CAFE.
CAUSAL ADAPTIVE FUSION ENGINE

Periods evaluated: 2025-06-02 to 2026-08-24 (65 periods)
History provided: 130 periods
Generated 2026-10-05 · CAFE 4.3.0 · computed on this machine

Pricing backtest

What CAFE would have recommended, and what it would have earned

Over these 65 periods, CAFE's prices would probably have earned more than yours: our best estimate is $5,348 more profit (2.4%). The evidence is not conclusive.

The plausible range is −$73.96 to +$8,044. It includes zero: a small loss cannot be ruled out.

RELIABLE ESTIMATE

+$5,348 **+2.4%**

Plausible range: −$73.96 to +$8,044
52 of 65 periods, where your own history supports the estimate

ALL PERIODS

+$7,560 **+3.4%**

Plausible range: −$5,980 to +$12,610
Includes 13 periods where the estimate goes beyond what your data show

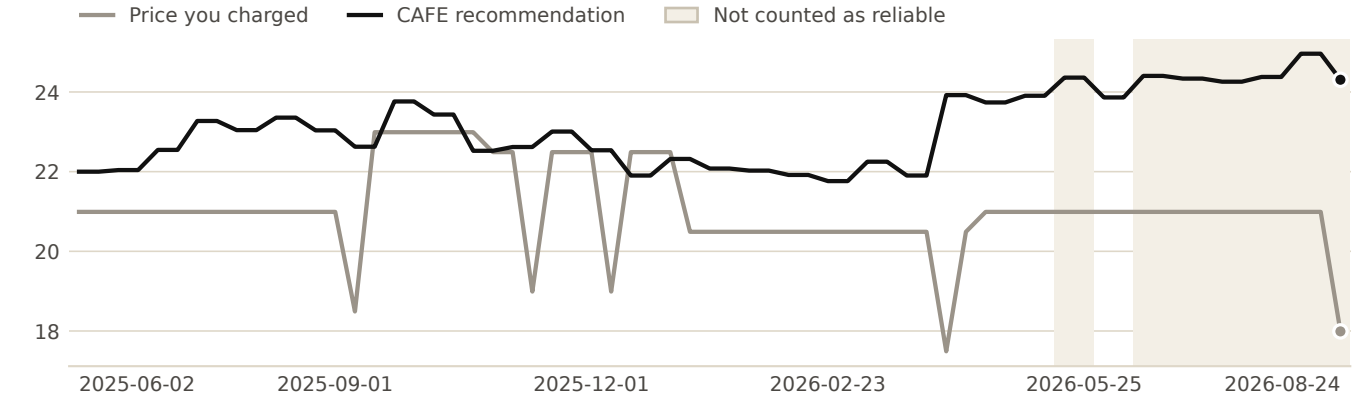
PROFIT YOU ACTUALLY EARNED

$221,857

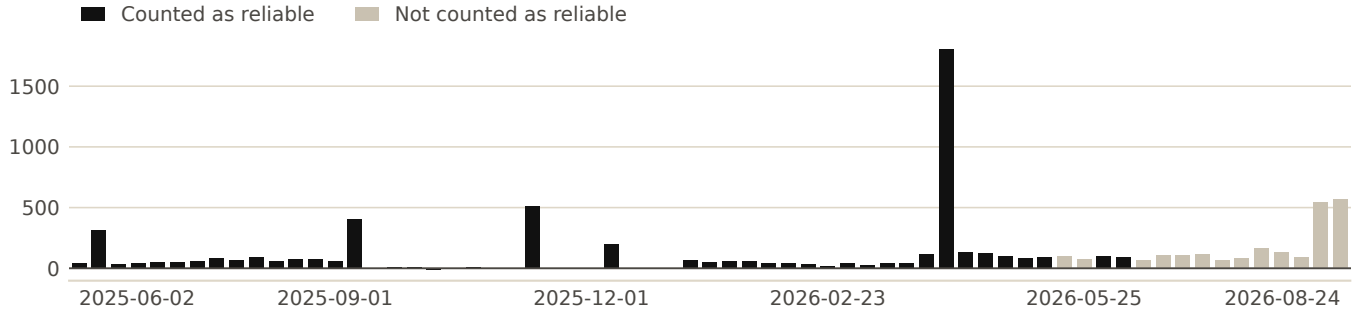
Over the 65 periods evaluated

Why two numbers. The reliable estimate counts only the periods in which CAFE's price was inside the range of prices you have actually charged, so the effect on sales comes from your own history. In the other periods CAFE would have gone outside that range; what would have happened there is an educated assumption, so those periods are left out of the reliable figure and counted as "no change".

Price you charged and price CAFE would have recommended



Profit difference per period (CAFE minus actual)



Where CAFE would have differed most

Period 2026-04-06: $17.49 → $23.92 (+36.8%) · Profit effect: +$1,808
CAFE would have charged 36.8% more. Your unit cost had risen 10% above its earlier average. With a unit cost of $13.16 and sales falling about 2.2% for each 1% of price, the extra margin per unit was worth more than the units lost. You sold out that period: the demand you could not serve was estimated from your other periods.

Period 2026-08-24: $17.99 → $24.31 (+35.1%) · Profit effect: +$566.22
CAFE would have charged 35.1% more. Your unit cost had risen 6% above its earlier average. With a unit cost of $12.93 and sales falling about 2.1% for each 1% of price, the extra margin per unit was worth more than the units lost. Not counted as reliable: outside the prices you have charged.

Period 2025-09-08: $18.49 → $22.63 (+22.4%) · Profit effect: +$407.75
CAFE would have charged 22.4% more. Your unit cost had risen 5% above its earlier average. With a unit cost of $12.52 and sales falling about 2.2% for each 1% of price, the extra margin per unit was worth more than the units lost.

Period 2025-11-10: $18.99 → $22.62 (+19.1%) · Profit effect: +$514.87
CAFE would have charged 19.1% more. With a unit cost of $12.16 and sales falling about 2.1% for each 1% of price, the extra margin per unit was worth more than the units lost. You sold out that period: the demand you could not serve was estimated from your other periods.

Period 2026-08-10: $20.99 → $24.96 (+18.9%) · Profit effect: +$89.03
CAFE would have charged 18.9% more. Your unit cost had risen 10% above its earlier average. With a unit cost of $13.33 and sales falling about 2.1% for each 1% of price, the extra margin per unit was worth more than the units lost. Not counted as reliable: outside the prices you have charged.

How your sales respond to price

In your history, a 1% price increase lowers units sold by about 2.2% (plausible range 1.9% to 2.4%).

How it was measured: from the price changes in your history that season, promotions, competitor prices and cost do not explain. This is sound as long as nothing unrecorded moved both your prices and your demand at the same time.

Based on 113 periods, with prices between $16.99 and $23.99. Inside that range the estimate rests on what happened; outside it, on an assumption about the shape of demand.

What to keep in mind

- **In 13 of 65 periods CAFE would have charged a price outside the range you have ever used ($16.99 to $23.99). Those periods are excluded from the reliable estimate.**
- Your unit cost changed 129 times; CAFE uses those changes to double-check the price effect when they are large enough.
- You sold out in 16 periods (12%). What you sold there is only a floor on demand, so for those periods the demand that stock cut off was estimated from the periods that did not sell out.
- Each period is evaluated on its own. The report does not model how a different price in one period would have changed demand in the following ones.
- The price response is measured on the same history that is being evaluated. In our validation on markets where the true answer is known, the reliable estimate stayed close to the truth; the all-periods figure did not.

- This is an estimate of the past, not a guarantee of future results.

What CAFE recommends today

With the full history, CAFE recommends a price of $24.33 (your latest price: $17.99). The best price is most likely between $21.40 and $27.65.

How this was calculated

For each period, CAFE was given only the periods before it — exactly what it would have known at the time — and asked for a price. A new price was set every 2 periods and held in between. We then estimated what that period would have sold at CAFE's price, using how your sales have responded to price changes in the past, and compared the profit with what you actually earned. Everything else about each period (season, promotions, competitor, cost, stock) was left exactly as it happened.