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POLICY Brief

Car-scrapping schemes: An effective economic rescue policy?

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INTRODUCTION

Financial and economic turmoil and a global recession were common concerns in the aftermath of America's mortgage crisis. Governments all over the world set up enormous economic stimulus packages; billions of dollars of public money were used to support domestic economies. Following the German example, a large number of countries introduced "car-scrapping" schemes[1] as part of their economic stimulus packages. These schemes rapidly turned out to be a popular anti-cyclical economic policy.

WHAT ARE THE OBJECTIVES OF CAR-SCRAPPING SCHEMES?

Car-scrapping schemes all share similar features and objectives. The concept is simple: vehicle owners receive state money to trade in their old vehicles for new, more efficient ones. The schemes' underlying rationale is as straightforward: for major car-producing countries, a fall in demand for vehicles would raise the risk of bankruptcies and unemployment, thereby triggering severe consequences for people working in the car industry, as well as for the industry's suppliers and the public budget. For instance, in Germany the annual turnover of the car industry (close to €300 billion) accounts for about 10 per cent of the country's GDP, employing almost 800,000 people and representing about 2 per cent of the working population.

The officially stated policy objectives of car-scrapping schemes are usually to provide a "boost to demand and immediate support" for the car industry (United Kingdom), protect "employment in the sector" (Spain), or aid in the "reduction of pollution" (Germany) (Department for Business & Innovation Skills, n.d.; Federal Office of Economics and Export Control [BAFA], 2009; Government of Spain, 2009).[2]

[1] Car-scrapping schemes commonly include cars and some light commercial vehicles (with a maximum weight of 3.5 tonnes).

[2] Department for Business & Innovation Skills (http://www.berr.gov.uk/).

GSI Global Subsidies Initiative

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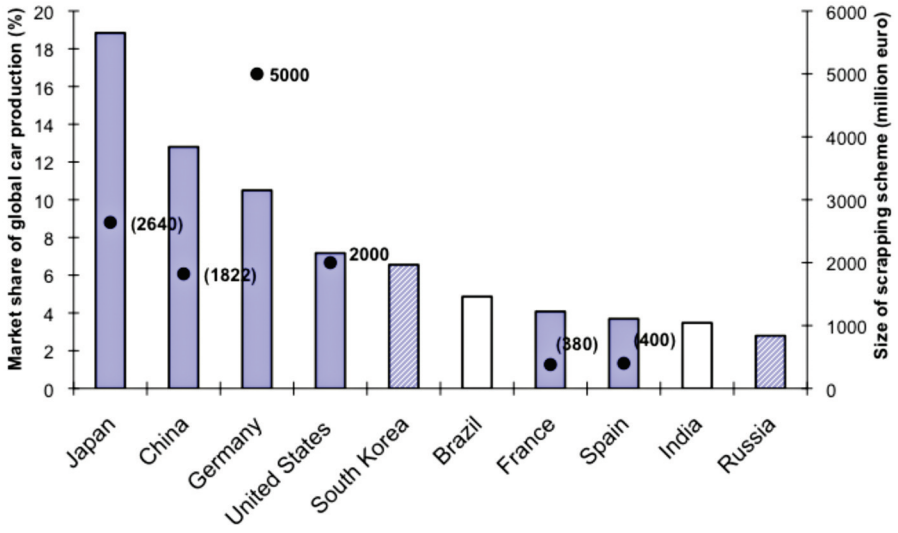
iisd International Institute for Sustainable Development / Institut international du développement durable

WHICH COUNTRIES USE THESE SCHEMES?

Since 2008 most countries with an important automobile industry have chosen to subsidize this sector; of the ten biggest car-producing countries in terms of global market share, only Brazil and India have not yet set up car-scrapping schemes. Russia provides subsidized loans for the purchase of domestically produced cars, while South Korea stimulated the domestic demand for cars with considerable tax incentives.

FIGURE 1: TEN LARGEST CAR-PRODUCING COUNTRIES AND ESTIMATED SIZE OF SCRAPPING SCHEMES



Based on 2008 vehicle-production data from the International Organization of Motor Vehicle Manufacturers (n.d.) and publicly available data on car-scrapping schemes[3] Numbers in parentheses are amounts that have been budgeted but not yet fully spent.

WHAT ARE THE MAIN FEATURES?

Although car-scrapping schemes share similar policy objectives, a closer look at five of the largest programs shows that their features differ considerably in terms of size (the amount of money they inject) and eligibility criteria.

[3] Brazil and India do not have car-scrapping schemes, and the values of the incentives in Russia and South Korea are much more difficult to calculate and are not part of this analysis.

TABLE 1. PROGRAM FEATURES OF FIVE OF THE LARGEST CAR-SCRAPPING SCHEMES

	Official policy objectives	Government costs (million €)	Trade-in payment (€)	Eligibility (old cars)	Eligibility (new cars)	Change in registrations (%)	Program duration	Phase out
Germany	Support for car industry; environmental benefits	5,000[4]	2,500	>9 years	None	+26.1	January–December 2009	No
Spain	Support for car industry; environmental benefits	*400*	2,000	>10 years	149g/km maximum CO_2 emissions	–28.6	Started May 2009 No end date[5]	No
France	Support for car industry; environmental benefits	*380*	1,000	>10 years	160g/km maximum CO_2 emissions	+2.4	December 2008–December 2009	Yes
U.K.	Support for car industry; environmental benefits	470	2,300[6]	>9 years	None	–15.5	May 2009–February 2010	No
U.S.	Support for car industry; environmental benefits	2,000[4]	3,200	>8 years low fuel efficiency	Fuel efficiency equalling 247g/km CO_2 emissions	n.a.	July–November 2009[7]	No

Imprecision is due to rounding; figures in italics represent estimates. All figures based on statistical data from the European Automobile Manufacturers' Association and the U.S. CARS program.

Size

Trade-in payments are relatively similar among countries, with the exception of France, which offers a notably smaller trade-in bonus. Also, the United States, France and Spain increase the incentive when the new car produces low emissions. With a budget of €5 billion, the German scheme is by far the largest, followed by the United States with €2 billion. The programs of France, Spain and the United Kingdom are considerably smaller, ranging from approximately €380 million to €470 million. Only the French program phases the subsidy out gradually over time (rather than ending it abruptly).

Eligibility

All programs have more-or-less similar restrictions on the age of the vehicles to be scrapped. The United States imposed an additional access condition based on fuel efficiency: to be admissible, trade-in cars need to have a relatively weak fuel efficiency of 18 miles per gallon or less (equalling emissions of at least 300 grams of carbon dioxide per kilometre). The British and German schemes do not require new cars to meet eligibility criteria, whereas the other programs set minimum fuel-efficiency and emission standards. The U.S. program requires a minimum fuel efficiency of at least 22 miles per gallon (247 grams per kilometre in terms of carbon dioxide emissions), while Spain and France set more rigid standards for carbon dioxide emissions of 149 and 160 grams per kilometre, respectively[8]

[4] Exhausted.
[5] The Spanish program did not plan a specific ending date, but an ending criterion (a maximum of 200,000 vehicles can subscribe to the program).
[6] The U.K. government provides a £1,000 incentive, and car dealers add another £1,000.
[7] The U.S. program was expected to run until November 2009, but the available budget was exhausted by August 24, 2009.
[8] A recent EU regulation sets the goal of reducing average carbon dioxide emissions of all cars registered in the European Union to 130 grams per kilometre by 2015. As of 2007 the average for petrol and diesel is 158 grams per kilometre for newly registered cars in the EU25 (European Commission, 2009; Commission of the European Communities, 2009).

WHAT ARE THE MAIN FEATURES?
CONTINUED

Box 1: France: Smart and green

Broadening the already existing incentive scheme for the purchase of cars, the French car-scrapping program imposes some degree of environmental standards. The program offers €1,000 to owners of old cars for the purchase of a new car emitting at most 160 grams of carbon dioxide per kilometre. Purchases of lower-emission cars, emitting at most 130 grams of carbon dioxide per kilometre, are rewarded with an additional bonus. The €1,000 incentive is in force until the end of 2009. It will be reduced to €700 for the first half of 2010 and to €500 for the second half.

A budget-neutral "bonus/malus" scheme, in force since 2007, levies a €1,600 surcharge on models that emit between 201 and 250 grams of carbon dioxide per kilometre and uses the revenues to provide a €1000-per-vehicle incentive for the purchase of cars that emit less than 100 grams of carbon dioxide per kilometre.

DID THE SCHEMES ACHIEVE THEIR OBJECTIVES?

While politicians and car lobbyists praise the car-scrapping schemes as a success story, their outcomes are dubious.

Stimulating demand to support the car industry

Only France and Germany registered a year-on-year increase (2.4 per cent and 26.1 per cent, respectively) in the registration of new cars during the first three quarters of 2009. The other countries registered decreases. The impact of the car-scrapping programs might take some time to be felt, as the time lag between the sale and registration of new vehicles differs among countries and even among subnational administrative units (Smith, 2009).

The international structure of supply chains diminishes the positive impact on domestic car industries and employment in the sector. In addition, over 60 per cent of cars purchased under the German and U.S. scrapping schemes through July 2009 were foreign brands (BAFA, 2009; Car Allowance Rebate System [CARS], 2009).

Benefiting the environment

The evidence shows that the average car bought was more efficient than the average car traded in, but that the new cars built were not hybrids or other best-in-class environmental performers[9]. The United States claimed that the fuel efficiency of the new cars purchased under the program was 58 per cent greater than that of the old cars traded in. The average carbon dioxide emissions of new cars purchased under the scrapping scheme in

[9] Federal Motor Transport Authority (www.kba.de) statistics for Germany; CARS (2009) for the United States.

DID THE SCHEMES ACHIEVE THEIR OBJECTIVES?
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the United Kingdom were 132 grams per kilometre, about 16 grams per kilometre less than the average emissions of new cars purchased outside the program. In Germany, small and compact cars were mostly sold under the scheme (Institut für Energie und Umweltforschung Heidelberg, 2009; Society of Motor Manufacturers and Traders, 2009).

The schemes seem to have steered buyers toward smaller, more fuel-efficient vehicles. However, a considerable part of energy consumption in a car's life cycle is incurred during its production, in some cases offsetting the efficiency and emission gains of the new technology (Verkehrsclub Deutschland, 2009). Moreover, the increased purchase of more fuel-efficient cars follows a general trend that is mainly a result of increasing fuel prices (Sivak & Schoettle, 2009).

Secondary economic impacts

While the car-scrapping schemes may have softened the impact of the economic crisis on the automotive sector, subsidies have distorted the market by favouring specific sectors at the expense of others. The German retail industry suffered a considerable loss at the beginning of 2009 and blamed the scrapping incentive for absorbing consumers' purchasing power ("Abwrackprämie," 2009).

Analysts have demonstrated that the savings rate in the United States fell due to the consumption incentives ("'Clunkers' spending," 2009), siphoning off money that could have otherwise been invested (for example, in small and medium-sized enterprises suffering from the credit crunch).

In addition, the trade-in incentive offered by car-scrapping programs risks creating a flash in the pan in buying activity, since car buyers have simply advanced their purchase decision in time. Recent economic forecasts for the year 2010 already predict a substantial decline in motor-vehicle sales, leading car manufacturers to adjust their price policies.[10] Over the long term, consumption-oriented stimulus packages may cause severe economic impacts, which can be difficult to reverse.

WHAT COULD GOVERNMENTS DO BETTER?

Car-scrapping schemes have the same inefficiency effects as any other government subsidy: they distort market equilibrium, thereby favouring a specific sector, most often at the expense of others; they strain the public budget; they tend to postpone necessary market adjustments to a future without subsidies and they discriminate against non-beneficiaries (for example, people who cannot afford to buy new cars). Governments could do better *by considering more effective policy alternatives* in the future. Measures designed to deal with the current crisis should *not postpone necessary long-term structural adjustments*. And finally, in common with all good policy, any measures taken must *follow clear rules*.

[10] In Germany, Audi, Ford, Volkswagen and other manufacturers plan discounts of up to 40 per cent for new cars in response to falling demand ("Ende der Abrwrackprämie," 2009).

WHAT COULD GOVERNMENTS DO BETTER?
CONTINUED

Policy Recommendation 1: Look for better policy alternatives
Policy-makers have instruments at their disposal that create fewer unintended side effects than do direct subsidies and can create considerable long-term effects. For example:

Benchmarks and minimum standards: The 2009 EU regulation to reduce fleet emissions to 130 grams of carbon dioxide per kilometre by 2015 sets a clear long-term environmental target. This approach does not imply rigid market regulations for the automotive industry, but grants a certain time frame to carry out necessary adjustment measures in the sector.

Policy Recommendation 2: Do not postpone necessary long-term structural adjustments
The impact of one-time subsidies is by definition limited in time, and these measures can only be considered transitory support. Important structural adjustments, such as driving down costs and overcapacity or decreasing fleet emissions, should be done through sustainable sector policies and not postponed by short-term subsidy designs that do not address long-term problems. Sector policy should focus on the long term and should be non-distorting and as budget neutral as possible.

Policy Recommendation 3: Follow clear rules
If market intervention through subsidies is planned as a temporary support measure, it should follow some basic rules and include the following:
- An assessment of the impacts of the subsidy, including possible unintended side effects
- Clear and verifiable objectives
- Precise targeting of beneficiaries
- Conditions and performance targeting
- Complimentary policies to achieve the objectives; for example, the French scheme penalized the purchase of gas guzzlers while rewarding environmentally friendly purchases
- Monitoring and adjustment mechanisms
- A clear exit strategy, including time frames for phasing out the subsidy
- An ex-post review of the policy's full impacts

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The GSI is an initiative of the International Institute for Sustainable Development (IISD). Established in 1990, the IISD is a Canadian-based not-for-profit organization with a diverse team of more than 150 people located in more than 30 countries. The GSI is headquartered in Geneva, Switzerland and works with partners located around the world. Its principal funders have included the governments of Denmark, the Netherlands, New Zealand, Norway, Sweden and the United Kingdom. The William and Flora Hewlett Foundation have also contributed to funding GSI research and communications activities.

See the GSI's Subsidy Primer for a plain-language guide to subsidies on: www.globalsubsidies.org.

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