Note to seminar 6

Question 6

1. When the news arrives the RER jumps, but not all the way to the new full equilibrium value $\overline{r}_1$. Why? If the CB keeps the RIR constant, the RER will jump immediately to $\overline{r}_1$. This would boost demand and raise inflation above target. The CB therefore raises the RIR, but not to the extent that the keeps RER from jumping (since this would suppress demand and cause inflation to fall below the target)

2. When the cut is implemented, the RER will be equal to $\overline{r}_1$ and the RIR will be back at the initial level.

3. The path in between depends on what we assume about expectations

   - Fully rational expectations: Can't have expected jumps in the nominal exchange rate. The RER will therefor depreciate smoothly towards $\overline{r}_1$. As the RER depreciates, the CB must raise the RIR even further to keep demand in check (remember, the Gov't spending cut is yet to be implemented). Just before the cut is implemented, the RIR differential is large, which means that the expected RER depreciation must be large. This is only consistent with a convex RER path to $\overline{r}_1$.
   - Our model, however, does not assume fully rational expectations. Hence, the exchange rate can jump in the future. The only path that is consistent with both the expectations in eq (3) and the CB's strict inflation target is the following. initial jump in RER (but lower than $\overline{r}_1$.) and RIR when the news arrives, and constant RER and RIR until the cut is implemented. When the cut is implemented, the RER jumps to $\overline{r}_1$ and the RIR falls back to the initial level

Question 7

- A small open economy, with floating exchange rate, is hit by a large permanent negative demand shock. With floating rate, we expect the adjustment to be short and painless, brought about by a immediate and large depreciation. However, this shifts resources between sectors, in general towards the export sector. This shift might take some time if the needed adjustment is large, i.e. workers have to reallocate
- If the CB targets consumer price inflation rather that domestic inflation. If the CB does not react, imported prices will increase. To combat this the CB raises the interest rate, which inevitably cause a negative output gap.
- A fall in potential output, e.g.:
  - Takes time for workers to reallocate across sectors e.g. from teachers to manufacturing workers.
  - the Gov't increases distortionary tax rates.
- Increased uncertainty, household cut consumption and firms cut investment and hiring.
- agents fear future inflation

Question 8

- If the CB does not react, the exchange rate will appreciate, causing a negative output gap, and inflation falls below target.
- If the CB cuts to the same extent, the exchange rate doesn't move. However, the interest rate is lower, creating a positive output gap, and inflation rises above target.
- So the CB should cut, but not to the same extent as ECB
- What if the CB targets consumer price inflation? Do they care about the instantaneous fall in import prices or the subsequent increase?