

## Lecture 10

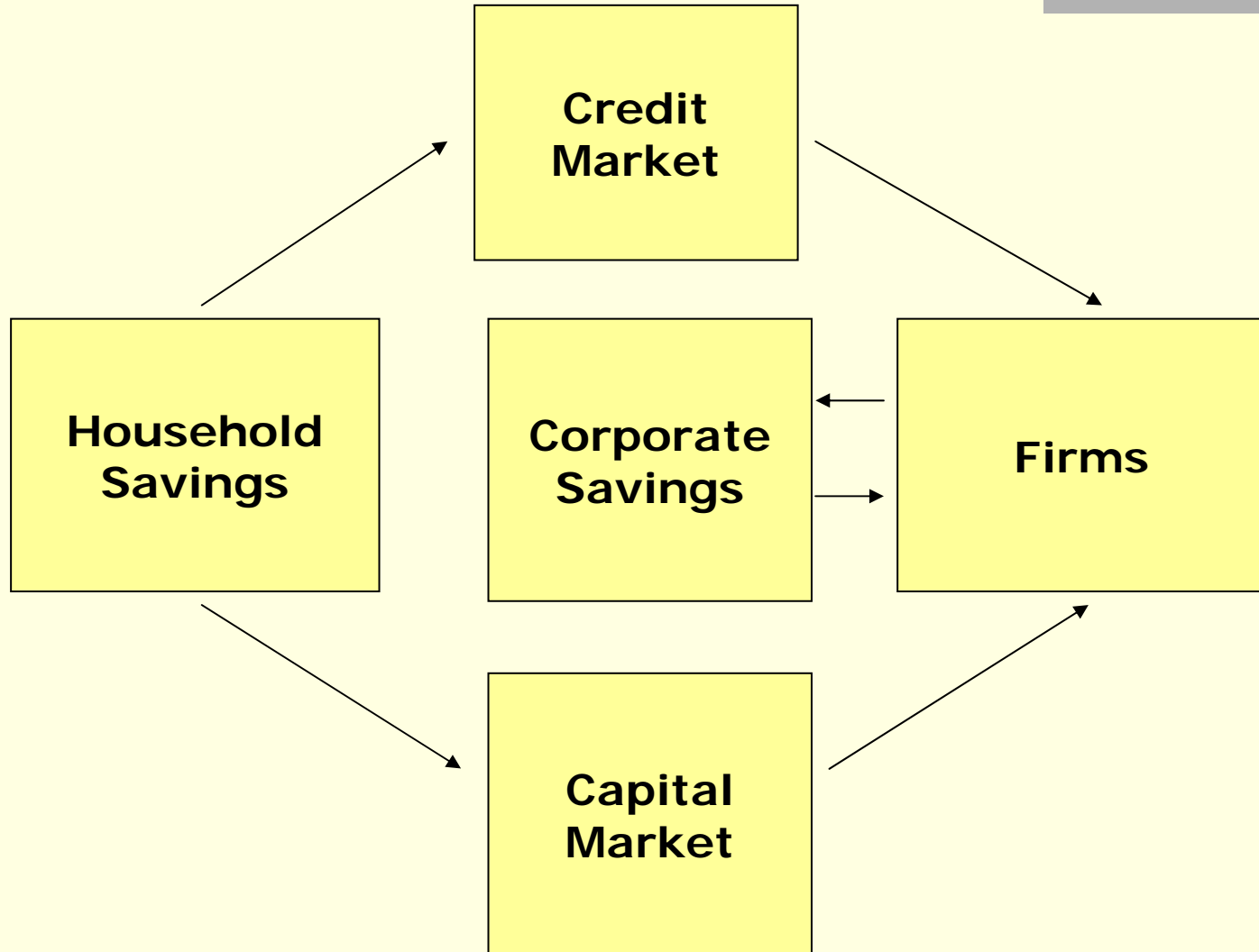
### Capital and Savings

(Based on Chapter 11 of Perkins et al.)

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# Flow Chart



# Theories of Household Savings

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- Life cycle hypothesis
  - Ando and Modigliani [AER, v. 53, n. 1, p. 55-84]
  - Ando and Modigliani [AER, v. 54, n. 2, p. 111-113]
- Permanent income hypothesis
  - Friedman
- Duesenberry hypothesis

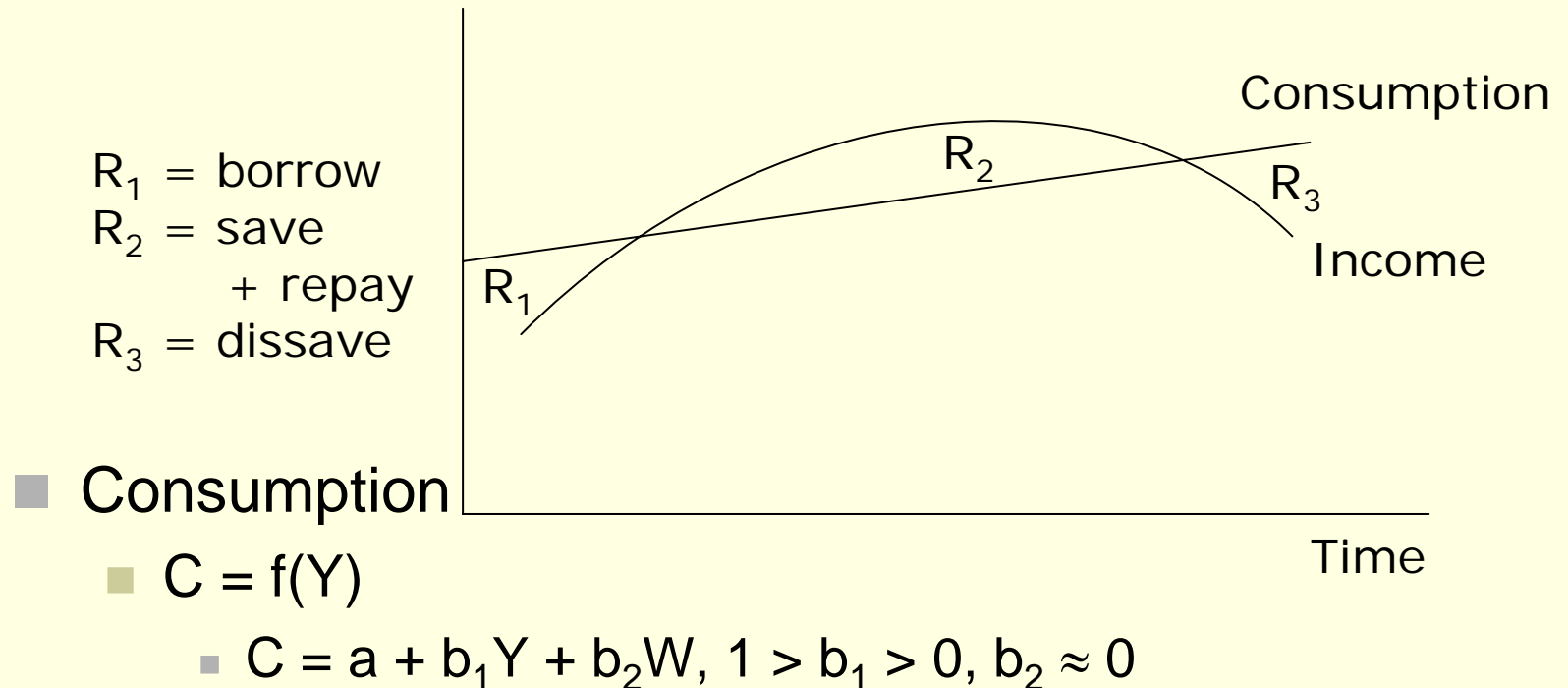
# Basic Assumption

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- Current consumption does not depend on current income alone.
  - Consumption smoothing over lifetime.
- Formal treatment.
  - Two periods (1 and 2)
  - $\max U(C_1, C_2)$
  - sub

$$C_1 + \frac{C_2}{(1+r)} = Y_1 + \frac{Y_2}{(1+r)}$$

# Life Cycle Hypothesis .... 1



# Life Cycle Hypothesis .... 2

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- Implication
  - Consumption smoothing
  
- What would happen to aggregate household savings if there is population aging?
  - What will be the impact on the capital market?
    - What would be the net impact on aggregate household savings?
  
- Why do elderly people not dissave all their savings in their old age?
  - Bequests
  - Intergenerational transfers

# Permanent Income Hypothesis

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- Income
  - Permanent ( $Y^P$ )
    - Education, health etc.
  - Transitory ( $Y^T$ )
    - Circumstances
  
- Consumption
  - $C = f(Y^P)$ 
    - $C = a + b_1 Y^P + b_2 Y^T, 1 > b_1 > 0, b_2 \approx 0$
  
- Implication
  - Consumption smoothing

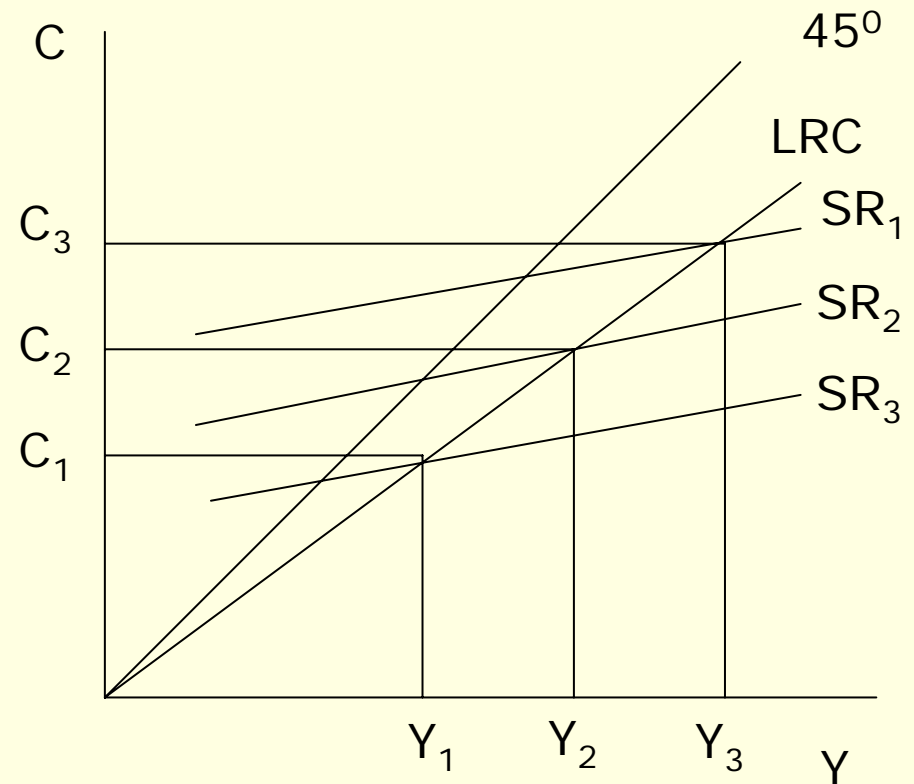
# Duesenberry Hypothesis

## ■ Consumption

- $C_t = a + b_1 Y_t + b_2 Y_{-h}$
- $1 > b_1 > 0$
- $1 > b_2 > 0$

## ■ Implication

- Consumption of the society as a whole a stable function of income.





# Government Saving

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- Revenue
  - Direct taxes
    - Supply side theories
  - Indirect taxes
  - Tariff on international trade
    - Lower after GATT
  
- Expenditure
  - Wage payment
    - Size of the government
  - Investment
  - Subsidies
    - Pressure groups

# Ricardian Equivalence

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- Ways to meet higher government expenditure in the current period
  - Raise taxes in the future
    - Intertemporal budget constraint
  - Print money in the future
    - Inflation *tax*
  - Borrow and roll over debt
    - Sustainability

# Corporate Saving

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## ■ Uses

- Dividend to shareholders
- Investment
  - Pecking order hypothesis

## ■ Caveat

- Agency problems
  - Share buyback
  - Acquisition of other companies
    - Free cash flow theory