Economics 100b, Midterm #2 Review Questions
Chapter 11
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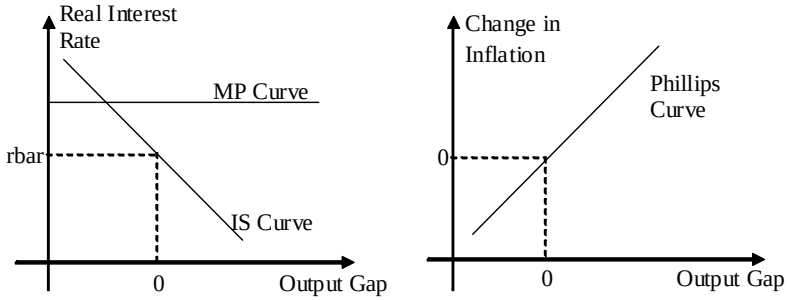
1. What does the phrase "Classical Dichotomy" mean? How does the assumption of sticky inflation relate to the Classical Dichotomy?

**Answer**: The Classical Dichotomy refers to an assumption that says the following: in the long run, the nominal economy is completely separate from the real economy. This means that in the long run, money and nominal prices have no impacts on real variables such as real GDP. The sticky inflation assumption in the Short Run Model implies that the Classical Dichotomy does NOT hold in the Short Run Model. To see this, consider what happens when the central bank raises the nominal interest rate. Because the level of inflation is sticky and remains unchanged, the increase in the nominal interest rate means that the real interest rate rises; this is reflected in a higher MP curve. When the real interest rate rises, investment and real output decline leading to a negative output gap; this is reflected in a movement along the IS curve. In this case, we see that a change in the nominal interest rate impacts the real interest rate and real output.

2. The Short Run Model consists of three curves: the MP curve, the IS curve and the Phillips curve. Illustrate and explain the meaning of each curve.

**Answer**: The MP, or monetary policy, curve, captures how the central bank effectively sets the real interest rate via the nominal interest rate. The IS curve captures how the real interest rate is related to the output gap. This curve illustrates that an increase in the real interest rate leads to lower investment, lower real output, and hence a lower output gap. Finally, the Phillips curve captures how the output gap is related to the change in inflation. When the output gap is positive, the change in inflation is positive, and when the output gap is negative, the change in inflation is negative. These curves illustrate how policy can affect real interest rates, real output and inflation in the Short Run.




3. How can a central bank control the nominal interest rate via the money supply?

**Answer**: First, note that a central bank faces a downward-sloping money demand curve. The intuition behind this curve is as follows. When the nominal interest rate is high, people hold there money in bank accounts to earn more interest. In this case, people

will make frequent withdrawals for purchases, so velocity will be high when the nominal interest rate is high. On the other hand, when the nominal interest rate is low, less money will be held in bank accounts leading to fewer withdrawals and lower velocity. Now consider the money supply side of the money market. In the short run, the money supply is fixed, so the money supply curve is a vertical line. If a central bank wants to lower the nominal interest rate, then it can increase the supply of money by purchasing government bonds in exchange for currency. Notice the importance of the sticky inflation assumption. This assumption implies that prices do not immediately adjust to the change in money supply, so that the nominal interest rate changes. If prices did immediately adjust to the change in money supply, the change in the money supply would have no impact on the nominal interest rate.