

NAME(S) _____

PRINCIPLES OF MACROECONOMICS

Economics 105 / Section 4 / Binder

ASSIGNMENT #7: MONEY GROWTH and INFLATION

Due in class on Oct. 30 (Weekly work record not required)

1. Use the quantity equation ($M \times V = P \times Y$) to answer the following questions.
 - a) Suppose that the Fed wants to keep prices constant and that output (Y) is expected to rise by 3% over the next 12 months. The Fed should aim for a _____ % money growth.
 - b) Suppose that the money supply rises by 5% and output is unchanged. The quantity theory of money predicts that inflation will be _____%.
2. Suppose that inflation is expected to be 3% next year, and the (nominal) interest rate is 7%.
 - a) What is the expected real interest rate? _____.
 - b) If inflation is much higher than expected, say 6%, what real interest is actually paid? _____
 - c) The situation in (b) is great for whom and lousy for whom?
3. Using the quantity equation, explain why when governments print money like crazy, the result is hyperinflation.
4. Explain the Inflation Fallacy, then explain two real costs of inflation.

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PRACTICE PROBLEMS (Do not hand in)

1. Suppose money supply is \$500, nominal GDP is \$10,000 and real GDP is \$5,000.

a) What is the velocity of money in this economy?

b) Suppose that velocity is constant and output of goods and services rises by 5%. What will happen to nominal GDP and the price level if the Fed keeps the money supply constant?

c) What money supply should the Fed set next year if it wants to keep the price level stable?

d) What money supply should the Fed set next year if it wants inflation at 10%?

2. Use the supply and demand for money to show what happens if more people qualify for credit cards and credit cards become even more widely used. HINT: what will happen to the demand for money? If the Fed wants to keep prices stable, how should they respond?

3. It is often suggested that the Fed should try to achieve zero inflation. Does this mean the Fed should keep the money supply constant? Check your response by using the quantity equation assuming, first, that output is unchanged, and second, that output is rising.