Econ. 1A: Chapter 8. Hand out

Use Potential GDP (Yp) model to show the effects of following economic events on w (real wage), L_f (full employment quantity of labor) and Yp (potential GDP) graphically. **Please state "cause" and "effect" explicitly.**

Events:

1. Dell introduces a new supercomputer that everyone can afford.
   Cause: New supercomputer$\rightarrow$ K$\uparrow$ => Y = F(L,K,N,E)$\uparrow$, LD$\uparrow$ and LS$\rightarrow$.
   **Effect:** w$\uparrow$, $L_f\uparrow$ and Yp$\uparrow$.
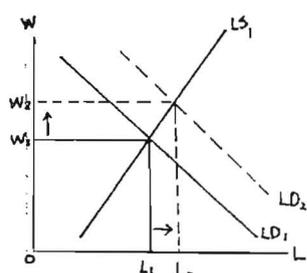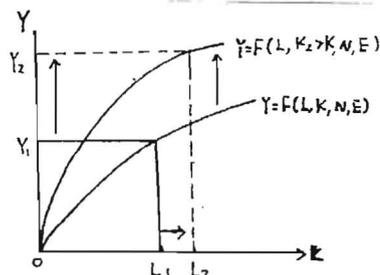
US labor market   US production function

2. A major hurricane hits Florida.
   Cause: a major hurricane hits Florida => Y = F(L,K,N,E)$\downarrow$, LD$\downarrow$, LS$\rightarrow$.
   Effect: w$\downarrow$, $L_f\downarrow$, and Yp$\downarrow$.
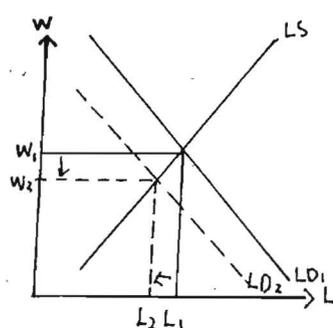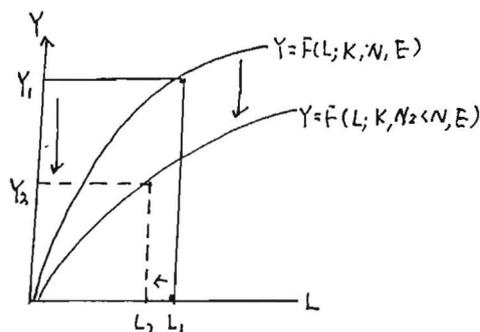
US Labor Market   US production function

3. More teenagers go to college.
   Cause: more teenagers go to college => LS$\downarrow$, LD$\rightarrow$, and Y = F(L,K,N,E)$\rightarrow$.
   **Effect:** w$\uparrow$, $L_f\downarrow$ and Yp$\downarrow$.
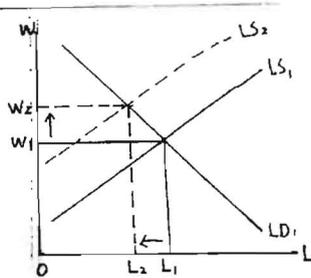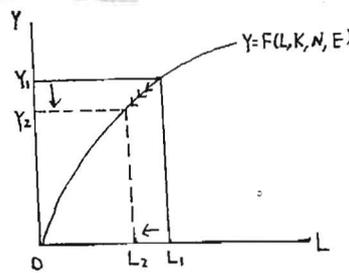
US labor market   US production function

4. The CPI rises.
   Cause: CPI rises => LD→, LS→ and Y = F(L,K,N,E)→.
   Effect: w→, L_f→ and Yp →.
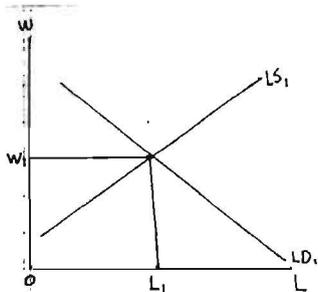
US labor market

$$w_1 = \frac{w}{P_1} = \frac{2w}{2P_1} = \frac{w}{P_1}$$
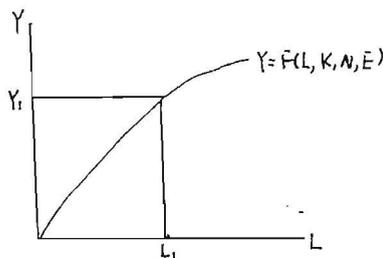
US production function

Exercise:

Chevron signs $73b gas deal

Gorgon, Chevron's huge liquefied natural gas project, is finally going forward. The company, along with Exxon Mobil and Shell will *produce natural gas off the northwest coast of Australia.* Gorgon and surrounding fields hold an estimated 40 trillion cubic feet of natural gas, the equivalent of 6.7 billion barrels of oil. Gorgon is located for easy shipment to growing markets in China and India and at its peak *will employ 10,000 workers.*

Source: Radio Australia, 9/10/2009

Based on this report, show the impact of Gorgon project on w, L_f and Y_p of Australia graphically by using the potential GDP (Yp) model.

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Please remember the following two important points when you study chapter 8.

1. Economists seek to *discover* how the economic world works. They are interested in **unscrambling cause** and **effect** of any economic events. To this aim, economists **create** and **test** economic models.

2. In macroeconomics, **three statistics** - gross domestic product (GDP), the consumer price index (CPI) and the unemployment rate (UR) – **quantify the performance of the economy.** Public and private decision makers use these statistics to **monitor** changes in the economy and to **formulate** appropriate policies. **Economists use these statistics to develop and to test theories about how the economy works.**

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