Lecture 07

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Economics II

LISBON
**SCHOOL OF
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MANAGEMENT**
UNIVERSIDADE DE LISBOA

Summary:

4. Private Consumption, Household Savings and Investment

4.1. Private consumption, household saving and wealth

Bibliography:
Frank & Bernanke (2011), Chapter 8.

Lecture Goals:

❑Understand of the private consumption concept

❑List the main private consumption determinants

❑Understand the differences between the Keynesian approach and the Permanent Income and Life Cycle approach

❑Describe the main advantages and disadvantages of the those functions

4.1. PRIVATE CONSUMPTION, HOUSEHOLD SAVINGS AND WEALTH

4.1. Private consumption, household savings and wealth

What is the private consumption?

Is the expenditure of the households on (final) <u>consumption</u> of goods and services

The Portuguese Private Consumption (C) represents about 60% of the Domestic Expenditure.

Determinants of Private Consumption

- Current disposable income (Yd)
- Future income expectations
- Wealth
- Revenue from savings (interest rate)
- Inflation
- Age, education, occupation and household composition
- Marketing and advertisement

What is the national disposable income (Yd)?

Is the income available (disposable) at the present.

- = Primary Income (from: work, capital, land))

+ Plus operations

- Social transfers (pensions, unemployment benefit, etc.)
- Transfers from External Sector (Rest of the World)

- Less operations

- Income taxes and assets taxes
- Social security payments
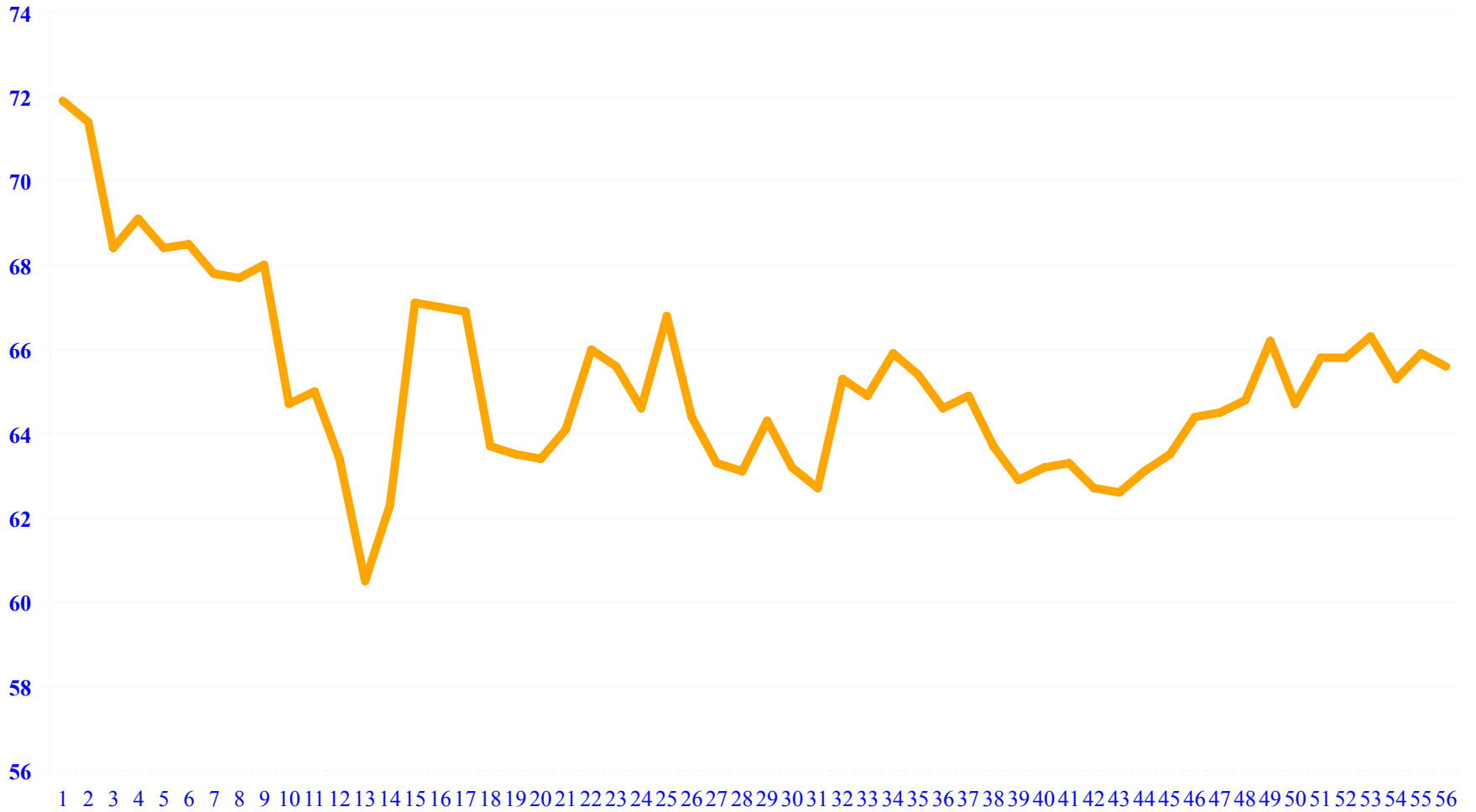- Transfers to External Sector (Rest of the World)

Private consumption is tightly correlated to disposable income of households:

Consumo e Rendimento Disponível Reais das Famílias em Portugal: 1995-2011
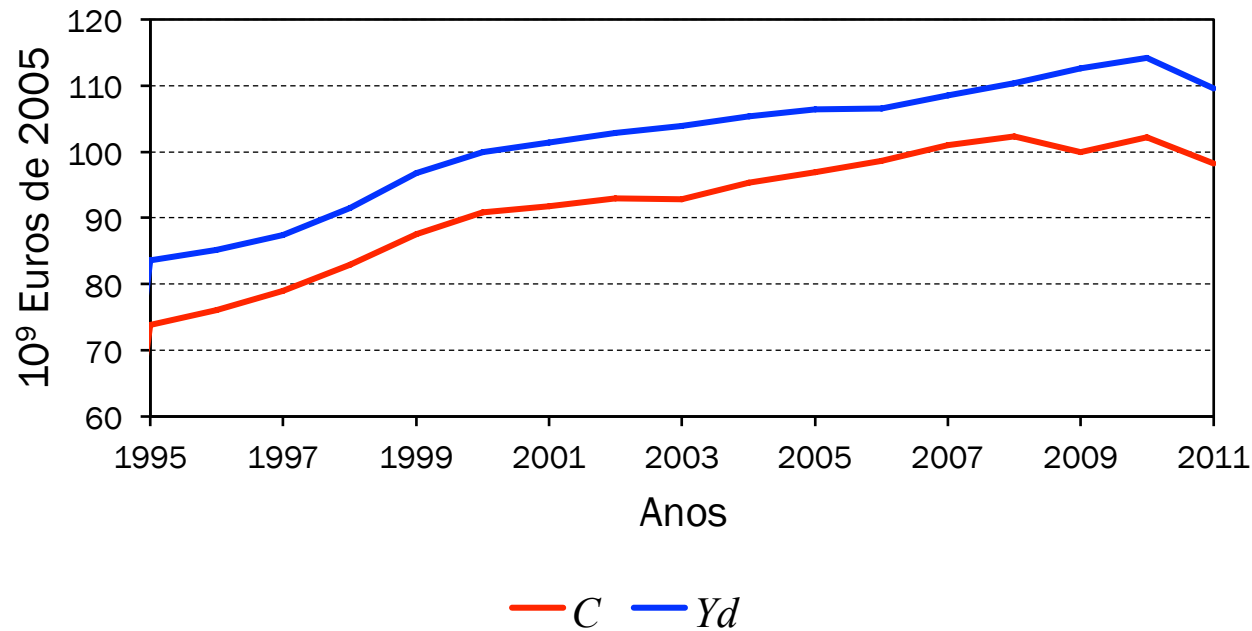
Private consumption as a % of GDP (1960-2015)

The Keynesian consumption function relates consumption with current disposable income (Keynes, 1936)

$$C = \overline{C} + c.Y_d \qquad 0 < c < 1$$

C the planned expenditures on private consumption

Yd disposable income of the households

c = marginal propensity to consume

$\overline{C}$ = autonomous consumption

(It can be theoretically negative but total C must be higher or equal 0)

c = marginal propensity to consume

$$\frac{dC}{dY_d} = c \in (0,1)$$

- When the disposable income increases one monetary unit (1 m.u.)

- … the planed private consumption increases *c* monetary units

- *c* is the slope of the curve representing the consumption function. (in our study is linear; the slope is constant).

C/Y_d , <u>average</u> propensity to consume

$$\frac{C}{Y_d} = \frac{\overline{C}}{Y_d} + c$$

The <u>average</u> propensity to consume (C/Yd):

- varies with the disposable income level (Yd). It is not constant (even in the linear case);

- is higher (lower) than the marginal propensity to consume if the autonomous consumption is positive (negative).

NOTE: Presentation slides <u>are not</u> bibliography

Graph representing the Keynesian function of private consumption (linear version)

$$C = \overline{C} + c.Y_d$$
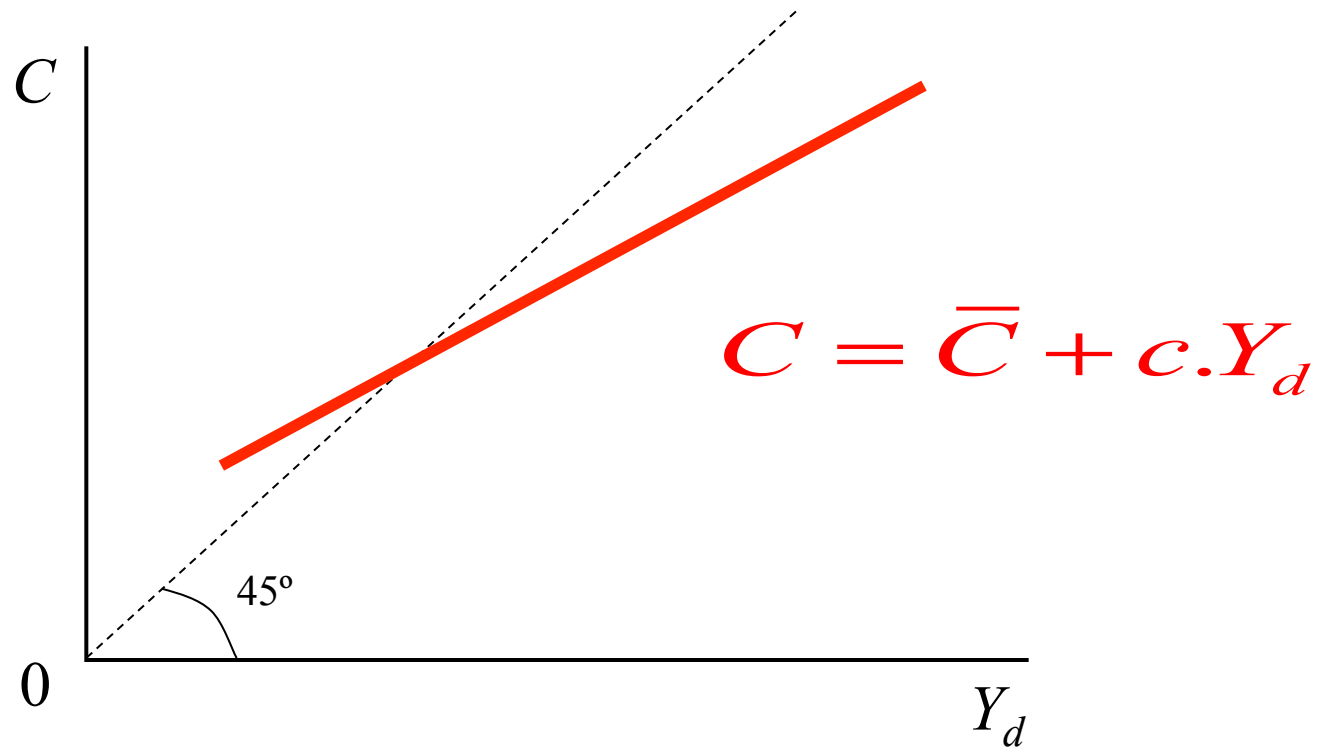
Autonomous consumption $\overline{C}$
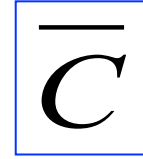
- Is the part of private consumption which does not depend on the disposable income.

- Represents the influence of other determinants of consumption.

- Geometrically is the ordinate on origin of consumption function.

➢ *It does not be interpreted* as the private consumption when the disposable income is equal to zero...because disposable income must be > 0.

Private Saving of the Households

- Saving of the households: the part of their disposable income which is not consumed.

  $S = Y_d - C$

- From the private consumption function of the households, we can obtain the planned saving of households:

$$S = Y_d - C \Longleftrightarrow$$

$$\Longleftrightarrow S = -\bar{C} + (1-c).Y_d \Longleftrightarrow$$

$$\Longleftrightarrow S = -\bar{C} + s.Y_d$$

- **Keynesian Saving Function** (linear)

$$S = -\bar{C} + s.Y_d$$

- **S** – marginal propensity to save **(dS/dY_d):**
  - The increase of the planned savings when the disposable income of the households increases by one monetary unit (1 m.u.).

  - Note that: **s = (1 - c)** , OR **s + c = 1**.

- **The saving of households can be negative on a certain period**
  - If the households spend more on consumption than the amount of income (disposable).
  - households had a credit or used their patrimony (wealth)

Graphic representation of Private Consumption and Saving Functions (Keynesian; linear version)

$$C = \bar{C} + c.Y_d$$

$$S = -\bar{C} + (1-c).Y_d$$
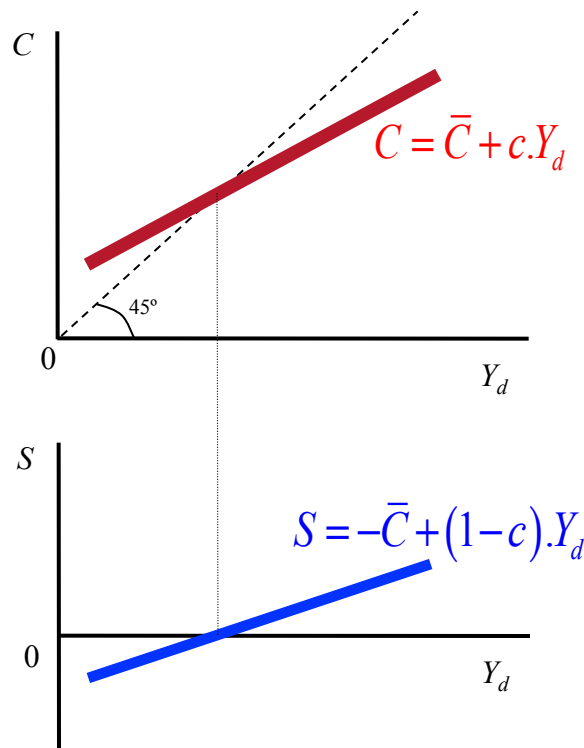
Consumption and expectations about future income

- Permanent income theory[*] (*Friedman, Nobel Prize Economics, 1976*)

- Life Cycle Theory (*Modigliani, Nobel Prize Economics, 1985*)

- "Rational agents"

- Intertemporal choice

- Permanent Income

  ➢ *Permanent Income= the 'average' income the households expect to recieve during their lives.*

- The Keynesian consumption function relates consumption to current income. (current disposable income)

Life Cycle Theory:

- Period of active life, and:

- Period after retirement.

- Keeping a stable pattern of consumption

  ➢ *So, saving during active life…*

  ➢ *…and using the savings after retirement*

  The two theories (Life cycle and Permanent Income) are formally equivalent :

  They are often coupled together and referred as Permanent Income Theory/Life Cycle Theory

  → *They are* future-oriented consumption theories

- Arguments against the theories of permanent income and life cycle

  - Consumer have a strong "preference for the present"

  - Consumers are not able to obtain credits from the banks when the income is low ("liquidity constraint")

  - Consumers are "myopic" (they are not rational and for them is difficult to "see" the long run)

  - How is permanent income measured?

Consumption and Wealth

Income is a <u>flow</u> variable

- It is measured *for a period* in monetary units (m.u.) and for a period of time (for example 5,000 euros for the year 2013)

Wealth is a <u>stock</u> variable

- It is measured *for a certain moment* and in monetary units (m.u.). (for example 250,000 euros in 12 March 2013)

Wealth of an household

- Value of the household assets net from financial responsibilities (debts)
  - cars, building-home, money in banks, bonds and stocks, etc.
  - *Less bank credits and other debts*
- Saving increases wealth

- The future oriented consumption theories relate consumption and wealth
  - The "current" (at the present) wealth can also have future components (life cycle).

- **Consumption and interest rate**
  - The real interest rate on wealth is the revenue from saving
  - Higher real interest rate can contribute to increase the saving share of the income.

- **Consumption and inflation**
  - Increases in prices when the nominal income increases <u>in the same proportion</u> should not affect the consumption:
    - On those conditions the *real* income remains constant
    - However the consumers have sometimes "*monetary illusion", i.e.,* when the nominal changes are assumed (wrongly) as real changes.
    - Inflation can cause income re-distribution away from lower income wage earners
    - As lower income households tend to have a higher propensity to consumer, then inflation can reduce aggregate (national) consumption.