



# Accelerated Vehicle Retirement for Fuel Economy: “Cash for Clunkers”

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## Summary

In an attempt to boost sagging U.S. auto sales and to promote higher vehicle fuel economy, the President signed legislation on June 24, 2009—P.L. 111-32—establishing a program to provide rebates to prospective purchasers toward the purchase of new, fuel-efficient vehicles, provided the trade-in vehicles are scrapped. The program provides rebates of \$3,500 or \$4,500, depending on fuel economy and vehicle type of both the new vehicle and the vehicle to be disposed of. An amount of \$1 billion was appropriated for the program, which was established to cover sales between July 1 and November 1, 2009.

Similar programs have been implemented in various U.S. states, but this would be the first federal program. Further, in general those state pilot programs focused on retiring vehicles with older, and in some cases malfunctioning, emissions control systems in order to promote better air quality. The Consumer Assistance to Recycle and Save (CARS) program (also called the Car Allowance Rebate System) focuses, instead, on higher fuel economy and promoting U.S. auto sales. Similar vehicle retirement programs have been implemented in other countries, such as Japan, Germany, France, and the United Kingdom, and have provided at least a temporary boost in auto sales.

It was anticipated by industry executives and government officials alike that the impact of this program would be limited for several reasons. First, the time frame of the program is limited, covering only sales between July 1 and November 1, 2009. The bill provided the National Highway Traffic Safety Administration (NHTSA) with only 30 days to complete the rulemaking process, so the official start of the program was delayed until July 24, 2009. Second, the initial \$1 billion only allows for rebates for around 250,000 vehicles, which may provide a “shot in the arm” to new vehicle sales, but is unlikely to promote a long-term rebound in the auto market. Third, the environmental benefit of the program is questionable, as the program will retire a limited number of vehicles, and as the required increase in fuel economy is low (only 1 mile per gallon in the case of larger trucks).

After officially launching on June 24, 2009, when NHTSA regulations were issued, the CARS program was embraced by thousands of consumers and by auto dealers across the country, who advertised it widely. By the end of the first week, the U.S. Department of Transportation (DOT) announced that nearly all of the funds appropriated for it were committed, based on rising dealer applications for rebate reimbursements and surveying of dealer backlogs.

Recognizing the stimulative effect of the program, the House of Representatives voted to appropriate additional funds (H.R. 3435) on July 31, 2009. It raises the appropriation by \$2 billion, tapping funds from the economic recovery act (American Recovery and Reinvestment Act, or ARRA, P.L. 111-5). The appropriation passed under the suspension of the rules and by a vote of 316-109. The Senate passed H.R. 3435 on August 6 by a vote of 60-37, and President Obama signed the bill into law (P.L. 111-47) on August 7.

This report outlines the key provisions of the CARS program, discusses the initial impact of the program and some of the concerns raised by Senators. It also summarizes similar programs in other countries.

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## Introduction

In an attempt to boost sagging U.S. auto sales and to promote higher vehicle fuel economy, Congress has passed several proposals this spring:

- On June 9, 2009, the House passed H.R. 2751, authorizing a four-year, \$4 billion program. The Senate did not act on this bill.
- On June 18, the Senate passed the conference report to the Supplemental Appropriations Act of 2009 (H.R. 2346); the House had passed it two days earlier. While focused on supplemental military appropriations, Title XIII of the bill included the Consumer Assistance to Recycle and Save (CARS) program. Added in conference, this provision is similar to H.R. 2751.<sup>1</sup> A bill with more stringent qualification requirements was introduced in the Senate (S. 247), but was never considered on the Senate floor. The President signed the bill on June 24, 2009 (P.L. 111-32).
- On June 31, 2009, the House passed H.R. 3435, appropriating an additional \$2 billion for CARS, with funding to be taken from the economic stimulus law, the American Recovery and Reinvestment Act of 2009 (P.L. 111-5). The Senate passed the bill on August 6, and President Obama signed the bill into law (P.L. 111-47) on August 7. This legislation was enacted because the \$1 billion included in the Supplemental Appropriations was nearly fully committed only a week after the official regulations were issued and the CARS program would have ended if additional funds were not approved.

The CARS program provides consumers with a rebate of up to \$4,500 toward the purchase of a new, more fuel-efficient vehicle. The value of the rebate is based on the fuel economy and fuel savings of the new vehicle compared to the old vehicle, as well as the vehicle class of both (i.e., passenger car, light truck, or work truck). To qualify for a rebate, the auto dealer must certify that the engine of the old vehicle will be disabled, and the vehicle will be sent to be crushed or shredded. An amount of \$1 billion was initially appropriated for the program, enough funding for between 222,000 and 286,000 rebates.<sup>2</sup>

A severe recession and major decline in auto sales has motivated lawmakers to consider ways to support the domestic automotive industry. In recent months, a federal presence in the automotive industry has developed, including new grant and loan programs, support through the Troubled Asset Relief Program (TARP), and partial federal ownership of Chrysler and General Motors. Coupled with the economic concerns about the auto industry have been historically high gasoline prices experienced through the summer of 2008. In response to high fuel prices and growing concerns over greenhouse gas emissions and climate change, new policies on fuel economy include tighter Corporate Average Fuel Economy (CAFE) standards enacted in the Energy Independence and Security Act of 2007 (EISA, P.L. 110-140), as well as even tighter standards on fuel economy and greenhouse gases proposed by the Obama Administration.<sup>3</sup>

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<sup>1</sup> The key difference is while H.R. 2751 would authorize \$4 billion for a one-year program, with the actual funding subject to appropriation, the Supplemental *appropriates* \$1 billion for a four-month program, through October 2009.

<sup>2</sup> On August 7, President Obama signed P.L. 111-47, expanding the program by an additional \$2 billion.

<sup>3</sup> For more information on CAFE standards and the Administration proposal, see CRS Report R40166, *Automobile and* (continued...)

As a way to promote new vehicle sales, higher fuel economy, and lower emissions, an accelerated vehicle retirement (AVR)—also called “cash for clunkers” or fleet modernization—program was proposed. AVR programs provide financial incentives for a vehicle owner to “retire”—i.e., usually shred or crush<sup>4</sup>—an old vehicle and purchase a new vehicle. Previous state-level AVR programs<sup>5</sup> in the United States have generally focused on air quality,<sup>6</sup> since newer tailpipe emissions standards are significantly more stringent than older standards,<sup>7</sup> and many older vehicles no longer meet the less stringent standards for which they were originally certified. However, some recent programs abroad have focused directly on motivating new vehicle sales and propping up the automotive sector.

The program established in P.L. 111-32 combines the goal of promoting auto sales with improved fuel economy. The general argument has been that the United States is at a critical juncture and has an opportunity to use any recovery in the auto sector to foster a switch to more fuel efficient vehicles. Therefore, most cash for clunkers proposals in the 111<sup>th</sup> Congress have tied incentives to the purchase of vehicles with higher fuel economy.

## CARS Program

As enacted, the CARS program provides a rebate toward the purchase of a new, more fuel-efficient vehicle, provided the old vehicle is transferred by the auto dealer to a facility where it will be crushed or shredded. Consumers are not responsible for the actual scrapping of the vehicle. The legislation establishes many of the elements necessary for the program, including the criteria for obtaining a rebate, as well as requirements for auto dealers to be registered under the program. The National Highway Traffic Safety Administration (NHTSA), within the U.S. Department of Transportation (DOT), has had responsibility for developing regulations for implementation of the program. It should be noted that the buyers are eligible for a rebate regardless of where the vehicle is made.

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(...continued)

*Light Truck Fuel Economy: The CAFE Standards*, by Brent D. Yacobucci and Robert Bamberger.

<sup>4</sup> In most cases, the state or the dealer is responsible for scrapping the old vehicle. In the case of the CARS program, the dealer, not the consumer, would be responsible for transferring the old vehicle to a facility for scrapping.

<sup>5</sup> For more information on these programs, see CRS Report 96-766, *A Clean Air Option: Cash for Clunkers*, by David M. Bearden.

<sup>6</sup> Specifically to remove the most polluting vehicles from the road to help the states comply with National Ambient Air Quality Standards (NAAQS) for ozone and particulate matter.

<sup>7</sup> For example, federal standards for hydrocarbon emissions from new cars are 94% lower than they were 30 years ago (1970). Nitrogen oxide (NOx) standards are 97% lower. J.G. Calvert, J.B. Heywood, and R.F. Sawyer, et al., “Achieving Acceptable Air Quality: Some Reflections on Controlling Vehicle Emissions,” *Science*, vol. 261 (July 2, 1993), p. 37; Frank M. Black, “Control of Motor Vehicle Emissions – The U.S. Experience,” *Critical Reviews in Environmental Control*, vol. 21 (1991), p. 376; National Research Council, *State and Federal Standards for Mobile Source Emissions*, 2006, pp. 92-93; CRS Report RS20247, *EPA’s Tier 2 Emission Standards for New Motor Vehicles: A Fact Sheet*, by David M. Bearden.

## Program Regulations

NHTSA was given one month to develop regulations implementing the program, and it did so, issuing them and officially launching the CARS program on July 24, 2009.<sup>8</sup> Those regulations include

- procedures for dealers to register for the program;
- procedures for dealer reimbursement for the value of the rebate within 10 days of submitting required information;
- a prohibition on dealers using the rebate to offset other rebates or discounts;
- a requirement that dealers disclose the estimated scrappage value of the trade-in and to retain up to \$50 of the actual scrappage value for administrative costs;
- requirements and procedures for the disposal of trade-in vehicles; and
- enforcement of penalties (up to \$15,000 per violation of the above requirements and prohibitions).

P.L. 111-32 includes a clause “[n]otwithstanding the requirements of section 553 of title 5, United States Code, the Secretary shall promulgate final regulations to implement the Program not later than 30 days after the date of the enactment of this Act.” Despite various statutory requirements that could have precluded promulgation of regulations within 30 days—most notably the Administrative Procedure Act, which generally requires sufficient time for public notice and opportunity for comment on proposed regulations<sup>9</sup>—the regulations were issued on time.

## Value of a Rebate

Under the CARS program, NHTSA issues rebates directly to auto dealers when they have sold an eligible vehicle between July 1, 2009, and November 1, 2009. The value of the rebate is deducted from the price of the vehicle and the dealer is in turn reimbursed by NHTSA. Only one rebate can be used per person, and only one rebate will be issued per vehicle (regardless of the number of joint owners). NHTSA may only issue rebates up to the total value of its appropriation (initially \$1 billion for the CARS program, increased by an additional \$2 billion on August 7).

The value of the rebate is based on the type of new vehicle purchased, the type of trade-in vehicle, and the fuel economy of both. Four classes of vehicles are eligible: (1) passenger automobiles (cars); (2) category 1 trucks<sup>10</sup> (sport utility vehicles and smaller vans and pickup trucks); (3) category 2 trucks (larger light-duty pickup trucks and vans); and (4) category 3 trucks (medium-duty pickup trucks and cargo trucks and vans).

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<sup>8</sup> Although not officially under way until July 24, 2009, a number of auto manufacturers encouraged their dealers to begin trading under the system as early as the first week in July, promising that they would guarantee the transactions, as long as they followed the law. This created a backlog of transactions that were filed with NHTSA starting on July 24.

<sup>9</sup> For more information on the Administrative Procedure Act, see CRS Report RL32240, *The Federal Rulemaking Process: An Overview*, by Curtis W. Copeland.

<sup>10</sup> These category definitions are different from the weight-based definitions used to classify trucks (e.g., classes 1 through 8) generally.

## Eligible Trade-in Vehicle

To qualify for the rebate, the trade-in vehicle must be in drivable condition; have been continuously insured by the same owner for at least one year;<sup>11</sup> and have been manufactured less than 25 years before the date of trade-in (1984). For all vehicles except category 3 trucks, the trade-in vehicle must have a combined estimated new Environmental Protection Agency (EPA)-rated fuel economy (as defined on the fueleconomy.gov website) of no more than 18 miles per gallon (mpg). Category 3 trucks must be from model year 2001 or newer

## Eligible New Vehicle

To qualify for the rebate, the manufacturer's suggested retail price (MSRP) must be less than \$45,000 for the new vehicle. For cars and category 1 and 2 trucks, the vehicle must comply with EPA's Tier 2 emissions standards, and for category 3 trucks the vehicle must comply with new heavy-duty engine standards. Except for category 3 trucks, new vehicles must meet the following mileage standards: 22 mpg for a passenger car; 18 mpg for a category 1 truck; and 15 mpg for a category 2 truck.

## Rebate Value

Rebates are worth either \$3,500 or \$4,500, depending on different parameters, as shown in **Table 1**.

**Table 1. Criteria for Determining CARS Rebate Value**

Rebate Value	New Vehicle Category			
	Passenger Automobile	Category 1 Truck	Category 2 Truck	Category 3 Truck
\$4,500	At least 10 mpg higher fuel economy than trade-in 22mpg minimum	At least 5 mpg higher than trade-in 18 mpg minimum	At least 2 mpg higher than trade-in 15 mpg minimum	None
\$3,500	At least 4 mpg higher than trade-in 22mpg minimum	At least 2 mpg higher than trade-in 18 mpg minimum	At least 1 mpg higher than trade-in OR trade-in is a MY2001 or newer category 3 truck 15 mpg minimum	Trade-in is a MY2001 or newer category 3 truck Trade-in is of similar size or larger than new truck

**Source:** CRS Analysis of H.R. 2346.

**Note:** Category 1 includes sport utility vehicles and smaller vans and pickup trucks. Category 2 includes larger pickup trucks and vans. Category 3 includes medium-duty pickup trucks, cargo trucks, and cargo vans.

<sup>11</sup> Because two states, New Hampshire and Wisconsin, do not require auto insurance under state law, NHTSA updated its regulations to exempt vehicles in those two states from the insurance requirement. National Highway Traffic Safety Administration, *Requirements and Procedures for the Consumer Assistance to Recycle and Save Program*, Docket No. NHTSA-2009-0120, Washington, DC, August 2009, <http://www.cars.gov/files/amendment.pdf>.

## Impact of the Program: Expectations and Reality

### Expected Auto Industry/Sales

The impact of the CARS program on the auto industry was expected to be limited by the narrow scope of the program. First, the program is limited to vehicles purchased over four months in the summer and fall of 2009.<sup>12</sup> Second, the number of rebates is limited to the available appropriation—only about 222,000 to 286,000 rebates can be issued under the initial \$1 billion appropriation.<sup>13</sup> Therefore, it was thought that this program would more likely provide a “shot in the arm” to U.S. auto sales rather than provoking a systemic change in the auto industry, the new vehicle fleet, or fleetwide fuel economy.

### Expected Fuel and Greenhouse Gas Savings

The American Council for an Energy-Efficient Economy (ACEEE) estimated that a cash for clunkers plan could save a vehicle owner an average of 300 gallons of fuel per year,<sup>14</sup> leading to 11,000 barrels of oil per day saved if roughly 575,000 vehicles were scrapped.<sup>15</sup> However, that proposal assumed that to qualify for a rebate, the new vehicle would have exceeded average fuel economy standards by 25%, leading to new vehicle fuel economy of 35 mpg. The CARS program is far less stringent, requiring only 22 mpg from new passenger cars and even lower fuel economy from light trucks. Assuming ACEEE’s methodology (trade-in vehicle achieves 16.9 mpg, and is driven 8,000 miles per year), then a new 22 mpg car would save roughly 140 gallons of fuel per year. Assuming this is the average fuel savings for all scrapped vehicles, and that 250,000 rebates are distributed under the first \$1 billion, the initial phase of the program would save 35 million gallons of gasoline and diesel fuel annually, or roughly 2,300 barrels per day.<sup>16</sup> In terms of greenhouse gases, this would translate to roughly 300,000 metric tons of carbon dioxide annually.<sup>17 18</sup> However, a key caveat is that the actual fuel and greenhouse gas savings could be lower if the new vehicle is driven more miles annually than the vehicle it replaced, which is a common occurrence. Further, since the passenger car requirements are more stringent than the

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<sup>12</sup> This time frame could be even shorter, depending on how long it takes NHTSA to finalize regulations.

<sup>13</sup> Assuming \$1 billion, and assuming all rebates are worth \$4,500, NHTSA could issue 222,222 rebates. Assuming all rebates are worth \$3,500, NHTSA could issue 285,714 rebates.

<sup>14</sup> American Council for an Energy-Efficient Economy, *Accelerated Retirement of Fuel-Inefficient Vehicles Through Incentives for the Purchase of Fuel-Efficient Vehicles*, Washington, DC, January 13, 2009, p. 7, <http://www.aceee.org/transportation/Crusher%20white%20paper%20fin.pdf>.

<sup>15</sup> ACEEE’s proposal included other vouchers including scrappage vouchers for the purchase of fuel efficient used cars and for transit subsidies.

<sup>16</sup> This would represent roughly 0.01% of the roughly 19 million barrels per day of petroleum consumed in the United States. Energy Information Administration, *U.S. Product Supplied for Crude Oil and Petroleum Products*, Washington, DC, May 2009, [http://tonto.eia.doe.gov/dnav/pet/pet\\_cons\\_psup\\_dc\\_nus\\_mbbldpd\\_m.htm](http://tonto.eia.doe.gov/dnav/pet/pet_cons_psup_dc_nus_mbbldpd_m.htm).

<sup>17</sup> Assuming 19.4 pounds of carbon dioxide emitted per gallon of gasoline consumed. Environmental Protection Agency, *Emission Facts: Average Carbon Dioxide Emissions Resulting from Gasoline and Diesel Fuel*, EPA420-F-05-001, Washington, DC, February 2005, <http://www.epa.gov/otaq/climate/420f05001.htm>.

<sup>18</sup> 300,000 metric tons would represent a very small fraction of the roughly 7.2 billion metric tons of carbon dioxide equivalent emitted in the United States in 2007. Environmental Protection Agency, *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2007*, EPA 430-R-09-004, Washington, DC, April 15, 2009, <http://www.epa.gov/climatechange/emissions/usinventoryreport.html>.



requirements for light-duty trucks, these savings could also be lower, if most of the new vehicles purchased under the program were sport utility vehicles, pickup trucks, and vans.

## July 2009 Experience

In the space of a month, the CARS program has exceeded the expectations of its sponsors, the Obama administration and auto dealers. Rather than spreading sales out over a four-month period, consumers have visited showrooms in large numbers and, as a result, the program funding was forecast to run out by late July or in the first week of August.<sup>19</sup> According to Automotive News, 250,000 autos have been sold through this program in the month of July 2009, with many sold even before the final NHTSA regulations were released. Eligible auto sales reported on the NHTSA hotline grew from about 4,000 on the first day to six times that a few days later. This surge in sales and reporting is one reason that many dealers had difficulty in reaching NHTSA to register and report their eligible sales. According to a survey by Automotive News, 90% of dealers were dissatisfied with the time it has taken to be reimbursed by the government.<sup>20</sup>

NHTSA tabulated the first 80,000 transactions<sup>21</sup> that had been registered and found that:

- Fuel economy is rising. The average vehicle purchased under CARS has 25.4 mpg, compared with an average of 15.8 mpg for traded-in vehicles. This upgrade will save owners up to \$1,000 this year on gasoline costs.<sup>22</sup>
- There is a shift to automobiles. Eighty-three percent of the trade-ins are trucks and 60% of the new vehicle purchases are cars, so it appears that low-fuel-economy SUVs and trucks are being scuttled in favor of more fuel-efficient passenger cars. This NHTSA finding is borne out by a similar finding from an Automotive News survey which found that 73% of trades were from one category (such as trucks) to another category (such as autos).
- Truck fuel economy is improving. Among the category 1 trucks sold, new vehicles have 39% higher fuel economy than the traded-in trucks.
- The Detroit 3 benefit. Sales of vehicles under CARS nearly reflect the current market share of the Detroit 3. Their share of this program is 47%; their market share is about 45%. Of those vehicles sold from foreign manufacturers, the NHTSA data shows that more than half of them were built in the United States.

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<sup>19</sup> There has been confusion with conflicting timelines. On Thursday, July 30, Secretary LaHood said that the program would end on the next day due to a looming shortfall. That prognosis was later amended and dealers were told that vehicles sold through this program on Sunday, August 2, would still qualify. Then on Monday, August 3, White House press secretary Robert Gibbs said that vehicles sold through Friday, August 7, could still qualify.

<sup>20</sup> *Automotive News* survey reported on August 3, 2009.

<sup>21</sup> The NHTSA data are based on vehicle sales through Saturday, August 1. Source: "CARS-Car Allowance Rebate System" fact sheet distributed on Monday, August 2, 2009.

<sup>22</sup> Some independent reports take a different view: "According to a survey of car dealerships and 2,200 consumers by CNW Research, the average fuel economy of vehicles traded in last week was 16.3 miles a gallon, which is not much less than the 18 m.p.g. needed to qualify for a government rebate of \$3,500. The relatively small differential suggests that consumers have not been turning in the oldest, dirtiest and least fuel-efficient cars, but instead have been getting rid of their second and third cars ..." Source: *New York Times*, "Cash for Clunkers, By the Numbers," August 4, 2009.

Some argued that Congress should take more time, before extending CARS, to evaluate the progress of this program in its first month, and others argued that it is not appropriate to continue to support selective industries with subsidies like this. They argued that if Congress supports auto sales, it should also support appliance sales, for example.

## Comparison to Programs in Other Countries

Many programs in other countries have focused more on providing short-term stimulus to auto sales, rather than promoting fuel economy (See **Table 2**). Arguably, the most-discussed program has been Germany's program, which provided vouchers for 2,500 Euro (roughly \$3,500)<sup>23</sup> toward the purchase of a new vehicle for scrapping a vehicle at least nine years old. There were no stipulations on the fuel economy or greenhouse gas emissions of the vehicle. Similarly, Japan offered a 250,000 Yen (about \$2,600) subsidy for turning in a car at least 13 years old. However, some countries (e.g., France and Spain) have made fuel economy improvements or greenhouse gas reductions a condition for eligibility in their fleet-modernization programs.

In June 2009, auto sales rose by 2.4%, "their first year-on-year rise in 14 months, thanks almost entirely to scrappage schemes in a dozen countries."<sup>24</sup> Volkswagen, for example, said that the German incentive accounted for half of the 800,000 vehicles it sold within Germany this year. While some European automakers are calling for these scrappage programs to be extended when they expire this year, some analysts say these programs may well lead to a "severe slump in car sales after the expiration of the incentives, which they say will artificially pull forward demand for new cars. 'We're definitely setting up problems for the future,'" said a auto industry analyst at UBS in London.<sup>25</sup> When the French offered a similar program in the 1990s, sales fell by 20% when it ended.<sup>26</sup>

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<sup>23</sup> All currency conversions are from Washingtonpost.com, *World Currencies—Current Values and Conversion Tool*, June 22, 2009, <http://financial.washingtonpost.com/custom/wpost/html-currencies.asp>. 1 Euro = \$1.38. 1 Japanese Yen = \$0.0103. 1 Canadian dollar = \$0.882. 1 British pound = \$1.643.

<sup>24</sup> *Financial Times*, "US Drives Its Claws into Scrappage Deals," July 31, 2009.

<sup>25</sup> *Ibid.*

<sup>26</sup> *The Globe and Mail*, "The Ugly Economics Behind Europe's Car Scrappage Bonanza," May 16, 2009.

**Table 2. Recent Foreign Fleet Modernization Programs**

Country	Production and Sales Incentives
Canada	The Canadian government approved \$92 million to support a scrappage program for vehicles produced before 1996 when more stringent pollution laws were enacted. The "Retire Your Ride" program offers consumers \$300 to scrap their older vehicle, a program administered by a nonprofit foundation. Auto dealers and manufacturers have called on the government this year to commit \$350 million to a scrappage program that would offer consumer a \$3,500 voucher to trade in cars that are at least 10 years old, but the government has so far rejected such a program. <sup>a</sup>
France	A fleet modernization plan is in effect, providing motorists with a €1,000 (\$1,400) subsidy if they turn in vehicles more than 10 years old for more fuel efficient vehicles. The French government has set aside up to €220 million for this program. <sup>b</sup>
Germany	Germany has perhaps the best publicized fleet modernization program, where consumers scrapping at least a nine-year-old vehicle receive a €2,500 subsidy (\$3,500). Trade-ins must be certified as scrapped, with certain parts recycled. The government provided €1.5 billion to fund it. <sup>c</sup>
Italy	Italy approved a €2 billion stimulus package for auto and domestic goods industries, including an incentive of €1,500 (\$2,100) to buy a new, less-polluting motor vehicle. <sup>d</sup>
Japan	A fleet modernization program is under way in Japan, with consumers eligible for a ¥250,000 (\$2,600) subsidy if they turn in their car (at least 13 years old). New cars must be used for at least a year. <sup>e</sup>
Spain	Spain's scrappage program provides a €2,000 (\$2,800) subsidy for the purchase of a new car with low carbon dioxide emissions. Cars must be at least 10 years old to be eligible for trade and then must be scrapped. The program also applies to used cars no more than five years old and requires that a scrapped car is at least 15 years old. <sup>f</sup>
United Kingdom	A "scrappage grant" is available to car owners who turn in a car or van that is at least 10 years old. Owners receive a 2,000 (\$3,300) pound sterling (£) subsidy, the cost of which is split evenly between automakers and the UK government. <sup>g</sup>

**Sources:** Peterson Institute for International Economics, *Money for the Auto Industry: Consistent with WTO Rules?*, February 2009; *Does the Auto Bailout Undermine Global Trade Rules*, interview with Gary Hufbauer, February 26, 2009; Automotive Trade Policy Council, *Foreign Government Actions to Support Their Auto Industries*; also see notes below.

**Note:** This table highlights activities in some major industrial countries, but programs have also been enacted in Austria, Greece, Malaysia, The Netherlands, Portugal, Romania, Slovakia, Turkey, and Taiwan, Source: Automotive Trade Policy Council.

- a. CBC.ca, "Support car sales with \$350M 'scrappage' program, auto industry pleads," August 4, 2009.
- b. *The Wall Street Journal*, "In France, Oui to Bailout, Non to Layoffs," March 19, 2009.
- c. *The Wall Street Journal*, "Merkel Pledges Backing for Opel," April 1, 2009.
- d. *The Wall Street Journal*, "Italy Passes Stimulus Package," February 7, 2009.
- e. *Reuters*, "Update I - New Japanese Good For Car Sales-Nissan COO," April 10, 2009.
- f. *Automotive News Europe*, "Subsidies Lead to a Mixed May Sales Result in Europe," June 2, 2009.
- g. Deloitte Touche Tohmatsu, *Deloitte Says More Needed to Revitalize Ailing Automotive Industry*, March 23, 2009.

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