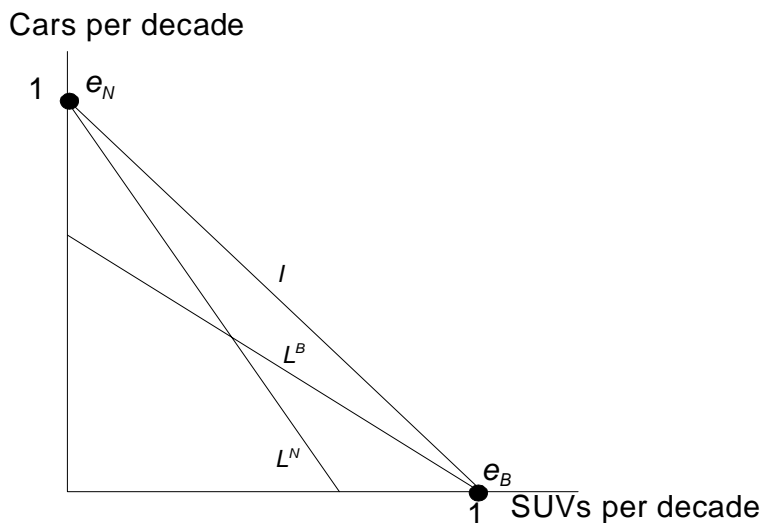


Nigel, a Brit, and Bob, a Yank, are, brothers under skin: Both have the same tastes and are indifferent between a sports utility vehicle (SUV) and a luxury sedan. Each has a budget that will allow him to buy and operate one vehicle for a decade. The price of owning and operating a SUV is greater than that of the car for Nigel. In contrast, a SUV is a relative bargain for Bob who faces lower gas prices and a SUV subsidy. Use an indifference curve-budget line analysis to explain why Nigel buys and operates a car, while Bob chooses a SUV.

Answer

1. *Describe their indifference curves.* Because Nigel and Bob view the SUV and the car as perfect substitutes, each has an indifference curve for buying one vehicle that is a straight line with a slope of -1 and that hits each axis at 1 in the figure.
2. *Describe the slopes of their budget line:* Nigel faces a budget line, L^N , that is flatter than the indifference curve, and Bob faces one, L^B , that is steeper.
3. *Use an indifference curve and a budget line to show why Nigel and Bob make different choices:* As the figure shows, L^N hits the indifference curve, I , at one on the car axis, e_N , and L^B hits I at one on the SUV axis, e_B . Thus, Nigel buys the relatively inexpensive car, and Bob scoops up a relatively cheap SUV.

Comment: If Nigel and Bob were buying a bundle of cars and SUVs for their large families or firms, the analysis would be similar—Bob would buy relative more SUVs than would Nigel.



Application U.S. vs. EU SUVs

If you believe what you read in the newspapers, Americans have a love affair with sports utility vehicles (SUVs), while Europeans see no reason to drive a vehicle nearly the size of Luxemburg. SUVs are derided as “Chelsea tractors” in England and “Montessori wagons” in Sweden. News stories point to this difference in tastes to explain why SUVs account for less than a twentieth of total car sales in Western Europe, but a quarter in the United States. Maybe the narrower European streets or Europeans’ greater concern for the environment is the explanation. The analysis in Solved Problem 4.3 provides an alternative explanation: The price of owning and operating a SUV is much less in the United States than in Europe so that people with identical tastes would be more likely to buy a SUV in the United States than in Europe.

Gas-guzzling SUVs are more expensive to operate in Europe than in the United States because of higher gasoline taxes. In 2005, gas taxes as a percentage of the final gas price were 22% in the United States, 54% in Canada, 85% in Japan, 130% in Spain, 216% in France, and 235% in Britain. After-tax gas prices in Europe can be two to three times that in the United States.

Europeans are calling for taxes against SUVs. The French government is considering raising taxes by up to \$3,900 on heavy vehicles while giving discounts on smaller, lighter cars. London’s mayor slammed SUV drivers as “complete idiots” and proposed doubling the \$9 daily congestion fee for the privilege of driving around the city. A top adviser to the U.K. Department of Transport said the current average tax on SUVs of £165 (\$300) annually is too low and needs to be raised to three or four times that amount.

In contrast, the U.S. government subsidizes SUV purchases. Under the 2003 Tax Act, anyone who uses a vehicle that weighs over 6,000 pounds—such as the biggest, baddest SUVs and Hummers—in their business at least 50% of the time may deduct the purchase price up to \$100,000 from their taxes. They might also get a state-tax deduction too. Originally intended to help the self employed ranchers, farmers and contractors purchase a heavy pickup truck or van necessary for their business, the SUV Tax Loophole was quickly exploited by accountants, lawyers and doctors.

When this bizarre boondoggle was reduced from \$100K to \$25K in October, 2004, and the price of gas rose, many brands of SUVs other behemoths such as Hummers suffered plummeting sales. (The *Boston Globe* concluded that this drop in relative SUV sales proves that U.S. consumers’ “tastes are changing again.”) A plausible alternative explanation to differences in tastes for the difference in SUVs’ share of sales in Europe and the United States (or over time in the United States) is variations in the relative costs of owning and operating SUVs.