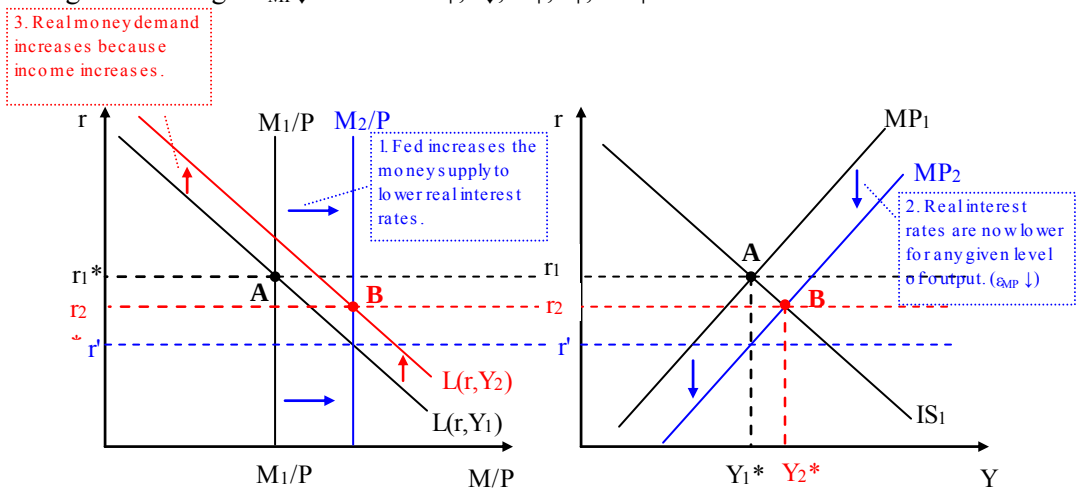
Question 1: IS/MP Model

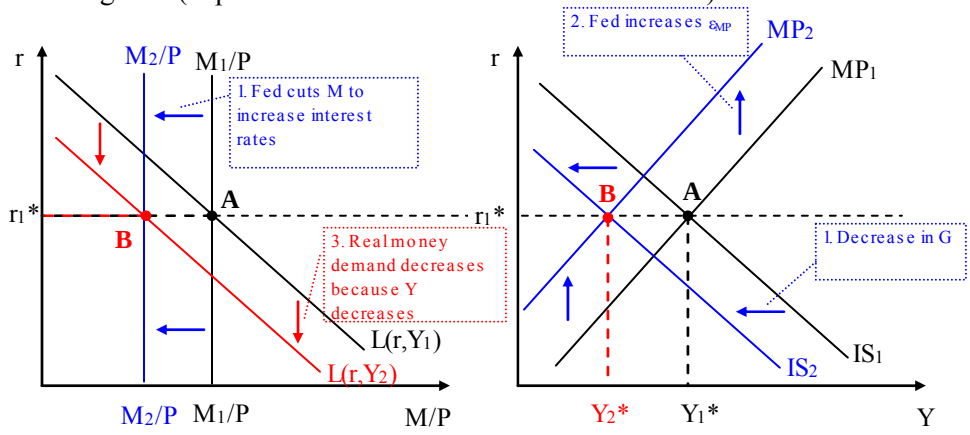
See graphs below.

a) Exogenous change: $\varepsilon_{MP}\downarrow$ Effects: Y↑, r↓, C↑, I↑, CF↑



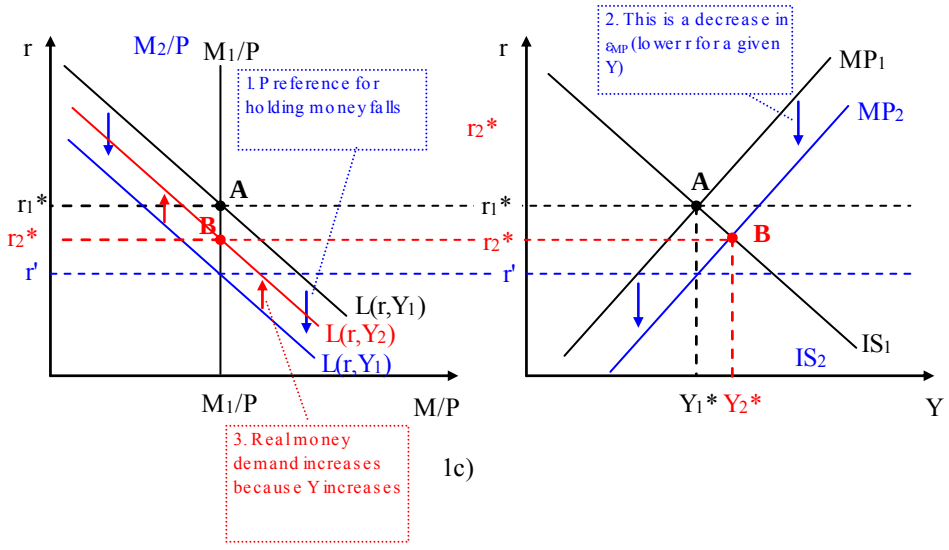
1a)

b) Exogenous changes: $\varepsilon_{MP}\uparrow$ and G↓ Effects: Y↓, r ambiguous (depends on which policy is bigger), C↓, I and CF are ambiguous (depends on whether interest rates rise or fall).



1b)

c) Exogenous change: $\varepsilon_{MP}\downarrow$ Effects: Y↑, r↓, C↑, I↑, CF↑



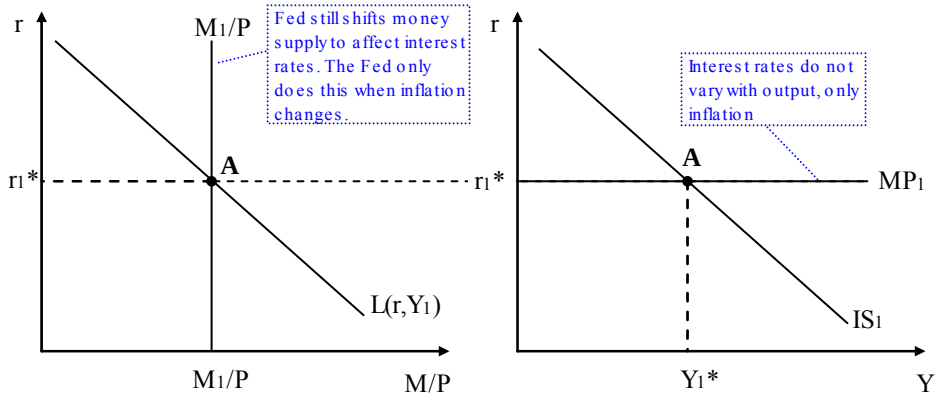
1c)

d) This implies that any time output in the economy rises, the government offsets part of this increase by reducing government spending. This affects the slope of the IS curve, because now, G is a function of Y (much like consumption is a function of income). Specifically, the slope of the IS curve will be steeper (changes in interest rate r will be associated with smaller changes in Y)

e) This implies that the MP curve is steeper. Changes in output (Y) will be associated with larger changes in r (the Fed adjusts r by more when Y changes).

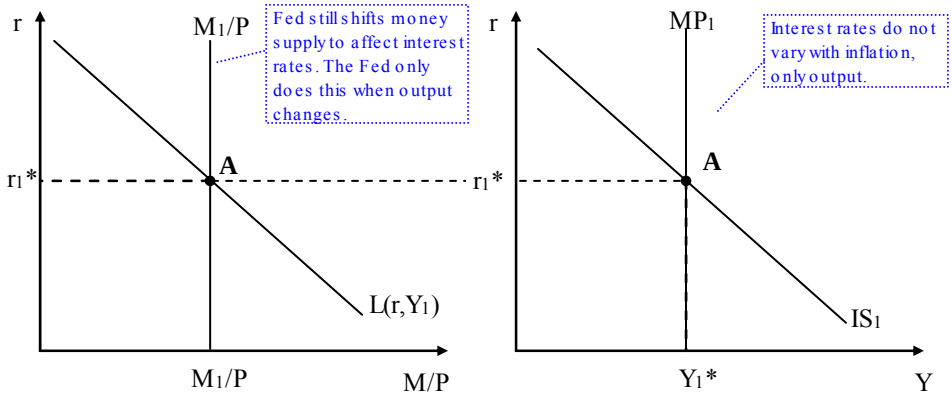
Question 2: IS/MP Model – Monetary Policy Strategy

a) The MP curve is flat. In other words, when output Y changes, the central bank does not change r. Changes in inflation will shift the MP curve up or down; changes in output will not affect interest rates.



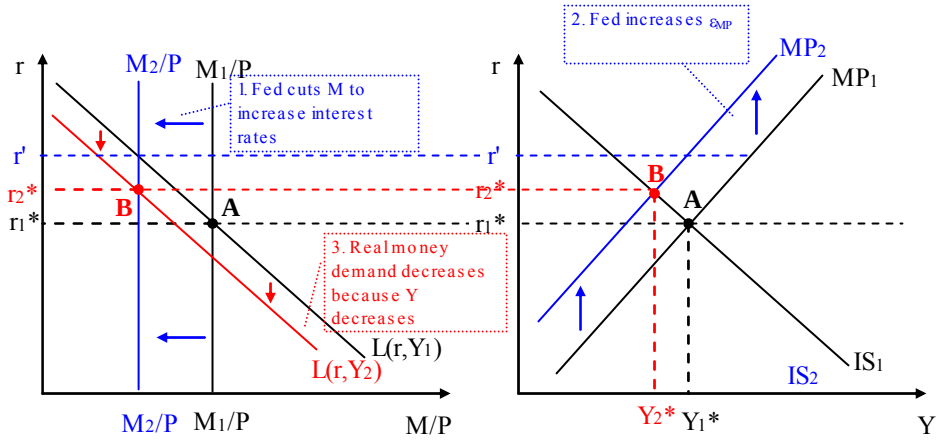
2a)

b) The MP curve is vertical. The MP curve shifts only in response to output movements (it is determined strictly by where output is).



2b)

c) This will lead to an upward shift in the MP curve. The central bank achieves this by decreasing the money supply.

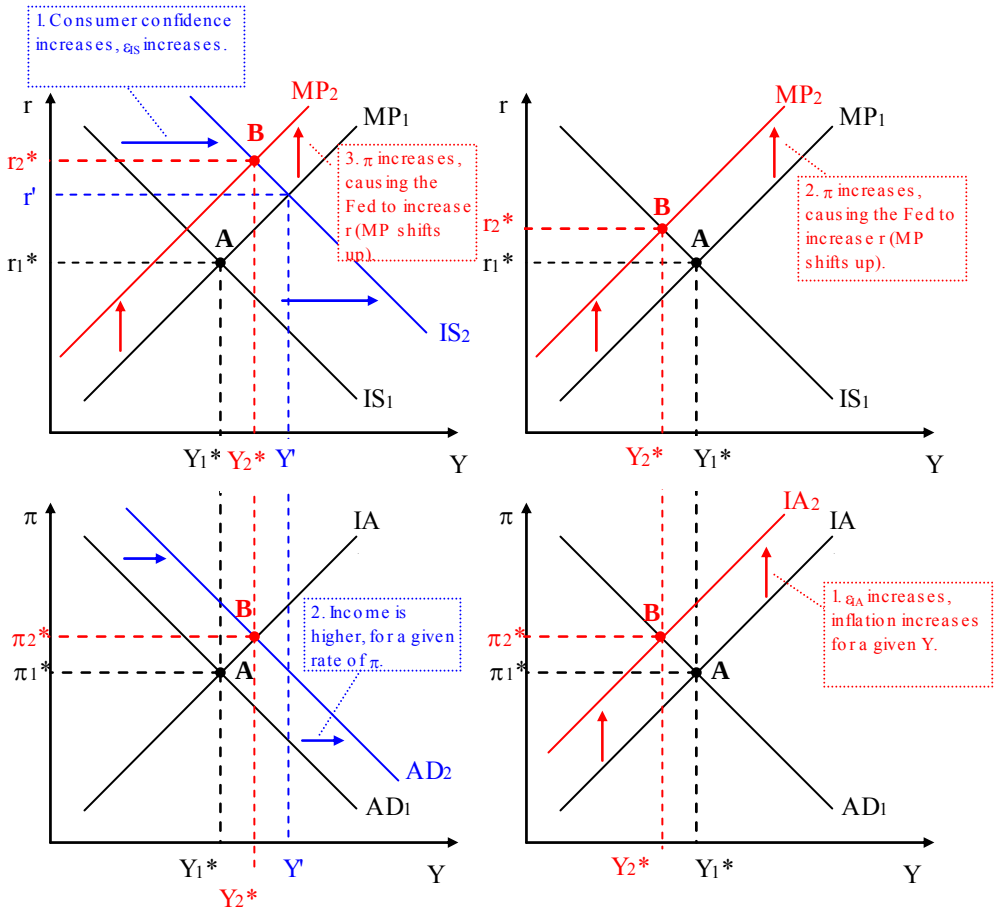


2c)

Question 3: IS/MP/IA Model

a) Exogenous change: $\varepsilon_{IS}\uparrow$ Effects: Y↑, r ↑, π↑, C↑, I↓ and CF↓.

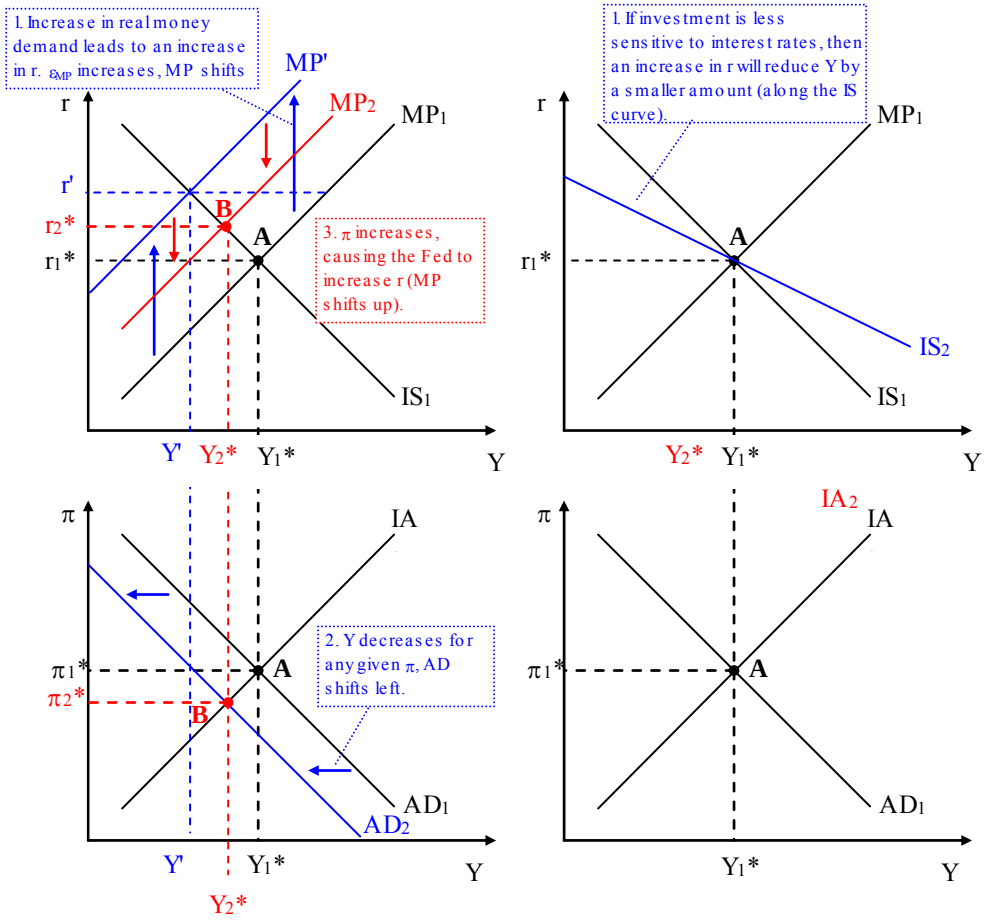
b) Exogenous change: $\varepsilon_{IA}\uparrow$ Effects: Y↓, r ↑, π↑, C↓, I↓ and CF↓.



3a) 3b)

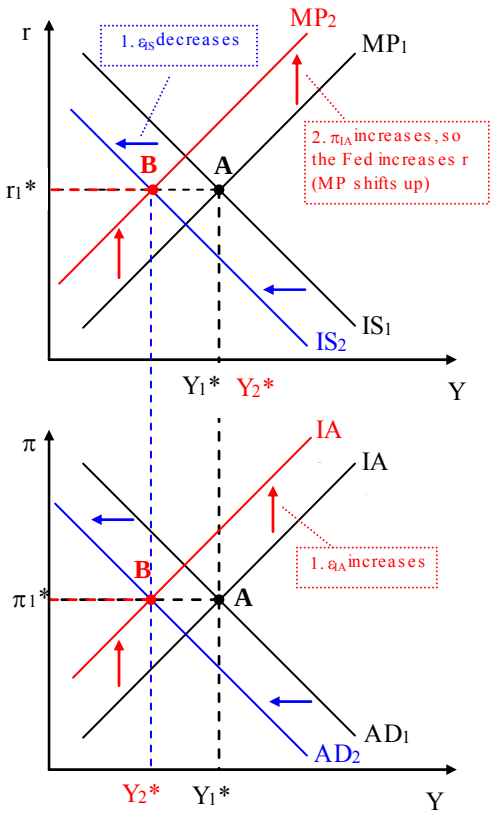
c) Exogenous change: $\varepsilon_{MP}\uparrow$ Effects: $Y\downarrow$, $r\uparrow$, $\pi\downarrow$, $C\downarrow$, $I\downarrow$ and $CF\downarrow$.

d) This makes the IS curve flatter, but does not necessarily affect the endogenous variables. What this change means is that exogenous shocks to the economy will affect interest rates, output, and inflation differently.



3c) 3d)

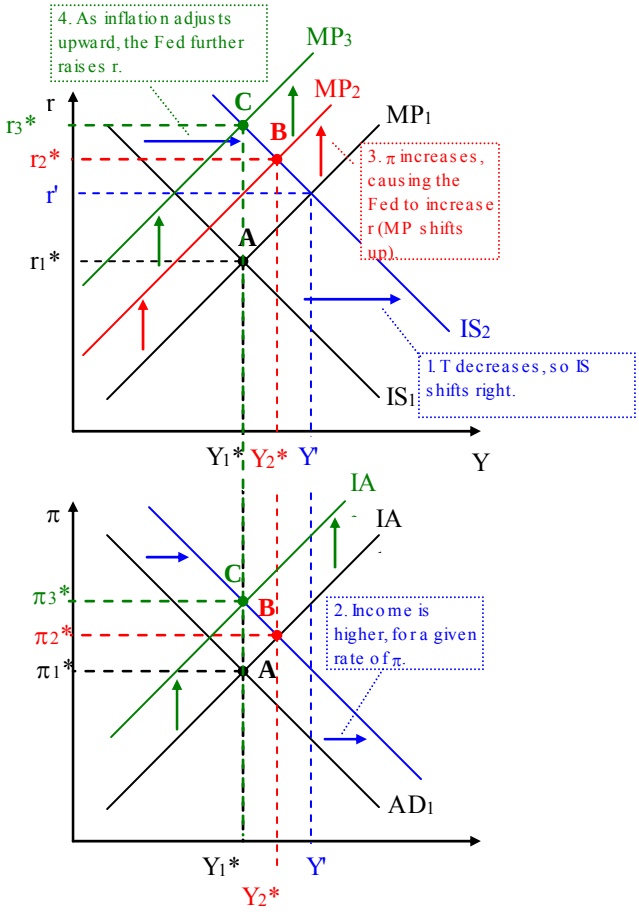
e) Exogenous changes: $\varepsilon_{IA}\uparrow$ and $\varepsilon_{IS}\downarrow$
Effects: Y↓, r and π ambiguous, C↓, I and CF ambiguous.



3e)

Question 4: IS/MP/IA Model – Fiscal and Monetary Policy Preview

a) IS curve shifts to the right. This causes an upward shift in the MP curve (when inflation rises)
Exogenous change: T↓
Short Run Effects: Y↑, r ↑, π↑, C↑, I↓ and CF↓.
Long Run Effects: Y no change, r ↑, π↑, C↑, I↓ and CF↓.



4a)

b) IS curve shifts to the left. This causes a downward shift in the MP curve (when inflation falls). This is simply the reverse of the diagram 4a) above.
Exogenous change: G↓
Short Run Effects: Y↓, r ↓, π↓, C↓, I↑ and CF↑.
Long Run Effects: Y no change, r ↓, π↓, C no change, I↑ and CF↑.

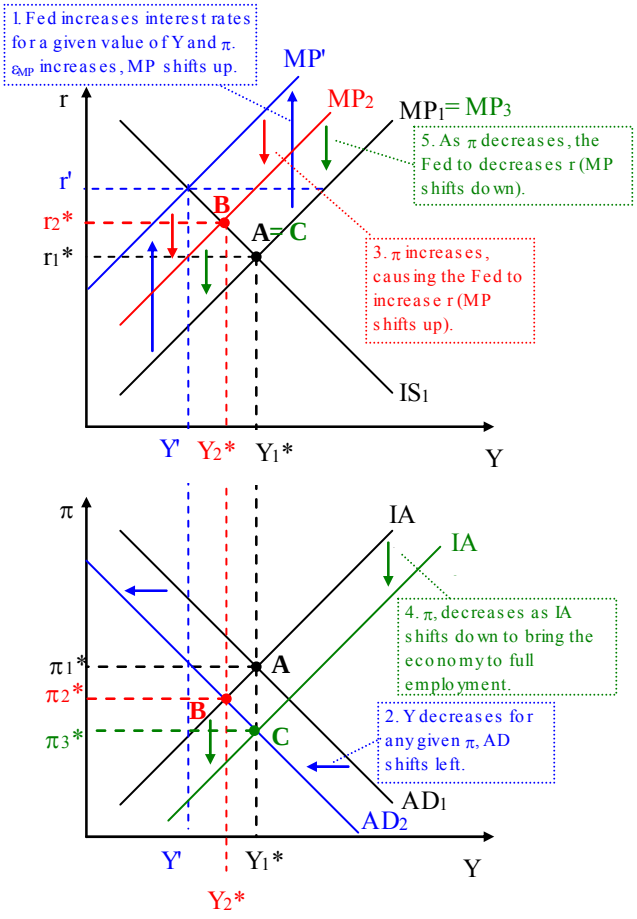
c) IS curve shifts to the left. This is because the effects of the government spending cut are larger than those of the tax cut. Households only consume a fraction of the tax cut (marginal propensity to consume is less than one). This causes a downward shift in the MP curve (when inflation falls). The diagram is the same as 4a), except that the shifts would be smaller in magnitude.

Short Run Effects: Y↓, r ↓, π↓, C↓, I↑ and CF↑.
Long Run Effects: Y no change, r ↓, π↓, C↓ (this is because Y is unchanged and I and CF increase), I↑ and CF↑.

d) A balanced budget amendment would force the government to decrease spending each time it cut taxes. However, the effects of these two policies are not the same in terms of output. This policy would actually reduce output in the short run.
The policy is beneficial because it would reduce interest rates in the long run, leading to higher investment (and net exports).

e) MP curve shifts to the right. This causes an upward shift in the MP curve (when inflation rises)
Exogenous change: ε_{MP}↑
Short Run Effects: Y↓, r ↑, π↓, C↓, I↓ and CF↓.
Long Run Effects: Y no change, r no change, π↓, C no change, I no change and CF no change.

f) The central bank would implement this policy to reduce inflation. Notice, there are no effects on real economic variables in the long run.



4f)