

Exercise 6
Multiple Choice Questions

1. C
2. D
3. C
4. B
5. C
6. A
7. C
8. D
9. B
10. C
11. D
12. C
13. B
14. C
15. A
16. B
17. B
18. C
19. D
20. A
21. A
22. C
23. C
24. B
25. A

Essay Questions

1.

Mankiw textbook, Chapter 16, question 3, pp 485.

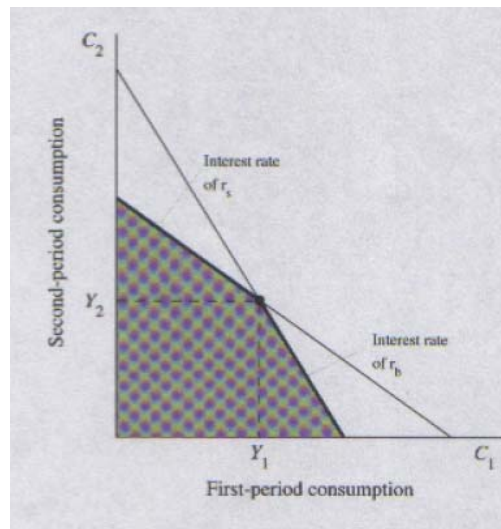
- (a) A consumer who consumes less than his income in period one is a saver and faces an interest rate r_s . His budget constraint is:

$$C_1 + C_2/(1+r_s) < Y_1 + Y_2/(1+r_s)$$

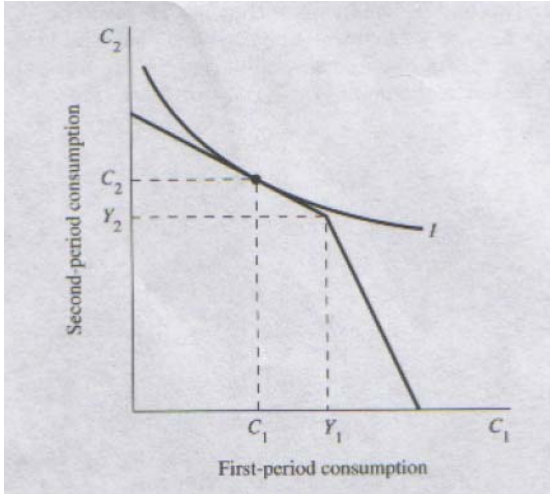
- (b) A consumer who consumes more than income in period one is a borrower and faces an interest rate r_b . The budget constraint is:

$$C_1 + C_2/(1+r_b) < Y_1 + Y_2/(1+r_b)$$

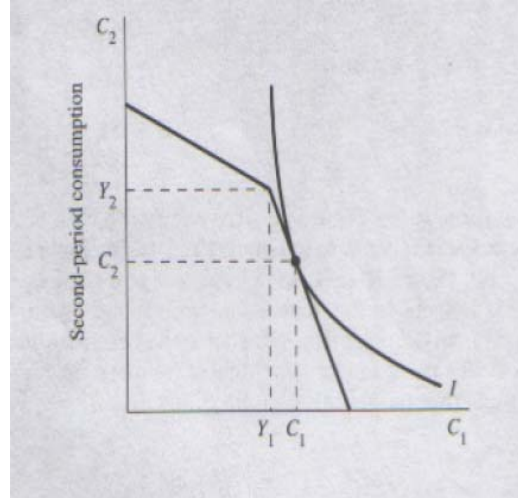
- (c) The following graph shows the budget constraints; they intersect at point (Y_1, Y_2) , where the consumer is neither the borrower nor the lender. The shaded area represents the combination of first-period and second-period consumption that the consumer chooses.



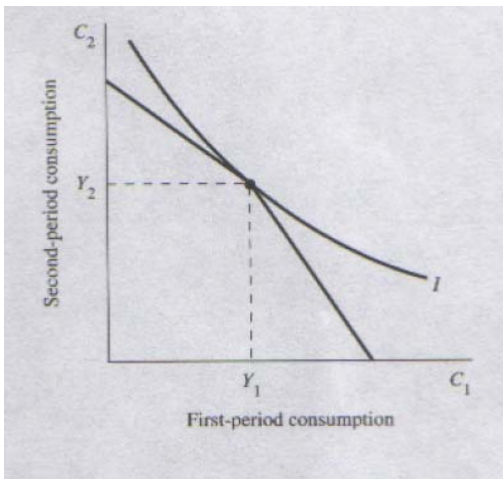
- (c) The following graph shows the three cases. (A) shows the case of a saver for whom the indifference curve is tangent to the budget constraint along the line segment to the left of (Y_1, Y_2) . (B) shows the case of a borrower for whom the indifference curve is tangent to the budget constraint along the line segment to the right of (Y_1, Y_2) . Finally (C) shows the case in which the consumer is neither the borrower nor a lender: the highest indifference curve the consumer can reach is the one that passes through the point (Y_1, Y_2) .



(A)



(B)



(C)

(e) If the consumer is a saver, then consumption in the first period depends on $Y_1 + Y_2/(1+r_s)$ -- that is, income in both periods, Y_1 and Y_2 , and the interest rate r_s . If the consumer is a borrower, then consumption in the first period depends on $Y_1 + Y_2/(1+r_b)$ that is, income in both periods, Y_1 and Y_2 , and the interest rate r_b . Note that borrowers discount future income more than savers. If the consumer is neither a borrower nor a lender, then consumption in the first period depends just on Y_1

2. Mankiw textbook, Chapter 16, question 4, pp 485.

The potency of fiscal policy to influence aggregate demand depends on the effect on consumption: if consumption changes a lot, then fiscal policy will have a large multiplier. If consumption changes a little, then fiscal policy will have a small multiplier. That is, fiscal-policy multipliers are higher if the marginal propensity to consume is higher.

- a. For consumers who are not facing borrowing constraints, a temporary tax cut means an increase in first-period disposable income Y_1 . His consumption in both periods will be increased.

For consumers who are facing borrowing constraints would have liked to get a loan to increase C_1 but could not. The temporary tax cut increases disposable income in the first period. The consumer who is constrained thus increases first-period consumption C_1 by more than the consumer who is not constrained – that is, the marginal propensity to consume is higher for a consumer who faces a borrowing constraints than it is without them.

- b. The announcement of a future tax cut increase Y_2 . For the consumer who is not facing borrowing constraint, his consumption at the first period will increase because of an increase in Y_2 . However, for the consumer who is facing borrowing constraint, his consumption at the first period cannot increase even Y_2 increase. Therefore, the announcement of a future tax cut has no effect on consumption or aggregate demand if consumers face binding borrowing constraints: the fiscal policy is less potent.