

Review Questions - Chapter 10

1. Let $C = .7Y_p$, $I = .20Y_p - .3Y_p(R - r)$, and $G = .15Y_p$, where Y_p is potential output. Let Y denote actual output and r the marginal product of capital. For this problem, let $r = 0$.

- (a) What is the IS curve? That is, solve for the output gap, $(Y - Y_p)/Y_p$ as a function of the real interest rate, R . If $R = .05$, then what is the current output gap?
- (b) Suppose the government wants to increase spending because of the damage due to a hurricane, i.e., Congress wants to government purchases from $.15Y_p$ to $.20Y_p$. Find the new IS curve, and describe in words how this affects the output gap. What is the output gap if real interest rates stay at 5%, as in part (a)?
- (c) Suppose the Fed wants to maintain the same output gap in the economy that you found in part (a). At what level should the Fed set interest rates to accomplish this?
- (d) Suppose instead that $C = .7Y_p - .5Y_p R$. Do parts (a) – (c) again. Compare your answer in part (c) to your new calculation. Provide an explanation for why your answer changes.