

Ec 152b-003

Midterm 2 Solutions March 2007

All references to chapter 6 are chapter 8 in the new edition and references to chapter 7 are chapter 9 in the new edition.

	Version 222	Version 333	Version 444	Version 555	Makeup
1.	A	D	B	C	A
2.	B	B	C	C	B
3.	A	C	B	C	A
4.	D	C BONUS	C	A	D
5.	B	D	C	C	B
6.	C	E	C	A	C
7.	C BONUS	E	A	B	D
8.	D	C	C	B	E
9.	E	B	A	C	E
10.	E	C	B	B	C
11.	C	C	A	C BONUS	B
12.	B	C	B	D	C
13.	C	C	A	E	C
14.	C	A	D	E	C
15.	C	C	B	C	A
16.	A	A	C	D	C
17.	C	B	C BONUS	B	A
18.	A	B	D	C	B
19.	B	A	E	B	B
20.	B	B	E	A	C
21.	C	A	C	A	

Version 222 #6, Version 333 #3, Version 444 #16, Version 555 #18

Since the budget line gets steeper, future consumption must go **up**.

Problems.

1) Chapter 5 question. This is the same as a fall in productivity so the PPF will shift down and become flatter.

- a) Since the PPF shifts down and becomes flatter, this leads to a drop in the real wage.

The income effect of w falling means the consumer has less income so

C ↓ and ℓ ↓ (2 marks)

The sub effect of w falling means that leisure becomes cheaper so
 $l \uparrow$ and $C \downarrow$ (2 marks)

- b) **Output falls** since the PPF shifts down. (1 mark)
- c) the **real wage rate falls** since the PPF gets flatter (1 mark)
- 2) Ricardian equivalence question.

A tax cut today will not lead to a change in current consumption because consumers **expect a future tax increase.** (1 mark)

Since $\Delta C = 0$ (1 mark), $S \uparrow$ by the full amount of the tax cut (1 mark) and $\Delta C' = 0$ (1 mark) (as long as future taxes increase)

- 5) The chapter 6 Math question

a) Lifetime wealth:

$$\begin{aligned} we &= y - t + \frac{y' - t'}{1+r} \\ we &= 200 - 30 + \frac{250 - 25}{1.05} \\ &= 170 + 214.28 \\ &= 384.28 \end{aligned}$$

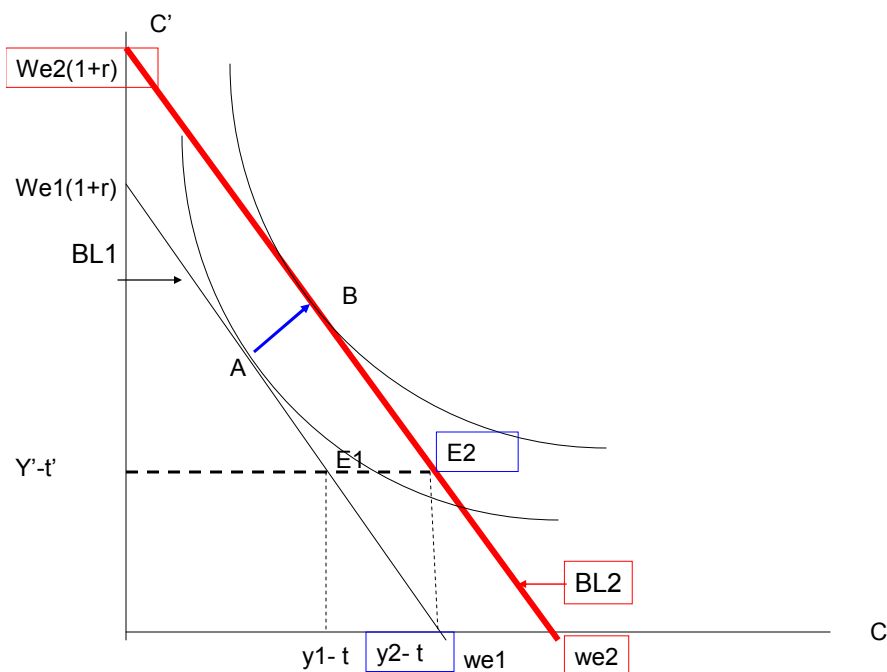
b) Calculating C , C' and S . We must assume consumption smoothing in order to solve (see instruction #6 on the front page of your exam).

$$\begin{aligned} we &= C + \frac{C'}{1+r} \\ 384.28 &= C + \frac{C'}{1+0.05} \\ 384.28 &= 1.95C \\ C &= C' = 197.07 \\ S &= Y - T - C \\ S &= 200 - 30 - 197.07 \\ S &= -27.07 \end{aligned}$$

2 marks solving for C and C' , 2 marks solving for S

c) the consumer is a **borrower** because Savings is negative or because $C > Y - T$

- 3) The chapter 6 graph question.
- a) Winning Lotto 649 is the same as *an increase in current period income*, so the BL will shift out in a parallel manner.



Marking scheme:

1 mark: labeling intercepts, endowments and budget lines.

1 mark: IC tangent to original BL to the **left** of the original endowment point (since the consumer is a lender)

1 mark: parallel shift out of BL due to the increase in income, showing the **horizontal shift of the endowment point**.

1 mark: IC tangent to new BL to the **left** of new endowment point.

- b) $C \uparrow, C' \uparrow, S \uparrow$ (1 mark each)

- c) i) **Lender:** the fall in r leads to the lender being poorer, since making less interest on assets (the income effect)

so $C \downarrow, C' \downarrow, S \uparrow$

the sub effect means current consumption is cheaper or it is less attractive to save

so $C \uparrow, C' \downarrow, S \downarrow$

1 mark: explaining what the sub and income effects mean

3 marks: what happens to C , C' and S (or ½ mark for describing what happens in each of the sub and income effects)

Total effect: $C?$, $C'\downarrow$, $S?$

ii) **Borrower:** the substitution effect is the same

so $C\uparrow$, $C'\downarrow$, $S\downarrow$

The income effect means that the borrower is richer because it is cheaper to borrow

So $C\uparrow$, $C'\uparrow$, $S\downarrow$

Total effect: $C\uparrow$, $C'?$, $S\downarrow$

Same marking scheme.

d) Combining everything

Lender: $C?$, $C'?$, $S?$ (1 mark each)

Borrower: $C\uparrow$, $C'?$, $S?$ (1 mark each)

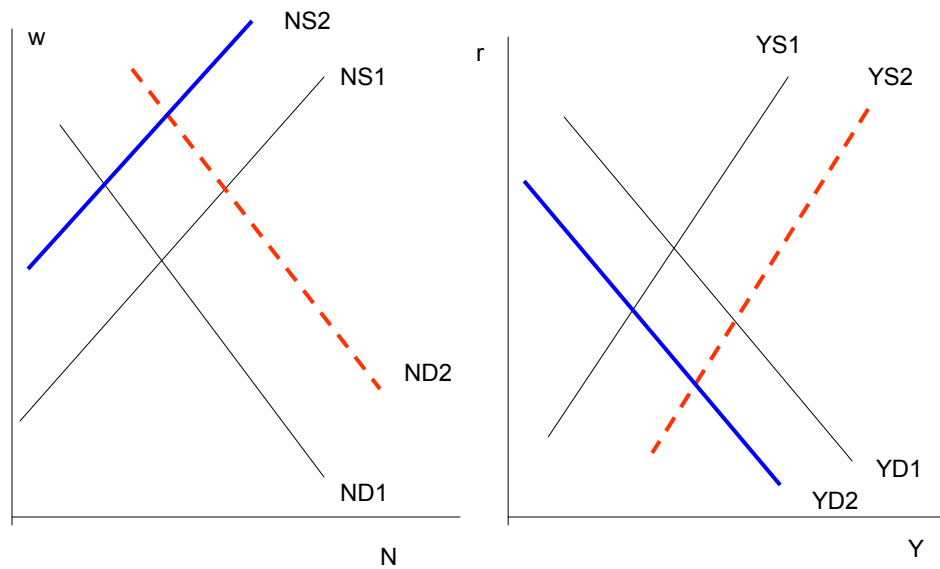
4) Chapter 7 question.

a) when $K \uparrow \rightarrow MPN \uparrow$ (since PF shifts up) $\rightarrow ND$ right $\rightarrow YS \uparrow$ (right) (1 mark)

when $K \uparrow \rightarrow$ future $MPK \downarrow \rightarrow I \downarrow \rightarrow YD \downarrow$ (or left) (1 mark) ...see text p.210

Results: $w \uparrow$ (1 mark), $Y?$, $N?$ (1.5 marks), $r \downarrow$ (1 mark)

Since r falls, NS shifts left (NS2) (0.5 mark)



b) $G \downarrow \rightarrow T \downarrow \rightarrow NS \downarrow (\text{left}) \rightarrow YS \downarrow (\text{left})$ (1 mark)

$G \downarrow \rightarrow$ no change or very small change in YD left (1 mark)

Results: $r \uparrow$ (1 mark), $Y \downarrow$, $N \downarrow$ (1.5 marks), $w \uparrow$ (1 mark)

Since r rises, NS shifts right (0.5 mark) (but it will be less than the original shift left)

