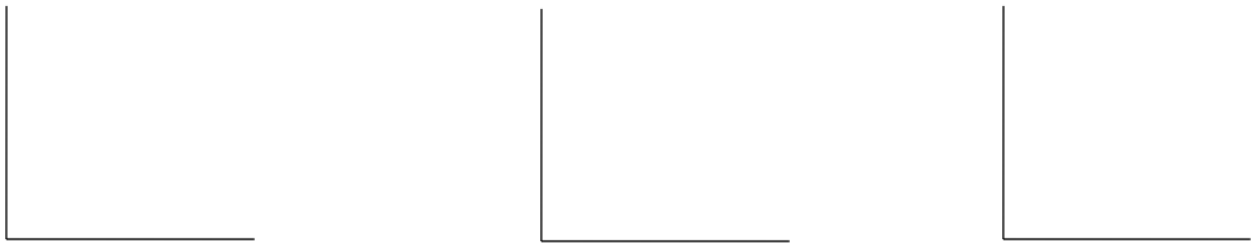
EE312 Macroeconomics, 1/2015 (Sec. 046402)
Chapter 6. A Real Intertemporal Model with Investment (Part 3 - Shocks Experiments)
A Short Note

**Consumers: supply labour and consume, Firms : demand labour, produce and invest (Review)**

**Labour Market** **Output Market** **Credit Market.**



# 1 Current government purchases increase temporarily (G);

| **Keynesian(EE212)** | **Intertemporal model analysis** |
|---|---|
| $G\uparrow\Rightarrow we, C$ ? .... | $G\uparrow\Rightarrow we, C$ ? .... |
| Balance budget Multiplier .... 1 | Balance budget Multiplier ..... 1 |
| **Increases in C and Y come as a free lunch!** Each dollar spent by the government increases GDP by more than one dollar. We would let the government grow infinitely large, which would make everyone infinitely wealthy. | **Higher government spending and larger output come at a cost — no free lunch!** Government expenditure **crowds out** private investment. Lower future productive capacity. Consumer consumers less and takes less leisure and he or she faces a lower real wage rate. |

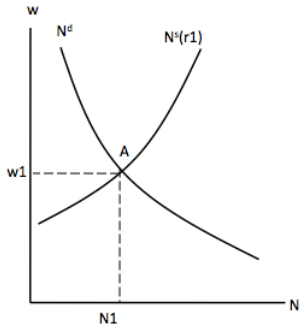
$\Delta Bal$ = change in balance budget, $\dfrac{\Delta Y}{\Delta Bal}$ = balance budget multiplier

**Intertemporal model analysis**

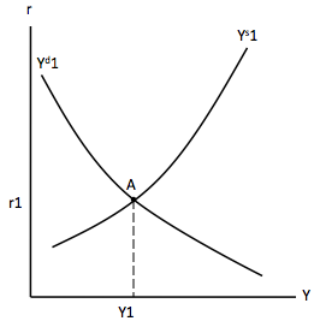
**Step 2:**
$r\uparrow\Rightarrow N^S$shifts (.....)$\Rightarrow w$.....
$r\uparrow\Rightarrow I^d$.....and $C^d$.....

**Step 1 :**
$Y^s$ : $T\uparrow\Rightarrow N^S$shifts (.....) $\Rightarrow Y^S$shifts (.....)
$G\uparrow\Rightarrow Y^d$shifts (.....by the amount .....)
$Y^d$ **shifts more than** $Y^s$ : $r$ .....

**Labour Market**




**Output Market**

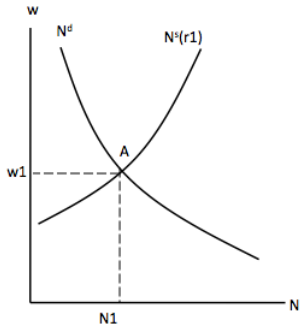



## 1.1 A decrease in current capital stock (K)

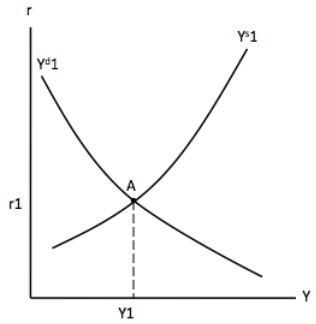
**Step 2:** $K\downarrow\Rightarrow r$.....
$\Rightarrow N^S$ shifts (.....) $\Rightarrow w$ .....
(A movement on the $Y^s$ curve)

**Step 1** :
$K\downarrow\ \Rightarrow MP_N$..... $\Rightarrow\ \ N^d$shifts (.....) $\Rightarrow Y^s$ shifts (.....)
$K\downarrow\ \Rightarrow K'..., MPK'...., \ \ I^d$ ...(shift.....) $\Rightarrow Y^d$shifts (.....)

**Labour Market**




**Output Market**



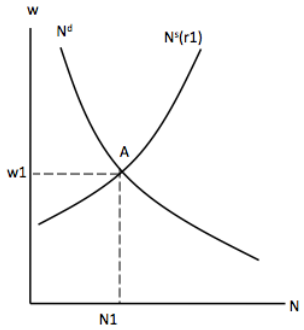

- $K \downarrow \Rightarrow MPK' \ldots. \Rightarrow I \ldots\ldots$ $\Rightarrow r \ldots\ldots \Rightarrow I \ldots\ldots$ $\Rightarrow$If $I \downarrow$, $K' \downarrow$ — impossible. $K \downarrow \Rightarrow MP_K \uparrow \Rightarrow I \uparrow$
- A decrease in current K $\Rightarrow$ r ...., I.... , w..... , Employment and output ..... ($C$ and $\ell$ tends to $\downarrow$ because $r \uparrow$ )

## 1.2 An increase in Current Total Factor Productiviy (Z)

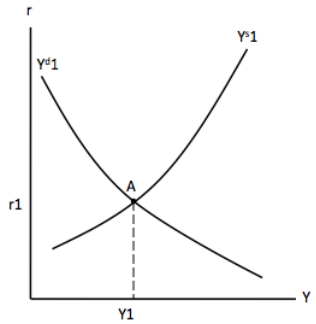
**Step 2:** r ..... $N^s$ shifts (.....)

**Step 1** : z $\uparrow \Rightarrow MP_N$..... . $N^d$ shifts ..... . $Y^s$ shifts ..... , r ....

**Labour Market**




**Output Market**

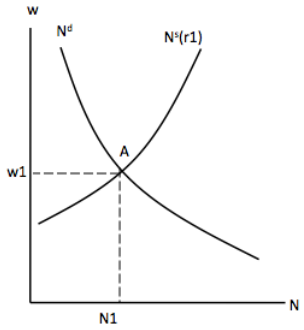



## 1.3 An increase in future Total Factor Productivity (Z')

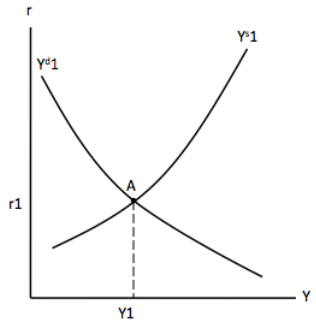
**Step 2:** r .....$N^s$ shifts .....

**Step 1** : $z' \uparrow \Rightarrow MP'_K$..... . $I^d$ .....; $Y^d$shifts ..... $r$ .....

**Labour Market**




**Output Market**




- $I \uparrow \Leftarrow MP'_K$, partly offset by $r \uparrow$ . $K' \uparrow \Leftarrow$ expected $z'$. $r$ and $Y$ increases. C may rise or fall due to higher Y but higher r. Employment increases with falling real wage.