



We do not calculate the CPI correctly: Substitution Bias

In the year when the basket was built, apples were cheap and thus most consumers bought them in large quantity: 10 apples

CPI uses old quantity with new price

10  
apples



\$0.30/each

With time, apples become  
expensive and consumers  
substitute apples for a cheaper  
alternative

10  
apples





\$1/each

Cost of the

basket =

$$10 \times 0.3 = \$3$$

Cost of the  
basket =

$$10 \times 1 = \$10$$



The CPI  
reports **233%**  
inflation

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apples

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