

When More Dollars Buy Less

Online route | Use this page and page 3 for the 15-minute session. Ages 13-18.

Name: _____ Date: _____

PREDICT

Can your pay rise while the amount it buys falls? Give a reason.

TEST TWO WAGE PATHS

Open monetarmastery.net/pages/purchasingpower. Choose **Open Laboratory**. Set the inputs below. Run A, then change only wage growth and run B.

Input	A: Pay lags prices	B: Pay matches prices
Annual Income / Cash Savings	\$60,000 / \$25,000	Same
Annual Price Inflation	5%	5%
Annual Wage Growth	2%	5%
Savings Interest Rate / Time Horizon	1% / 10 years	Same

Select **Run Purchasing Power Analysis** for each run. Record the end-of-horizon results. If using the timeline, move **Years Into the Future** to 10.

Result at year 10	A	B
Future Nominal Income		
Real Income Change (%)		
Cost of \$100 Basket		
\$100 Purchasing Power		

Optional savings check: Record the future balance and its purchasing power in today's dollars. Why do they stay the same in A and B?

These constant-rate scenarios are illustrations, not forecasts. No new savings contributions or withdrawals are assumed. Continue with the discussion on page 3.

The same basket, a bigger paycheck

Paper route | Use this page and page 3. A calculator is helpful; no internet is needed.

Name: _____ Date: _____

Our fictional example: One year ago, a basket of unchanged goods cost **\$100**. Today the identical basket costs **\$125**. Monthly pay rises from **\$1,000** to **\$1,100**. We compare buying capacity; nobody has to spend the whole paycheck.

Predict: Does the larger paycheck buy more, the same, or less? Why?

1. DIVIDE DOLLARS BY THE PRICE OF ONE BASKET

Measure	One year ago	Today
Price of the same basket	\$100	\$125
Monthly pay	\$1,000	\$1,100

Basket-equivalents the pay can buy

Basket-equivalents an unchanged \$100 can buy

Basket-equivalents can include fractions. Example: 2.5 means the buying capacity of two and a half baskets.

2. Explain: Has monthly pay increased in dollars? Has its buying capacity increased? Use your results.

OPTIONAL: SAVINGS AND PERCENTAGES

Savings earn 5% interest, growing from \$500 to \$525 over the same year. No deposits or withdrawals are made. How many baskets can the savings buy before and after?

Challenge: calculate the percentage rise in the basket price and the percentage fall in what an unchanged \$100 buys. Are they equal?

Assumptions: the basket's contents and quality stay fixed; taxes and fees are excluded. The invented price increase does not establish what caused inflation.

Explain what the numbers mean

Core discussion for either route | Optional assessment at the bottom

Name: _____ Route: Online / Paper

1. How can a larger paycheck buy less? Use one result from your activity. Separate the dollar amount from what it can purchase.

2. What would pay or savings need to do to keep the same purchasing power? Explain what has to match, using the same time period and basket.

3. Would every household experience the same change in living costs? Give one reason and one piece of information you would need to compare two households.

EXIT SENTENCE

A larger dollar amount does not necessarily mean _____

To find out whether I can buy more, I need to compare _____

OPTIONAL ASSESSMENT | ALLOW 5-10 MORE MINUTES

A. In a new example, the same basket rises from \$100 to \$110 and pay rises from \$1,000 to \$1,100. Compare the number of baskets each paycheck buys.

B. Prices rose 5% last year and rise 2% this year. Are prices now falling? Explain. Optional: what does an initially \$100 basket cost after both years?

Investigate the historical data

Optional calculator extension | Allow 15-20 minutes. This is separate from the core lesson.

Name: _____ Date checked: _____

Open **monetarmastery.net/pages/inflationcalculator**. Use **\$100**, **From 2001**, and **To 2024**. Keep these inputs the same as you change the measurement and select **Calculate**.

Measurement	Equivalent amount in 2024	Cumulative price change
CPI-U Consumer Price Index		
AIER Everyday Price Index (EPI)		
LISEP True Living Cost (TLC)		

1. Read the measurement notes. What basket or population does each cover? Note that the calculator uses January observations for CPI-U and EPI, and annual estimates for TLC.

2. Compare carefully. Why might the results differ? What would you need to know before choosing a measure for a particular household?

3. Select M2 Monetary Inflation. What does it measure? Why is its result not a direct measure of the cost of this household's shopping basket?

Check your arithmetic: If the equivalent amount is E, the cumulative price rise is $(E / 100 - 1) \times 100\%$. The buying power of an unchanged \$100, in starting-year dollars, is $10,000 / E$. Use the price measures for this check, not M2.

Watch, read, and check a claim

Optional documentary and extended learning | Allow viewing/reading time, then 15-20 minutes.

Name: _____ Date: _____

Watch: Hidden Secrets of Money, Episode 1: Money vs. Currency on MLMF. Your teacher will select the full film or a checked excerpt.

Read: In the second post of Nominal Confusion, read **What Is Nominal Confusion?** and **The Real Return Calculation**. Find both through monetarymastery.net if using a printed copy.

1. LOCATE A CLAIM

Paraphrase one film claim about storing value or purchasing power. Record the actual start and end timestamps. Is it a definition, a historical claim, or a prediction?

2. DECIDE WHAT WOULD TEST IT

Which dates, prices, wages, or other records could support or challenge that claim? Explain why a classroom model alone cannot establish a historical result.

3. APPLY THE READING

A savings balance rises 8% while the price of a comparison basket rises 6% in the same year. Calculate $(1.08 / 1.06 - 1) \times 100\%$. What does the result tell you?

4. REVISIT YOUR EXPLANATION

What would you now explain differently about a larger paycheck or savings balance? Name one question you still want to investigate.

Teacher source notes and clickable resource addresses are on page 6 of the Teacher Guide. Use evidence and defined terms to assess claims; a persuasive presentation is a starting point for investigation.