# Why They Just Can't Print More: Money Supply and Prices 

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Students regularly ask me, "Why can't the government just print more money?" Typically they are seeking a simple solution to a complex problem like the national debt, or they just want the government to make us all rich the easy way, by handing us wads of cash. My best answer used to be, "They just can't," but the disappointment in students' eyes bothered me, so I searched for a more convincing, authoritative answer and found it from economist Anna J. Schwartz:

An increase in the supply of money puts more money in the hands of consumers, making them feel wealthier, thus stimulating increased spending. Business firms respond to increased sales by ordering more raw materials and increasing production. The spread of business activity increases the demand for labor and raises the demand for capital goods. In a buoyant economy, stock market prices rise and firms issue equity and debt. If the money supply continues to expand, prices begin to rise, especially if output growth reaches capacity limits. ${ }^{1}$

I tried simplifying this economic excess, explaining, "If the money supply rises faster than available goods and services, inflation will result," but the confused stares in students' eyes were merely replaced with glazed looks of bewilderment, not the eureka expressions
or contemplative nods I always seek.
Recognizing this as a concept that students need to experience before they can understand, I developed an activity to simulate the impracticality of the solution that my students were proposing. I teach both middle and high school students and have used the activity with both. My class sizes are small, but larger groups should present no problems and would, in fact, offer larger statistical samplings. Preparation time is limited to having copies of the lists and worksheets for students; a few calculators are also useful.

Objective: students will explain the relationship between money supply and prices.

## Content Standard:

Unemployment imposes costs on individuals and nations. Unexpected inflation imposes costs on many people and benefits some others because it arbitrarily redistributes purchasing power. Inflation can reduce the rate of growth of national living standards because individuals and organizations use resources to protect themselves against the uncertainty of future prices. (NCEE Content Standard 19)

## Procedure:

1. Inform students that they are going to participate in a silent auction, and that they will be provided an established "income." They must then purchase as many of the available items as they can
afford within the confines of their income. Students should work in secret because they do not want their competitors to outbid them; they should also make bids that are reasonably high to ensure acquiring the limited supplies.
2. Separate the class into two groups, and provide everyone with a list of available goods and services (Table 1). Remind them that there is only one of each item and that each group has the same list. Secretly inform Group A that they have $\$ 1,000$ to spend and Group B that they have $\$ 10,000$.
3. After they have made their bids, students should fill out a small group worksheet (Table 2), gathering the top bids and averages. Hand out one worksheet to each group, and have a student fill it in on behalf of the group, or have each student fill one in and get a student to share the results of the group.
4. When the class reconvenes, inform them of the money disparity. Students in the "poorer" group may bemoan the inequity and take it as further evidence that you really don't like them. Before discussing the purpose or the results of the activity, talk with students about the similarities and differences between the groups: each group, for instance, had the same items to purchase; groups may have the same number of students, but there may be differences that would affect the results, such as the number of girls and boys. Ask them what they expect
to discover once they start comparing the results. Which group was better off? Students will likely presume that the group with $\$ 10,000$ was better off.
5. As a class, compare the results of each group's auction. Gather the groups' data using an overhead of Table 3. Once you begin comparing the amounts that individuals spent on the exact same items, they soon realize that there was really no difference. The "wealthy" group was no better off; they simply paid more for the same goods and services. Giving them more money didn't help them-instead, they had suffered the effects of inflation. As you lead the discussion, consider the following questions:
a. Did the same number of people bid on each item in Group A and Group B? (There may be differences. If there are, discuss how factors such as personal values play a role in the decisions people make about their money.)
b. What is different about the winning bids in each group? (The bids from Group B are much higher. Many bids are likely to be about 10 times higher, because they had 10 times the money.)
c. Why do you think this is the case? (They had a lot more to spend.)
d. Is Group B better off? (No.) Why not? (They didn't get any more goods and services than Group A; they had to pay a higher price for them.)
e. Based on this activity, how would you define inflation? (An answer may sound like, "Prices going up.")
f. How does inflation affect the purchasing power of money? (Money is only worth what you can get for it. With inflation, you are able to get less for your money.)

Table 1. List of Items to be Auctioned

| Item | My Bid |
| :--- | :--- |
| Pair of brand new basketball shoes |  |
| 52-inch television |  |
| New jeans from your favorite store |  |
| Economics textbook (teacher's edition) |  |
| Picture cell phone (with unlimited service for <br> one year) |  |
| An all-expense paid weekend in Jamaica |  |
| Someone to do all of your chores for two <br> weeks |  |
| Someone to do all of your homework for one <br> class |  |
| Twenty individual sessions with an athletic <br> trainer |  |

Table 2. Small Group Worksheet

| Item | How many <br> people bid? | Highest bid? | Average of <br> the top 3 bids? |
| :--- | :--- | :--- | :--- |
| Shoes |  |  |  |
| TV |  |  |  |
| Jeans |  |  |  |
| Econ Text |  |  |  |
| Cell Phone |  |  |  |
| Miami trip |  |  |  |
| Someone for <br> Chores |  |  |  |
| Someone for <br> Homework |  |  |  |
| Training session |  |  |  |

Table 3. Class Data Collection Sheet

| Item | Number of Bids | Highest Bid | Top 3 Bids' <br> Averaged |
| :--- | :--- | :--- | :--- |
| Basketball shoes | Group A: <br> Group B: |  |  |
| $52^{\prime \prime}$ television | Group A: <br> Group B: |  |  |
| New jeans | Group A: <br> Group B: |  |  |
| Economics textbook | Group A: <br> Group B: |  |  |
| Picture cell phone | Group A: <br> Group B: |  |  |
| Trip to Jamaica | Group A: <br> Group B: |  |  |
| Someone to do all of your <br> chores | Group A: <br> Group B: |  |  |
| Someone to do all of your <br> homework | Group A: <br> Group B: |  |  |
| Sessions with an athletic <br> trainer | Group A: <br> Group B: |  |  |

Table 4. Prices Paid by the Two Groups*

| Product | Group A Cost | Group B Cost |
| :--- | :--- | :--- |
| Shoes | 132 | 720 |
| TV | 372 | 3180 |
| Jeans | 60 | 780 |
| Econ Text | 48 | 840 |
| Cell Phone | 216 | 2220 |
| Trip | 378 | 2880 |
| Chores | 108 | 600 |
| Homework | 84 | 4200 |
| Training | 282 |  |

* Group A had $\$ 1000$ to spend and Group B had $\$ 10,000$. The costs presented in this table are the average price of the three highest bids in each group.
g. What would happen if the government gave everyone huge wads of cash? (The prices of goods and services would go up, and we wouldn't be any better off.)

6. To compare the results of each group's auction, I use the average of the top three bids for each item. Table 4 allows students to compare the expenditures of the two groups. Because Group B had more money, its members always paid a lot more for items than Group A. On average, members of Group B were willing to pay about ten times more for items than members of Group A. Differentials ranged from Group B's willingness to pay five and a half times what Group A paid for shoes to Group B's willingness to pay more than ten times what Group A offered for many other items-jeans, an economics text, a cell phone, help with chores and a personal athletic trainer. (The latter finding led one student to hypothesize that Group B had more interest in sports.) Further analysis and discussion led to insights and predictions about how results would change if we tampered with the experiment. For example, if we increased the number of goods and services available to Group B, the purchasing power of that group's money would also have increased. Another variation would be to limit one person in Group B to $\$ 1,000$, which would represent those on fixed incomes (who most suffer the effects of inflation).
7. A related bar graph (Figure 1) allows students to look at the average cost of the top three bids as a proportion of the total money supply available to each of the groups. This allows students to observe that, despite some variations in the proportions in which the groups allocated their money, there is an underlying similarity in the choices made by both groups.

Figure 1. Average Cost as a Percentage of the Total Money Supply


## Assessment Questions

I assessed students primarily through their participation in the activity and subsequent discussion; however, I did provide an assignment with some debriefing questions.

Teachers could extend this activity by having students undertake extra research into the topic. Students could look into the role of the government in the economy. What steps does the Federal Reserve take to keep inflation under control? Students could also research other causes and aspects of inflation, including cost-push inflation and the Consumer Price Index.

This activity has enabled students to understand the complex answer to a simple, common question. 园

## Note

1. The Library of Economics and Liberty, The Concise Encyclopedia of Economics: Money Supply, www. econlib.org.
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## Why did people think that the group with more money would be better off?

(More money buys more things. If people had more money, they would be better off.)

## Why wasn't the group with more money any better off?

(There weren't any more things to buy. They just paid more for the same items.)

## How is the bar graph representation of the data different from the table?

(It more accurately compared the two groups, showing the prices as a percentage of all the available money.)

## Which sets of bars are most similar?

Answers will vary based on your results.)
Which bars are most different? (Answers will vary based on your results.)
What might be the reason for this difference?
(People in one group valued some things more than others.)

## How would the results be different if the list of goods and services had been doubled for the $\$ 10,000$ group?

(They would have more things to buy, so their money would get them more. Inflation would still have occurred, but not to the same extent.)

## Who would be most hurt by inflation?

(People who didn't increase their incomes would be hurt because the purchasing power of their money would decrease.)

Explain why printing off money to give away is not a legitimate solution to problems like the national debt or poverty.
(If everyone had more money, they would pay more for goods and services. They wouldn't be any better off than they were before.)


[^0]:    Greg Schreur teaches English and history for Grand Rapids Public Schools in Michigan. He has had articles published in Reclaiming Children and Youth and Teaching Tolerance. Even though he knows better, he still sometimes wishes the government could solve all our problems by printing off more money.

