

CH. 28

absoresist

* Basic macroeconomic relationship.

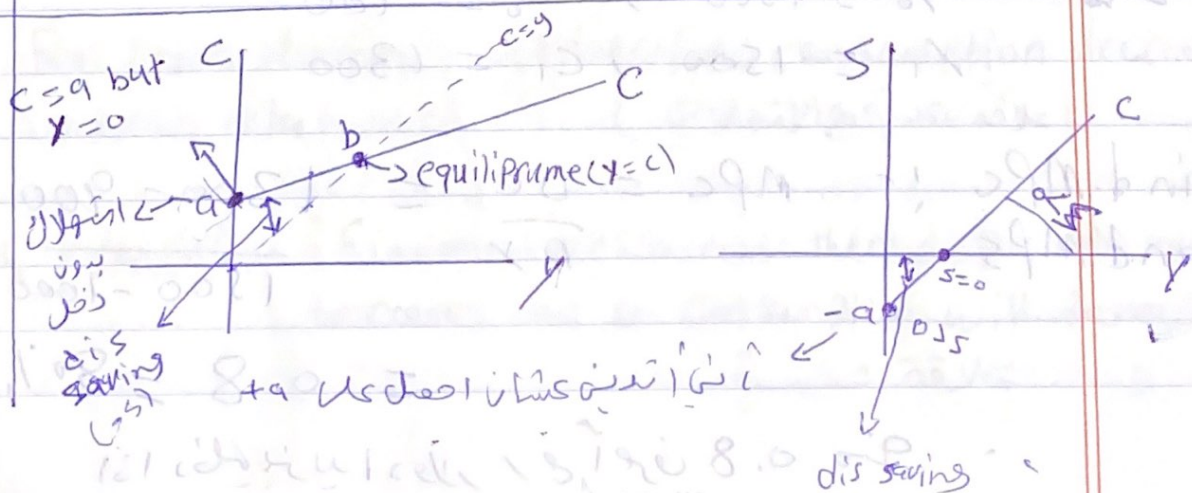
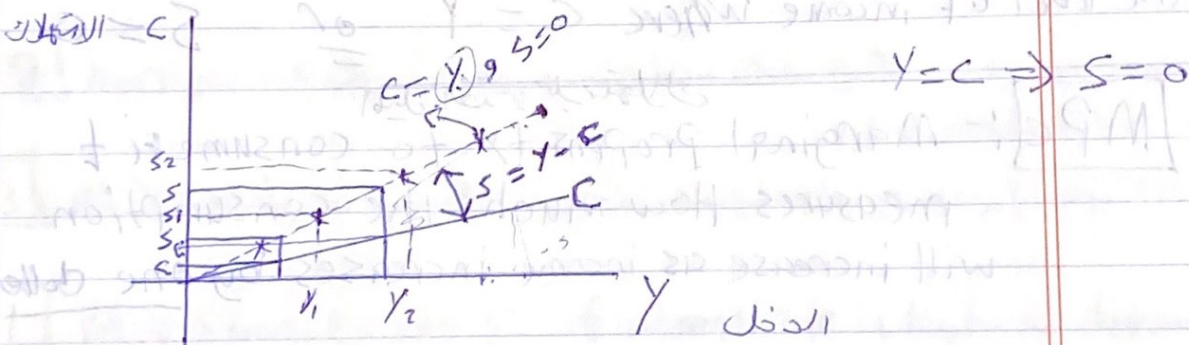
* The income - consumption and income-saving relationship.

* if income increase then consumption increase.

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

Income
Saving

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



* Consumption curve (Line) -

* saving curve (Line) -

* **APC**: Average propensity to consume = C / Y
 ↓ ↓
 consumption income

* **APS**: Average propensity to save
 ↓ ↓
 consumption income

$$APS = S / Y$$

* 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 دخل يزيد دولار / مع آخره 0.8 من 900
 أو 80%

% كودها = APC, APC, MPS, MPC *

$$MPC + MPS = 1$$

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

أي أنني وفرت 0.2 من الـ 1 دولار التي كانت في يدي دقاي.

* 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: الثروة التي عندك تستهلك أكثر من الثروة التي عندك ثروة.

2] $borrowing$ الاقتراض: الاقتراض يزيد من فرصة الاستهلاك (علاقة طردية).

3] $expectation$ التوقع: إذا توقعنا أن الدخل في المستقبل سيزداد.

4] $real\ interest\ rate$: if interest rate is high in demand

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

5] $Taxes$: if income taxes increase then disposable income decreases and so consumption will decrease. (علاقة عكسية)

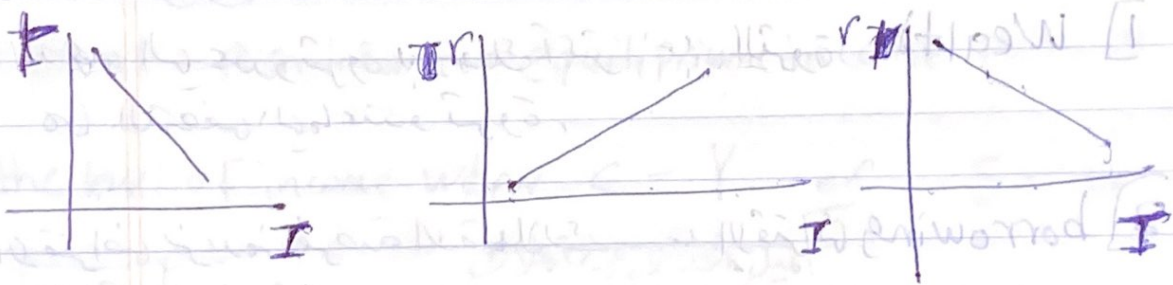
$$I = 29M + 29M$$

6] Stability: $\bar{Y} > \bar{Y}_1$

* 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



القائمة بـ (علاقة عكسية)

* 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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وہ :- B

$$\begin{aligned} \text{Change in income} &= \frac{1}{1 - MPC} \times 1B \\ (\text{Multiplier}) &= \frac{1}{MPS} \times 1B \end{aligned}$$

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

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

2B کی مقدار میں اضافہ ہوگا

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

APC :- fraction of total income consumed.

APS :- fraction of total income saved.

MPC :- Proportion of a change in income consumed.

MPS :- Proportion of a change in income saved.

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

* investment > interest rate :- investment increases.

* multiplier $\begin{cases} MPC & \text{مصارف کا تناسب} \\ MPS & \text{بچسب کا تناسب} \end{cases}$

* Large MPC results in larger increases in spending

* Large MPS $\nearrow$, $\nearrow$ smaller $\searrow$, $\searrow$

* 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~~

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aggregate

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)

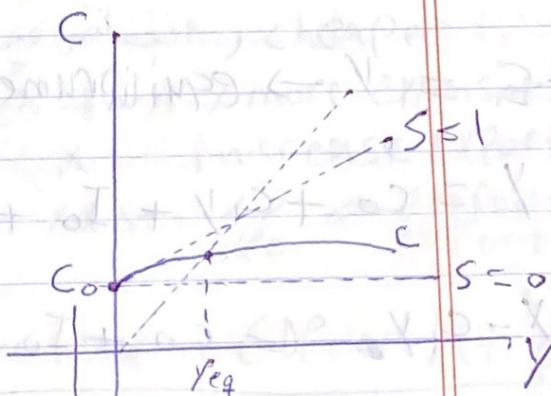
$$Y = C$$

$$Y = C_0 + C_1 Y$$

$$Y - C_1 Y = C_0$$

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

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



at $Y=0$
 $Y=0$
 $C=C_0$

S : slope

initial consumption : C_0

PS.HD MPC : C_1

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

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

Aggregate

Expenditure

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

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

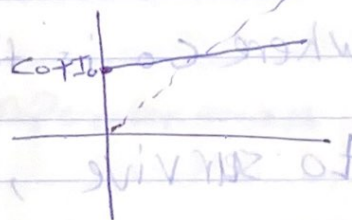
$$Y_{eq} = \frac{C_0 + I_0}{1 - C_1}$$

where $Y = 0$

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

* if $G > 0$

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

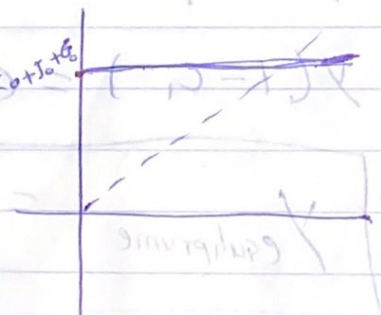


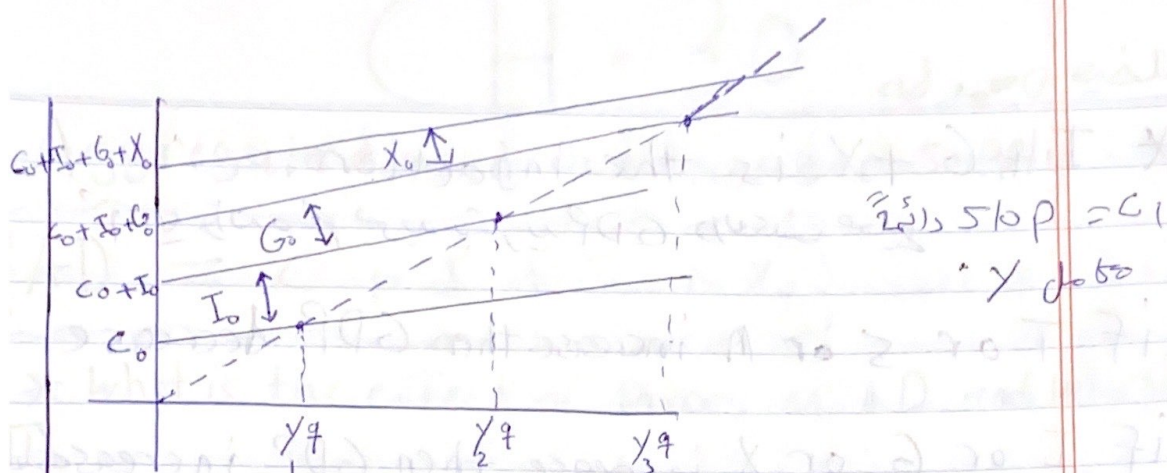
$AE = Y \rightarrow$ equilibrium

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

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

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





* NX : Net export :- $AE = C + I + G + X_0$

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

* العوامل التي تؤثر في الصادرات والواردات :-

- 1] foreign income. الدخل (↑, ↓)
- 2] exchange rate. سعر الصرف
- 3] depreciation, cheaper, انخفاض قيمة العملة
xx appreciation, more expensive, ارتفاع قيمة العملة
- 4] tariffs. الجمارك. xx :- $\frac{1}{dec} = \frac{import}{export}$

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

إذا الفريبة تزيد الدخل المتاح يقل قبل الاستهلاك
وبالتالي AE ينقل

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 *

① Saving equals planned investment

- saving is a leakage of spending

- investment is an injection of spending

② No unplanned changes in inventories

- firms don't change production

* AE declined :- 1] consumption spending declined

2] investment spending

3] Recessionary expenditure