

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

We **do not** calculate the CPI correctly: **Substitution** Bias



Cost of the
basket =
 $10 \times 0.3 = \$3$

$\$0.30/\text{each}$

The CPI
reports **233%**
inflation

Cost of the
basket =
 $10 \times 1 = \$10$

$\$1/\text{each}$



We **do not** calculate the CPI correctly: **Substitution** Bias



Cost of the
basket =
 $10 \times 0.3 = \$3$

$\$0.30/\text{each}$

Cost of the
basket =
 $10 \times 1 = \$10$

$\$1/\text{each}$

