Futures Curve Analysis for Procurement Budgets

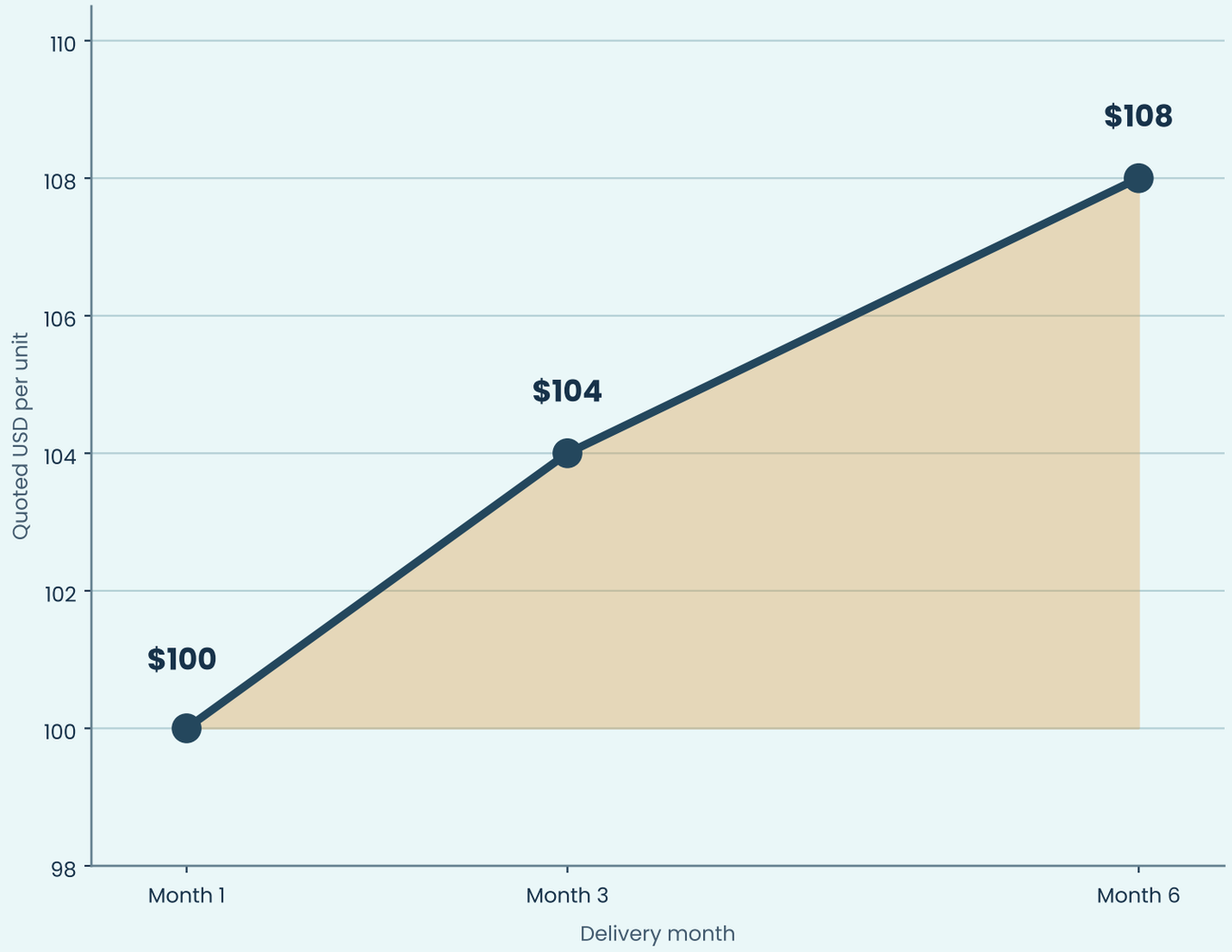
$100,000

more for the same 12,500 units when delivery moves from month 1 ($100) to month 6 ($108) on a worked futures curve.

8.0% premium for month 6 over month 1	**20.3%** implied annualised carry	**$1.60** break-even carry per unit-month	**$50,000** premium at month 3

EXHIBIT 1

The delivery curve



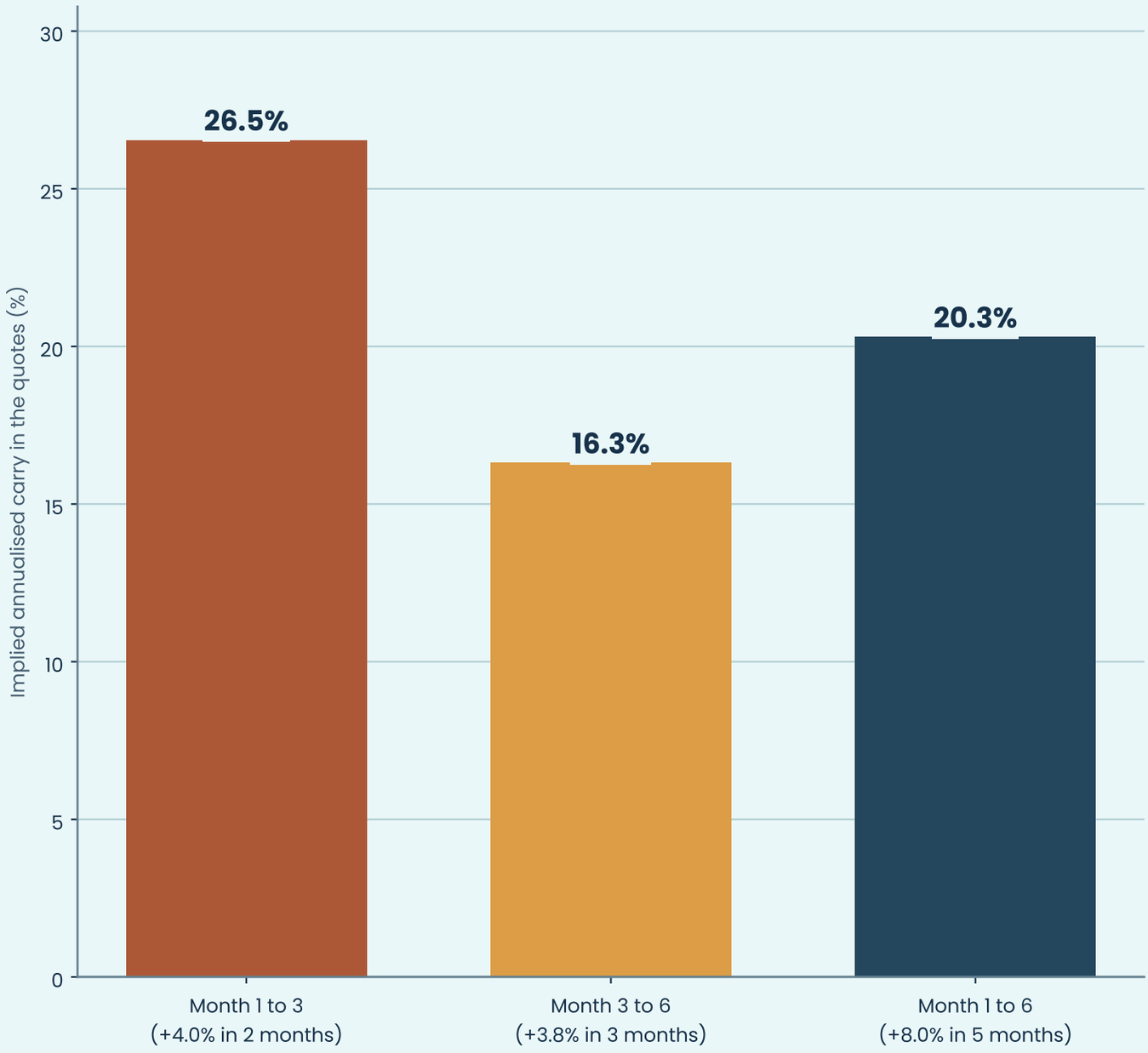
Three quotes for the same underlying. The shaded area is the premium over month 1.

What the analysis shows

- Holding quantity at 12,500 units, the month-6 quote costs $1,350,000 against $1,250,000 at month 1: a $100,000 budget difference before any fees.
- The curve implies carry of 20.3% a year from month 1 to month 6. The front of the curve is steeper (26.5% annualised) than the back (16.3%).
- Buying at month 1 and holding is cheaper than the month-6 quote only if storage plus financing stays below $1.60 per unit per month.
- Financing alone uses $1.67 to $4.17 of the $8 premium at funding costs of 4% to 10%, leaving $3.83 to $6.33 a unit for storage and handling.
- The premium scales linearly with volume: $40,000 on 5,000 units and $400,000 on 50,000 for month 6.

EXHIBIT 2

Carry implied by each leg



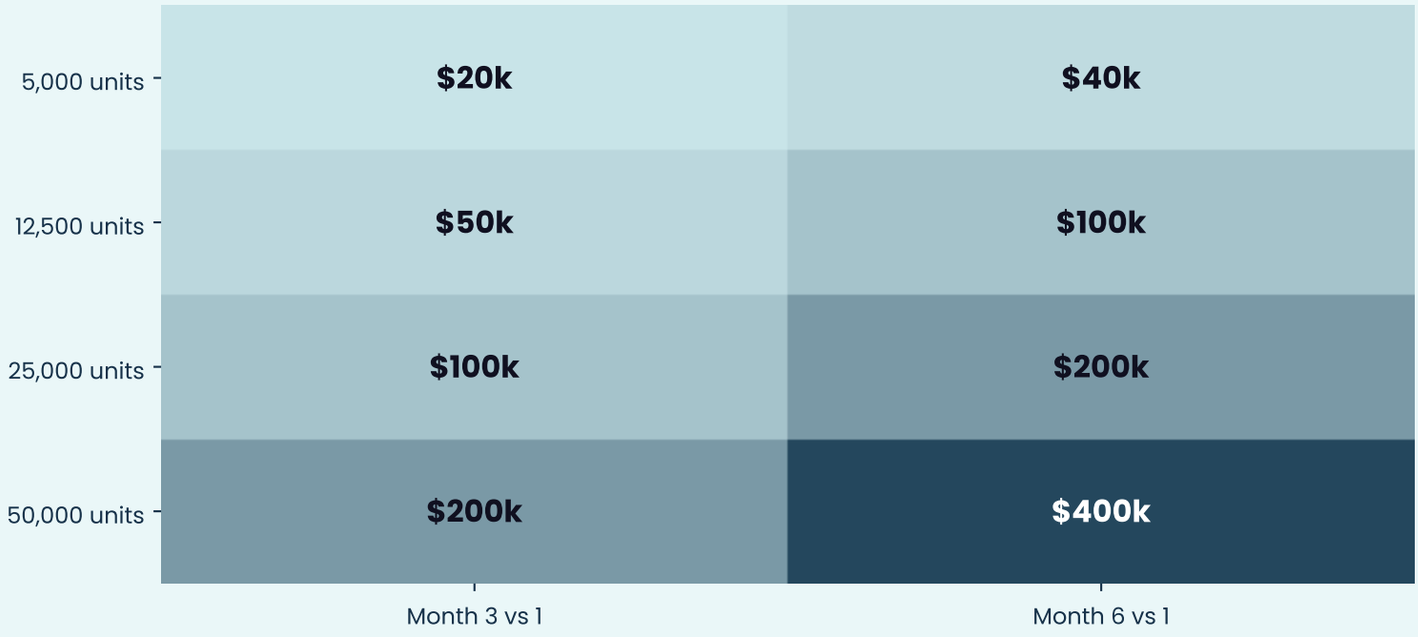
Annualising the quote differences shows the near leg is priced more steeply.

Worked delivery curve · three maturity quotes for 12,500 units · fees, storage and financing excluded

Inside the numbers

EXHIBIT 3

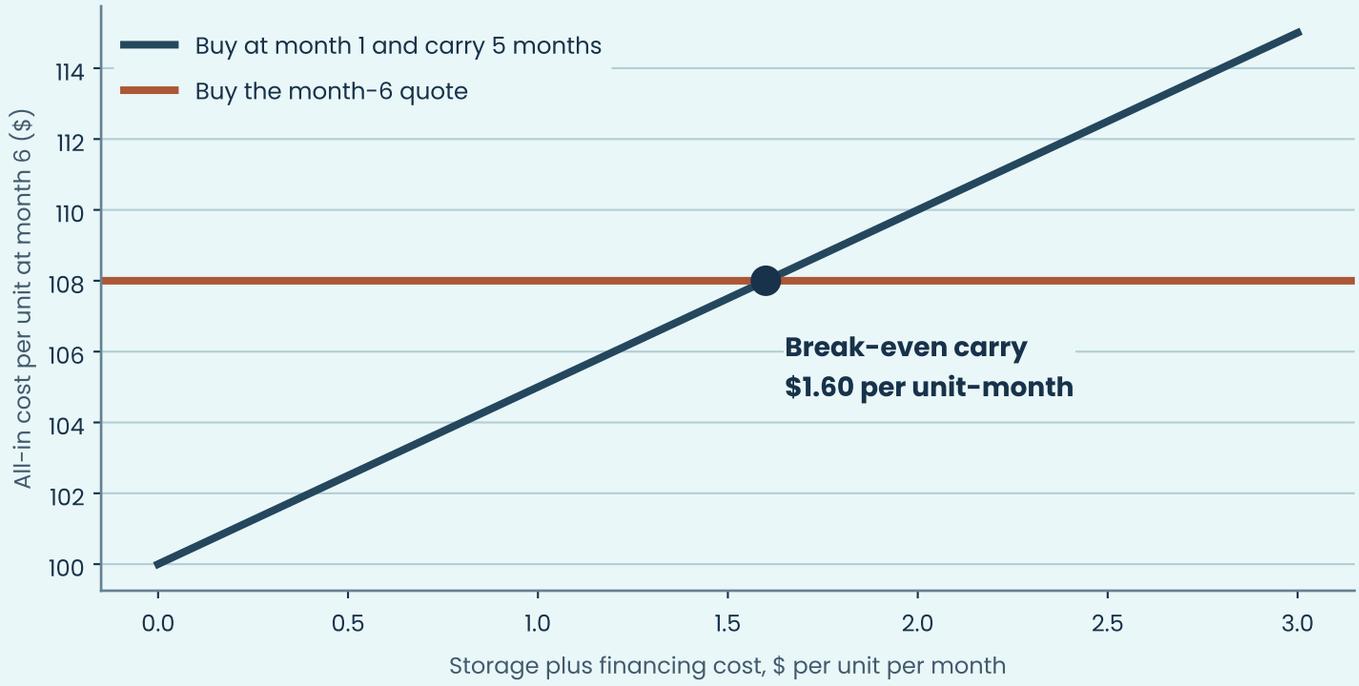
Budget difference by purchase volume



Dollars added to the budget, against month 1, for four order sizes.

EXHIBIT 4

Buy now and carry, or buy the later quote



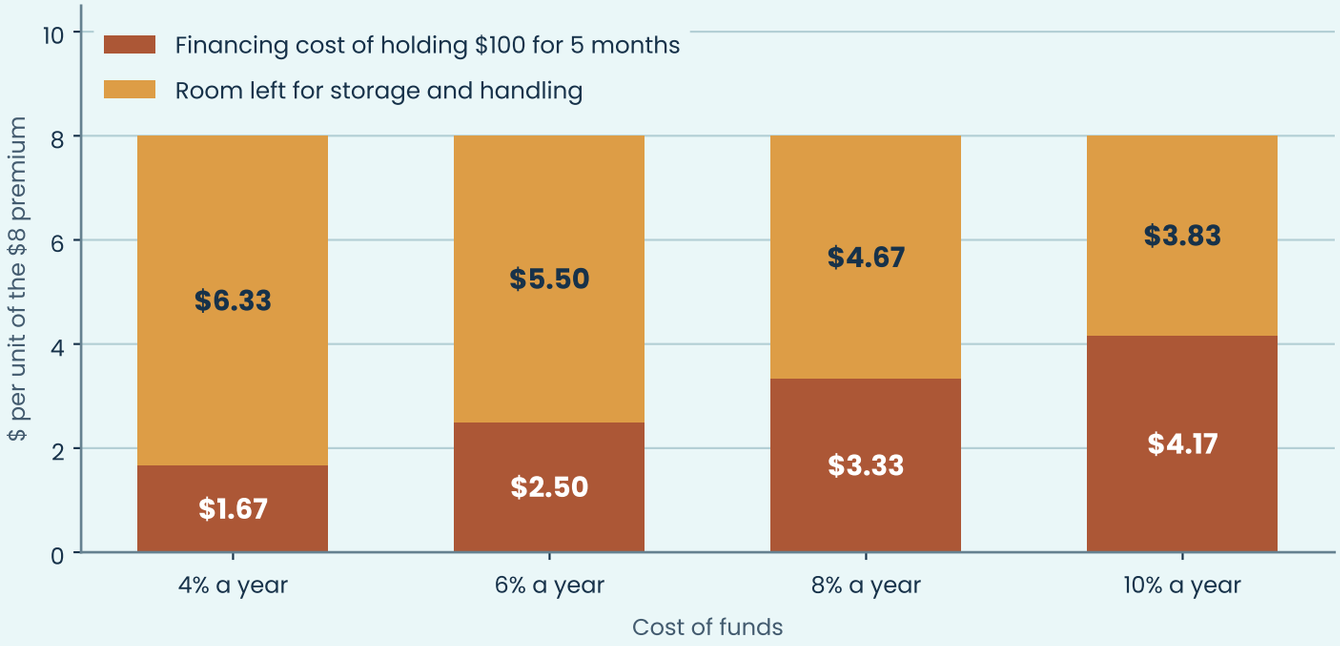
The two lines cross at $1.60 per unit-month.

Worked delivery curve · three maturity quotes for 12,500 units · fees, storage and financing excluded

What changes the answer

EXHIBIT 5

How much of the premium is financing



The darker segment is interest on $100 for five months; the remainder is what storage can cost before deferring wins.

EXHIBIT 6

Quote table

Delivery	Quote	Notional, 12,500 units	Against month 1	Premium
Month 1	$100	$1,250,000	+$0	+0.0%
Month 3	$104	$1,300,000	+$50,000	+4.0%
Month 6	$108	$1,350,000	+$100,000	+8.0%

Notional cost and premium for each delivery month.

How it was built and how far it goes

RECOMMENDED USE

- Open the Procurement and Treasury discussion with the $100,000 figure and the $1.60 break-even.
- Obtain a storage quote; with funding at 6% storage must stay under about $1.10 per unit-month for early purchase to win.
- Re-quote all three months on the same day before committing; the curve shape drives the answer.

METHOD

- Three quoted prices for one underlying at delivery months 1, 3 and 6; quantity fixed at 12,500 units.
- Annualised carry compounds each quote ratio to twelve months.
- Break-even carry is the $8 premium divided by the five months between deliveries.

LIMITS

- Worked curve; no fees, basis, margin or delivery terms are included.
- Financing is simple interest on the month-1 price.
- A quote difference is not a forecast of the spot price at month 6.

NUMBERS RECONCILED

Quantity	Value	How it was checked
Month-1 notional	$1,250,000	12,500 × $100
Month-6 notional	$1,350,000	12,500 × $108
Difference	$100,000	12,500 × $8
Month-3 premium	$50,000	12,500 × $4
Break-even carry	$1.60	$8 ÷ 5 months