

DISCUSSION QUESTION

Name:

Instructor:

Course:

On January 25, 2012, the Federal Reserve Bank released a statement which said, “The inflation rate over the longer run is primarily determined by monetary policy, and hence the Committee has the ability to specify a longer-run goal for inflation. The Committee judges that inflation at the rate of 2 percent, as measured by the annual change in the price index for personal consumption expenditures, is most consistent over the longer run with the Federal Reserve's statutory mandate.”

Source: <http://www.federalreserve.gov/newsevents/press/monetary/20120125c.htm>

- a) Why would the Federal Reserve want to establish a long-run specific target for the inflation rate?
- b) Why did the Federal Reserve select two percent as their specific target over time? Why not select a higher rate, like say 3 percent, or aim to have a zero percent inflation rate?

PEER GROUP PROBLEM SOLVING

Name:

Instructor:

Course:

Here are values of the CPI for each year from 1990 to 1994.

Year	CPI
1990	130.7
1991	136.2
1992	140.3
1993	144.5
1994	148.2

- a) Calculate the rate of inflation from the previous year, beginning with 1991.
- b) Suppose you learn your grandfather earned \$3,000 in 1933 when the CPI was 13.0. Now say that your father earned \$50,000 in 1993. Who earned more in real terms, your father or your grandfather?
- c) The price of a stamp in 1933 was \$0.03 when the CPI was 13.0. The price of a stamp in 2013 was \$0.45 when the CPI was 229.0. What was the price of a stamp in 1933 in 2013 dollars? Was the real price of a stamp higher in 2013 or in 1933?

IN-CLASS EXPERIMENT / ACTIVE EXERCISE

Have students form groups of 3 or 4 and consider the following exercise.

In July 2008, every citizen of Zimbabwe was worth billions of Zimbabwean dollars. Even though this may sound like a positive situation, the Zimbabwean economy was in ruins, and the vast majority of Zimbabwean citizens could not afford basic supplies like food or fuel. Zimbabwe was suffering from hyperinflation. The inflation rate was estimated to be 231 *million* percent per year, and the average price of goods and services were more than doubling on a daily basis. (Source: <http://news.bbc.co.uk/2/hi/africa/7832601.stm>)

Suppose you were to live in a country in which the prices of goods and services exactly double on a daily basis. Discuss the following:

- a) Suppose you were to work in a job that paid you \$10,000 every two weeks. How much, in real terms, would your \$10,000 paycheck be worth in exactly two weeks? How much would it be worth in one month (four weeks)?
- b) Discuss ways you would try to adjust to this type of hyperinflation. Specifically, what might you try to do with your money to prevent it from losing value?
- c) Discuss what could possibly lead a country's leaders to allow for this type of hyperinflation, even though hyperinflation inevitably devastates an economy.

SOLUTIONS AND INSTRUCTOR NOTES

Discussion Question

On January 25, 2012, the Federal Reserve Bank released a statement which said, “The inflation rate over the longer run is primarily determined by monetary policy, and hence the Committee has the ability to specify a longer-run goal for inflation. The Committee judges that inflation at the rate of 2 percent, as measured by the annual change in the price index for personal consumption expenditures, is most consistent over the longer run with the Federal Reserve’s statutory mandate.”

- a) Why would the Federal Reserve want to establish a long-run specific target for the inflation rate?

As part of the statement the Federal Reserve explains the objective of establishing a long-run specific target. “Such clarity facilitates well-informed decision making by households and businesses, reduces economic and financial uncertainty, increases the effectiveness of monetary policy, and enhances transparency and accountability, which are essential in a democratic society.”

- b) Why did the Federal Reserve select two percent as their specific target over time? Why not select a higher rate, like say 3 percent, or aim to have a zero percent inflation rate?

In a separate statement (which can be found here: http://www.federalreserve.gov/faqs/economy_14400.htm) the FRB explained why it selected two percent as its aim. “Over time, a higher inflation rate would reduce the public’s ability to make accurate longer-term economic and financial decisions. On the other hand, a lower inflation rate would be associated with an elevated probability of falling into deflation, which means prices and perhaps wages, on average, are falling--a phenomenon associated with very weak economic conditions. Having at least a small level of inflation makes it less likely that the economy will experience harmful deflation if economic conditions weaken.”

The Federal Reserve chooses to use inflation targeting at the level of 2 percent based on a desire to buffer against risk of deflation as well as to keep inflation within a reasonable band that indicates economic growth but not an economy that is overheating. Operating within a target also allows the Federal Reserve flexibility in monetary policymaking.

Peer Group Problem Solving

Here are values of the CPI for each year from 1990 to 1994.

Year	CPI
1990	130.7
1991	136.2
1992	140.3
1993	144.5

1994	148.2
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- a) Calculate the rate of inflation from the previous year, beginning with 1991.

Year	CPI	Inflation Rate
1990	130.7	--
1991	136.2	4.2%
1992	140.3	3.0%
1993	144.5	3.0%
1994	148.2	2.6%

- b) Suppose you learn your grandfather earned \$3,000 in 1933 when the CPI was 13.0. Now say that your father earned \$50,000 in 1993. Who earned more in real terms, your father or your grandfather?

Your grandfather's real salary: $\$3000/0.130 = \$23,076.92$

Your father's real salary = $\$50,000/1.445 = \$34,602.08$

Thus, your father earned more in real terms!

- c) The price of a stamp in 1933 was \$0.03 when the CPI was 13.0. The price of a stamp in 2013 was \$0.45 when the CPI was 229.0. What was the price of a stamp in 1933 in 2013 dollars? Was the real price of a stamp higher in 2013 or in 1933?

The price in constant 2013 dollars is given by:

*Price*₁₉₃₃ \times (CPI₂₀₁₃/CPI₁₉₃₃) = *Price*_{Constant Dollars}

$0.03 \times (229/13) = \$0.53$

Thus, the real price of a stamp was higher in 1933.

In-Class Experiment / Active Exercise

Have students form groups of 3 or 4 and consider the following exercise.

In July 2008, every citizen of Zimbabwe was worth billions of Zimbabwean dollars. Even though this may sound like a positive situation, the Zimbabwean economy was in ruins, and the vast majority of Zimbabwean citizens could not afford basic supplies like food or fuel. Zimbabwe was suffering from hyperinflation. The inflation rate was estimated to be 231 *million* percent per year, and the average price of goods and services were more than doubling on a daily basis. (Source: <http://news.bbc.co.uk/2/hi/africa/7832601.stm>)

Suppose you were to live in a country in which the prices of goods and services exactly double on a daily basis. Discuss the following:

- d) Suppose you were to work in a job that paid you \$10,000 every two weeks. How much, in real terms, would your \$10,000 paycheck be worth in exactly two weeks? How much would it be worth in one month (four weeks)?

$$1/14 \times \$10,000 = \$714.28 \text{ and } 1/28 \times \$10,000 = \$357.14$$

- e) Discuss ways you would try to adjust to this type of hyperinflation. Specifically, what might you try to do with your money to prevent it from losing value?

There is no single correct answer, it's important to point out are that individuals are likely to try to exchange money for a more stable currency and purchase goods and services as soon as possible.

- f) Discuss what could possibly lead a country's leaders to allow for this type of hyperinflation, even though hyperinflation inevitably devastates an economy.

The main reason that governments allow hyperinflation is to address high budget deficits or debt through monetary easing (printing money).

The purpose of this activity is to get students to consider the actual impacts and potential causes of hyperinflation. After a few minutes, ask different groups to volunteer (or call on different groups) to read their answers aloud.

For more in-class experiment and active learning ideas, visit www.econedactive.com.