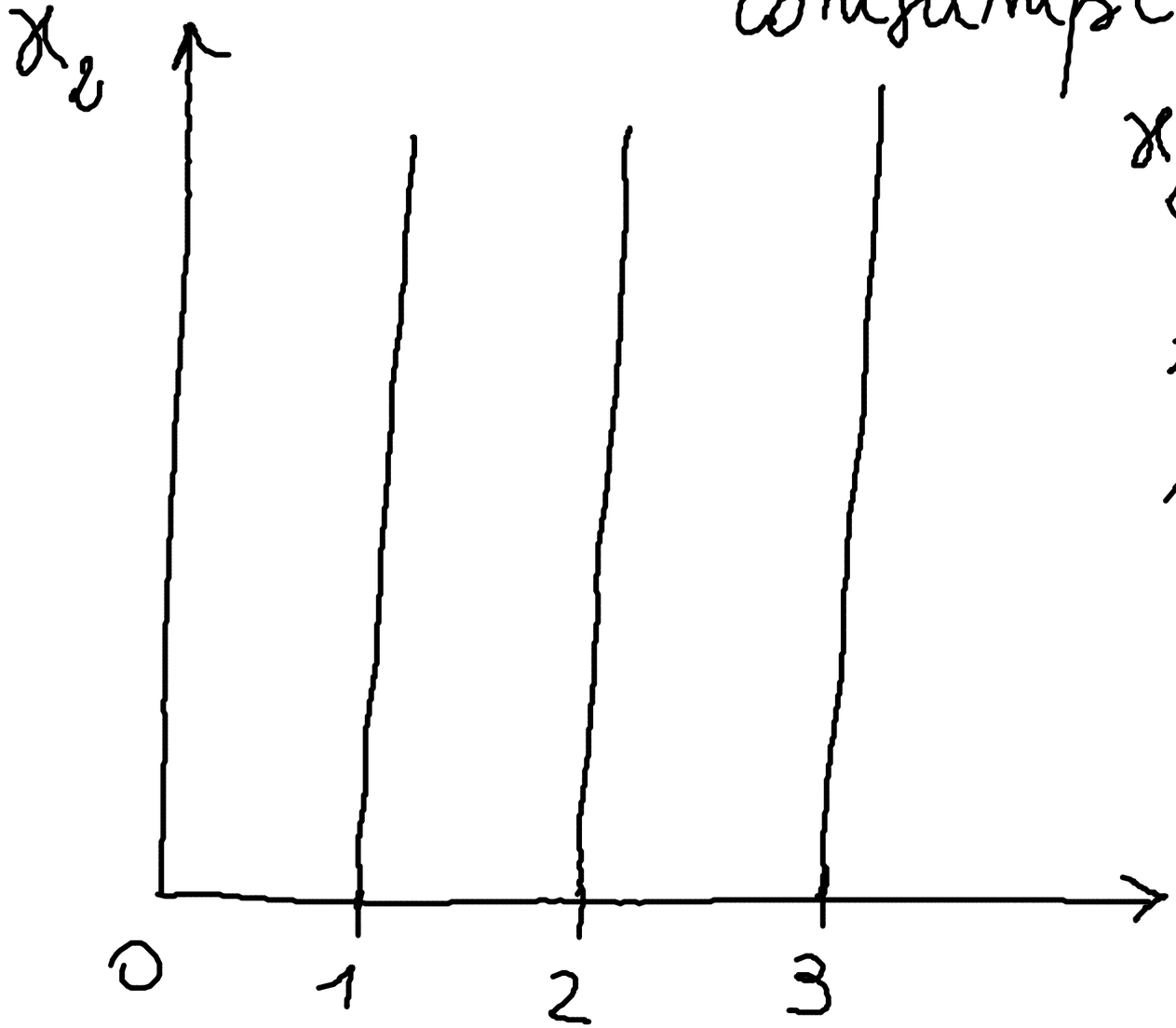
Budget set:

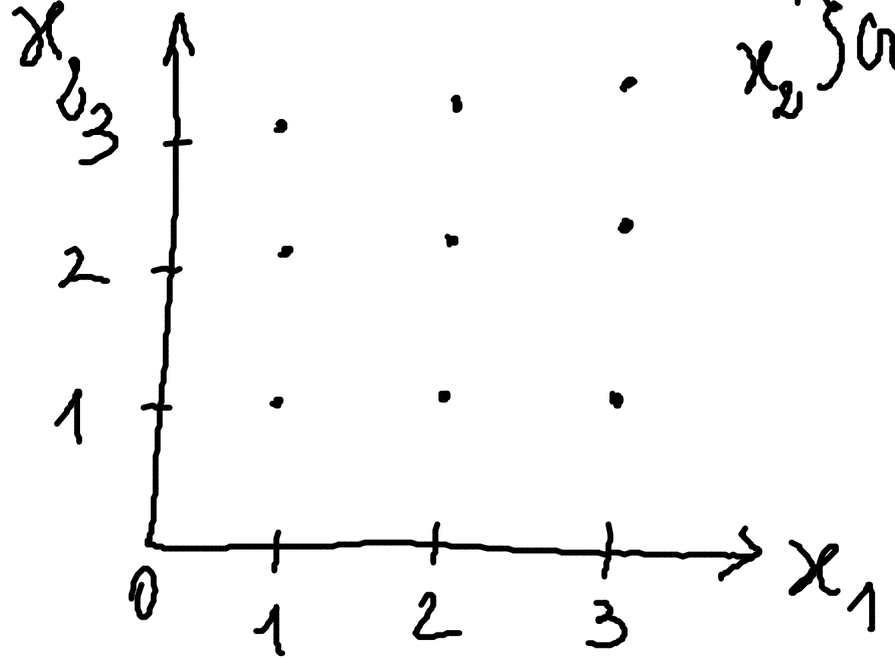
set of bundles of goods the consumer can buy with her money income

a good, say x_1 is defined by

- physical properties
- date of availability
- location
- state of nature

consumption set





x_1 discrete
good
x_2 continuous

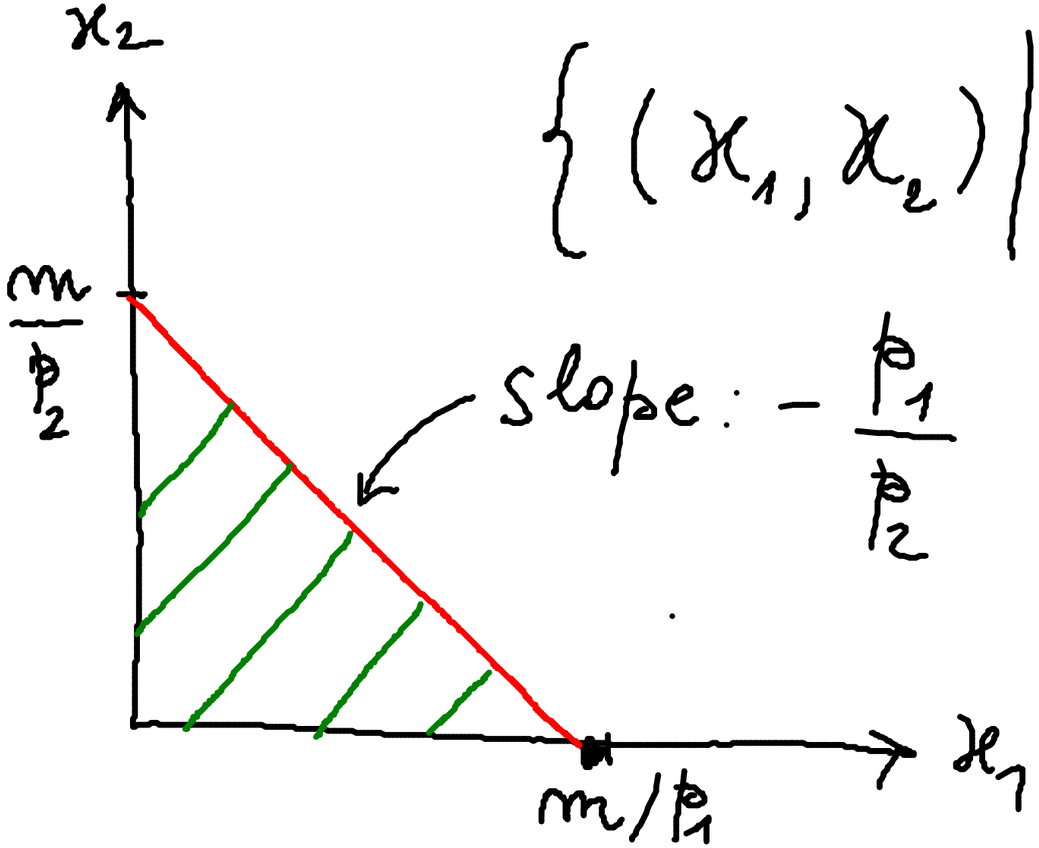
Data: x_1, x_2

p_1, p_2

m

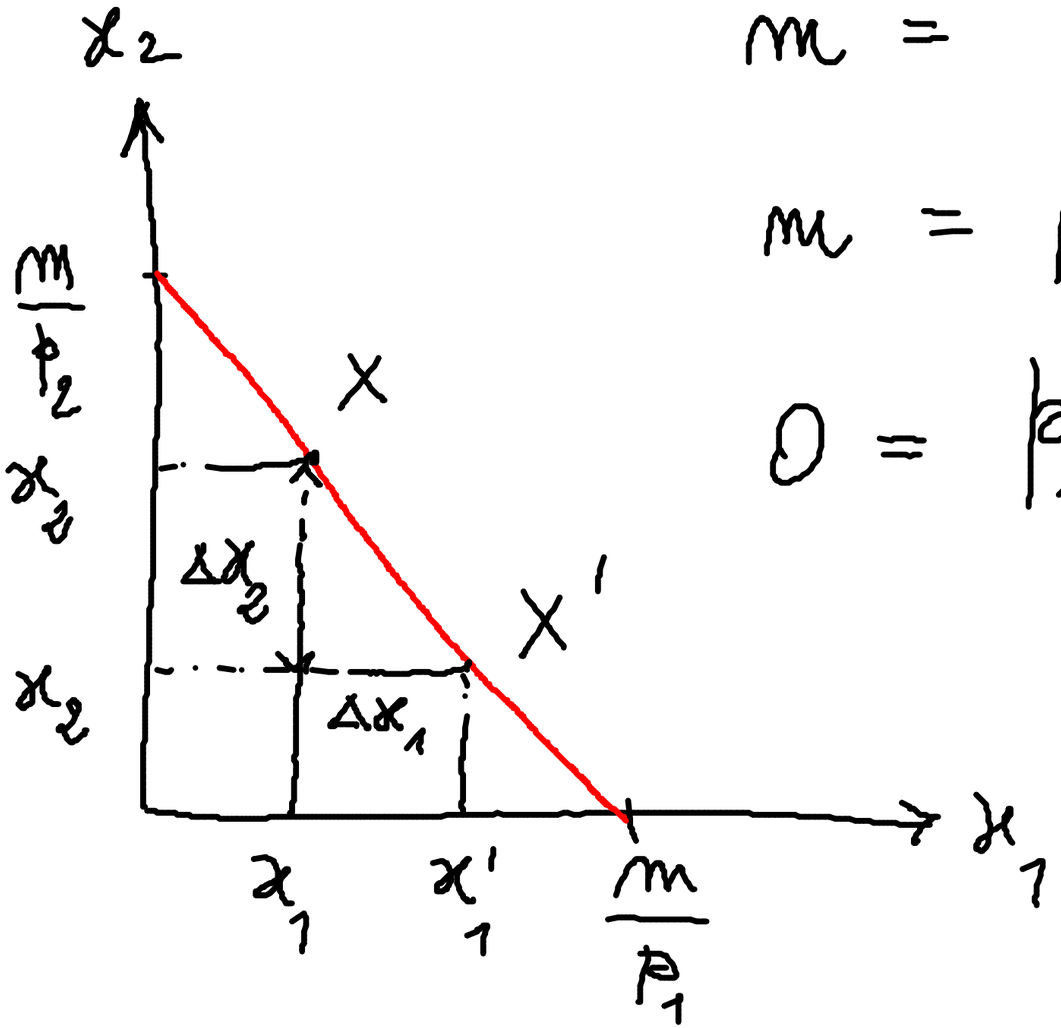
Budget set:

$$\{(x_1, x_2) \mid x_1 p_1 + x_2 p_2 \leq m\}$$



budget line: $x_1 p_1 + x_2 p_2 = m$

$$x_2 = \frac{m}{p_2} - \frac{p_1 x_1}{p_2}$$



$$m = p_1 x_1 + p_2 x_2$$

$$m = p_1 x_1' + p_2 x_2'$$

$$0 = p_1 \cdot \Delta x_1 + p_2 \Delta x_2 = 0$$

$$\Delta x_1 = x_1' - x_1$$

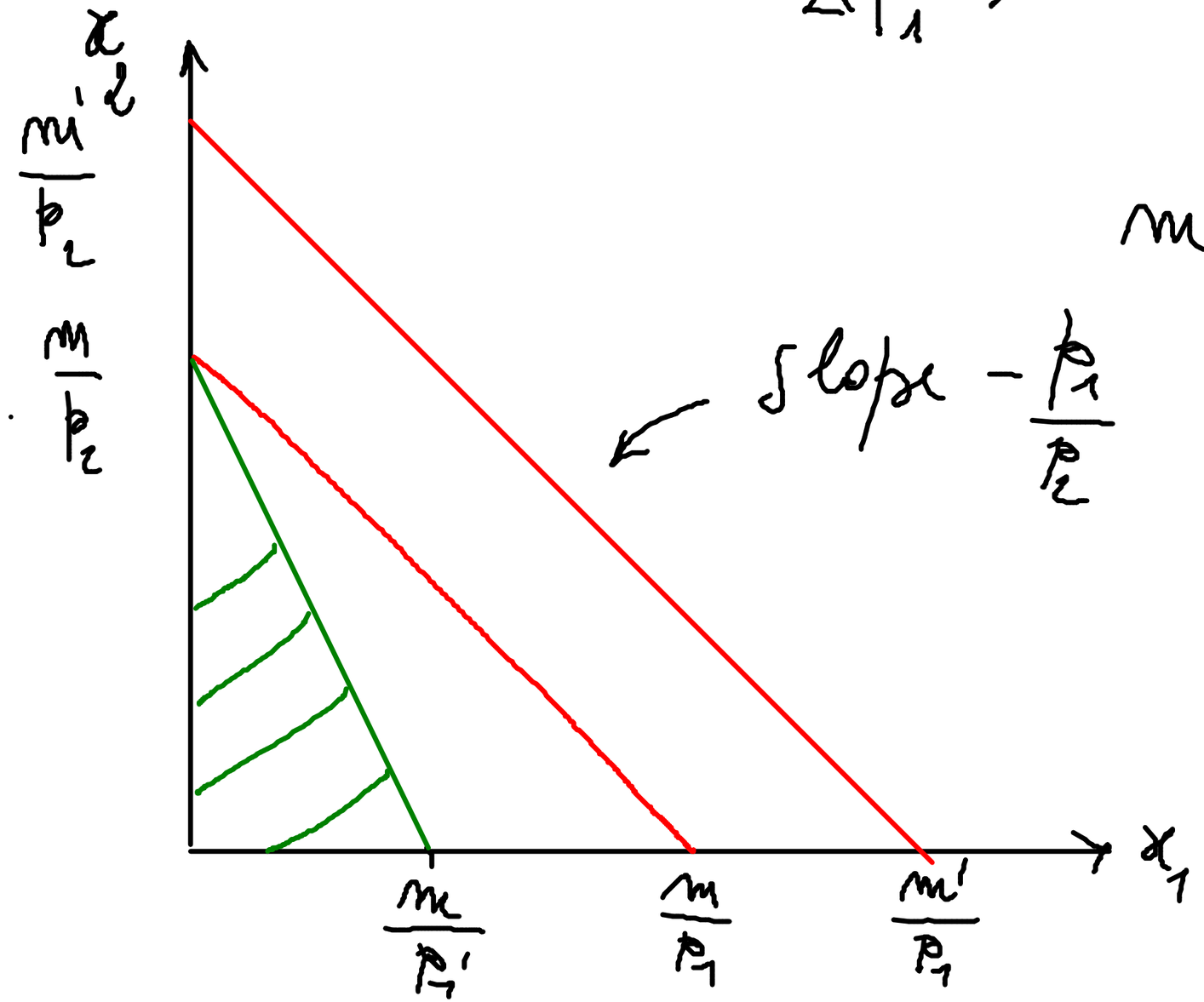
$$\Delta x_2 = x_2' - x_2$$

$$\frac{\Delta x_2}{\Delta x_1} = -\frac{p_1}{p_2}$$

$\frac{p_1}{p_2}$ = opportunity cost of good 1 in terms of good 2

$\Delta p_1 > 0$ ⟨ change in p_1/p_2 ; change in purchasing power

$m' > m$

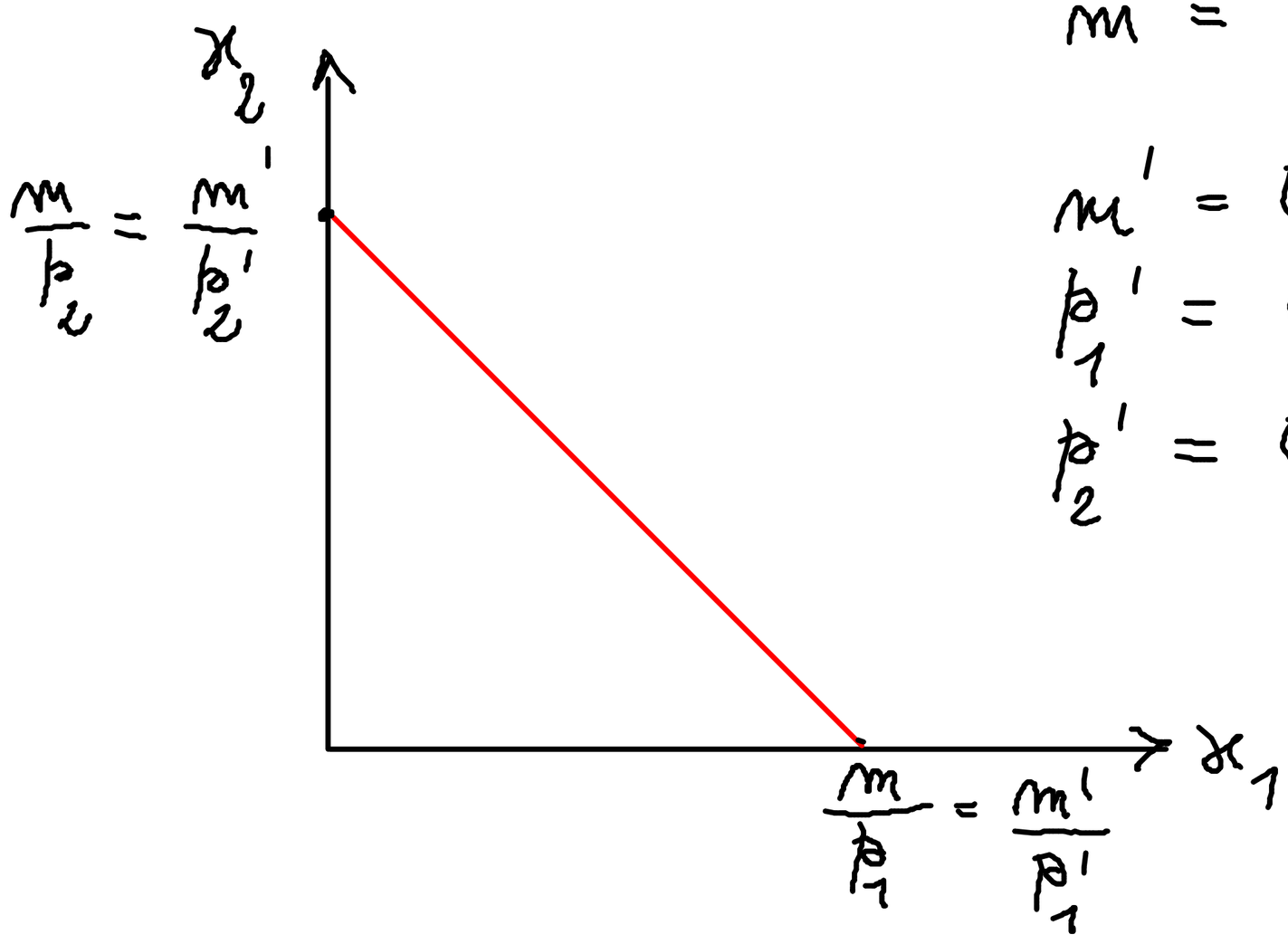


← slope $-\frac{p_1}{p_2}$

$p_1' > p_1$

$\left|-\frac{p_1'}{p_2}\right| > \left|-\frac{p_1}{p_2}\right|$

a proportional change of all money prices and money income leaves the budget line unchanged



$$m = p_1 x_1 + p_2 x_2$$

$$m' = t \cdot m$$
$$p_1' = t \cdot p_1$$
$$p_2' = t \cdot p_2$$

numeraire is the
unit of measure of
prices and money income

$$p_1 x_1 + p_2 x_2 = m$$

money is the numeraire

$p_2 = 1 \quad \frac{p_1}{p_2} x_1 + x_2 = \frac{m}{p_2}$

good$_2$ is numeraire

$m = 1 \quad \frac{p_1}{m} x_1 + \frac{p_2}{m} \cdot x_2 = 1$

m is numeraire