

World economy

Analysis of certain economical models and their possible usage for simulation of certain economics

Two sector economy

$$AD = C + I$$

C Consumption

I Investment

$$I_g = I_p + I_u$$

Investment planed (I_p)

Investment unplanned (I_u)

Multiplier in two sector economy

So-called 45° model or income-expense model explains, how is equilibrium GDP achieved
(= product where is not any tendency to changes)

$$AD = Y$$

Subject's planned spending consists of:

- Consumers consumption
- Corporate investment
- Governmental purchases
- Net export

Function of consumption

- Part of consumption is independent on income and is called autonomous consumption (C_a),
- Part of consumption is dependent and is based on income changes. This consumption can be expressed as $c \cdot Y$ where c is marginal propensity to consume (MPC)

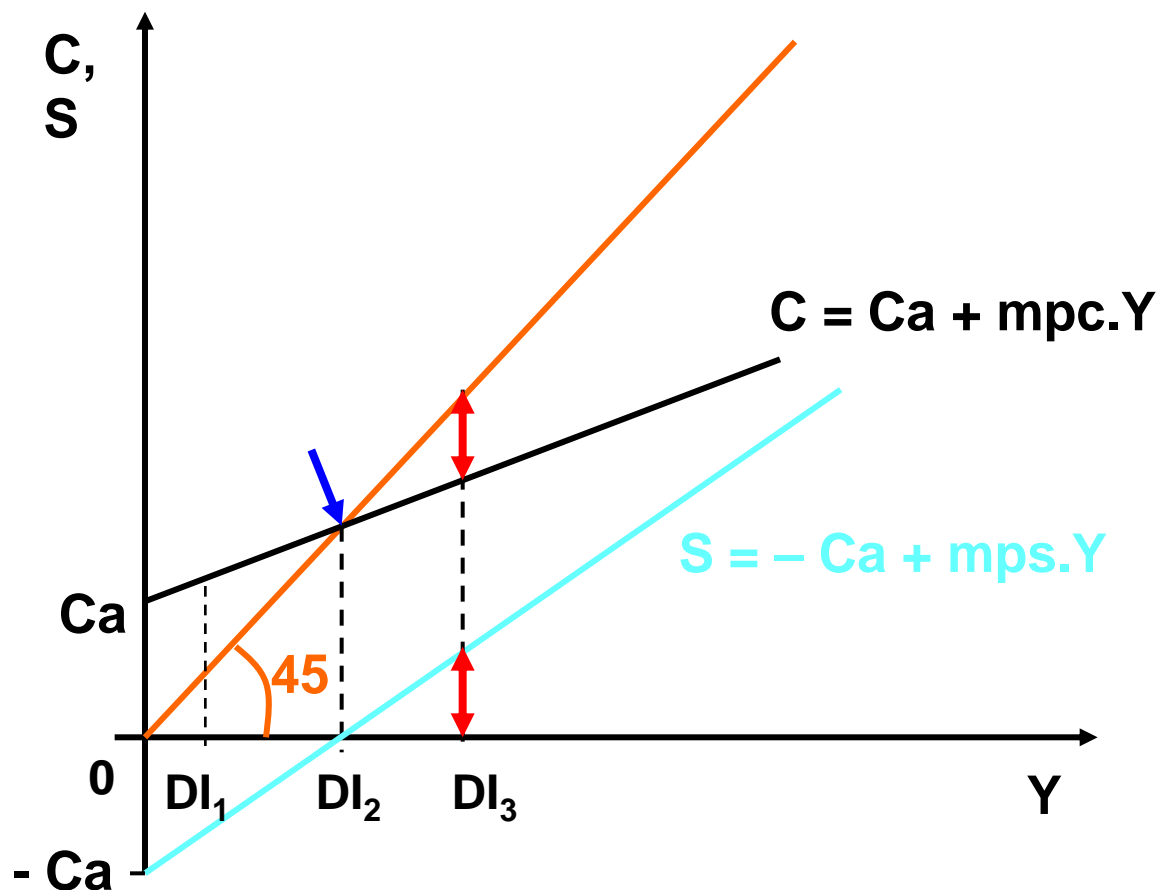
$$c = MPC = \Delta C / \Delta Y,$$

- Function of consumption expresses relation between government purchases and dispensable income of households

Function of savings

- Savings are part of dispensable income which was not spend on consumption.
- Function of savings expresses relation between savings and dispensable income of households.

Keynesian consumption and saving function



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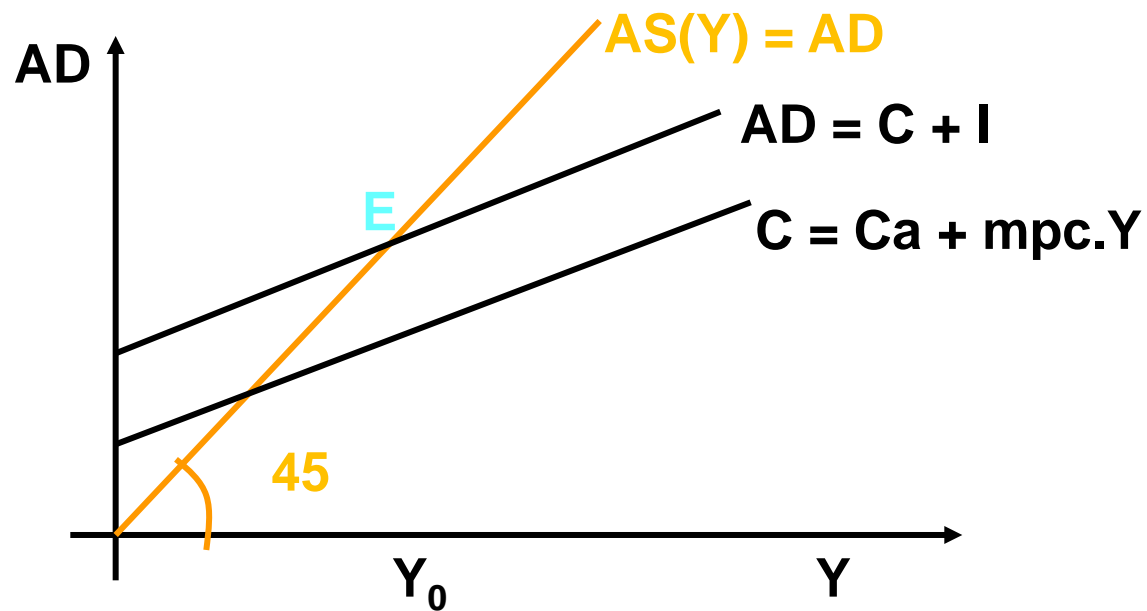
Propensity to consumption and savings

- Income (product) can be divided to consumption and savings

$$Y = C + S$$

Multiplier in two sector economy

- Investment multiplier shows how increase in private investment increases product in bigger, multiplied extent, which is higher than the original increase in private investment.
- Multiplier shows how many time is Y multiplied if autonomic spending (autonomic consumption and investment) changes by one.



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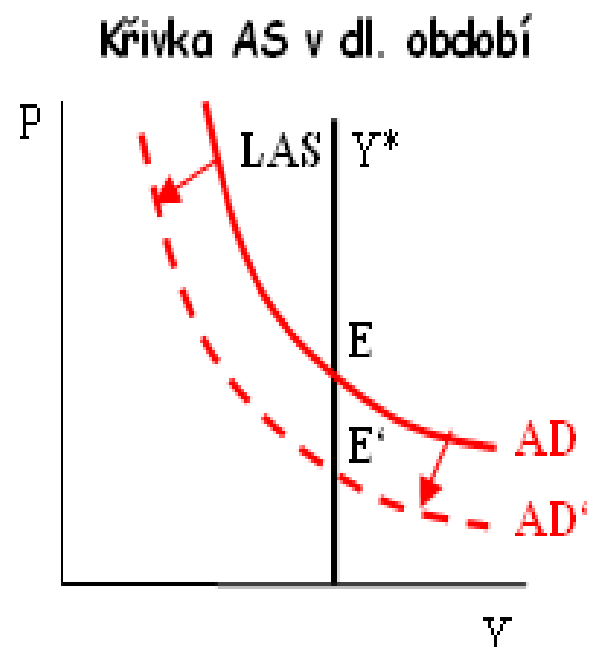
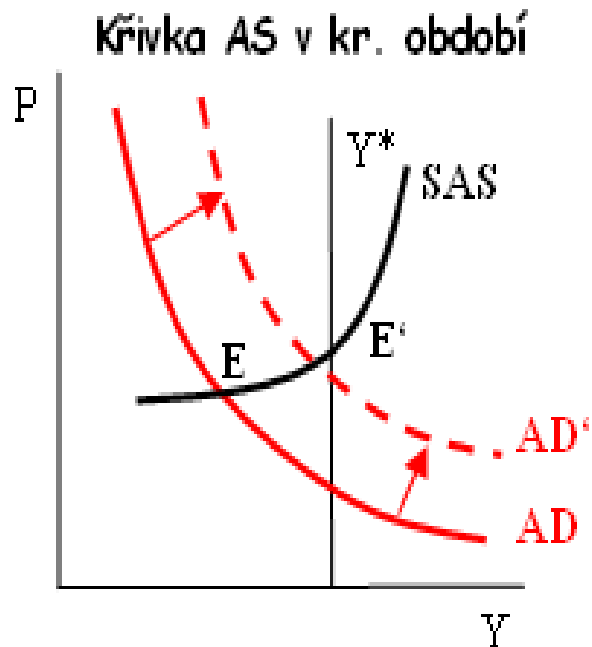
Aggregate Supply (AS)

- Aggregate Supply (AS) expresses extent of whole domestic product or company's output.
- Aggregate curve shows relation between total supplied production and price level in certain economy.

Aggregate Supply

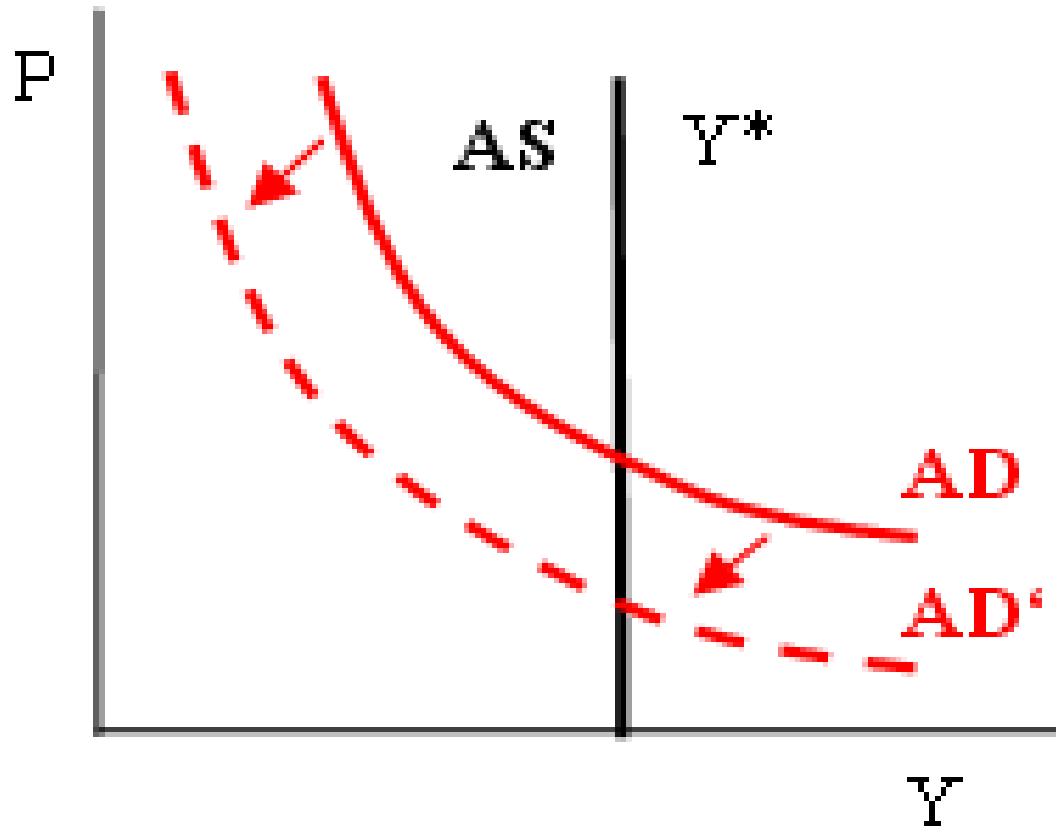
- SRAS, LRAS
- Keynesian approach– short and long period
- Classical approach– short and long period
- Inelasticity causes– earnings, rental, price of material, governmental regulations
- Supply shocks– positive, negative; nominal, real

Keynesian approach



Classical approach

Klasická křivka AS



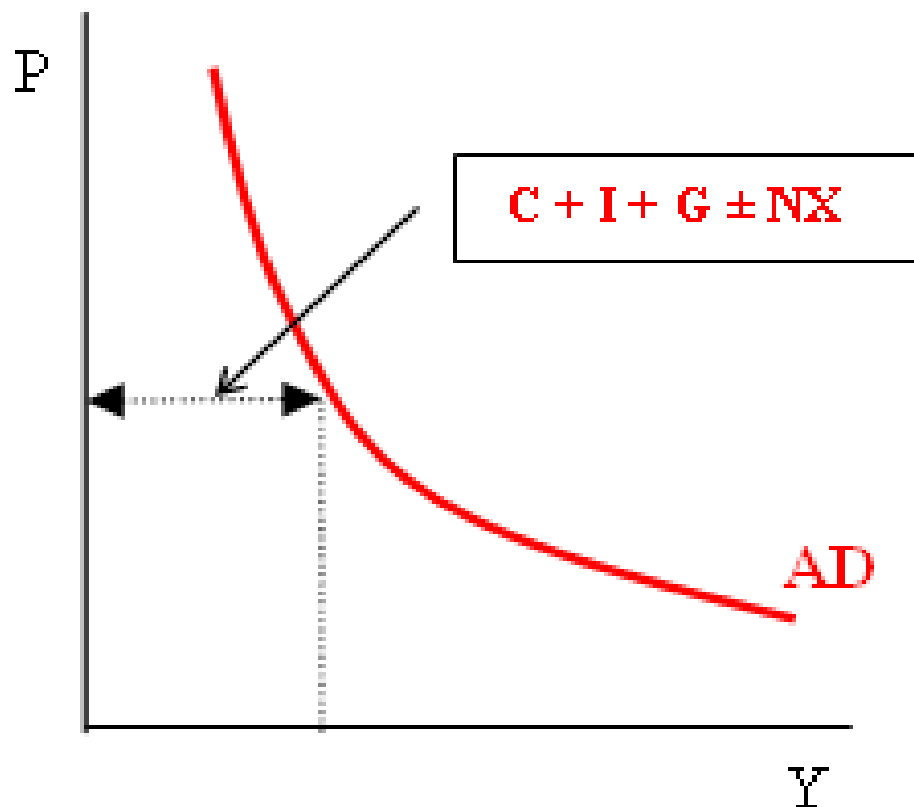
Aggregate Demand (AD)

- **Economical subject's planned expenses:**

$$AD = C + I + G + NX$$

- Where C is Consumption,
- I is Investment,
- G is governmental purchases for goods and services - Government,
- and NX is Net export.

Aggregate Demand



Why is AD decreasing

- Keynes's effect
- Pigou's effect
- Foreign trade effect
- Crowding-out effect of governmental purchases on private spending

Aggregate demand

- Demand shocks– AD changes (positive and negative demand shocks)
- Main causes of demand shocks:
 - effects, which influence dispensable income,
 - the CB's measures,
 - psychological factors,
 - economical situation in foreign countries,
 - number of inhabitants,
 - growth of asset price and any governmental measure.

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