

**Real World Graduation: Question 61: Car Leases**

Edward D. Duvall  
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Question 61

A certain car could be purchased for \$18,500 from any of four dealers at 7% interest for 4 years with \$1,850 down (\$396.93 per month = \$19,052.64 total). The exact same car is available for lease at the same four local car dealers. The terms of the leases being offered are shown in the following table:

| Dealer | Amount Down | Monthly Lease | Term of lease (months) | Annual Mileage Limit | Cost per Mile When Over Limit |
|--------|-------------|---------------|------------------------|----------------------|-------------------------------|
| Abbott | 2470        | 180           | 36                     | 10500                | 0.30                          |
| Baker  | 2060        | 224           | 42                     | 11000                | 0.35                          |
| Canton | 1650        | 258           | 48                     | 11500                | 0.40                          |
| Drury  | 1500        | 276           | 54                     | 12000                | 0.50                          |

For example, at the Baker dealership, you would pay \$2,060 down, and pay \$180 per month for 36 months, at which time, you would give the car back to the dealer. If you drive more than 11,000 miles, you are required to pay 35 cents per mile, so if you drove the car 12,000 miles in a given year, you would owe an additional \$350 in lease fees. In all leases, you are responsible for insurance, registration, and maintenance costs.

Suppose you drive an average of 13,000 miles per year. If you desire to do what makes the most sense financially over the long run, which lease should you enter into?

- a) Abbott
- b) Baker
- c) Canton
- d) Drury
- e) Either Canton or Drury, because they have the longest term leases.

### Answer to Question 61

This is a trick question. The correct answer is that all leases are a bad deal in the long run. Leasing is a basic trick in which the chump gets to pay insurance on the leasing company's car, maintain the leasing company's car, and pay taxes and fees on the leasing company's car, while never owning anything. It is nearly always better to buy a car, maintain it well, and keep it for a long time. Most modern cars will last 10 to 15 years or 250,000 miles.

Here is how the comparison numbers work out. The costs of insurance and maintenance incurred during a lease period do not enter into the calculation, since they have to be paid under all lease and purchase circumstances. The average monthly cost for any lease is calculated as follows. Multiply the lease cost times the number of months to get the total payments. Multiply the number of miles per year driven above the lease limit by the amount per mile times the number of years in the lease. Add these two numbers to the down payment, and then divide by the number of months in the lease. In the case of the Abbott lease, we have  $\$180 \times 36 = \$6480$ . Driving an average of 13,000 miles per year means  $\$0.30$  times 2500 miles per year times 3 years =  $\$2250$  in excess mileage charges. Adding these two numbers with the down payment, obtain  $6480 + 2550 + 2470 = 11,500$ . Dividing by 36 months, we obtain  $\$319.44$  average cost per month. Here is the complete table, including the corresponding costs for purchase:

| Dealer   | Amount Down | Total Payments | Total Mileage Fees | Total Cost | Average Cost per Month |
|----------|-------------|----------------|--------------------|------------|------------------------|
| Abbott   | 2470        | 6480           | 2550               | 11500      | 319.44                 |
| Baker    | 2060        | 9408           | 2100               | 13568      | 323.04                 |
| Canton   | 1650        | 12384          | 1800               | 15834      | 329.87                 |
| Drury    | 1500        | 14904          | 1500               | 17904      | 331.55                 |
| Purchase | 1850        | 19053          | 0                  | 20903      | 435.47                 |

The average cost for purchasing the car is higher than any of the lease options. Why then is purchasing better? The answer is, that under a lease, one never stops paying; with a purchase, there comes a time when you own it and only have to pay maintenance, insurance, and registration, but not the lease payment or purchase payment. The calculation to be made here is: for each candidate lease, how long would it take for the total payout to be equal to the total payout on the purchase? Once that time is known, how likely is it that the car will provide reliable service? It is easy to find the break-even point by dividing the purchase option total (20903) by each of the monthly average lease costs; this will be the number of months for the leasing costs to equal the purchase cost. We obtain 65.4, 64.7, 63.3, and 63.0 months for the Abbott, Baker, Canton, and Drury leases respectively. In other words, if the car will last longer than 66 months, buying is the best way to go in the long run. At 13,000 miles per year, most new cars will last at least 12 years (240 months); if so, the long-term cost of purchasing the car is less than half the lease costs.

So, to reduce long-term expenses on cars, either buy it new or get a high-quality late-model used car, maintain it per the manufacturers specifications, and drive it until the monthly maintenance costs equal the lease costs then prevailing at that later time. At that point, even leasing is better than hanging onto

the old car, which proves that it is time to buy another new or high-quality used car and repeat the cost-saving process.

There is one exception to the general rule of not leasing a car. If you receive a notice from your doctor that you are terminally ill with less than a year to live, then you should lease the finest car you can find and enjoy your last year on earth riding in style. Do not worry about the leasing company being cheated by your early death prior to the lease termination: they watch the obituary notices, and their car will be removed from your driveway before your body is cold.