

Measuring Price Changes

$$\text{Price Change} = \frac{\text{Change in CPI}}{\text{beginning CPI}} \times 100$$

	QTY Base Year	Unit Price Base Year	Spending Base Year	Unit Price Y1	Spending Y1	Unit Price Y2	Spending Y2
Whole Pizza	30	\$5.00	\$150	\$7.00	\$210	\$9.00	\$270
Prerecorded Tape	40	\$6.00	\$240	\$5.00	\$200	\$4.00	\$160
Six Pak Soda	60	\$1.50	\$90	\$2.00	\$120	\$2.50	\$150
TOTAL			\$480		\$530		\$580

4. Total Cost for Year 2 \$580
5. What is CPI for Year 2 120.8 [(580/480) x 100]
6. What is the % increase in prices from base to Y2? 20.8%
7. In August 2000 the CPI was 172.8 and in August 2001 the CPI was 177.5. What is the percentage change in prices for this 12-month period? 2.7% (see formula above)

Measuring Short Run Economic Growth

Nominal & Real GDP

	Nominal GDP	Price Index	Population
Year 3	\$5,000	125	11
Year 4	\$6,600	150	12

8. What is real GDP in Y3 \$4,000 [(100 x \$5,000) / 125]

9. What is real GDP in Y4 \$4,400 [(100 x \$6,600) / 150]

10. What is real GDP per Capita in Y3 \$364 (\$4,000 / 11)

11. What is real GDP per Capita in Y4 \$367 (\$4,400 / 12)

12. What is the rate of real output growth between Y3 and Y4?

10% [(4,400-4,000) / 4000] x 100

13. What is the rate of real output growth per capita between Y3 and Y4? *Hint: Use per capita data in the output growth rate formula*

0.82% = [(367 - 364) / 364] x 100

GDP

Is this counted?

1. Excluded (transfer payment from government to individual)
2. Included (business fixed investment)
3. Excluded (Truck not produced in current year)
4. Excluded (Bond is a financial asset)
5. Excluded (this is a non-market activity)
6. Excluded (transfer payment from government to individual)
7. Included (Inventory is an investment)
8. Included (government purchase of a good)
9. Included (income from services performed)
10. Excluded (stock is a financial asset)

Is it counted and where?

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|-----|----|-----|----|
| 11. | C | 20. | I |
| 12. | I | 21. | C |
| 13. | NC | 22. | I |
| 14. | C | 23. | NC |
| 15. | G | 24. | NX |
| 16. | NC | 25. | C |
| 17. | NC | | |
| 18. | I | | |
| 19. | NC | | |