NYU STERN

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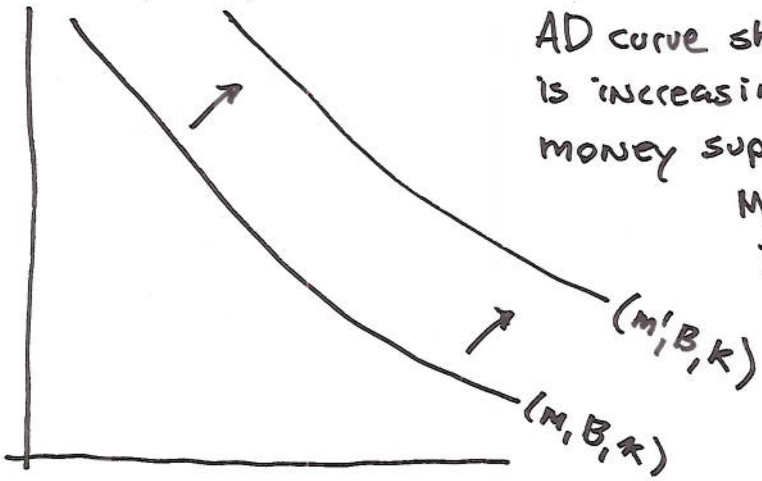
Escape From QE

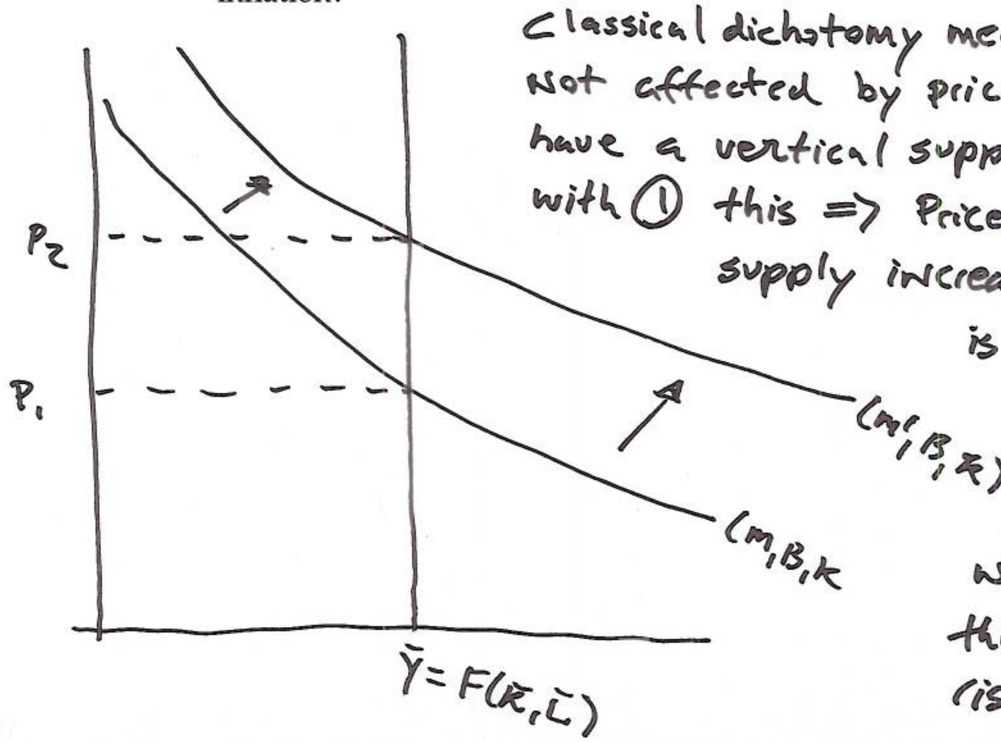
Below are several questions about possible scenarios and escape paths for the FED from quantitative easing. To keep things simple, assume that real GDP is not affected by monetary factors, i.e. the classical dichotomy holds.

1. Because the economy is heating up, banks begin to reduce the ratio of reserves relative to deposits (i.e. they lend out a larger fraction of their deposits.) Describe and illustrate how this will affect (i) the money supply and (ii) aggregate demand (if at all).



AD curve shifts out b.c. the money supply is increasing. The reason for the money supply increas is that $M = m \times B$. Here the proper interpertation of the decline in reserves to deposits is an increase in the money multiplier

2. Assuming that the classical dichotomy holds, describe what happens to inflation?



Classical dichotomy means real gdp is not affected by prices or money. So we have a vertical supply curve. Combined with 1 this ⇒ Prices rise as the money supply increases. Here inflation is ⇒ $\pi = \frac{P_2}{P_1} - 1 > 0$

So assuming inflation was previously zero, then this mean inflation is rising.

3. Suppose that the FEDs objective is to stabilize the price level at the level prior to the economy heating up. Should it intervene in response to banks changing their lending decisions? How could the FED intervene by using open market operations?

Yes, it should reduce the money supply to push the AD curve back in. With OMO, the FED would sell bonds in return for reserves from the banks. These reserves are removed from the system and the monetary base B ↓. This implies the money supply ↓ as $M = m \times B$. This is what their Balance Sheets would look like.

FED

A	L
− T-Bills	− Reserves

Banks

A	L
− Reserves	
+ T-Bills	

4. In conjunction with open market operations, the FED decides to change the amount of interest it pays on reserves. How would it want to change the interest rate it pays on reserves? How would this affect banks' lending decisions? Would this affect the monetary base or the money multiplier?

Paying interest on reserves and increasing the amount it pays would decrease the money multiplier. The idea here is that paying interest on reserves will give banks disincentives to lend out their reserves, thus reducing their lending activity/"money creation". This would lead to a reduction in the money supply.