

Microeconomics is

- The allocation of scarce resources
- The study of how economic agents behave individually
- What, how, when should I buy/produce?
- Helps us understand many economic and social issues e.g. marketing (consumer behaviour), finance (investment decisions – risk), trade (blocs, tariffs) etc.
- Positive vs. normative analysis
 - Positive = objective and fact based → micro approach
 - Normative = subjective and value based

L1: Constraints on Choice

-problems that consumers face

-how do these constraints affect the budget constraint and budget set

Consumer Choice Sets

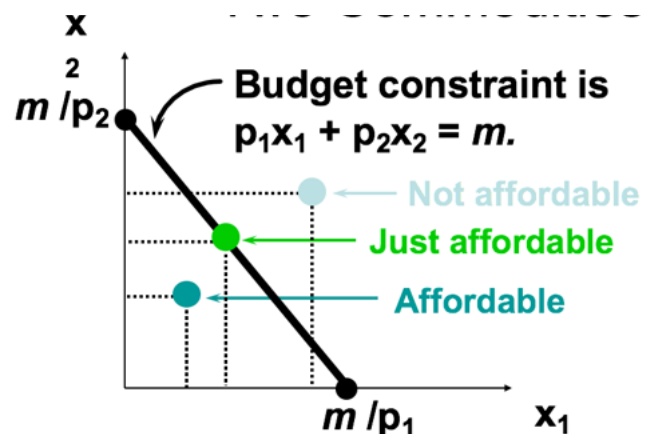
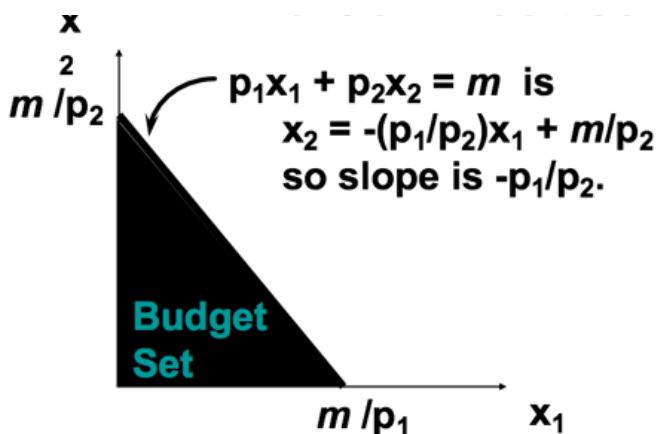
- A consumption choice set = the collection of *all* consumption choices *available* to the consumer
- What constrains consumption choice? budget, preferences, time and other resource limitations

Budget Constraints

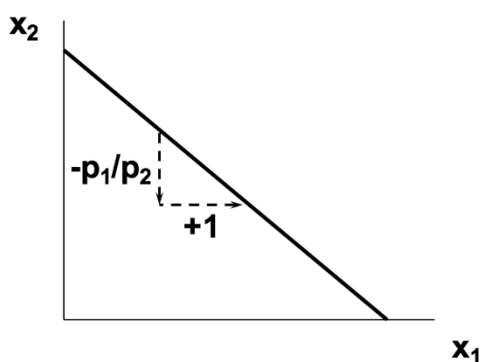
- Bundle = combination of two commodities
- (X_1, X_2) denotes a consumption bundle containing X_1 units of commodity 1 and X_2 units of commodity 2
- (P_1, P_2) denotes their respective prices

A Consumer's Budget Constraint is $P_1 X_1 + P_2 X_2 = m$

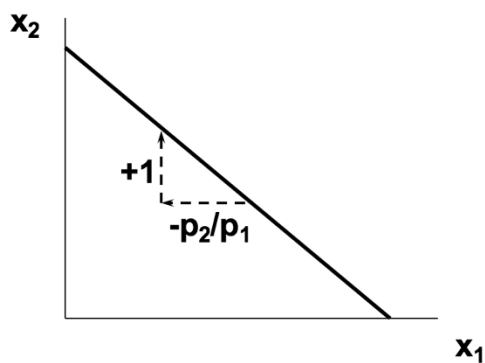
- m = disposable income
- The bundles that are *only just affordable* form the consumer's budget constraint
- It is the upper boundary of the budget set



- Slope = the opportunity cost of increasing a commodity by one unit, in terms of the other commodity e.g.



O.C. of an extra unit of commodity 1 is p_1/p_2 unit foregone of commodity 2



O.C. cost of an extra unit of commodity 2 is p_2/p_1 units foregone of commodity 1

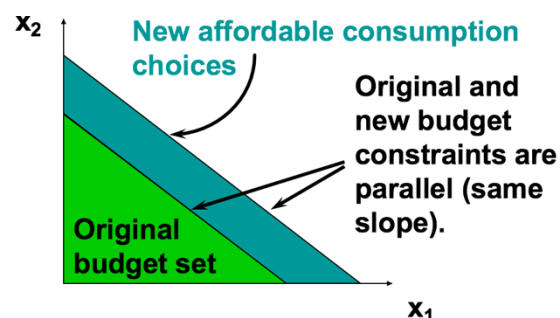
Income and Price Changes

- The budget constraint & budget set depend upon prices and income
- How do these two change when p and m change?

Income (m):

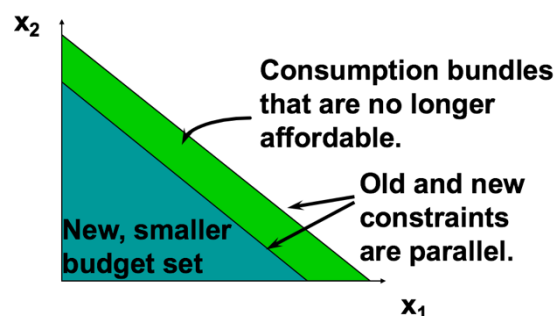
i. Increases in income

- Higher income gives more choice
 - budget constraint curve *shifts* outwards, in a parallel manner, enlarging the budget set
 - new choices are added, so higher m cannot make a consumer worse off
- Parallel/same slope because prices are fixed/relative and don't change



ii. Decreases in income

- Lower income gives less choice
 - budget constraint curve shifts inwards, in a parallel manner, shrinking the budget set
 - choices are removed from the budget set

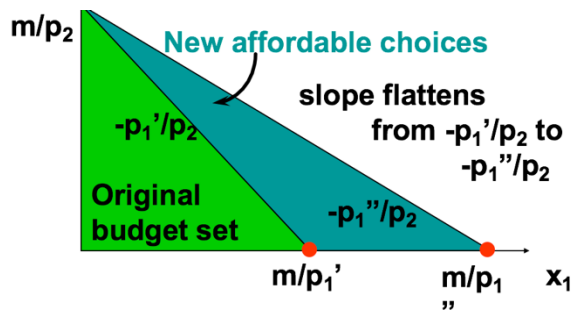
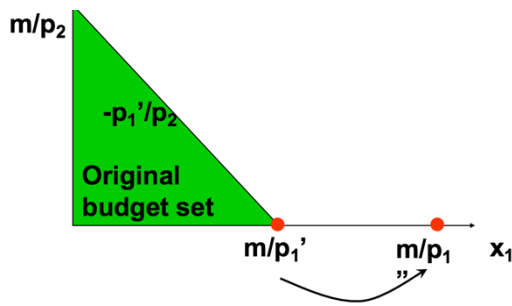


Price:

i. Reducing the price of only ONE commodity

E.g. p_1 decreases from p_1' to p_1

- New affordable choices
 - budget constraint *pivots* outwards – slope flattens, enlarging the budget set
 - no old choices are removed and new choices are added – consumer cannot be worse off



ii. Raising the price of only ONE commodity

- budget constraint pivots inwards, shrinking the budget set
- choices are reduced, making the consumer (typically) worse off

Uniform 'Ad Valorem' Sales Taxes:

- Applied uniformly to *all* commodities i.e. to both X_1 and X_2
- An ad valorem sales tax is levied at a rate of 5% → increases price by 5%, from p to $1.05p$
- A uniform sales tax levied at rate t changes the budget constraint to

$$(1+t) P_1 X_1 + (1+t) P_2 X_2 = m \quad \text{i.e. } P_1 X_1 + P_2 X_2 = \frac{m}{(1+t)}$$

- Equivalent income loss is

$$m - \frac{m}{(1+t)} = \frac{t}{(1+t)}m$$

- A uniform sales tax levied at rate t is equivalent to an income tax levied at rate $\frac{t}{(1+t)}$

