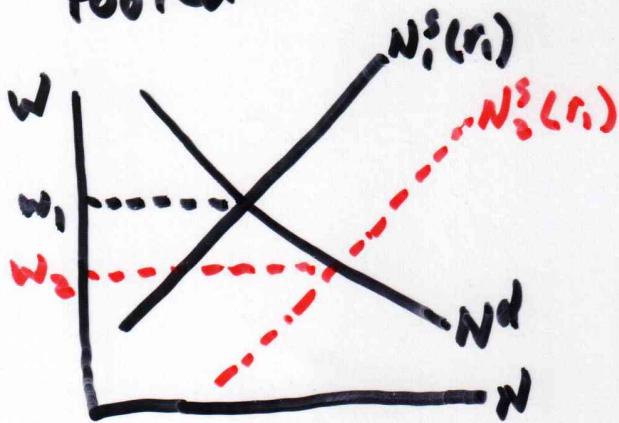
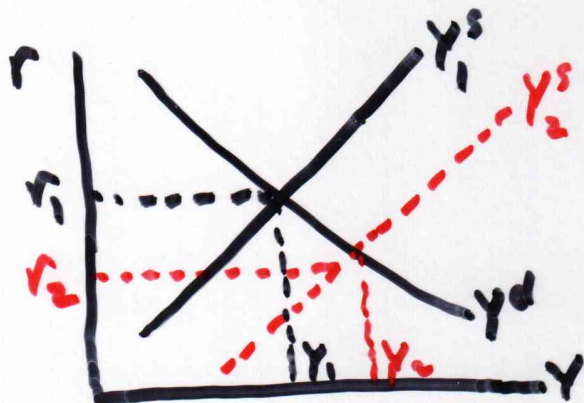


The Lucas Supply Using the Textbook Model

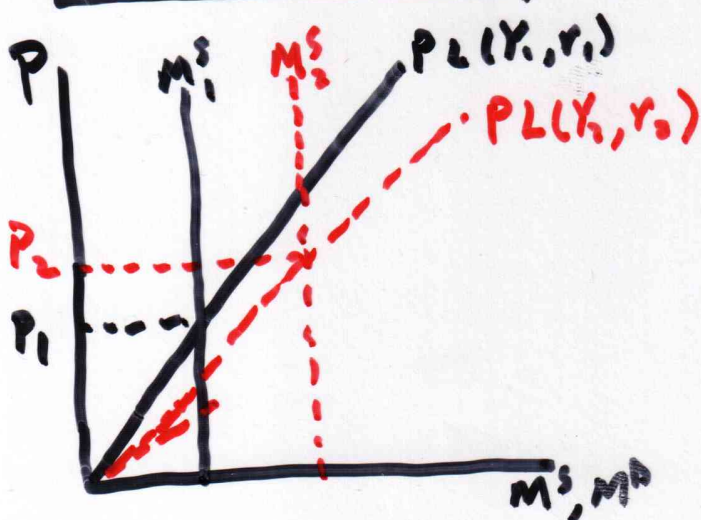
Suppose $M \uparrow$, but initially workers do not observe the increase. They mistake an increase in their nominal wage for an increase in their real wage. As a result, they are fooled into supplying more labor.



Note: $M \uparrow \Rightarrow P \uparrow, Y \uparrow$



This means the AS curve is upward sloping
(not perfectly vertical)



Empirical Evidence on the Lucas Supply Curve

- To explain a positive correlation between inflation + output, the Classical approach introduces informational frictions. Firms and households are assumed to have better information about local market conditions than about economy-wide economic conditions.
- As a result, individuals + firms can be fooled into working more + hiring more workers because they attribute (at least partially) and economy-wide price increase (i.e., inflation) to an increase in relative prices.
- This theory makes two easily testable predictions:
 - 1.) Only unexpected demand changes should affect output. For example, predictable changes in monetary policy should be neutral. [This prediction is rejected by the data].
 - 2.) The response of output to demand shocks should be stronger in economies that have a history of stable demand. That's because individuals are more likely to interpret a given AD shock as a change in relative prices.

- Conversely, economies that have a history of unstable inflation will not see output respond by much to a given change in inflation. Individuals in these economies will be very alert to inflation & less likely to be fooled by it.

- This prediction receives some support

43 countries
1950 - 1986

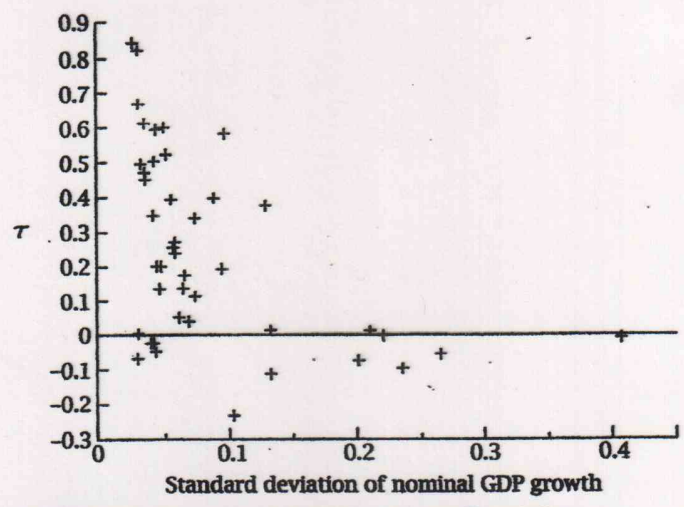


FIGURE 6.1 The output-inflation tradeoff and the variability of aggregate demand (from Ball, Mankiw, and Romer, 1988)

2 step strategy

$$1.) y_t = c + \gamma \cdot t + \delta \Delta X_t + \lambda y_{t-1}$$

} Time-series regression for each country
 ΔX_t = Nominal GDP
 y_t = real GDP

$$2.) \sigma_i = 0.388 - 1.64 \sigma_{\Delta X_i}$$

(0.06) (0.48) ↑

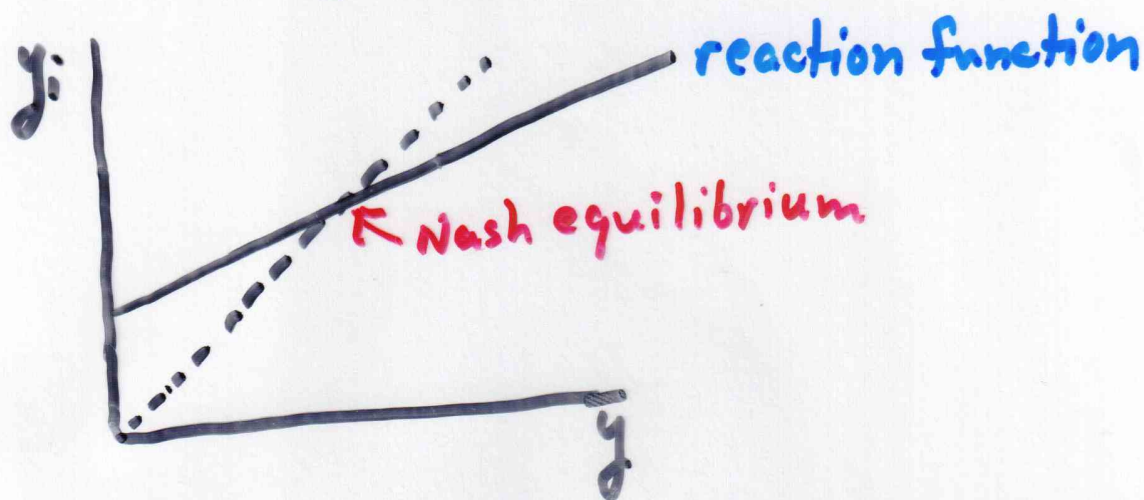
st. dev. of ΔX_i

} cross-sectional regression

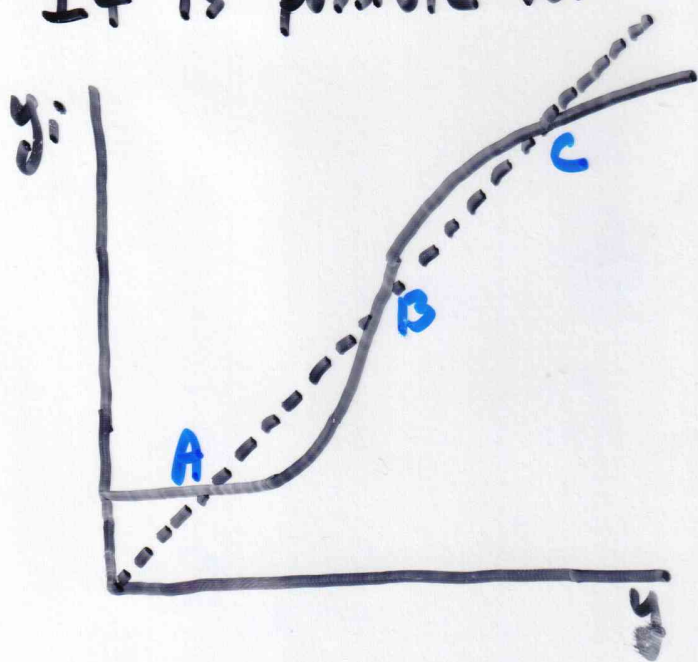
Coordination Failures & Multiple Equilibria

- So far, all our theories imply that when prices are flexible, the economy has a unique equilibrium. Therefore, fluctuations can only arise from changes in the flexible price equilibrium (as in RBC models), or from deviations from the equilibrium (as in Keynesian models).
- However, if more than one level of output & employment is a flexible price equilibrium, then fluctuations might arise from switches among alternative equilibria.
- Multiple equilibria can arise when there are positive spillovers between individuals, e.g., when my investment decision depends positively on your investment decision. When this is the case, there are gains from coordination.

- Suppose Mr. i 's payoff is $U_i = V(y_i, y)$
 where y_i = Mr. i 's output choice
 y = Avg. / economy-wide output choice



- It is possible for there to be multiple equil.



A, B, C are all Nash equil., but only A & C are stable.

Whether the economy ends up in the good equil., at C, or in the bad equil., at A depends on what people expect other people to do!

The role of policy here is to convince people to choose C!