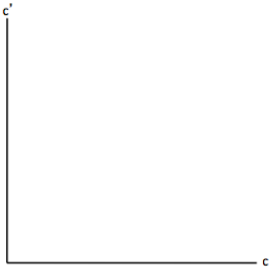
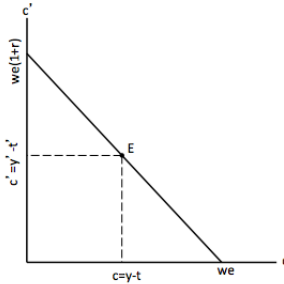


1 Intertemporal Consumption

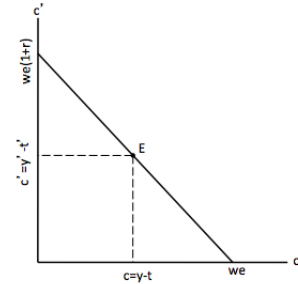
Budget line:



Lender

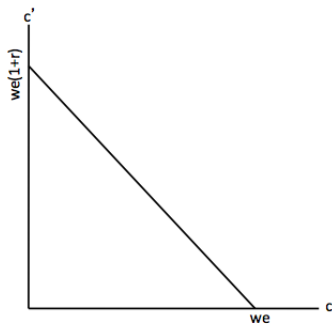


Borrower



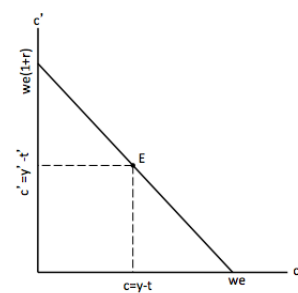
2 An increase in current income

An increase in current income



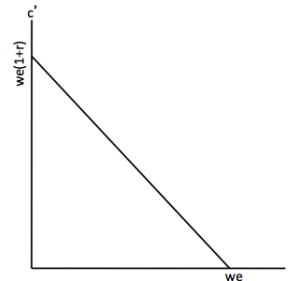
- current income increases from y_1 to y_2 ($\Delta y = \dots$)
- current consumption
- $\Delta c \dots \Delta y$
- future consumption
- saving

Lenders



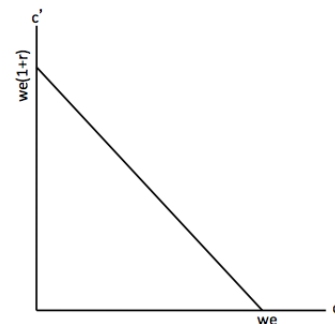
3 An increase in future income

- future income increases from y'_1 to y'_2 ($\Delta y' = \dots$; mark/show the value on the graph)
- future consumption
- $\Delta c' \dots \Delta y'$
- current consumption
- saving



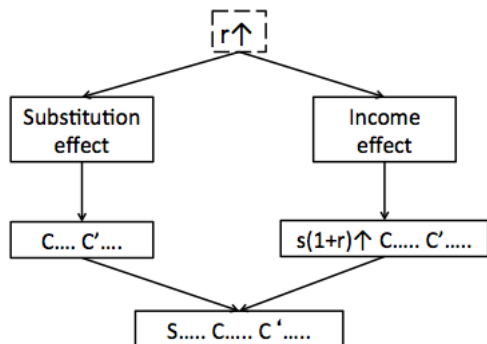
4 Temporary and permanent increases in income

- **HJ** = effect of temporary rise in y .
- **HK** = effect of permanent rise in y .
- **A temporary increase in y** = HL: the budget line shifts from AB to ED.
- **A permanent increase in y** = ($y_2 - y_1 = y'_2 - y'_1$, $y_2 - y_1 = HL = y'_2 - y'_1 = LM$.): the budget line shifts from AB to GF.

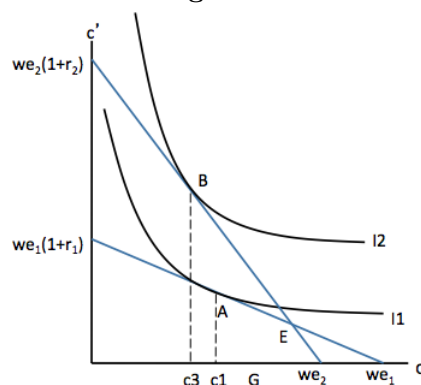


5 An increase in the real interest rate

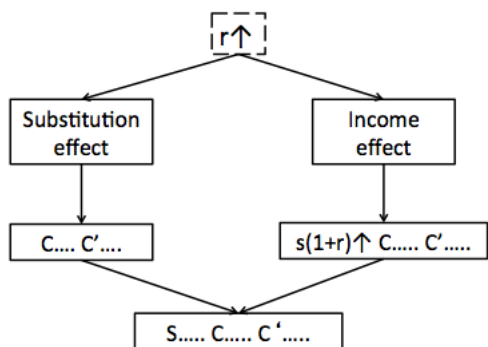
The consumer is a lender



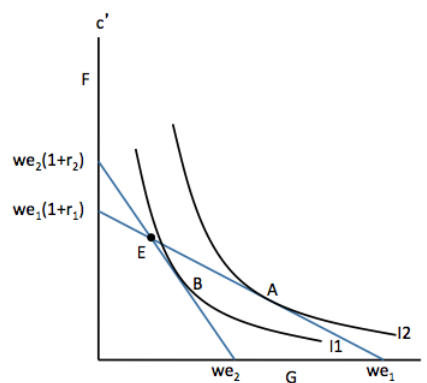
Lender: stronger substitution effect



The consumer is a borrower



Borrowers:



6 The government sector

- Government's **budget constraint**:
- Equilibrium (1) The credit market clears. (2) The income-expenditure identity.

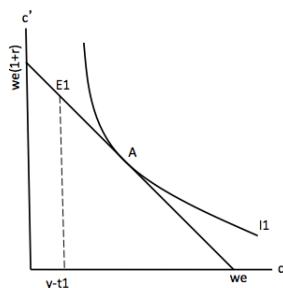
The Ricardian Equivalence

(1)

(2)

- Δt is matched by $-\Delta t(1+r)$, (1) holds
- (2) remains unchanged

A current tax cut equals a future tax increase



- $t \uparrow$, $S^p \uparrow$ and $S^g \downarrow$ by the same amount.
- The consumption bundle
- $\Delta S^p = \Delta B = \Delta T$ so the credit market equilibrium remains.

Unchanged credit market

