Note that you should always get the same result using IS-LM-FE analysis or the approach we used earlier in the class (capital market, labor market, money market). It would be good practice for the final to work out these examples using both methods!

1) A permanent increase in productivity raises the level of output produced by any combination of labor and capital as well as increases employment (demand for labor increases). Therefore, the FE curve shifts to the right. The increased demand for capital raises investment demand and shifts the IS curve to the right. The short term effect is higher interest rates and increased output. The long term price effect depends on the magnitude of the IS shift and the FE shift. If IS shifts by less than FE, then there is excess capacity and prices must fall. If IS shifts by more than FE, then the economy is operating above capacity and prices must rise. (Drawn below is the case where prices fall.

![Graph showing IS, LM, and FE curves with Real Output (Y) on the horizontal axis and Real Interest Rate (r) on the vertical axis. The IS curve is to the left, the LM curve is above, and the FE curve shifts to the right with a vertical line indicating the shift at IS and LM intersections.]
If the shock was only temporary, investment demand still increases, but the rise in savings means that the IS curve doesn’t shift by as much as before. Interest rates are ambiguous (let’s assume here that interest rates are unchanged) and prices fall shifting the LM curve right.
2) A drop in consumer confidence will lower consumer spending (raise savings) and therefore shift the IS curve to the left. Productivity and employment are unaffected so the FE curve doesn’t move. In the short term, output falls and interest rates fall. In the long term, prices fall. A drop in prices increases real balances which shifts the LM curve to the right returning the economy to full employment.
3) The improvement in payment technologies lowers the transactions costs of acquiring money and thus lowers money demand. LM shifts to the right. The economy temporarily rises above full employment output and interest rates fall. Eventually, prices increase to decrease the real supply of money pushing the LM curve back to its original position. Interest rates go back up and output falls.
4) A freeze on prices along with an increase in the supply of money raises real balances and shifts the LM curve to the right. Output rises and interest rates fall. Once prices are allowed to rise (which we know will happen at some point due to the higher money supply), the above process reverses itself and the economy returns to its initial level of output, employment, and interest rates, but with a higher price level.
5) A monetary contraction:
   a) With prices fixed, a monetary contraction shifts the LM curve to the left. Interest rates rise and output falls.
   b) In the long run, prices drop (LM returns to its original position) and the effects in part (a) reverse themselves.