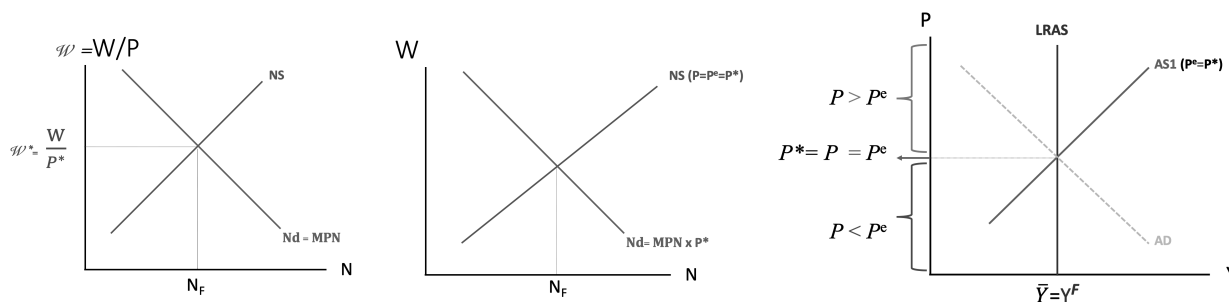


1. IS-LM

LM	IS
Derivation: $Y \uparrow \Rightarrow M^d \uparrow \Rightarrow r \uparrow$	Derivation: $r \uparrow \Rightarrow I \downarrow \Rightarrow DAE \downarrow \Rightarrow Y \downarrow$
Slope of LM : High $\varepsilon_Y^{M^d}$ , LM is steep. High $\varepsilon_r^{M^d}$ , LM is .....	Slope of IS : High MPC, IS is flat. High $\varepsilon_r^I$ , IS is .....
Shift in LM Monetary Policy (Money Supply) Change in Money Demand for all $Y, r$	Shift in IS Fiscal Policy (G, T) Change in C, S, I for all $Y, r$

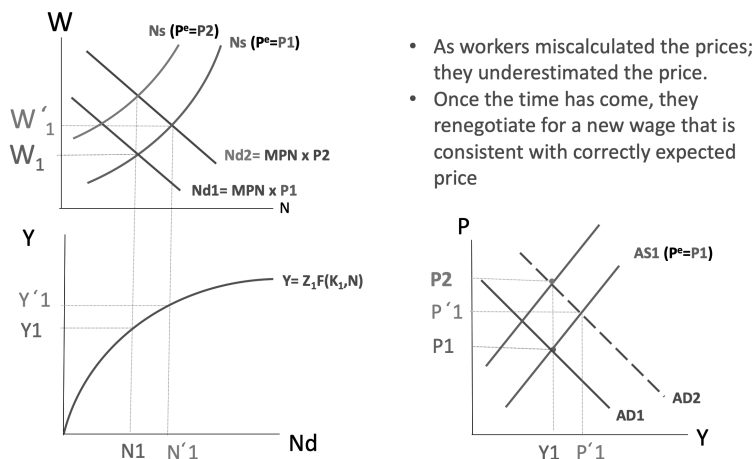
2. Aggregate Demand : Price level  $\uparrow \Rightarrow$  Real Money Supply  $\left(\frac{MS}{P}\right) \downarrow \Rightarrow$  LM shifts to the left  $\Rightarrow$  interest rate  $\uparrow \Rightarrow$  AE  $\downarrow \Rightarrow$  Output (Y)  $\downarrow$

3. Aggregate Supply and Labor Market



- In the long-run, “fully flexible adjustment in labor market”, the equilibrium employment is the level so called “full employment”. LRAS is vertical at  $Y_F$ .
- In the short-run, market has nominal frictions and incomplete adjustment.  $Y = \bar{Y} + \alpha(P - P^e)$
- Output can be different from “natural rate of output” (Potential Output).
- Sticky Wage Model : AS shift  $\Leftarrow$  Productivity shocks/capital destruction, Monopoly power (mark-up power), Unionization, Pay-roll tax
- Sticky Price Model :  $P = sP^e + (1 - s) [P + a(Y - \bar{Y})]$

4. Medium Run Adjustment and Self Correcting Mechanism



- As workers miscalculated the prices; they underestimated the price.
- Once the time has come, they renegotiate for a new wage that is consistent with correctly expected price

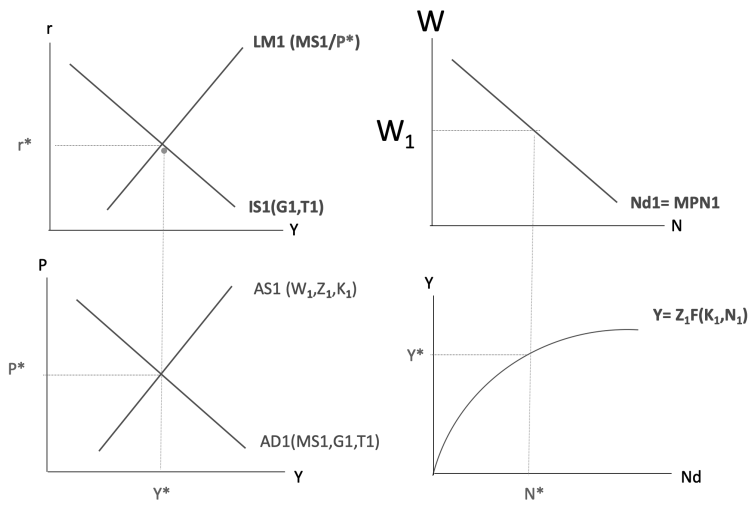
- Swift Adjustment : “New Classical” economist  $\Rightarrow$  No policy needed
- Slow Adjustment : “Keynesian or New Keynesian” economist  $\Rightarrow$  Policy might be welfare-improving

5. Case Discussion :

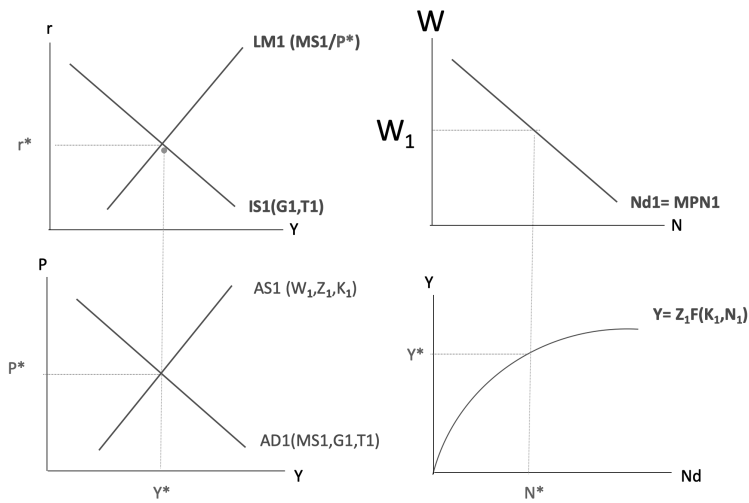
- Size of volatility : size of shocks & the structure of economy
- Reconcile with the data : Long term  $Y \uparrow$  and  $P \uparrow$  = better technology + MS growth
- Short term, fluctuations  $\Leftarrow$  relative magnitude of AD & AS shocks // mostly dominated by demand shocks

6. Business Cycle from AD-AS perspective : Supply Shocks, Demand Shocks, Policy Implication

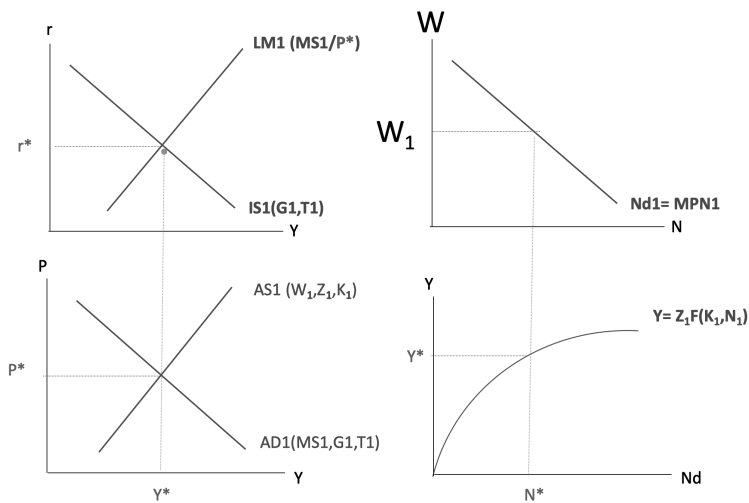
• Monetary policy



• Fiscal policy



• Productivity Shocks



7. Other cases :

For practice.

