Economics 420/520

Fall 2006

Final Exam

Defs

① The Fomc is the Federal open market Committee. This committee is comprised of

7	Board of Gov.
1	NY Fed Pres
4	Rotates among other 11 Bank pres.
12	

meets several times each year, sets monetary policy.

② Once policy is set by the Fomc, defensive open-market operations keep policy from drifting off course. Dynamic open-market operations occur when there is a change in the course of monetary policy. These set policy on a new path

③ Quantity Equation

This states that

(money) (velocity) = (price level)(real output)

$$MV \equiv PY$$

Where V (velocity) is defined as $\frac{PY}{M}$.

(4) Activists believe the benefits from government intervention to stabilize the economy outweigh the costs. Non-activists believe the economy is quickly self-correcting and hence government intervention is as likely (or more likely) to hurt as it is to help.

(5) The implementation lag is the time period required to put a policy in place once policy has been decided (e.g. rewrite tax code, put admin into place for block grants, etc.). Effectiveness lag is how long the policy takes to affect the economy once its put into place.

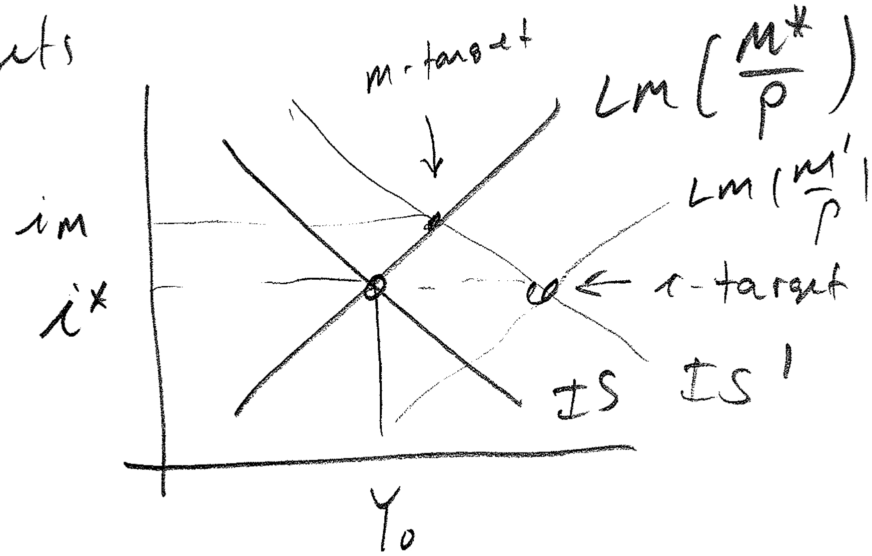
(6) The natural rate hypothesis says that, given enough time, the economy will eventually return to the natural rate of output. Thus, e.g., AD shocks have a SR, but no LR, effect.

Short Answer

(1) Money is measure in two ways, a theoretical approach and an empirical approach. By the theoretical approach, an asset is money if it is a medium of exchange, otherwise it isn't. By this def., one gets a narrow def. of money, M1 = Currency + Demand Deposits. The second method is empirical: Choose the set of assets most correlated with real GDP, inflation, etc., the things you want to explain.

It is not clear what should and should not count as money. E.g. Savings is not (theoretically) money, but it is so highly liquid that it probably should be counted. Thus, we should count highly liquid assets as part of money. But where to draw the line? Fed doesn't. Instead offers M1, M2, etc. which include less and less liquid assets.

2 Start at targets i^*, M^*



Let IS shift out. With m-target (stay at M^*), No longer at i^*, so, not at both anymore. To go back to i^*, m must ↑ to m', so, no longer at m*. So, can't hit both after IS shifts, must choose one or the other.

(3) Start with Quantity theory:

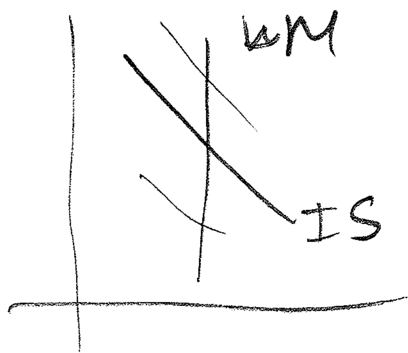
$$M\bar{V} = PY.$$

This is the AD-curve, i.e., can write

$$P = \frac{1}{Y}(M\bar{V})$$

Note that it only shifts due to chgs in M or V.

Why? One way to see this is to note that for Classicals, $\frac{M}{P} = L(Y)$, i.e. no i-rate. Then LM is vertical



Changes in IS (G, T, etc) won't chg Y (i.e. won't affect AD).

Chgs in M or V will (shifts LM).

(4) Depends upon who you ask. Both Monetarists and Keynesians agree that an over-heated economy is quickly self-correcting. This requires wages and prices to rise and most agree they do so fairly easily.

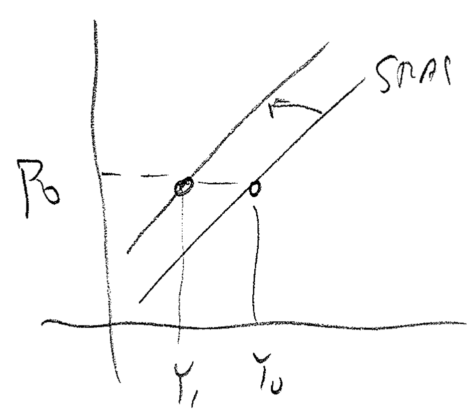
There is disagreement about recessions, Keynesians do not believe they are quickly self-correcting (they are in LR, but that takes a long-time), monetarist, classical economists do. The disagreement is mainly about the degree of sluggishness for wages + prices.

5 Consider the equation for profit:

$$\text{Profit/unit} = \text{Price/unit} - \text{cost/unit}.$$

Suppose Price ↑, all else equal (i.e. cost/unit is constant). Then profit ↑, and, when profit ↑, firms expand output. So, P↑ → profit ↑ (costs constant) → Y↑. and SRAS slopes upward.

Shifts: For a given P-level (P_0 here), any ↑ in costs (e.g. wages, raw materials) → profit ↓ → Y↓ (SRAS shifts).



Essay

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1. Center of Power has shifted over time
2. intended to be a highly decentralized System of 12 cooperating banks
3. No role for Stabilizing economy - that comes later
4. Only one tool to control M^S initially, discount loans. Open market operations not well understood, not used.
5. discount rate determined jointly by banks and board of Gov., Share equally in mon. Policy decisions
6. Changed during Great Depression. Power Centralized in Board of Gov, given control of Res. Req. (r_D), open mkt. oper. (Banking Acts of 1933, 1935).
7. Over time, Power of Board of Gov. has increased, member banks have little power.
8. Today, functions as a system with main bank in D.C., 12 branches. Power is not shared. Control, effectively, r_D, open mkt. oper., disc. rate, Appointments of bank directors + presidents (usually suggested by Board of Gov).

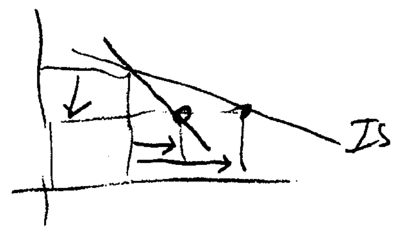
2 Recall slope of IS, intuitively, is

$i \uparrow \rightarrow I \downarrow \rightarrow Y \downarrow$

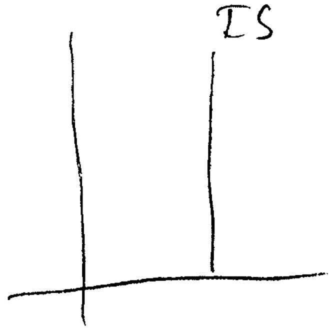
↳ when i - more responsive, $Y \downarrow$ more for given $i \uparrow$

$\Rightarrow$ IS flatter

In extreme:

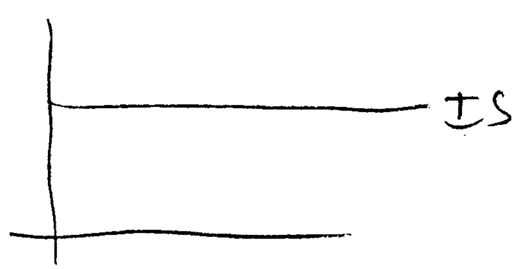


No responsiveness



No response

Complete responsiveness



Complete response

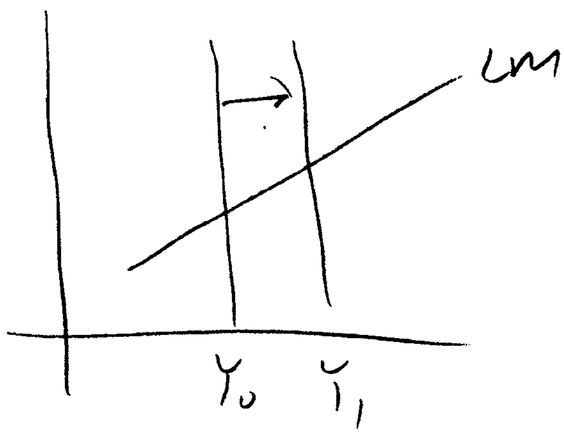
Look at each

Mon- no resp case

mon ineffective

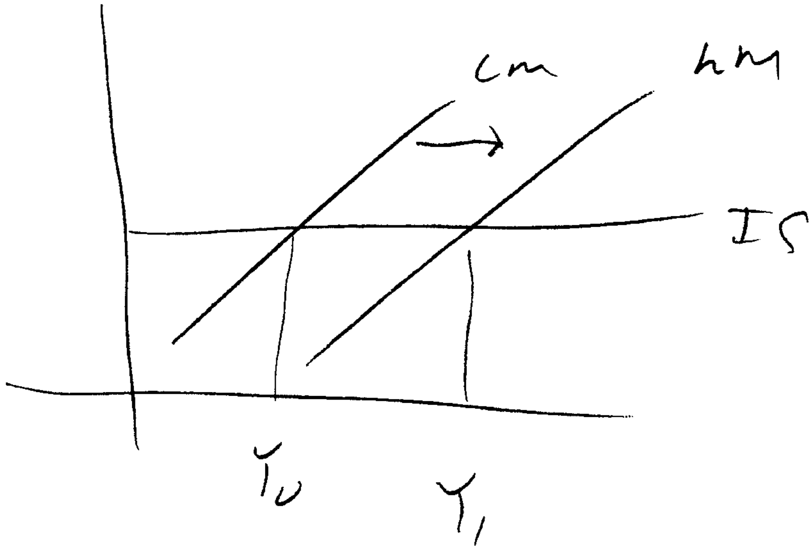
Fiscal - no resp case

effective



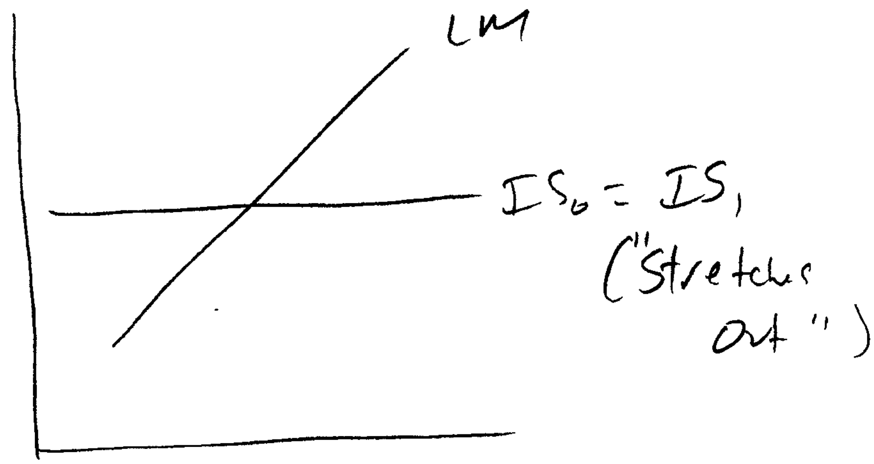
⇒ fiscal better than mon. when no response (as is more likely in recessions → see above) mon → complete resp case

effective



Fiscal, complete resp case

ineffective



mon better when resp.

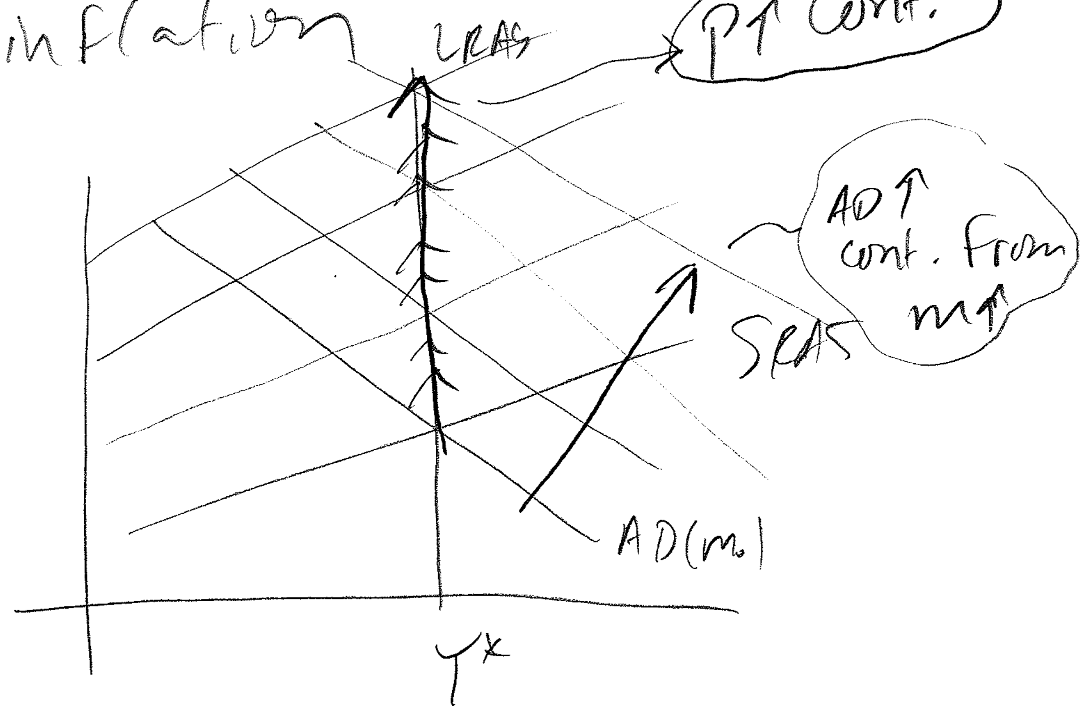
Summary

resp (full emp) mon better than fiscal

unresp (recession) fiscal " " mon

⇒ fiscal useful in Recession,
mon " near full employment

3 yes, monetarists agree. To see why, show that M↑ continuously → inflation. Then note that for monetarists, M↑ is the only reason AD↑, so, only source of inflation



Might move from Y* in SR, but, in LR, P↑ as shown.

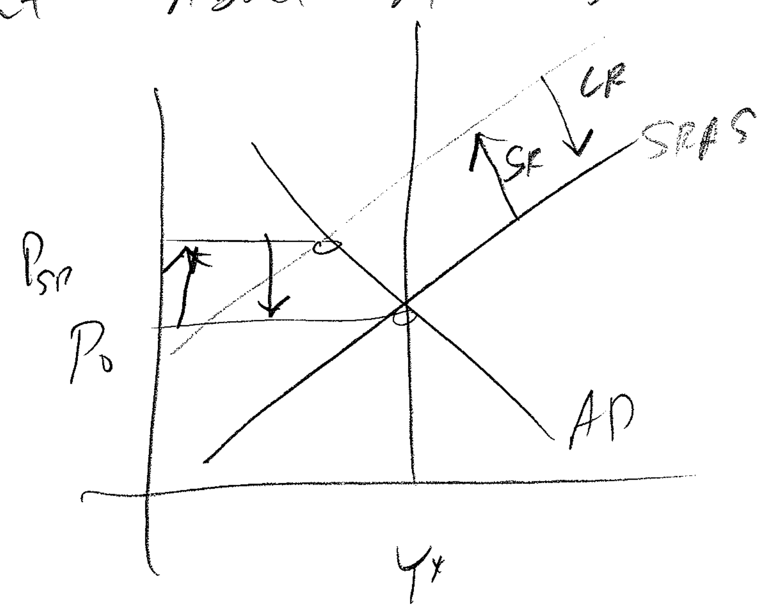
So, M↑ → inflation. Can G, T, etc → inflation? Not in mon. AD. What about Keynesian? In Keynesian AD, G, T, etc. do shift

AD out, but, cannot be source of ongoing P↑. Note that $Y = C + I + G + NX$.
G↑ only so far, bounded by GDP.
Taxes ↓ only so much, so, self-limiting.

Thus, Keynesian agree too (M↑ has same effect.

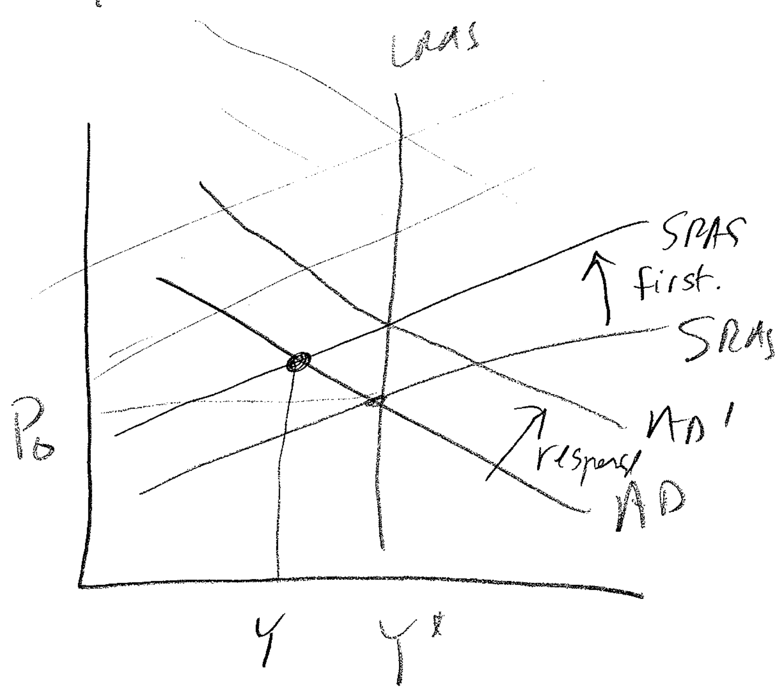
Finally what about AS - shocks

When AS shifts in, P ↑ in SR, but not LR.



So, M-growth only source of inflation.
Friedman correct.

4 Two ways this can happen that were discussed in class. First, suppose unions attempt to ↑ wages. Then SRAS shifts back, Y↓ and Un↑.

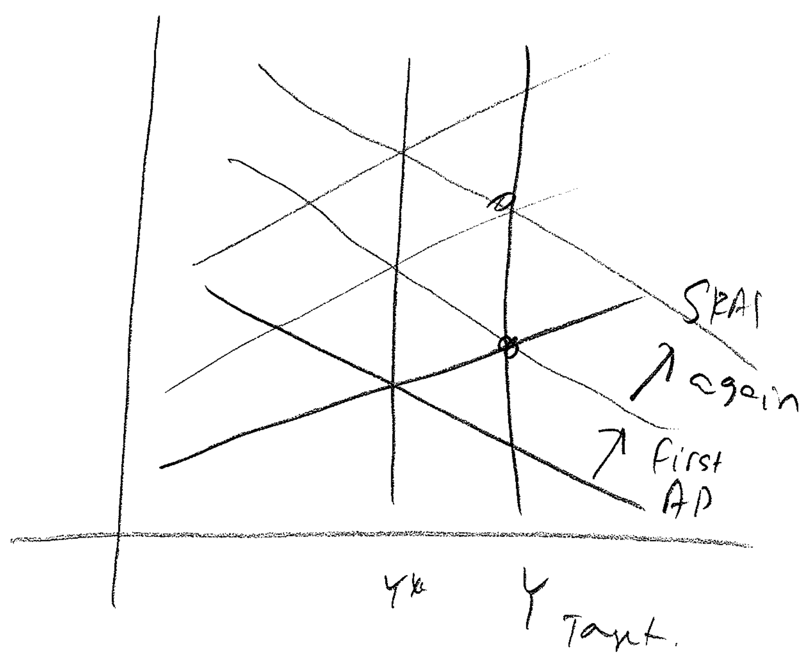


Seeing Y↓ and UN↑, Fed ↑ M to maintain high employment. Then when M↑, Y goes back where it started and, though $\frac{W}{P}$↑ temporarily, $\frac{W}{P}$↓ where it started.

Seeing this, the Union asks for W↑ again and the

Process repeats. So long as union keeps trying to ↑ $\frac{w}{p}$, continues → AD ↑ continually → inflation.

The other way is to shoot at the wrong target. Suppose Fed shoots at $Y_{Target} > Y^*$



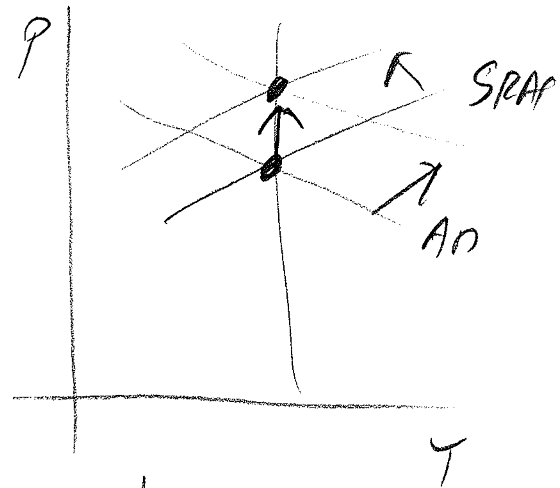
Shift AD to hit target.

Then SRAS shifts back → Y < Target.

Fed shifts AD again. SRAS shifts back again. Continues so long as $Y_{Target} > Y^*$ → inflation as AD shifts out continuously trying to hit target.

5 Suppose m-growth is driving AD↑ producing an unacceptable rate of inflation. For a long-term inflation,

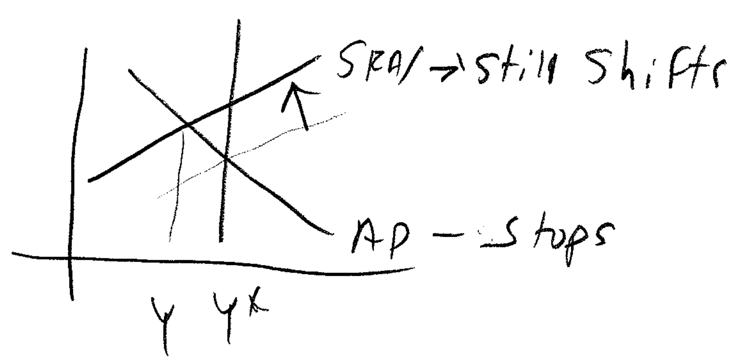
when AD shifts, SRAS shifts too.



Now, suppose Fed decides to end inflation by reducing money growth (say to zero for example).

If it's unanticipated, result the same in all 3 models.. AD stops, SRAS continues to shift since not expected

Result:
Y↓ below Y*
in all three cases

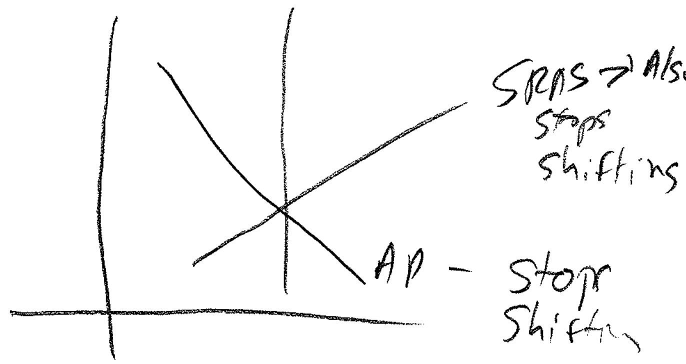


What if Anticipated?

Traditional: Same as in graph above, expectations don't matter.

Classical: SRAS stops too

So, Costless in terms of Y loss.



New Keynesian:

Fully anticipated, Rational expec., but, rigidities mean not all prices can be diverted off previous path, So, Shifts some, but not as much as under traditional

[cont.]

So, in terms of output loss

NC < NK < Trad.