

# CH. 28 *absooristi*

\* Basic macroeconomic relationship,

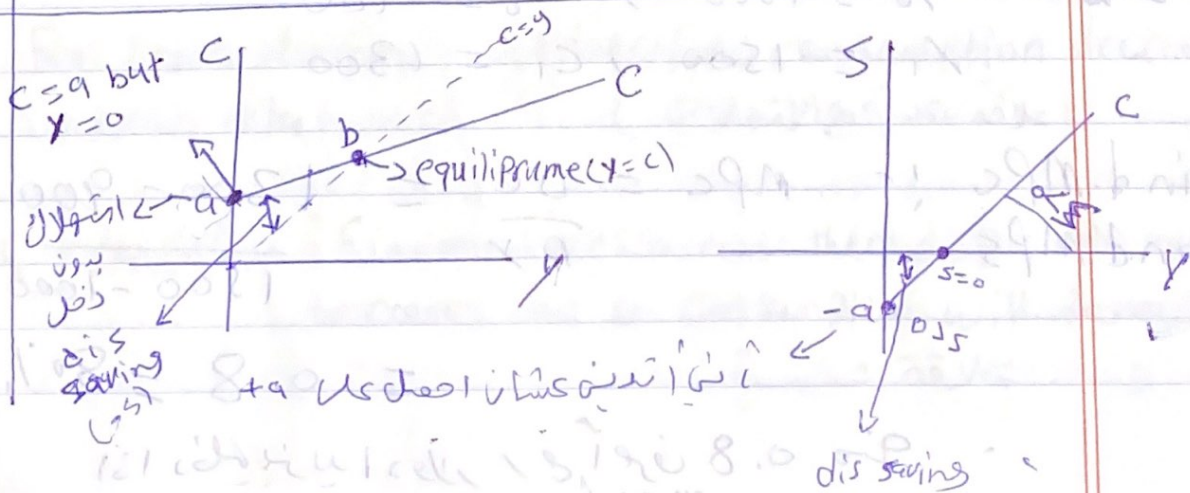
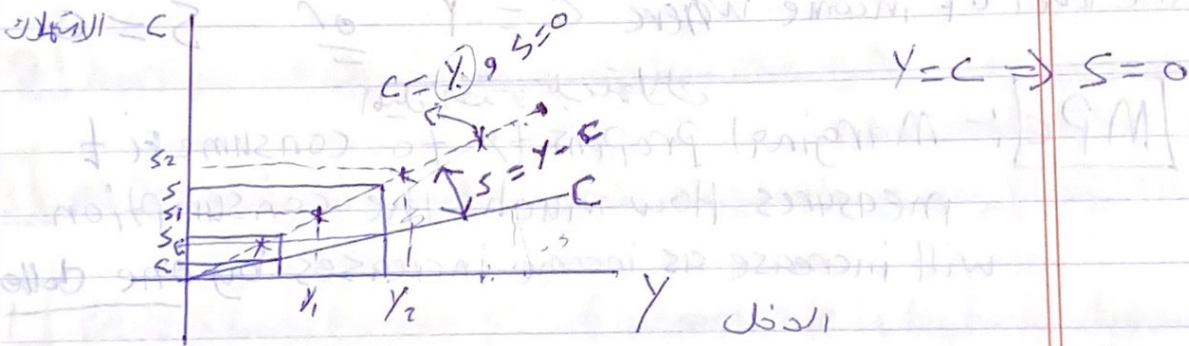
\* The income - consumption and income-savings relationship.

\* if income increase then consumption increase.

$$* \boxed{Y = C + S}$$

Income
Consumption
Savings

\* increase in consumption is lower than the increase in income.



\* Consumption curve (Line)

\* saving curve (Line)

\* **APC**: Average propensity to consume =  $C / Y$   
مقدار الاستهلاك / الدخل

\* **APS**: Average propensity to save  
مقدار الادخار / الدخل

$$APS = S / Y$$

\* break-even income = equilibrium income

the level of income where  $C = Y$  or  $S = 0$

\* **MPC**: Marginal propensity to consume  
measures how much the consumption will increase as income increases by one dollar

\* Ex -  $Y_0 = 1000, C_0 = 900$   
 $Y_1 = 1500, C_1 = 1300$

Find MPC :-  $MPC = \frac{\Delta C}{\Delta Y} = \frac{1300 - 900}{1500 - 1000}$

and MPS

$$= 0.8 = 80\%$$

إذا دخلنا بزيادة دولار / من آخره 0.8 من 900

%  $\Delta C = APs, APC, MPS, MPC$  \*

$$MPC + MPS = 1$$

$$* MPS = 1 - MPC = 1 - 0.8 = 0.2 = 20\%$$

أي أنني وفرت 0.2 من الواحد دولار التي كانت زيادة في دخلتي.

\* MPS: Marginal propensity to save; it measures how much saving increase due to an increase in income by one dollar.

\* Non income determinate of consumption and saving:-

1] Wealth الثروة التي عندك تستهلك أكثر :- الثروة  
من الشئ الذي ما عندك ثروة.

2] borrowing الاقتراض تريد من فرصة الاستهلاك  
(علاقة طردية).

3] expectation التوقع :- الثروة متوقعة مستقبلا

4] real interest rate :- if interest rate is high in demand

for loans decreases and therefore consumption decreases  
(علاقة عكسية مع الاستهلاك) inverse relationship

5] taxes :- if income taxes increase then disposable income decreases and so consumption will decrease

(علاقة عكسية)

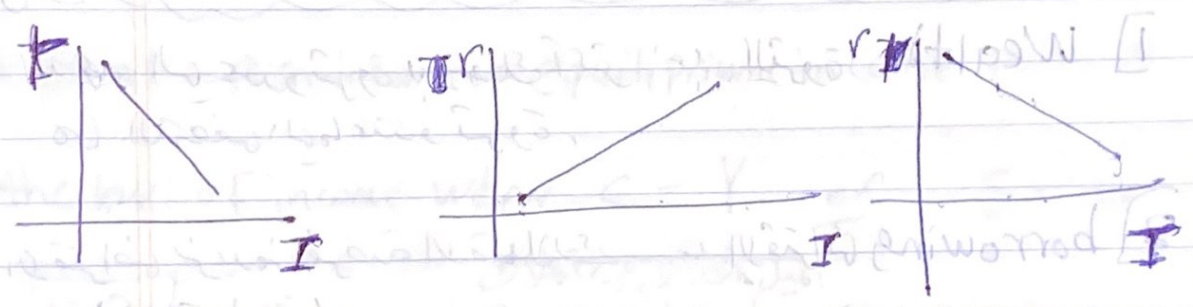
المعادلة  $I = 29M + 29M$

6) Stability: العلاقة العكسية  $I = 29M$

\* The interest rate - investment relationship:

inverse relationship, why?

If interest rate increases then borrowing from banks is more costly and therefore investment decreases, return of investment is higher than the interest rate, decrease



العلاقة العكسية بين الاستثمار والقرض (العلاقة العكسية)

\* does investment curve is constant?

- business taxes, costs of maintenance, operational cost, technology
- stock of capital goods on hand, planned inventory changes, expectations
- innovation, irregularity in innovation, variability in expectation, variability of profits.

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،  $W_b = 1B$

CH. 29

\* Change in income =  $\frac{1}{1 - MPC} \times 1B$   
 (Multiplier)

=  $\frac{1}{MPS} \times 1B$

EX: if  $MPC = 0.5$  find change in income

$\Delta \text{income} = \frac{1}{1 - 0.5} \cdot 1B = 2B$

2B → ...

\*  $C, S$  :- Primarily determined by disposal income.

APC :- fraction of total income consumed.

APS :- ... saved.

MPC :- Proportion of a change in income consumed.

MPS :- ... saved.

\*  $MPC, MPS \leq \text{slope} \leq \frac{DC}{DY}, \frac{DS}{DY}$

\* investment Return } interest rate :- investment increases.

\* multiplier  $\left[ \begin{array}{l} MPC \\ MPS \end{array} \right]$  ...

\* Large MPC results in larger increases in spending

\* Large MPS  $\rightarrow$  smaller  $\rightarrow$

\* The Actual Multiplier Effect?

\* actual multiplier is lower than the model assumes

\* consumers buy imported products

\* Households pay income taxes

\* inflation.

\* Multiplier may be 0 when ~~MPC~~ or ~~MPS~~

initial consumption

# CH. 29 abstrakte

The aggregate Expenditure model.

\* closed economy,  $M = X = 0$

\* No government, \* No private investment

only we have consumption

$$Y = C + \underbrace{I + G + X - M}_{\text{zero}}$$

$$Y = C$$

$$C = C_0 + C_1 Y$$

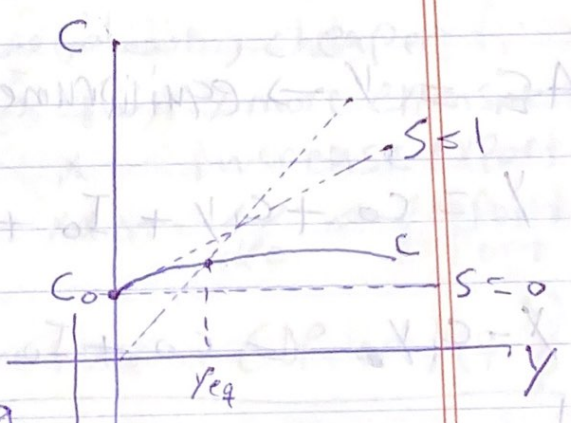
$C_1 = MPC$

where  $C_0$  is the minimum consumption required to survive,  $C_1$  is the MPC (0,1)

$$Y = C$$
$$Y = C_0 + C_1 Y$$
$$Y - C_1 Y = C_0$$

$$Y(1 - C_1) = C_0$$

$$Y_{\text{equilibrium}} = \frac{C_0}{1 - C_1}$$



at  $Y=0$   
 $Y=0$   
 $C=C_0$   
 $S$ : slope

initial consumption :  $C_0$

PS.H) MPC :  $C_1$

\* if  $I > 0$  ;  $Y = C + I_0 \rightarrow C_1 Y$

Aggregate Expenditure  $AE = Y_{eq} = C_0 + C_1 Y + I_0$

Aggregate Expenditure

$Y - C_1 Y = C_0 + I_0$   
 $Y(1 - C_1) = C_0 + I_0$

$Y_{eq} = \frac{C_0 + I_0}{1 - C_1}$

where  $Y = 0$

$AE = Y_{eq} = C_0 + I_0$

\* if  $G > 0$

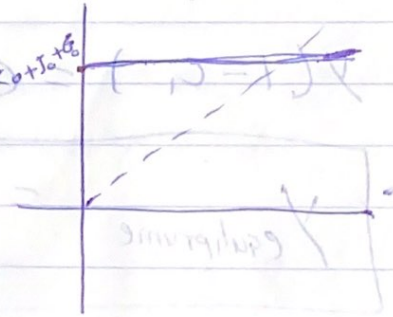
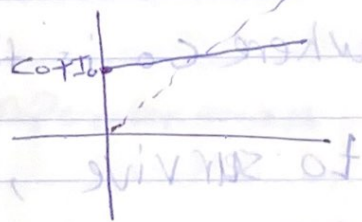
$AE = (C_0 + C_1 Y) + I_0 + G_0$

$AE = Y \rightarrow$  equilibrium

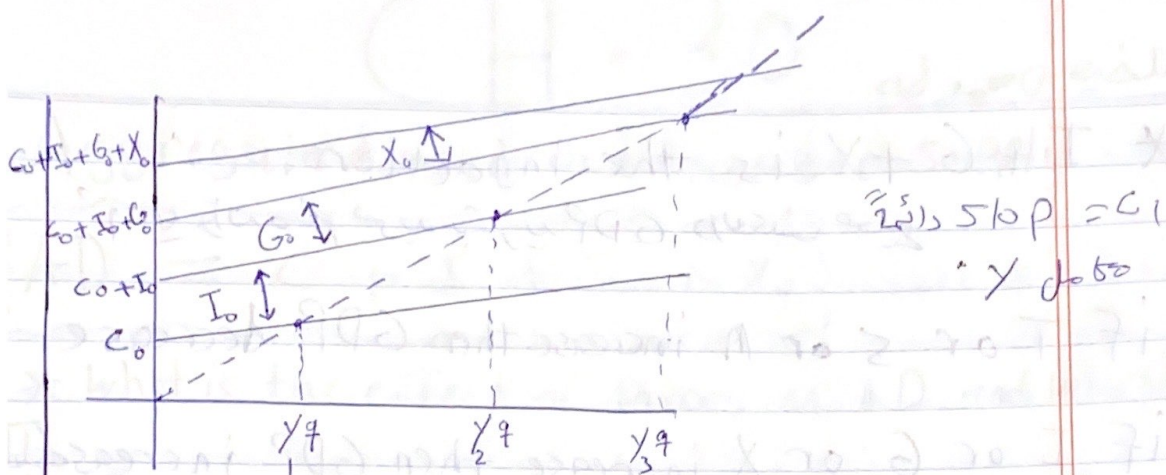
$Y = C_0 + C_1 Y + I_0 + G_0$

$Y - C_1 Y = C_0 + I_0 + G_0$

$Y_{eq} = \frac{C_0 + I_0 + G_0}{1 - C_1}$







\*  $N_x$ : Net export :-  $AE = C + I + G + X$

$$Y = C_0 + c_1 Y + I_0 + G_0 + X_0$$

\* العوامل التي تؤثر في الصادرات والواردات :-

- 1] foreign income. الدخل (↓, ↑)
- 2] exchange rate. تغير سعر الصرف
- 3] depreciation, cheaper, انخفاض قيمة العملة  
 xx appreciation, more expensive, ارتفاع قيمة العملة  
 increase export
- 4] tariffs. الجمرك. xx ↓ = import  
 dec = export

\* What the effect of income tax on GDP or  $Y_{eq}$  ?

إذا الفريبة تزيد الدخل المتاح يقل قبل الإنفاق  
 وبالتالي  $AE$  تنقل

T: tax

\*  $I + G + X$  is the injection

\* if  $T$  or  $S$  or  $M$  increase then GDP decrease

\* if  $I$  or  $G$  or  $X$  increase then GDP increases.

\* Other Features of Equilibrium GDP \*

⊙ saving equals planned investment

◦ saving is a leakage of spending

◦ investment is an injection of spending

⊙ No unplanned changes in inventories

◦ firms don't change production

\* AE declined :- 1] consumption spending declined

2] investment spending

3] Recessiionary expenditure