



The Year America Launched “Cash for Clunkers” Program

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Abstract: *Following the 2008 financial crisis, the U.S. government initiated the Cash for Clunkers program in July 2009, officially known as the Car Allowance Rebate System (CARS). This program aimed to encourage Americans to replace their old vehicles with new ones by offering financial incentives. It ran for one month and cost the Treasury \$2.85 billion. While the government considered it a successful anti-recession measure, both the automotive industry and economists disagreed, stating that the results fell short of initial expectations. An analysis of this historical event reveals three key policy lessons.*





I. An All-in-One Stimulus Plan

In February 2009, then-U.S. President Obama signed the American Recovery and Reinvestment Act, initially estimated at \$787 billion, but later revised to \$831 billion. Despite its size, the final implementation of this stimulus package left many dissatisfied and sparked a debate within the American economic community. Initially, 200 “reformist” economists published a joint letter in the *New York Times* and the *Wall Street Journal*, arguing that the best way to boost the economy was by reducing taxes and lowering government debt, rather than through institutional barriers. A week later, another group of 200 “stimulus” economists responded in the *New York Times*, stating that an \$800 billion fiscal stimulus was not excessive but rather insufficient given the economic challenges.

Perhaps the most disappointing aspect of the stimulus plan was its lack of direct impact. Of the nearly \$800 billion, a significant portion was spent indirectly on sectors like education and healthcare. Additionally, this came after the U.S. government had already spent considerable amounts on bailing out the financial institutions responsible for the crisis, causing frustration among many Americans. This frustration led to continuous pressure on Congress and the White House.

Against this backdrop, a July 2008 op-ed in *The New York Times* entered the discussion radar of the U.S. government. The author was Alan Blinder, a professor of economics at Princeton University, who served on President Bill Clinton’s Council of Economic Advisers and later as Vice Chairman of the Federal Reserve for two years. In this article, he proposed what he considered an all-in-one economic stimulus plan: “Cash for Clunkers.”

Blinder’s idea was that the government could allocate a sum of money (cash) to purchase some of the oldest (at least 15 years old), energy-inefficient, and highly polluting vehicles (clunkers) at prices above the average market value of used cars, and scrap them.

And what would it buy? “If done successfully,” wrote Blinder, “it holds the promise of performing a remarkable public policy trifecta:

(2) Less pollution and a greener economy

According to Blinder, about 75 million cars and light trucks were 15 years old or older at that time. They were clunkers that used a lot of energy and polluted more than allowed. Getting rid of them helps cut down on energy use and carbon emissions.

(2) More equal income distribution especially for low-income people.

Cars are necessities for American households, and most clunkers are owned, unsurprisingly, by low-income people. "So if the government bought some of these vehicles at above-market prices, it would transfer a little purchasing power to the poor."

(3) An effective economic stimulus

In most scenarios, "the quickest, surest way to get more consumer spending is to put more cash into the hands of people who live hand-to-mouth." When people trade in their old cars for cash, they spend that money on buying cars or other things, which boosts consumer demand.

(4) Help the struggling automotive industry get out of trouble

Cars are a necessity for American households, so replacing old cars naturally leads to the need to buy new ones. This can help American automakers increase car sales and improve cash flow.

Blinder further pointed out that at the time, the U.S. had 75 million cars over 15 years old, which were overdue to be phased out. If 2 million old cars could be retired annually through this method and the government had to cover a subsidy of \$3,500 for each clunker, plus the administrative costs of running the program, the government's extra expenditure would be around \$8 billion per year. If the program were more aggressive, retiring 5 million old cars annually at the same subsidy rate, the extra expenditure wouldn't exceed \$20 billion per year. Compared to the \$168 billion fiscal stimulus package enacted in February 2008, both \$8 billion and \$20 billion would seem rather modest.

This does indeed sound like a good idea.



II. Implementation of the Program

On July 1, 2009, the U.S. government officially launched the Car Allowance Rebate System (CARS). The White House Council of Economic Advisers expected the policy to “to shift expenditures by households, businesses, and governments from future periods when the economy is likely to be stronger, to the present when the economy has an abundance of unemployed resources that can be put to work at low net economic cost.”

The core idea of the policy was trade-in; consumers buy or lease more fuel-efficient cars and trucks in exchange for their older models and receive a government subsidy of either \$3,500 or \$4,500 as a purchase discount. The greater the difference in energy consumption between the old and new vehicles, the larger the subsidy provided.

The U.S. government established clear definitions for both the clunkers eligible for trade-in and the new vehicles that qualified for subsidies. For instance, the old vehicles had to be in drivable condition, continuously insured according to national laws, not have changed owners in the preceding year, and meet certain age requirements. New vehicles had to have a retail price under \$45,000 and meet minimum combined fuel economy standards. To facilitate this, the government also set up a dedicated website where American citizens could check the models of old and new vehicles that qualified, as well as a list of participating car dealerships.

During the trade-in process, consumers did not directly receive vouchers or cash from the government but rather purchased discounted new cars from dealerships. Dealers then submitted the necessary documentation to the National Highway Traffic Safety Administration to get reimbursed.

In terms of funding, Congress initially allocated \$1 billion to the policy, later approving an additional \$2 billion. The actual total expenditure amounted to \$2.85 billion. The program was initially planned to start on July 1, 2009, and end on November 1, 2009, or when the funds were exhausted. However, it effectively ended on August 24, 2009, one month after the Department of

Transportation finalized the program's details on July 24, due to the rapid exhaustion of allocated funds.

III. "A Model of Counter-Cyclical Policy" vs. "An All-Time Dumb Idea"

The outcome of the policy was a noticeable increase in car sales in the U.S. during that period. **According to the U.S. Department of Transportation, about 678,000 new vehicles subsidized by the program were sold, with an average fiscal subsidy of \$4,209 per vehicle.** However, in terms of sales structure, U.S. domestic car manufacturers did not benefit much from it. According to the Department of Transportation, Toyota led in the new car sales under this policy, accounting for 19.4% of sales. The total sales of Japanese car manufacturers including Toyota, Honda, Nissan, Mazda, Suzuki, and Mitsubishi reached 44.6%, while Kia and Hyundai, two Korean manufacturers, accounted for 11.5% of sales. The share of sales by American domestic car manufacturers did not exceed 41%.

How should we view the effects of this policy? There was a clear divide between the U.S. government and the views of the industry and academia.

The U.S. government was very satisfied with the results. Then-President Obama believed that the success of this policy exceeded everyone's initial expectations, and the Department of Transportation also thought that no other policy could match the effectiveness of this one. The White House Council of Economic Advisers viewed the policy as prompting those who were normally frugal to increase their spending, arguably the best counter-cyclical fiscal policy conceivable during an economic downturn.

The assessment from industry and academia was starkly opposite. An analysis by Edmunds, a U.S. auto industry institution, concluded that a significant portion of the CARS were natural renewal demands that would have occurred regardless of any government subsidy. After excluding these natural renewals, the actual increase in car sales attributed to the program was only 125,000 vehicles, costing taxpayers an average of \$24,000 per vehicle in fiscal revenue, and raising concerns about efficiency.

The academic assessment was even less optimistic. In 2010, economists Atif Mian and Amir Sufi published a detailed paper evaluating the real effects of the CARS. They concluded that although the government spent \$3 billion to stimulate car consumption, there was no clear evidence that this money increased car sales. The significant increase in car sales observed during the policy period was essentially “borrowed” from future months, as car sales in the following months decreased almost to the same extent.

The Brookings Institution also released a paper In 2013 with a similar conclusion, noting that participants in this policy had higher pre-tax incomes, were older, more likely to be white and homeowners, and more likely to have high school and college degrees. This indicated that the policy did not adequately cater to low-income groups.

A 2014 paper by the National Bureau of Economic Research further pointed out that over time, this stimulus policy not only did not increase car consumption but reduced car spending, because the new cars within the scope of this policy were relatively cheap. Therefore, although the policy increased short-term expenditure, it did so at the expense of reducing long-term cumulative expenditure. According to their estimates, the CARS reduced the revenue of the auto industry by about \$3 billion to \$4 billion in less than a year.

Overall, academia widely views the effects of this policy as far below expectations, a classic example of fiscal policy design error. As the editorial board of The Wall Street Journal put it, this was an “all-time dumb idea.” The policy implemented by the U.S. government was quite different from Blinder’s initial proposal. In August 2009, Blinder also briefly responded during an online interview on National Public Radio:

Things that come through Congress never come out the way you expect them to. What was my proposal? It was for the government to buy 2 million clunkers per year, and give cash directly, spending at least \$8 billion. What did they come up with? A \$3 billion plan, and subsidies only if you buy a new car. Can the real poor afford new cars? No, they can’t afford it. Let’s be practical and first understand the basic methods and principles of fiscal stimulus.

IV. Policy Lessons

When the COVID-19 pandemic hit in 2020, the U.S. government opted not to devise complex new policies but decisively chose to distribute cash directly to the general public. This approach could be seen as a lesson learned from previous fiscal stimulus experiences. Reflecting on the past, three policy lessons stand out as particularly instructive:

First, the CARS essentially borrowed future demand to meet current needs, instead of creating new demand. According to post-hoc statements from the U.S. Council of Economic Advisers, the initial intent of the policy design was exactly this—to borrow future demand to redistribute it into the present. Atif Mian views this process as akin to Ricardo’s principle of equivalence, representing a form of intertemporal “crowding out.” In other words, even the policymakers did not expect the policy to generate new demand.

The debate focuses on whether these demands would be repaid over five years, as the Council of Economic Advisers anticipated, or if, as academia argues, they were repaid within just a few months without even spanning over to the next year. Further analysis suggests that if the CARS is implemented within a fixed fiscal budget, its crowding-out effect might not only manifest intertemporally but also squeeze out other fiscal expenditures within the same period, ultimately neither boosting current total demand nor avoiding a future decrease in total demand due to the overdraft of future needs.

Second, when evaluating the expected effectiveness of the CARS beforehand, it’s important to consider the natural replacement rate. For durable goods like automobiles, there is a natural rate of replacement that occurs even without any supportive policies.

For instance, the U.S. automobile market in 2007 sold 16.46 million new cars, while the total number of vehicles only increased by 3.09 million compared to 2006, indicating that about 13.37 million vehicles were phased



out that year. In 2009, 10.6 million new cars were sold, but the total vehicle count decreased by 1.88 million compared to 2008, meaning around 12.48 million cars were phased out, similar to the 2007 figures. This suggests that under normal circumstances, about 1 million cars are naturally retired each month in the U.S., aligning with Edmunds' observation that trade-in demand would occur regardless of policy. Considering this natural demand, it's easier to understand why the policy's intertemporal effect was even lower and why its overall effect could be negative.

Third, different policy designs have distinctly different economic transmission mechanisms, which are crucial to the outcomes they produce. Typically, a “trade-in” policy offers a higher premium on old products to subsidize consumers.

Imagine this as a special rate policy: I have an old car worth \$7,000. Suppose the government offers a \$3,000 subsidy, allowing me to sell it for \$10,000 this month. But next month, without the subsidy, I can only sell it for \$7,000. Continuing to hold onto this old car for the month equates to bearing a -30% rate of loss. This is similar to lowering nominal interest rates to boost spending, but focused on a specific product. Here, the policy primarily works through intertemporal substitution, where a negative rate means pulling future consumption forward, not necessarily increasing consumption overall.

In contrast, Blinder's original Cash for Clunkers proposal—offering a higher premium to buy old cars—essentially acted as a cash subsidy for low-income groups.

Imagine this scenario: low-income individuals sell their old cars, valued at \$7,000, to the government for a higher-than-market average price (say, \$10,000), and then buy back a used car for \$7,000. This way, the fiscal subsidy of \$3,000 for the old car purchase remains in cash with the low-income group, allowing them free use of these funds.

These two policies differ fundamentally in principle, making the disappointing outcomes of CARS entirely foreseeable.

References:

- Blinder, Alan. 2008. A Modest Proposal: Eco-Friendly Stimulus. *Economic View*. The New York Times, July.
- Blinder, Alan. 2009. Why One Economist Pushed Cash For Clunkers. NPR, August.
- Council of Economic Advisors. 2009. Economic Analysis of the Car Allowance Rebate System ("Cash for Clunkers"). September.
- Edmunds.com. 2009. Cash for Clunkers Results Finally In: Taxpayers Paid \$24,000 per Vehicle Sold. October. <https://www.edmunds.com/about/press/cash-for-clunkers-results-finally-in-taxpayers-paid-24000-per-vehicle-sold-reports-edmundscom.html>
- Romer, Christina and Christopher Carroll. 2010. Did 'Cash-for-Clunkers' Work as Intended? Council of Economic Advisors Blog, The White House.
- U.S. Department of Transportation, 2009. Cash for Clunkers Wraps up with Nearly 700,000 car sales and increased fuel efficiency, U.S. Transportation Secretary LaHood declares program "wildly successful". <https://web.archive.org/web/20091007021106/http://www.cars.gov/files/08.26%20Press%20Release.pdf>
- Wall Street Journal Editorial Board. 2009. Clunkers in Practice: One of Washington's all-time Dumb Ideas. Wall Street Journal, October.



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