

# The High Cost of Cash for Clunkers

Brief Analysis No. 674

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August 27, 2009

*The \$1 billion set aside for the Car Allowance Rebate System (CARS), or “Cash for Clunkers,” ran out quickly this summer. CARS aims to encourage the purchase of more fuel-efficient vehicles by offering a \$3,500 to \$4,500 government-funded rebate to consumers who trade-in vehicles that get less than 18 miles per gallon (mpg) for new cars that get more than 22 mpg or new trucks that get at least 18 mpg. Congress refueled the popular stimulus program with another \$2 billion — enough to buy a total of approximately 750,000 trade-ins.*



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Three prominent goals cited by CARS supporters are to: 1) reduce carbon dioxide (CO<sub>2</sub>) emissions, 2) reduce Americans’ dependence on imported oil, and 3) improve urban air quality. There is evidence that removing older cars from the road will cut air pollution, but the numbers indicate that any reduction in CO<sub>2</sub> emissions or oil consumption will be minimal — and expensive.

**Cost of Reducing CO<sub>2</sub> Emissions in Europe.** The European Union established a carbon market in order to reduce the cost of CO<sub>2</sub> emissions reductions required by the international Kyoto agreement on climate change. For about \$20 per metric ton (2,200 pounds), businesses or governments can purchase CO<sub>2</sub> emissions rights from those selling their excess permits. This is also the cost of avoiding a ton of emissions, because holding the permit prevents others from emitting that amount.

**Cost of Reducing CO<sub>2</sub> Emissions under CARS.** The cost of

reducing emissions under CARS is much higher than in the EU. For example, assume that each trade-in would have kept running for another 145,000 miles. A clunker getting 18 mpg would use 8,056 gallons of gasoline to travel that distance, whereas a new car that gets 27.6 mpg would use 5,254 gallons [see the figure].

- Burning a gallon of gasoline emits 19.4 pounds of CO<sub>2</sub>; therefore, purchasing a new vehicle under CARS would reduce emissions by 24.7 metric tons over the expected life of the vehicle.
  - If the average government subsidy is \$4,000, the cost per ton of emissions reduction is nearly \$162 — more than eight times the cost on the European carbon market.
  - Using the more realistic assumption that the average buyer would purchase a more efficient car within three years (or about 36,000 miles) the cost per ton rises to \$652.
  - In other words, for the cost of a ton of CO<sub>2</sub> emissions reduction under CARS, permit trading cuts 32.5 tons.
- Impact on Foreign Oil Dependence.** Improving the fuel economy of the nation’s fleet should make the country less dependent

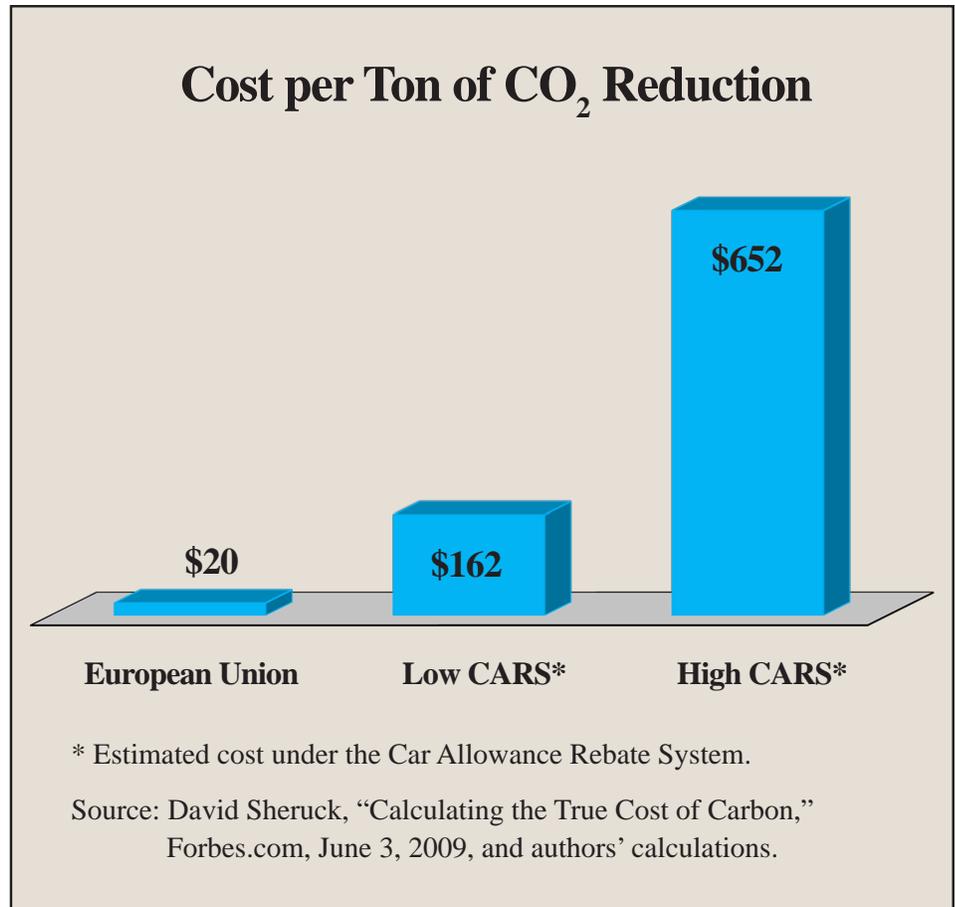
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on foreign oil supplies. Since 1974 fuel economy has more than doubled for domestic new cars (114 percent) and has increased by more than half for light trucks (56 percent). However, CARS will only reduce U.S. oil consumption by approximately 3.8 million barrels per year when fully implemented, according to the Center for American Progress. That is less than one day's worth of imported oil, or just 0.2 percent of annual imports.

Moreover, this estimate assumes that the owners of more fuel efficient vehicles do not drive more when the cost per mile of travel falls.

**Impact on Air Pollution.** Newer vehicles have multiple, improved pollution control monitors and mechanisms that reduce emissions. As a result, new cars emit 90 percent less pollution than cars from the 1960s — including carbon monoxide, volatile organic compounds and nitrogen oxides. Although the total miles driven have increased by 1 to 3 percent per year for decades, vehicle emissions have dropped an average of 10 percent annually.

So how much of a problem are old cars? University of Denver research scientist Donald Stedman found that 8 percent of vehicles emitted more than half of all of Chicago's carbon monoxide. Vehicles five years old or older accounted for 88 percent of the worst polluters. Furthermore, according to the Brookings Institution, although cars 13 years old or older account for only 25 percent of the miles driven, by 2010 they will



produce 75 percent of all pollution from automobiles.

**Better Policies.** Current federal and state regulatory efforts to reduce air pollution cost hundreds of millions of dollars each year. Thus, CARS could be a cost-effective way of reducing pollution. It would likely be more effective, however, if the rebate could be applied toward the purchase of any vehicle with better fuel economy, including used cars. Many with low incomes are unable to afford a new car, even with a rebate. A voucher would encourage people with low incomes to swap their 15- to 20-year-old cars for five-to-seven-year old cars with better fuel economy and improved emissions technologies.

**Conclusion.** Congress gave in to pressure to expand CARS despite the fact that it will accomplish little if anything to prevent climate change or reduce Americans' dependence on foreign oil. While the reduction in air pollution may be substantial, before the federal government decides to continue or expand the program in the future, it should carefully assess what it has and can be realistically accomplished, and what the cost is relative to other policies that could be used to reach the same goals.

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