Soluções (Minimalistas)

Exame ~~Exame~~ Final

Macroeconomia I (L0271)

09 Janeiro 2019

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Group A (70 points)

(2) The three different methods used to estimate the level of real GDP are:

(15)

Expenditure

$$Y = C + G + I + NX$$

Y = Real GDP
C = Real Consumption
G = Real Government Expenditures
NX = Real Net Exports

Income

$$Y = W + \Pi + T$$

W = Real Wages
Π = Real profits
T = Real Income Taxes

Production

$$Y = \sum (\text{Value-Added in each production unit})$$

1 (10)

(a) Nominal GDP is just quantities multiplied by prices. Call nominal GDP by Y^N

$Y^N_{2016} = 1220$

$Y^N_{2017} = 1470$

growth rate = 20.5%

(b) (10) Real GDP (Y^R) using 2016 and 2017 as the base years will be:

2016 – Base	2017 – Base
$Y^R_{16} = 1220$	$Y^R_{16} = 1240$
$Y^R_{17} = 1442$	$Y^R_{17} = 1470$

(c) (10) The growth rates of real GDP, according to each base year will be:

2016 – Base	2017 – Base
$g_{b(16)} = 18.1\%$	$g_{b(17)} = 18.5\%$

(d) The levels of real GDP of 2016 and 2017,
(10) using chain weighted prices of 2017, will be given in two steps:

→ First, calculate the growth rate in chained prices

$$g_c = \sqrt{(g_{b(16)}+1)(g_{b(17)}+1)} = 118.37\%$$

→ Then calculate the real levels of GDP:

$$Y^R_{2017} = Y^N_{2017} = 1470$$

$$Y^R_{2016} = \frac{Y^R_{2017}}{g_c} = \frac{1470}{1.1837} = 1241.8.$$

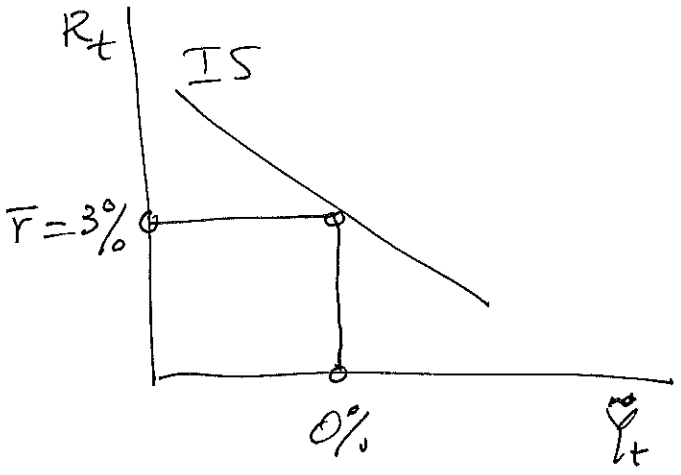
3

(15) the figure provides evidence in favour of real economic convergence, because the relationship between the initial level of GDP per capita in 1950 and the average growth rate of this variable, for the period between 1950 and 1998.

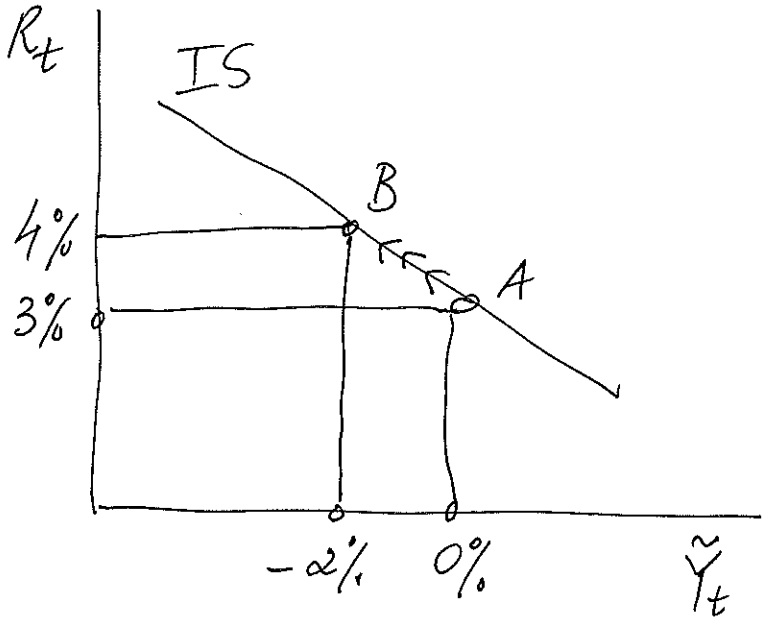
Grupo B (70 pontos)

1. (20)

$$\tilde{Y}_t = 0\% - 2\,(R_t - \bar{r})$$

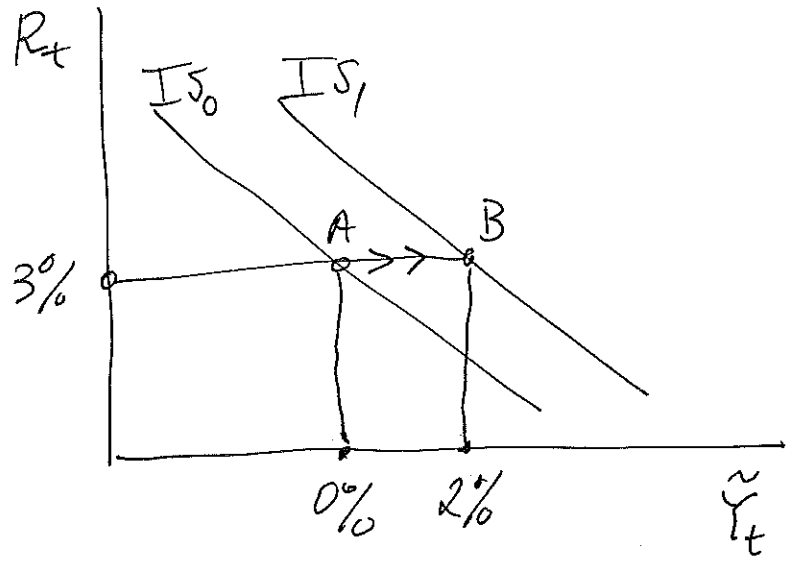


2. $R = 4\%$ (10)



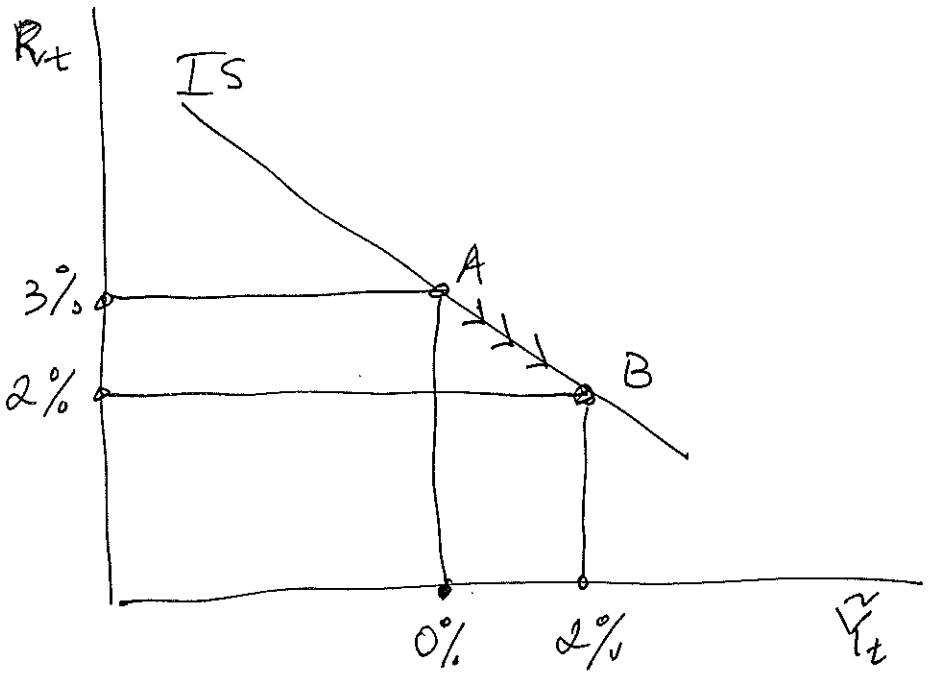
3. āg aumenta 2 p.p.

10



4. $R_t = 2\%$

10



5. Com esta nova função consumo, a função IS será dada por

(20)

$$\tilde{Y}_t = \left(\frac{1}{1-0.5}\right)\left[\bar{a} - 2(R_t - \bar{r})\right]$$

o Multiplicador que era igual a 1 (quando $\bar{x}=0$) será agora igual a 2.

Portanto

$$\Delta \bar{a}_g = 2 \text{ p.p.} \Rightarrow \Delta \tilde{Y}_t = 4\%$$

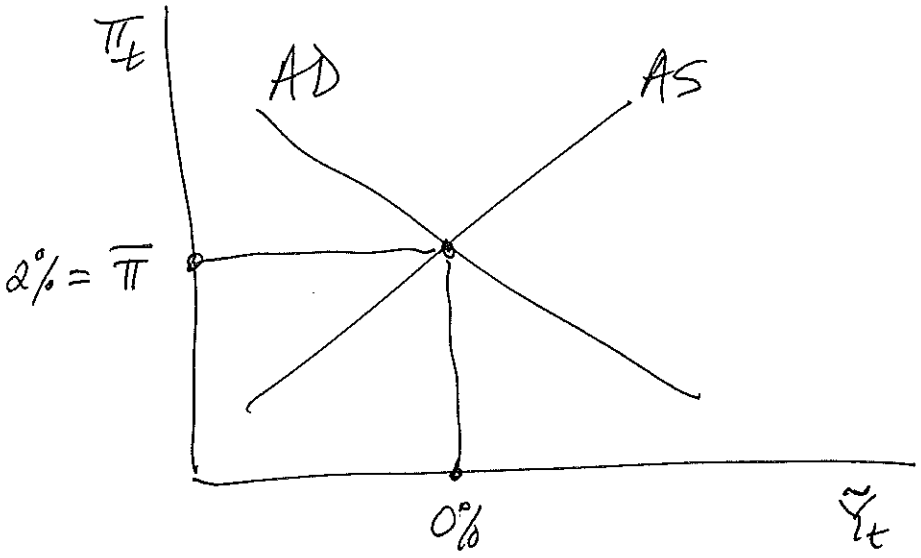
$$\Delta R_t = -1. \text{ pp} \Rightarrow \Delta \tilde{Y}_t = 4\%$$

Grupo B (70 pontos)

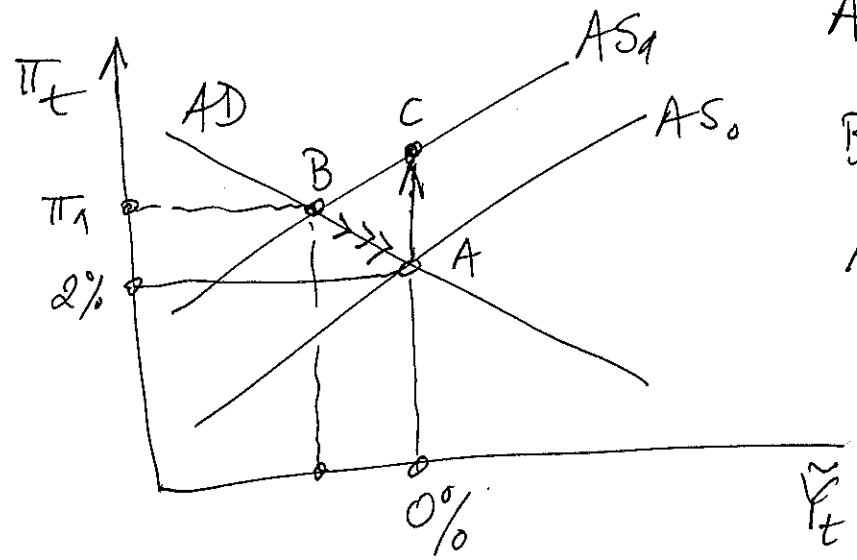
1. (15)

$$\tilde{Y}_t = \bar{a} - \bar{b}\,\bar{m}\,(\pi_t - \bar{\pi})$$

2. (10)



3. $\bar{o} = +5$ p.p. (10)



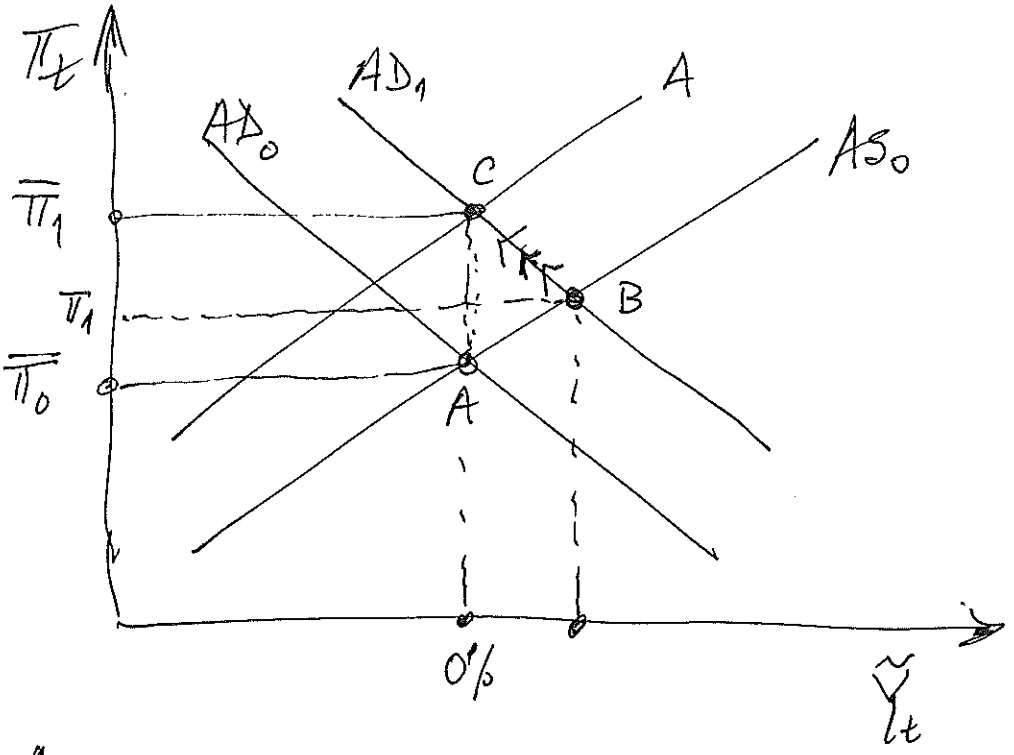
A: ...

B: ...

i – 1.º sobe
2.º desce

4. $\bar{\pi}_0 = 2\% \longrightarrow \bar{\pi}_1 = 3\%$

(10)



A :

B :

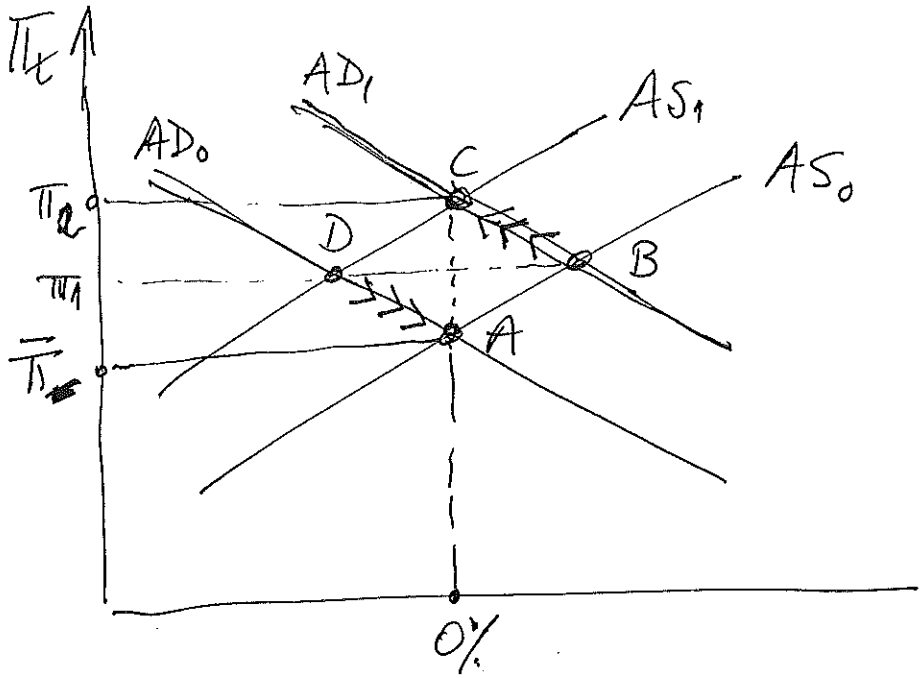
C :

Processo iniciado por uma descida de i_t

$AD_0 \rightarrow AD_1 \ldots$

5. $\bar{a}_{nx}$ aumenta 2 p.p.

(10)



A: ...

B: ...

C: ...

D: ...

6

(15)

Regra de Taylor

$$\tilde{Y}_t = \left(\frac{1}{1+\bar{b}\bar{m}}\right)\left[\bar{a} - \bar{b}\bar{m}\left(\pi_t - \bar{\pi}\right)\right]$$

Banco central passa a preocupar-se com $(\pi_t - \bar{\pi})$ e $\tilde{Y}_t$.

Grupo D

C1. (15)

$\Rightarrow E = \frac{\text{nº de } ¥}{1 \text{ US dolar}}$; ¥, €, ou ...

$\Rightarrow RER = E \times \frac{P}{P^W}$

$\Rightarrow$ Lei do Preço única: $E = \frac{P^W}{P}$

$\Rightarrow$ Se a Lei do preço única vigorar

então: $RER = E \times \frac{P}{P^W} = 1$.

C2 (15)

A Lei do preço única é refutada pelo Big Mac Index: a última coluna ....

Sobre apreciação/depreciação:

(página seguinte)

Noruega

$E = 8.97$

$E(\text{preço único}) = \frac{PN}{PUS} = \frac{46.8}{4.93} = 9.49$

$9.49 \text{ —— } 100$

$8.97 \text{ —— } x = 94.5$

Apreciada em $\simeq 5.5\%$

Zona Euro

$E = 0.93$

$E(\text{preço único}) = \frac{3.72}{4.93} = 0.754$

$0.754 \text{ —— } 100$

$0.93 \text{ —— } x = 123.34$

depreciada em $\simeq 23.3\%$

Japão

$E = 118.65$

$E(\text{preço único}) = \frac{370}{4.93} = 75$

$75 \text{ —— } 100$

$118.65 \text{ —— } x = 157.33$

depreciado em cerca de 57.33%

C.3

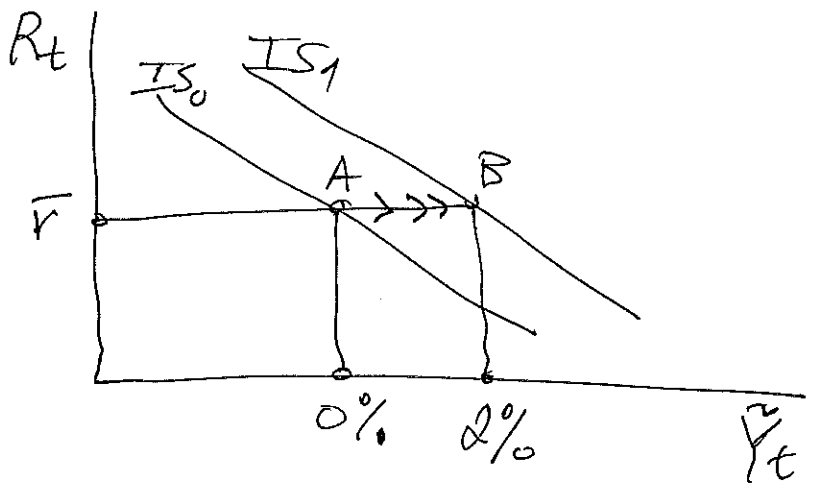
1. (10)

$R^w \downarrow \Rightarrow \uparrow E \Rightarrow \uparrow RER \Rightarrow \downarrow NX$

$R \downarrow \Rightarrow \downarrow E \Rightarrow \downarrow RER \Rightarrow \uparrow NX$

2. (10)

$\Delta \bar{a}_g = 2 \cdot p.p.$



3 (10)

$\Delta \bar{a}_g = 2$ p.p.