1)  
   a) An increase in output should increase money demand. Money supply is unchanged. In the short term, the interest rate will rise, in the long term, prices should fall.
   b) Credit cards only represent short-term loans – neither affecting the supply or demand of money. That is, when you charge something on your credit card, the bank pays for the purchase with cash.
   c) An open market sale of treasuries will lower the amount of cash in circulation, the short term effect will be higher interest rates while the long term effect is lower prices.

2) With lower transaction costs, consumers can keep more money in the bank and carry lower cash balances. This should reduce the demand for money. The result would be lower interest rates in the short term and a higher price level in the long term.

3) The importance here is to remember what happens to money demand.
   a) A one-time increase in the stock of money has no effect on money demand. Prices increase, but the inflation rate remains unchanged.
   b) An increase in the growth of money creates an increase in the inflation rate (and, hence, an increase in the nominal interest rate). Money demand falls due to higher nominal interest rates, which creates an additional increase in the price level. This is known as “overshooting”.

4) Our dollar bills currently pay a nominal return of 0% per year and, hence, a negative real return equal to the rate of inflation. Therefore, higher rates of money growth (which imply higher inflation rates) lower the real return to money and cause a drop in demand. It is this drop in demand that creates overshooting and the deadweight loss of money growth. In this example, if dollar bills paid the nominal interest rate, then the real return to money would be the real rate of interest. Note that this return is independent of money growth. Therefore, money demand is unaffected by money growth and the overshooting and deadweight loss from money growth disappear. Note that indexing money to the nominal interest rate is somewhat arbitrary. All we really need is to index money to the inflation rate.

5) As was mentioned in the previous two questions, expectations drive money demand which can create magnified responses of prices and interest rates to monetary policy. The fed would like to avoid this.