In 1979, the Carter administration proposed increasing the federal tax on gasoline by roughly 50 cents and compensating taxpayers by lowering payroll (social security) taxes. The two taxes together would be approximately revenue neutral for the federal government.

* Below, the tax increase causes the price of gasoline to rise, shifting the representative consumer’s budget line from AB to AB’.
* If there were no compensating decrease in the payroll tax, weekly gasoline consumption would fall from 20 to 12 gallons. The consumer would be worse off.

other goods

weekly gasoline consumption

A

B

B’

U1

e

e’

20

12

U0

Suppose the payroll tax decrease represents an income increase for the consumer just large enough to allow him to reach his original indifference curve U1. (This probably would have been the case for only a minority of consumers if the tax/rebate program was revenue neutral, but it simplifies the analysis).

* The new budget line dd’ is parallel to AB’.
* The consumer now consumes basket g. The 15 gallons per week consumed is 5 gallons less than what the consumer had consumed with neither tax.
* The program induces the consumer to substitute away from gasoline but compensates him for his income loss.
* This policy promotes less gasoline consumption, while leaving this particular consumer equally well off.

other goods

weekly gasoline consumption

A

B

B’

U1

e

e’

g

20

12

15

U0

d

d’