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Federal Loans to the Auto Industry Under the Energy Independence and Security Act

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Federal Loans to the Auto Industry Under the Energy Independence and Security Act

Summary

U.S. automakers are facing a myriad of unfavorable conditions, including a worsening economy and credit crunch that have dampened consumers' demand for new vehicles, high legacy costs, increased competition from foreign automakers, and stricter Corporate Average Fuel Economy (CAFE) standards. The last concern — the regulatory cost of higher fuel economy standards — led Congress to consider various federal programs, including grants and loans, to help automakers with the increased cost to comply with the new standards.

In December 2007, the Energy Independence and Security Act of 2007 (P.L. 110-140) authorized a program to provide loans to automakers and parts suppliers for the production of fuel-efficient cars and light trucks. The law authorized up to $25 billion in total loans. However, funds were not appropriated for the loan program until September 30, 2008, when the Consolidated Security, Disaster Assistance, and Continuing Appropriations Act (P.L. 110-329) was enacted. This act appropriated $7.5 billion to cover the subsidy cost of up to $25 billion total in loans, as well as $10 million for program implementation. The act further directed the Department of Energy (DOE) to implement an interim final rule within 60 days of enactment — this deadline would be November 29, 2008.

On November 5, 2008, DOE announced an interim final rule for the program. The rule will be effective the date it is published in the *Federal Register* (when this will happen is unclear). Once published, DOE will have a 30-day public comment period on the interim rule before issuing the final rule for the program. Loan funds will be separated into tranches, with applications for each tranche due every 90 days, until all loan authority has been expended. The application deadline for the first tranche is either the effective date of the program (the day it is published in the *Federal Register*), or December 31, 2008 — the rulemaking documents are contradictory on this point.

To qualify for a loan, an automaker must have an average fleet fuel economy no lower than that in Model Year 2005. Also, eligible facilities (either vehicle assembly or part making) must be located in the United States. Specific projects must result in the production of vehicles that achieve at least 25% higher fuel economy than Model Year 2005 models with similar size and performance. Further, applicants must be able to demonstrate their financial viability over the life of the loan — 25 years. This last requirement may prove to be a significant barrier to loan approvals under the program.

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Introduction

Congress has approved, and the President has signed into law, two legislative provisions that authorize and fund a program to provide as much as $25 billion in direct loans to automotive manufacturers in the United States, and their suppliers. These measures are in §136 of the Energy Independence and Security Act (EISA) of 2007 (P.L. 110-140, which became law on December 19, 2007) and §129 of the Consolidated Security, Disaster Assistance, and Continuing Appropriations Act (P.L. 110-329, signed into law on September 30, 2008). The first measure authorizes the loan program at the level stated, and establishes the purposes for which such loans may be used. The second measure appropriates $7.51 billion to cover the subsidy and administrative costs of the program and directs that the loans should be made by the Federal Financing Bank. It further establishes an expedited timetable, so that the Department of Energy (DOE) should write an "interim final rule" for administering the program within 60 days after enactment.[1] On November 5, 2008, DOE announced its interim final rule implementing the program, although the rule has not yet been published in the *Federal Register*.[2]

This program has been widely misinterpreted as a broad "bailout" of U.S.-based domestic motor vehicle manufacturers. Already losing money when the authorizing legislation was passed in late 2007, the U.S.-owned "Big Three" nameplate companies based in Detroit (henceforth the "Detroit 3") — General Motors (GM), Ford Motor Company, and Chrysler LLC — have seen substantial increases in losses since then. Many commentators noted that this increased the urgency for Congress to approve appropriations legislation to fund a program to assist the domestic companies. For example, the *Washington Post* headlined an article reporting on possible delays in administering the EISA loans, "Lifeline for Automakers Dangles Just Out of Reach."[3] While automakers and their supporters in Congress have reportedly called for a larger program, with a broader range of possible industry uses, the language in these laws indicates the intent of Congress that the loans are for the purpose of enabling the U.S. auto industry to produce more fuel-efficient vehicles.

One of the major provisions in EISA mandated an increase in corporate average fuel economy ("CAFE") standards. Title I of the law is labeled "Energy Security

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[1] Quoted from P.L. 110-329 §129(c)(2).

[2] U.S. Department of Energy, *Advanced Technology Vehicles Manufacturing Incentive Program: Interim Final Rule; Request for Comment* (November 5, 2008).

[3] *Washington Post* (October 22, 2008), p. A1.

Through Improved Vehicle Fuel Economy." Its first subtitle is "Increased Corporate Average Fuel Economy Standards," and the short title is the "Ten-in-Ten Fuel Economy Act," a label used by supporters of a dramatic increase in U.S. CAFE standards.[4] The new law established a corporate average fuel economy (CAFE) target of 35 miles per gallon (mpg) by model year (MY) 2020 for the combined passenger automobile and light truck fleet, as opposed to MY2008 standards of 27.5 mpg for cars and a lower standard, 22.5 mpg, for light trucks. The law further requires "maximum feasible" increases from 2021 through 2030.[5]

Compliance Costs May Fall Most Heavily on Detroit 3

During the debate on this legislation, representatives of the U.S. motor vehicle manufacturing industry, including unions representing production workers, emphasized that these would be very difficult targets for the industry to achieve. They pointed to an earlier estimate by the National Highway Traffic Safety Administration (NHTSA) of the Department of Transportation (DOT) that to increase fuel economy standards by four percent per year, as had been suggested by the Bush Administration, would cost motor vehicle manufacturers $114 billion. The bulk of this cost (about $85 billion, according to the NHTSA estimate) would be borne by the Detroit 3.[6] These companies are still responsible for the majority of the motor vehicles manufactured in the United States, despite high levels of U.S. investment in recent decades by many foreign-owned producers.

Moreover, since at least the 1980s, the Detroit 3 have tended to specialize more in larger consumer vehicles, such as pickup trucks and sport utility vehicles (SUVs), which have relatively low fuel economy ratings. Thus, it was anticipated that the requirement to achieve substantial improvements in CAFE for these manufacturers would be more difficult than for most foreign-based manufacturers, whose domestic markets have historically featured smaller, more fuel-efficient vehicles, which they are then able to import into the U.S. market.

However, it should be noted that proposed car and light truck standards for model years 2011 through 2015 shift the burden from a "straight-line" average — where all automakers must meet the same numerical average — to a size-based standard — where each automaker will have a different fuel economy target, and those automakers that produce smaller vehicles will face a higher target. In NHTSA's Preliminary Regulatory Impact Analysis (PRIA) for the proposed rule, the Agency found that total costs for cars and light trucks for the Detroit 3 were significantly higher than for the major Japanese automakers (Honda, Hyundai,

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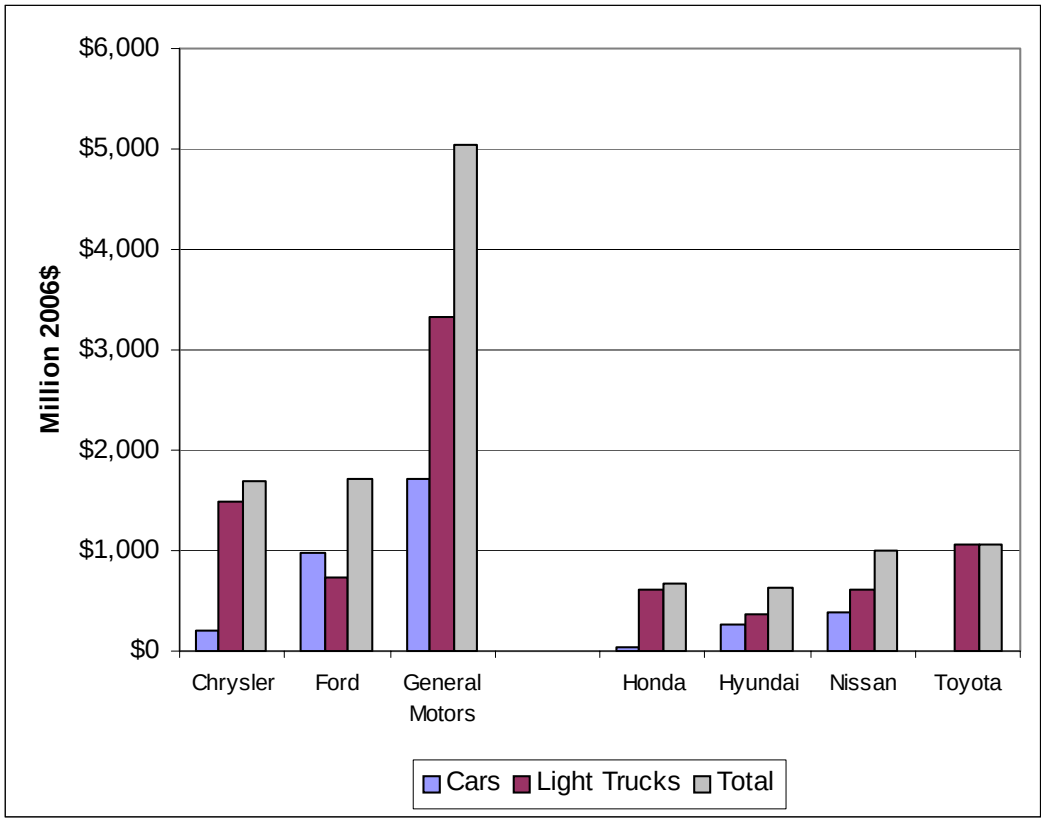
[4] P.L. 110-140 §101.

[5] P.L. 110-140 §102(b)(2)(A-B). The revised CAFE standards and the debate on the legislation are summarized in CRS Report RL33413, *Automobile and Light Truck Fuel Economy: The CAFE Standards*, by Brent D. Yacobucci and Robert Bamberger. See also CRS Report RL34297, *Motor Vehicle Manufacturing Employment: National and State Trends and Issues*, by Stephen Cooney, pp. 33-34.

[6] *Detroit News*, " Fuel Plan Would Cost Big Three" (March 1, 2007).

Nissan, and Toyota.[7] (See **Figure 1**.) That said, in some cases, NHTSA found that under the proposed rule, Detroit 3 automakers faced lower per-vehicle costs. (See **Figure 2**.) For example, NHTSA estimated that Chrysler would face lower per-vehicle costs for its passenger cars than Hyundai or Nissan. Likewise, Ford may face lower per-vehicle costs for its light trucks than any of the Japanese automakers, and lower total costs for its light trucks than Toyota.

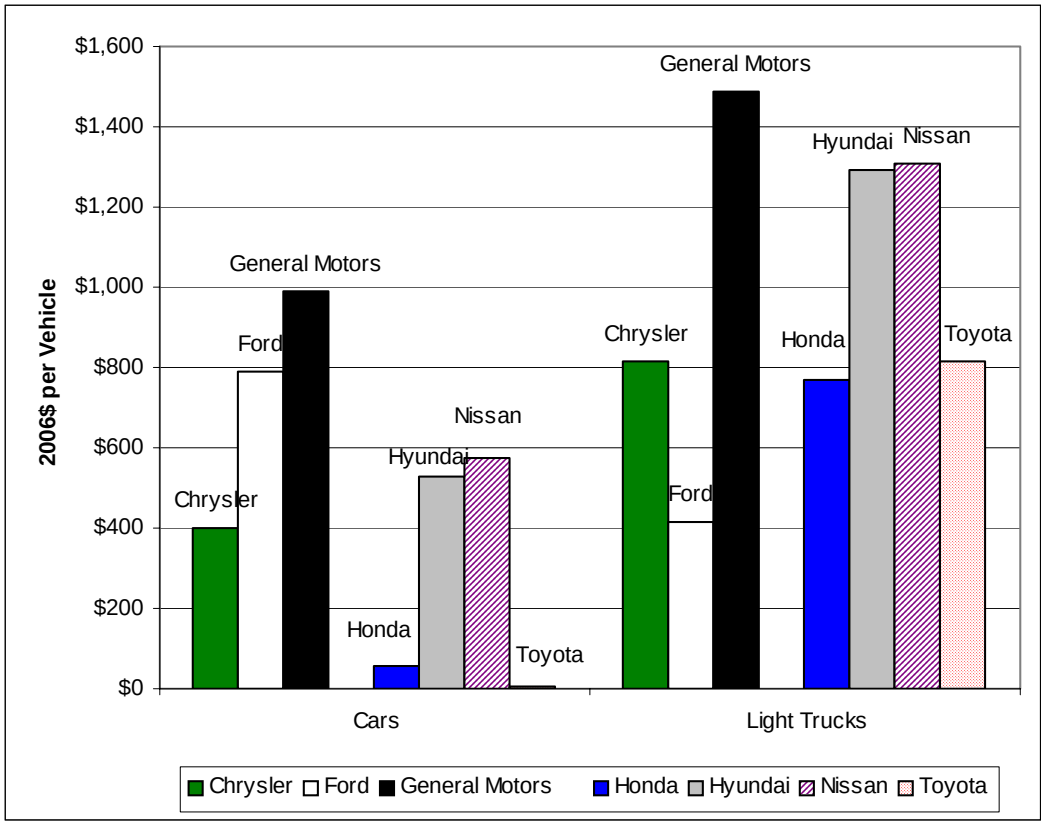
Figure 1. Total Estimated Incremental Costs in Model Year 2015 for Selected Manufacturers Under the Proposed CAFE Rule



Source: CRS Analysis of National Highway Traffic Safety Administration (NHTSA), *Preliminary Regulatory Impact Analysis: Corporate Average Fuel Economy for MY2011-2015 Passenger Cars and Light Trucks* (April 2008).

[7] National Highway Traffic Safety Administration (NHTSA), *Preliminary Regulatory Impact Analysis: Corporate Average Fuel Economy for MY2011-2015 Passenger Cars and Light Trucks* (April 2008).

Figure 2. Estimated Per-Vehicle Incremental Costs in Model Year 2015 for Selected Manufacturers Under the Proposed CAFE Rule



Source: CRS Analysis of National Highway Traffic Safety Administration (NHTSA), *Preliminary Regulatory Impact Analysis: Corporate Average Fuel Economy for MY2011-2015 Passenger Cars and Light Trucks* (April 2008).

The next part of this report will analyze how shifting market trends have disfavored the Detroit 3, as foreign-based manufacturers, especially from Asia, have gained increased U.S. market shares since 2000. This trend has accelerated during a period of gasoline price increases and volatility since 2005. Market conditions for the Detroit 3 in 2008 worsened markedly, even by comparison with most other auto manufacturers, with the economic downturn and credit market crisis that occurred.

Congress Seeks to Assist Technological Change

Congress ultimately decided that the mandate to increase CAFE standards created both a significant technological challenge for the domestic automotive industry and a potential competitive disadvantage for the older-established, domestically based Detroit 3, who were already struggling with market changes and their inherited wage cost and benefits structure.[8] Having established higher CAFE

[8] These issues have been extensively explored elsewhere by CRS. See the following reports: CRS Report RL34297, *Motor Vehicle Manufacturing Employment: National and State* (continued...)

standards, P.L. 110-140 in Subtitle B of Title I ("Improved Vehicle Technology") added a number of provisions to encourage and help pay for the costs of transitioning motor vehicle manufacturing in the United States to achievement of higher fuel economy. These provisions include:

- Section 132, which amends Section 712 of the Energy Policy Act of 2005 ("EPAct 2005," 42 U.S.C. 16062) to require the Department of Energy (DOE) to create a grant program to "encourage domestic production and sales of efficient hybrid and advanced diesel vehicles and components ...";
- Section 134, which authorizes loan guarantees for production of fuel efficient vehicles or parts of such vehicles;
- Section 135, which requires establishment of a DOE program to provide loan guarantees for manufacturing advanced vehicle batteries and battery systems;
- Section 136, which authorizes a DOE "Advanced Technology Vehicles Manufacturing Incentive Program" — this includes both a grant program and, as subsection (d), the direct loan program that is the principal subject of this report;
- In addition, §112 under Subtitle A of the law requires that 50% of the fines paid by companies that fail to meet CAFE standards be set aside to carry out a grant program to manufacturers for producing advanced technology vehicles and components.

These newly authorized or expanded programs join other efforts which have been embarked on in the past by the U.S. government to promote advanced or alternative vehicle technology development. From these EISA initiatives, only the direct loan program under §136(d) has so far received any funding at a level significant enough to make a difference in the competitive and highly expensive world of motor vehicle manufacturing.[9] Thus, while this report will further review other new and existing programs to develop advanced vehicle technologies, the principal focus will be on the direct loan program, which has been approved and funded by Congress at a high level, and awaits implementation by DOE.

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[8] (...continued)
Trends and Issues, by Stephen Cooney; CRS Report RL32883, *U.S. Automotive Industry: Policy Overview and Recent History*, by Stephen Cooney and Brent D. Yacobucci; and CRS Report RL33169, *Comparing Automotive and Steel Industry Legacy Costs*, by Stephen Cooney.

[9] Two illustrative anecdotes: Toyota, widely acknowledged as an efficiency leader in automotive manufacturing, budgeted $850 million to build a new, greenfield truck plant in San Antonio, TX; final cost — more than $1.2 billion. Ford shut down two plants in New Jersey and consolidated truck manufacturing on the East Coast in Norfolk, VA, where they invested $350 million in revamping an existing plant. Two years later, they decided to close it down. By comparison, the highest ever annual fine ever paid by a company for failing to meet CAFE standards was $30 million, and the total of such fines for 2006 was less than $50 million (see *Green Car Advisor*, based on NHTSA data release, January 3, 2008). Even if $50 million was collected from CAFE penalties each year for ten years, the total amount would still only represent about 2% of the $25 billion authorized for the Section 136 loan program.

The Detroit 3: An Economic Collapse?

U.S. automakers are facing a myriad of unfavorable conditions, including a worsening economy and credit crunch that have dampened consumers' demand for new vehicles, high legacy costs, increased competition from foreign automakers, and stricter federal CAFE standards. The $25 billion loan program authorized in Section 136 of EISA was arguably established to help automakers address the last concern — the regulatory cost of higher fuel economy standards — but some observers believe that $25 billion may not be enough to address the more systemic concerns facing the industry.

The major Detroit-based auto manufacturers were formerly known as the "Big 3." They are not any more, because by 2007, one Japanese company, Toyota, outsold two of the Detroit companies, Ford and Chrysler, in the United States, their own home market. In addition, by the first nine months of 2008, Honda had roughly equaled Chrysler in domestic U.S. motor vehicle sales.

This has not been merely a loss of some companies' competitive position to others, a normal shift in the marketplace. The loss of market shares, combined with the cyclical decline in the market and the sudden change in consumer preferences from trucks back to cars, has led to huge losses for the former "Big 3." It has put their entire business model, based on a collective bargaining relationship between management and labor, at risk. As a consequence, the issue faced by Congress, when it authorized and funded the direct loan program, was that the unionized, domestically owned motor vehicle industry might not be in a position to contribute to the national goal of reducing rates of petroleum demand by developing alternative technology vehicles. Along with other unfavorable conditions for the Detroit 3, some conclude that the mandate to improve fuel economy at the levels required could force one or more of the Detroit 3 out of the business.

The major market shifts did not happen overnight. As reported earlier by CRS,[10] foreign brands, both imported and produced at U.S. plants, have been gaining market share for decades. As illustrated in **Figure 3**, this trend has continued since 2000. However, the slope through 2005 was rather gentle: from two-thirds of the total U.S. market for passenger cars and light trucks in 2000, the Detroit 3 share declined gradually to 58.2% in 2005. Some of this decline represented aggressive U.S. manufacturing and expansion plans by foreign-owned companies: Toyota, Honda, Nissan, and Hyundai have all opened new assembly plants in the United States since 2000, and more are on the way.

However, after losing eight points of market share in 2000-2005, the Detroit 3 saw their losses accelerate by an additional 10 points, to an annual level of just over 48% market share, between then and the first three quarters of 2008. This occurred while the total market itself was declining. The U.S. automotive market is notoriously cyclical. Auto manufacturers have gross sales of more than a half-trillion dollars annually. Motor vehicles are consumers' number one discretionary purchase (excluding housing), and their sales have both a cause and effect relationship with the

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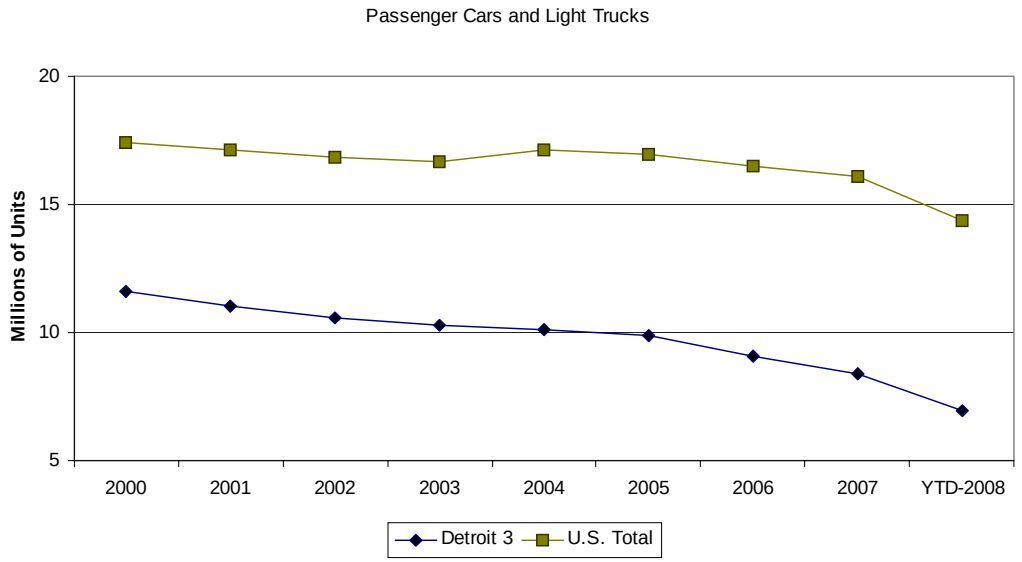
[10] CRS Report RL32883, esp. Figure 9 and Table 3.

domestic economy. **Figure 3** indicates that the total domestic light vehicle (auto and truck) market stabilized at around 17 million sales per year through 2005. It dropped about a half-million units in 2006 to 16.5 million, another half-million to just more than 16 million in 2007, then to an annual rate of just 14.4 million in the first three-quarters of 2008.[11] The annual rate of car and truck sales by the Detroit 3 fell to less than seven million, compared to 11.5 million in 2000, and almost 10 million as late as 2005. More detailed data show that each of the Detroit 3 saw sales decline by about one million vehicles or more, and each suffered significant market share losses.

Figure 3. U.S. Motor Vehicle Sales



Sources: Automotive News Market Data Center (2008 data); *Ward's Automotive Yearbook* (2001-2008).

Automotive data is usually figured in "units," which means, for example, that an expensive Cadillac Escalade counts the same as an inexpensive Kia Rio. But for the entire industry, average new vehicle transaction prices, after rising from 2004 through 2007, fell steadily in 2008, meaning less "top line" revenue per unit sold.[12] Moreover, **Table 1** illustrates that part of the Detroit 3's problems relate to the continued reliance on truck sales, when trucks are declining as an overall share of the market. Having become more specialized in larger vehicles, the Detroit 3 have been especially adversely affected by the sharper decline in the sales of such vehicles.

In 2001, "light truck" sales, which include pickups, SUVs, minivans, and smaller SUVs known as "crossover" utility vehicles (CUVs), were higher than U.S.

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[11] For the third quarter, the annual rate of sales was even lower, and, owing to lower-than-average income and credit ratings among their customers, Detroit 3 companies only commanded 42% of the domestic retail market; *Detroit Free Press*, "Credit Crunch Hits Buyers of Detroit 3" (October 26, 2008).

[12] *Detroit Free Press*, "Vehicle Transaction Prices Continue Falling" (October 28, 2008).

passenger car sales for the first time. Trucks' lead over cars continued to expand through 2005 — 9.3 million units to 7.7 million units in that year, for a net margin of 1.6 million. But 2004-2005 saw Hurricanes Ivan, Katrina, and Rita, which shut down substantial portions of oil and gas production in the Gulf of Mexico and exacerbated a period of rising fuel prices and volatility that has continued through 2008.[13] Through the first nine months of 2008, U.S. car sales were actually up slightly at an annual rate over the previous year, but truck sales were almost a million less than cars, down by almost two million units over the previous year, and almost three million units less than the all-time 2005 annual peak. While most foreign-owned manufacturers had also expanded their truck offerings (including SUVs and minivans) in the U.S. market, they have not been as reliant as the Detroit 3 on truck products. By 2008, each of the Detroit 3 still counted truck products for the vast majority of sales (60%), while no foreign-owned competitor did so. Only about a third of foreign-owned companies' sales overall were classified as trucks.

Table 1. Market Shares of U.S. Car and Truck Sales

Manufacturers	Sales (millions of units)							
	2001		2005		2007		2008 (Jan.-Sept. Annualized Rate)	
	Cars	Light Trucks	Cars	Light Trucks	Cars	Light Trucks	Cars	Light Trucks
GM	2.3	2.6	1.8	2.7	1.5	2.3	1.5	1.7
Ford	1.5	2.4	1.0	2.1	0.8	1.7	0.8	1.3
Chrysler	0.6	1.7	0.5	1.8	0.6	1.5	0.5	1.1
Detroit 3 (tot.)	**4.4**	**6.7**	**3.3**	**6.6**	**2.9**	**5.5**	**2.8**	**4.1**
Asian Brands	**3.3**	**1.9**	**3.6**	**2.6**	**4.0**	**2.8**	**4.1**	**2.3**
Ger. Brands[a]	**0.8**	**0.1**	**0.7**	**0.1**	**0.7**	**0.2**	**0.7**	**0.2**
Total U.S. Sales	**8.4**	**8.7**	**7.7**	**9.3**	**7.6**	**8.5**	**7.7**	**6.6**

Sources: As for Figure 1.

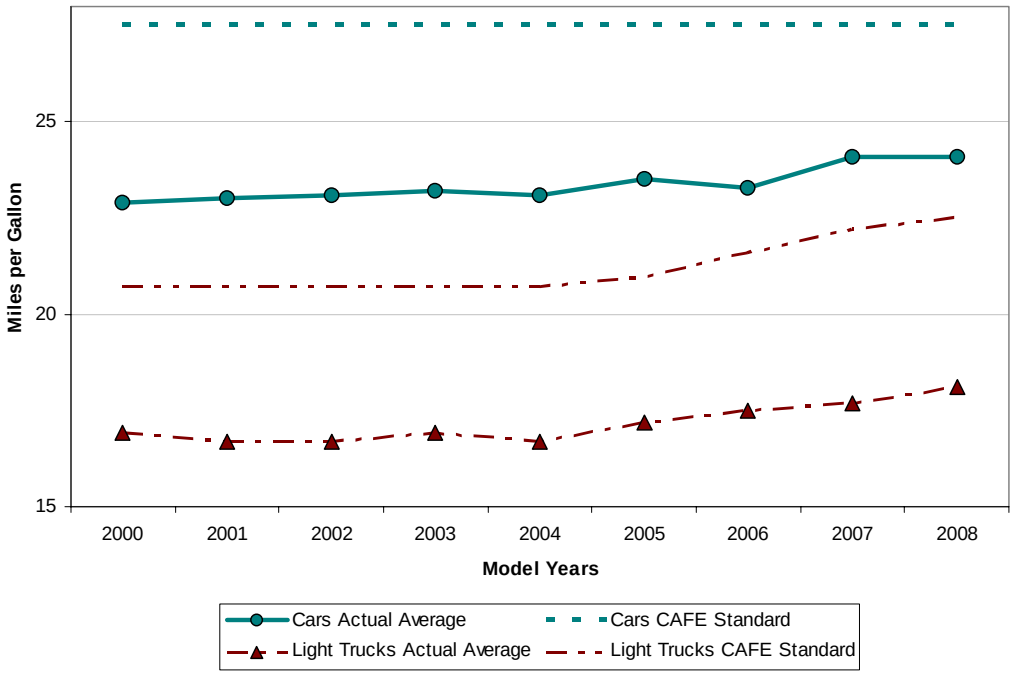
a. BMW, Volkswagen/Audi and Mercedes Benz brand of Daimler AG only. U.S. total includes other specialty manufacturers.

Figure 4 illustrates how both the market and federal regulation has already begun to push fuel economy levels upward in the present decade, leading to a move away from larger, less fuel-efficient vehicles in which the Detroit 3 have generally

[13] On recent trends, see CRS Report RL34625, *Gasoline and Oil Prices*, by Robert Pirog.

dominated the market. While the NHTSA CAFE standard for cars has held steady at 27.5 mpg throughout the decade, the actual average of model-year vehicles sold, as measured on a different basis by the Environmental Protection Agency (EPA), has increased from 22.9 mpg to 24.1 mpg, with most of the gain coming in MY2007-MY2008.[14] While the light truck standard held steady at 20.7 mpg through 2004, actual average truck mpg, as measured by EPA, remained less than 17.0 mpg, and declined slightly on a net basis. For light trucks, both the CAFE standard and the market have moved upward since then, with an actual average mpg of 18.1 by MY2008.

Figure 4. U.S. New Car and Truck Fuel Economy (All Manufacturers)



Source: CAFE standards from U.S. Dept. of Transportation. National Highway Traffic Safety Administration, Summary of Fuel Economy Performance (Mar. 2008); actual average data from U.S. Environmental Protection Agency. Light-Duty Automotive Technology and Fuel Economy Trends: 1975 Through 2008 (EPA420-R-08-015, Sept. 2008), Tables C-5 and C-6.
Note: EPA estimated in-use fuel economy is less than manufacturers ratings under CAFE system.

The Detroit 3 have indicated a commitment to producing a greater share of fuel efficient, advanced technology vehicles as part of their fleets going forward, but the cost of such changes raises doubts about their financial ability to contribute to this national goal over the longer term. In 2007, each of the Detroit 3 negotiated new collective bargaining agreements with their principal union, the United Auto Workers

[14] EPA's numbers, which are used on the window stickers of new cars and trucks, are downgraded from the CAFE test to better reflect in-use fuel economy. For example, the CAFE test is limited to 55 miles per hour, and does not include the use of air conditioning or other accessories.

(UAW).[15] These agreements provided for transfer of retiree health care in 2010 from the companies to the UAW, with financial support initially from each of the Detroit 3. The agreements also provided the companies with other flexibility in managing and reducing labor costs, so that they could compete on a footing perceived to be more equal to foreign-owned companies, which are generally non-union in the United States.[16] These new agreements were negotiated and ratified by the time Congress approved EISA in December 2007. Although the Detroit 3 were losing money, the new labor agreements, combined with the direct loan program, appeared to provide a transition that would especially aid the Detroit 3 in achieving improved fuel economy.

By the time Congress considered funding this program in September 2008, the economic climate for the Detroit 3 had worsened markedly. The broader domestic economy reduced sales for virtually all manufacturers in the middle of the year, as consumer confidence declined and credit was harder to obtain. While neither Ford nor GM has been profitable at least since 2006, the operating losses turned much worse in the first half of 2008. GM's total losses for the first two quarters were $18.7 billion.[17] Ford reported a small net profit in early 2008, but that was offset by an $8.7 billion loss in the second quarter, after its net losses for 2006-2007 had totaled more than $15 billion.[18] Representatives of the Detroit 3 reportedly urged doubling the scale of available lending to $50 billion, as well as broadening the purposes for which the loans could be used.[19] The overall U.S. and global credit market crisis made further borrowing by these companies, whose bonds are in "junk" status, both difficult and expensive. Writing in the *Detroit Free Press*, Justin Hyde reported:

> Because of their weak finances, Detroit automakers can borrow money today only at high interest rates — close to the average 13% that consumers pay on credit cards. If funded, the government loans would provide money at interest rates just above what the U.S. Treasury pays to borrow — about 4% to 5%. That could save the automakers hundreds of millions of dollars.[20]

Nevertheless, Congress did not substantially amend the direct loan plan authorized in EISA, when it approved funding for the program in the Continuing

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[15] This included Chrysler, which had become newly independent from German parent Daimler after Cerberus, a hedge fund, bought an 80% share of the company.

[16] These agreements are described in CRS Report RL34297, pp. 25-32.

[17] GM quarterly reports on Mergent.com. The total annual loss in 2007 was reported as $39 billion, but this was primarily caused by a writedown of unuseable tax credits because of continuing losses going forward.

[18] Ford data on *ibid.* Chrysler LLC, as a private company, does not report its losses publicly. However, following public reports by Daimler AG on losses in its remaining minority stake, Chrysler has confirmed at least $1.1 billion in losses through the first half of 2008; *Detroit Free Press*, "Chrysler Announces Cuts, Explains Loss" (October 23, 2008).

[19] *Bloomberg.com*, "GM, Ford Seek $50 Billion in U.S. Loans, Doubling First Request" (August 22, 2008); *Detroit News*, "Big 3 Seek $50B in Fed Loans" (August 23, 2008); *Detroit Free Press*, "Auto Industry to Blitz for Aid" (August 23, 2008).

[20] Justin Hyde in *ibid.*

Resolution. The purpose is not a general rescue or bailout of the domestic automotive companies. Rather, it remains to promote investments by all domestic manufacturers, but especially the Detroit 3 in older plants, to assist them in bringing to the market a more fuel efficient line of products. The main change in the funding legislation, as noted earlier, was to require an interim final program to be put in place by DOE before the end of 2008, which would essentially put the program on the same time track as required in the original EISA.[21]

Related Initiatives in Support of Advanced Technology Vehicles

Over the past few decades, the federal government has undertaken several key initiatives to support the development and deployment of advanced technology vehicles, either through legislation or through executive action. These include federal R&D programs on new vehicles and tax incentives for the purchase of new vehicles and the installation of alternative fuel refueling infrastructure.

The Partnership for a New Generation of Vehicles (PNGV)

The Partnership for a New Generation of Vehicles (PNGV) was a cooperative research initiative between the Clinton Administration and the Detroit 3.[22] It was financed by private contributions and the re-channeling of research funds for ongoing federal programs. The goals of the initiative were to improve domestic manufacturing capabilities and to develop prototypes of a mid-sized family car with three times the fuel economy of a comparable 1994 model. All three manufacturers developed concept cars, but there were problems with the development of production prototypes. Questions have been raised about the success of the initiative, especially since there was no requirement for automakers to actually produce the new vehicles. Further, since that time the Detroit 3's sales of advanced vehicles, particularly hybrid-electric vehicles, have lagged those of Honda and Toyota. In 2002, the George W. Bush Administration replaced the PNGV initiative with a new initiative focused largely on fuel cell vehicles.

FreedomCAR and the President's Hydrogen Fuel Initiative

In 2002, President George W. Bush announced the Freedom Cooperative Automotive Research (FreedomCAR) initiative to replace the earlier PNGV initiative, and to promote cooperative research between the federal government and the Detroit 3 on the development of fuel cell vehicles. In 2003, the Bush Administration announced the President's Hydrogen Fuel Initiative, aimed at reducing the costs of producing hydrogen fuel for transportation and stationary

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[21] EISA, signed into law on December 19, 2007, requires in §136(d)(1) that "Not later than 1 year after the date of enactment of this Act, the Secretary [of Energy] shall carry out a program to provide not more than $25,000,000,000 in loans...."

[22] For more information on PNGV, see CRS Report RS20852, *The Partnership for a New Generation of Vehicles: Status and Issues*, by Brent D. Yacobucci.

applications.[23] These two initiatives refocused federal vehicles and fuel research funding — mainly DOE funding — on the development of fuel cell vehicles and hydrogen for transportation applications. However, funding for hybrids and other advanced vehicles was not entirely eliminated, and that research is ongoing. These two initiatives aim to make hydrogen fuel competitive with gasoline and to bring down the cost of fuel cell vehicles, which are currently prohibitively expensive. From FY2003 through FY2008, DOE has spent nearly $2 billion on these initiatives.

Tax Incentives for New Vehicles and Alternative Fuel Infrastructure

The Energy Policy Act of 2005 (P.L. 109-58) established tax credits for the purchase of new alternative fuel and advanced technology vehicles. Eligible vehicles include hybrids, advanced lean-burn (diesel) vehicles, fuel cell vehicles, and alternative fuel vehicles including natural gas vehicles.[24] Tax credits may vary depending on the type of technology, the vehicle's fuel economy, and the weight of the vehicle. For example, light-duty hybrid vehicles can qualify for a tax credit of up to $3,400, while a heavy-duty hybrid could qualify for a credit of as much as $15,000.[25]

The Emergency Economic Stabilization Act (EESA, P.L. 110-343) expanded these tax credits to include plug-in vehicles, with credits of up to $7,500 for light-duty vehicles and up to $15,000 for heavy-duty vehicles.[26] According to an analysis in the *Detroit News*, the Chevrolet Volt plug-in electric vehicle being developed by GM would qualify for the maximum $7,500 tax credit.[27] The tax credit may be critical to GM marketing plans for the Volt, as its selling price may have to be as high as $40,000 — and analysts were unsure whether many could be sold at such an elevated price. The tax credit could serve to bring the vehicle down into a more affordable range.

EPAct 2005 also established a tax credit for the installation of alternative fuel infrastructure, including credits of up to $30,000 for retail infrastructure and up to $1,000 for residential installations.[28] Eligible fuels included biodiesel, ethanol, hydrogen, liquefied petroleum gas (LPG), and natural gas. EESA extended these

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[23] For more information on these initiatives, see CRS Report RS21442, *Hydrogen and Fuel Cell Vehicle R&D: FreedomCAR and the President's Hydrogen Fuel Initiative.*

[24] P.L. 110-58, §1341.

[25] For more information see CRS Report RS22558, *Tax Credits for Hybrid Vehicles*, by Salvatore Lazzari; and CRS Report RS22351, *Tax Incentives for Alternative Fuel and Advanced Technology Vehicles*, by Brent D. Yacobucci.

[26] P.L. 110-343, Division B, §205.

[27] *Detroit News*, "Bill Adds Plug-In Tax Breaks" (October 2, 2008).

[28] P.L. 110-58, §1342.

credits through the end of 2010, and expanded them to include systems to recharge electric vehicles.[29]

Proposed Grant Program in the Enhanced Energy Security Act of 2006

The specific parameters, definitions, and restrictions that govern the direct loan program, as it was authorized in December 2007, are generally derived from an earlier piece of legislation in the 109th Congress, the Enhanced Energy Security Act of 2006 (S. 2747). This was introduced on May 4, 2006, by Senator Jeff Bingaman; the bill eventually attracted 12 cosponsors. It was a broad-based bill aimed at an overall reduction of U.S. energy dependence on foreign oil imports. The bill included §208, "Deployment of New Technologies to Reduce Oil Use in Transportation."

Subsection (b) of S. 2747 would have established an "Advanced Technology Vehicles Manufacturing Incentive Program," that has features similar or identical to §136 of P.L. 110-140. Besides the identical title, these features include:

- A grant program to pay motor vehicle manufacturers and component suppliers "not more than 30% of the cost of reequipping or expanding an existing manufacturing facility in the United States to produce qualifying" advanced technology vehicles or components, and "engineering integration" to accomplish such purpose;
- Part of the definition of "advanced technology vehicle," namely the requirements that a qualifying vehicle must meet current and future EPA emission standards, and must have "at least 125% of the base year fuel economy for its weight class;"
- Production of components may be qualified if they are "specially designed for advanced technology vehicles," and "installed for the purpose of meeting the performance requirements ...;"
- An "improvement" provision to insure that, for an automobile manufacturer to receive an award, its average fuel economy for the most recent data year are no less than its average for MY2002.

While some other qualifying provisions in S. 2747 were subsequently dropped, notably a restriction to limit eligible vehicles to "hybrid" or "advanced lean burn technology" modes, and some were further modified, this is essentially the grant program that was carried forward as §136 of P.L. 110-140 in the 110th Congress.

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[29] P.L. 110-343, Division B, §207.

Advanced Technology Vehicle Loan and Grant Programs in EISA

Establishment of a Direct Loan Program

The direct loan program enacted in EISA was based on a grant program originally proposed in S. 2747 in the 109th Congress.[30] (note above). S. 2747 provided the framework for §136 of the law approved in December 2007.

Direct Loan Program. Subsection (d) authorizes DOE to establish, "not later than 1 year after the date of enactment" a "program to provide a total of not more than $25,000,000,000 in loans to eligible individuals and entities ... for the costs and activities described" elsewhere in the section. DOE is required also to set the specific standards for eligibility, under the terms of the definitions and requirements of §136. Further provisions of the subsection set forth rules for labor compensation on construction projects, financial viability of loan recipients, and repayment periods. On this last issue, subsection (d) provides that loan repayment could be stretched out for the "projected life ... of the eligible project," or a maximum of 25 years. It further stipulates that the initial repayment of loans can be deferred up to five years after projects begin operations. Facilities, equipment, and "engineering integration" covered by these loans must be completed and in service no later than the end of 2020.

In selecting an eligible project, DOE must require that the project is "financially viable without the receipt of additional Federal funding" (subsection (d)(3)(A)). In an earlier program, the Emergency Steel Loan Guarantee program, which was designed as an economic assistance program for that industry, many companies were unable to use the benefits, because they could not meet a financial viability test. There were efforts to modify the conditions through legislation, but they did not succeed.[31] DOE is required in this law to establish these and other eligibility criteria.

Loans May Cover Full Costs of Project.[32] Because the direct loan program was inserted into a section of EISA originally intended to include only the grant program, there is some confusion resulting from the cross-references within §136. Most notably, this confusion has occurred over whether or not loans are for full costs of projects, or whether they are limited to 30% of project costs. This is because subsection (d)(1) defines the loans to cover the "costs of activities described in subsection (b)." The introduction to subsection (b) states that DOE "shall provide facility funding *awards* [emphasis added] under this section to [recipients] to pay not more than 30% of the cost ..." However, subsection (d) only refers back to the earlier subsection for the purpose of using the same description of eligible projects

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[30] Senator Bingaman, who had been Ranking Member of the Energy and Natural Resources Committee in the earlier Congress, chaired the committee after the change in party control

[31] CRS Report RL31792, *Steel: Legislative and Oversight Issues*, by Stephen Cooney, pp. 20-22.

[32] In the interim final rule, DOE will limit the loan amount to "no more than 80 percent of reasonably anticipated total Project Costs."

(subsection (b)(1-2)). Senator Bingaman made this clear on the floor, in discussing the subsequent appropriations provision:

> ... I have been told that there may be some confusion about the terms of the loans as the provision creating the loan program references the "activities" that are the subject of a grant program also authorized in the same section of EISA. The grant program is limited to 30 percent of the costs of a facility. This is a fairly typical cost share for grant programs. Some have raised the question as to whether this 30 percent cap should also apply to the loan program. That is not the way I read the language of the law and was certainly not our intent in writing the provision. Moreover, I would argue that it would dramatically limit the effectiveness of the program as it would require companies to go to tight credit markets for 70 percent of their financing, precisely the problem we were seeking to remedy with the creation of the loan program.[33]

Subsequent joint and separate references to loans and grants ("awards") in subsections (e) through (h) of §136 further make it clear that they are to be considered separately — sometimes the same rules apply to both, and sometimes they do not.

Priority for Older Plants and Definition of an Eligible Facility. Congress added at subsection (g) of 136 of EISA a provision ordering DOE to give "priority to those facilities that are oldest or have been in existence for at least 20 years. Such facilities can currently be sitting idle." This provision has been described as an indirect way of requiring that loans be reserved for union-organized automakers. As the *Wall Street Journal* wrote in a critical editorial:

> We're told the low-interest loan proposal would give priority to the "oldest" plants — which is another way of saying those plants organized by the United Auto Workers.[34]

There are two important qualifications that should be stated about this provision, however. First, subsection (g) applies only to DOE "in making awards or loans to those manufacturers that have existing facilities...." This is an important qualification, because subsection (b)(1), in defining eligible activities, includes "reequipping, expanding, or *establishing* [emphasis added] a manufacturing facility...." A facility to be established cannot, by definition, be 20 years old. Furthermore, subsection (g) only requires a priority, not an absolute limitation or prohibition based on the age of factories. Finally, as a matter of factual accuracy, Honda, Nissan, and Toyota all have plants operating in the United States, not organized by the UAW, which are more than 20 years old.[35]

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[33] *Congressional Record* (September 27, 2008), S9958.

[34] *Wall St. Journal*, "The Next Bailout: Detroit" (August 21, 2008), p. A14.

[35] It is not clear what strategy foreign-owned manufacturers will take with regard to the §136 direct loans. Honda CEO Takeo Fukui has said, in support of the program, "I think it's only natural that the U.S. government tries to provide some support to U.S. manufacturers," but that his company would not apply for the loans; *Automotive News*, "Honda's Fukui Favors Fed Loans, Confirms V-8" (October 20, 2008), p. 4. Auto manufacturers in Europe, in (continued...)

Defining Advanced Technology Vehicles and Components. As opposed to the earlier model for a grant program in S. 2747, the definition of a "qualified" advanced technology vehicle has been loosened. As noted above, the earlier bill was directed to hybrid or "advanced lean burn" technologies. This prescription has been removed from the legislation entirely. Subsection (a)(1) establishes only three conditions for determining what is "advanced technology." Two of the conditions relate to compliance with present and future EPA emissions rules.

Thus, the critical condition is the third one, set in (a)(1)(C). It requires that qualified vehicles must achieve 25% more fuel economy than the average "base year combined fuel economy for vehicles with substantially similar attributes." The law does not specify how the "base year" is determined when an application is made, and whether DOE should use the size-based "attribute" classes that have been established for fuel economy standards by NHTSA, or devise some other method. Nor does the law specify that the subject project alone should be responsible for the 25% gain over the class average, only that the resulting vehicle be 25% above average. "Combined fuel economy" is already established under statutory law, with an additional qualification for "plug-in" electric vehicles (subsection (a)(2)).

Subsections (a) and (b) together clarify that suppliers may be recipients of direct loans. "Activities" eligible for direct loans in subsection (b)(1)(B) include production of "qualifying components." By subsection (a)(4)(A-B), DOE is directed to insure that such components are "designed for advanced technology vehicles ... and installed for the purpose of meeting [their] performance requirements...." How that is to be determined is left to regulation.

Requirement for Improvement. Subsection (e) establishes a standard for improving fuel economy that would apply broadly in determining the eligibility of companies receiving either loans or grants. A manufacturer's fleet must show improvement in its adjusted average fuel economy in the latest year for which data are available over that manufacturer's average for all light-duty vehicles in MY2005. This is an anti-backsliding provision, which prevents a manufacturer from building a fleet that is less fuel-efficient overall, but nevertheless being able to "cherry pick" a low-interest federal loan for a specific product or project.

Small Manufacturers Set-Aside Does Not Apply to Loans. Subsection (h) establishes a set-aside for vehicle or component manufacturers that employ less than 500 people. However, this provision applies only to 10% of the awards made under the grant program, which is so far unfunded. The limitation does not apply to the direct loan program established in subsection (d).

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[35] (...continued)
response to the U.S. direct loan program and proposed stringent new European emissions standards, have called for the European Union and national governments to support an even larger program there; *Detroit News*, "Euro Carmakers Seek $54.5B in Aid" (October 8, 2008).

Funding the Direct Loan Program

After the direct loans provision became law as part of EISA, Congress was still required to budget funding for the program. For a loan program, budget rules require funding of the "subsidy cost," that is, the difference estimated by the Congressional Budget Office (CBO) between the interest rate available in the financial market and the interest rate charged by the Federal Government to the borrower. Another interpretation of this gap is the likelihood of default, as the market rate builds in an assumption of risk.

During the congressional debates and discussions on EISA, an informal estimate of $3.75 billion was used for the subsidy cost, but no formal CBO estimate was ever provided, because no budgetary outlay was required for the direct loan authorization. When Members called for funding of the program to be included in an appropriations package toward the end of the Second Session of the 110th Congress, this was the amount they referenced.[36]

Funding for the direct loan provision in subsection 136(d) of EISA was included as §129 of Division A in the Consolidated Security, Disaster Assistance, and Continuing Appropriations Act of 2009 that was approved by both houses of Congress in September 2008. It was signed into law by President Bush on September 30, 2008, as P.L. 110-329.

Because market conditions had become parlous for the Detroit 3 companies in the intervening months after the passage of EISA, CBO now scored the subsidy cost of the loan program at $7.5 billion, reflecting market estimates of a 30% chance of industry defaulting on the loans. A further $10 million was added to the budget outlay to cover administrative expenses (subsection (a)).

The only substantive change to the program was the requirement in subsection 129(c) that DOE issue an "interim final rule" within 60 days of the enactment of the Continuing Appropriations Resolution. The same subsection also amended EISA to mandate that a program administrator be hired, at a salary grade not to exceed the GS-15 on the government pay scale. On October 24, 2008, the *Detroit News* reported that the Bush Administration had appointed Lachlan Seward, a senior Treasury Department official, who had experience in the 1980 Chrysler loan guarantee program and in a loan guarantee program for U.S. airlines following the 2001 terrorist attacks, to manage the loan program.[37]

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[36] Letter from Sens. Debbie Stabenow, Carl Levin, and Sherrod Brown to Majority Leader Harry Reid and Appropriations Committee Chair Robert C. Byrd (July 15, 2008); *Detroit Free Press*, "Low-Interest Loan Plan for Carmakers Sparks Petition in U.S. House" (July 25, 2008).

[37] *Detroit News*, "Veteran Will Head Auto Loan Program" (October 24, 2008).

Using Federal Loan Programs to Assist in Auto Industry Restructuring

The timing and availability of loans to the U.S. automotive industry have become major issues. The intent of Congress in approving a direct loan program in EISA in December 2007 was to assist in the development of "advanced technology" programs with the goal of improving U.S. fuel economy. But the availability of $25 billion in low-interest loans has made the program a key potential source of federal funding for the Detroit 3 for the broader purpose of saving one or more companies from bankruptcy.

Even before the appropriation for the EISA loans was approved, an issue developed over how quickly loans could be disbursed to the beleaguered auto industry. Having failed to increase or broaden the purposes of the loan program during the appropriation process, the Detroit 3 and their congressional supporters were stunned to learn that there could be considerable delays in disbursement of loans. In response to an inquiry from House Energy and Commerce Committee Chair John Dingell, Secretary of Energy Samuel W. Bodman wrote:

> In light of the legal and administrative requirements with which [DOE] must comply, we anticipate that it would take at least six to 18 months or more, after necessary funds are appropriated, before any section 136 loans could be issued and funds disbursed.[38]

In his letter, Bodman cited a number of statutory requirements, which Congress had not waived, as constraining DOE from rapid approval of loans and disbursement of funds. These included a need to allow a public comment period, a requirement to lay program rules before Congress for at least 60 days under the terms of the Congressional Review Act,[39] assessment of projects under the National Environmental Policy Act,[40] and financial review of projects with the Office of Management and Budget.[41] After Senator Debbie Stabenow of Michigan had stated that the auto industry could receive loans by the end of the year, a DOE spokeswoman said, "We have significant doubts about whether distribution of loans by January 2009 is realistic."[42]

Representative Dingell and other Members of Congress, particularly from auto industry states urged that DOE rethink its position and consider means of speeding up loan approvals. These responses included commitments from both the Republican

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[38] Letter from Secretary of Energy Bodman to Chairman Dingell (September 24, 2008), p. 2.

[39] Codified at 5 U.S.C. §§801-808; see CRS Report RL30116, *Congressional Review of Agency Rulemaking*, by Morton Rosenberg, esp. pp. 2-4.

[40] Codified at 42 U.S.C. §§4321 *et seq*. For a review, see CRS Report RS20621, *Overview of National Environmental Policy Act (NEPA) Requirements*, by Kristina Alexander.

[41] *Ibid.*

[42] *Detroit News*, "Government May Delay Auto Money" (September 26, 2008).

and Democratic presidential candidates to seek to expedite loan approvals.[43] Later, Michigan Senator Carl Levin said that he might seek doubling the loan program to $50 billion as part of an economic stimulus plan Congress could consider after the November 2008 elections.[44]

By late October 2008, the EISA loans were being considered as part of a package of federal assistance, which could be used to aid the largest of the Detroit 3, GM, in a possible takeover of the smallest company in the group, Chrysler LLC. Chrysler's privately held majority owner, Cerberus Capital Management LP, was reportedly interested in exiting the automotive manufacturing business. Plans were reportedly being considered for GM to acquire the Chrysler operations and possibly trading to Cerberus its remaining minority stake in their jointly owned General Motors Acceptance Corporation. As both companies were experiencing declining cash balances and credit markets for auto industry loans remained closed, GM could need some type of capital infusion from public sources to complete the deal. The goal would be to salvage some parts of Chrysler's operations and brands, close down others, and achieve operational, production and management synergies. Although a DOE spokeswoman opined that federal aid in direct support of a merger "would be more appropriate for separate legislation," assistance from the direct loan program could be used to help the merged company develop competitive ongoing projects, such as the Chevrolet Volt plug-in hybrid, to comply with EISA fuel economy mandates, while other assistance would support company consolidation and restructuring.[45]

Through late October 2008 the EISA loans remained part — but only a part — of a GM-Cerberus plan for federal assistance in restructuring the Detroit 3. When the EISA itself was passed — and possibly as late as the congressional approval of appropriations in September 2008 — loans to enhance production of advanced technology vehicles and components were not considered in the context of a major industry restructuring. This has now changed, not only with the widely discussed possibility of a GM-Chrysler merger,[46] but also the crisis in financial markets linked to subprime lending — which may include consumer auto loans. A package for the Detroit 3 — including Ford as well as the GM-Chrysler combination — might also include financial assistance for General Motors Acceptance Corporation, as well as

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[43] *Detroit Free Press*, "Auto Industry Loans May Take Up to 18 Months" (September 26, 2008); *Detroit News*, "Big 3 Aid May Take Time" (September 27, 2008).

[44] *Ibid.* "Levin to Seek $25B More for Auto Industry" (October 17, 2008).

[45] DOE quote from Bloomberg.com, "GM Said to Seek Treasury Aid in Chrysler Merger Talks" (Oct 27, 2008). On federal assistance to the industry and the ongoing GM-Chrysler merger issue, see *Detroit News*, "Levin: Fed Could Aid a Merger" (October 21, 2008); "Treasury Urged to Help Big 3" (October 23, 2008); and, "Feds Fast-Track Loan Plan for GM" (October 29, 2008); *Detroit Free Press*, "Free Up Auto Credit, Lawmakers Say" (October 23, 2008); *Wall St. Journal*, "Bankruptcy Fears Rise as Chrysler, GM Seek Federal Aid" (October 27, 2008), p. A1; and, "U.S. Working on Billions in GM Loans" (October 28, 2008), p. B1; *New York Times*, "White House Explores Aid for Auto Deal" (October 28, 2008), p. A1.

[46] Recent press reports indicate that this merger may be less likely than originally thought. *The New York Times*, "G.M. Suspends Merger Talks With Chrysler" (November 7, 2008).

Ford Motor Credit and Chrysler Financial. Such assistance may depend on those operations becoming qualified as banks under the terms of the Troubled Assets Relief Program established under the Emergency Economic Stabilization Act of 2008 (EESA, P.L. 110-343).[47] Some estimates are that GM would need at least $10 billion from outside sources not currently available, in order to undertake a merger with Chrysler and a rationalization of operations. This could require some funds through EISA, recapitalization of credit operations through EESA, and even beyond these existing instruments, direct federal financial support for the transaction.[48]

DOE's Interim Final Rule Implementing the Program

On November 5, 2008, DOE announced an interim final rule to implement the loan program. This is despite previous comments by Secretary Bodman that a quick turnaround on the rulemaking process was unlikely.[49] Apparently, many of the Secretary's concerns have been addressed, including review under the National Environmental Policy Act (NEPA). The interim final rule will be effective on the date it is published in the *Federal Register*, and there will be a 30-day period for public comment.

Schedule for Comment, Application, Approval, and Repayment

DOE has provided for a comment period of 30 days after publication in the *Federal Register* for public comments on the rule. While this is shorter than the comment period for most major rulemakings, it is consistent with DOE's belief that Congress wanted the Department to act as quickly as possible to implement the program.

In the interim final rule, DOE will award loans in tranches, with applications for each tranche evaluated every 90 days, as long as loan authority remains. However, the language in the Summary, Introduction and Background, and Application Submission sections of the Supplementary Information on the rulemaking is contradictory. In some places, it states that the deadline for loan applications for the first tranche is December 31, 2008; in others, the deadline is defined as the effective date of the interim rule (i.e. the date it is published in the *Federal Register*). There is no apparent reference to this deadline in the amendments to the *Code of Federal Regulations* (CFR) at the end of the rulemaking document. In a fact sheet on the rule published by DOE's Office of Public Affairs, DOE states that the deadline is

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[47] A review of some of the issues raised by this legislation is CRS Report RS22963, *Financial Market Intervention*, by Edward V. Murphy and Baird Webel.

[48] In addition to the sources quoted above, see *Washington Post*, "Hurdles Emerge for GM, Chrysler" (October 30, 2008), p. D1.

[49] "Dingell-DOE Spat Points To Setbacks For Auto Loan Implementation," *EnergyWashington Week* (October 1, 2008).

December 31, 2008.[50] Presumably, that was DOE's intent, despite the conflicting language in the rulemaking.

After applications are received, DOE will evaluate those applications and will approve and close on loans from each tranche before considering applications from the next tranche. However, DOE gave no specific time frame for the evaluation and approval process for the loans, and states that "DOE may make decisions on such applications and close loans with respect to such applications at any time."[51]

Once a loan has been closed, it must be fully repaid within 25 years, or if the facility subject to the loan is closed before that, the date of closure. Borrowers may have up to five years after the facility begins operation to begin payment of the principal; interest payments may not be deferred.

Key Project Requirements

For each project, EISA requires that the new vehicle achieve at least 25% higher fuel economy than the average "in the base year" of "vehicles with substantially similar attributes." However, the statute defined neither "base year," nor "substantially similar attributes." For the base year, DOE determined that for all applications, the base year would be Model Year 2005, because this is one of the most recent years for which CAFE compliance data are available. Further, under EISA, this is also the model year on which automaker eligibility is predicated; to be eligible to submit an application under the program, an automaker must have a CAFE average in its most recent model year equal to or higher than its average in 2005.

For the criterion of "substantially similar attributes," DOE devised a system that includes the vehicle's size or weight class, and its performance. For passenger cars, size classes include two-seaters, subcompact, compact, mid-size, and large sedans, and small, mid-size, and large wagons. Truck classes are based on function and weight, and include small and standard pickups, passenger, cargo, and mini-vans, and sport utility vehicles (SUVs). Further, most passenger cars are divided into standard and "performance" vehicles, with different average fuel economy ratings. DOE's rationale for separating out performance cars is that they are substantially different from non-performance vehicles:

> Performance vehicles generally have lower fuel economy ratings than non-performance vehicles in the same EPA class. Also, different fuel economy technologies may be applicable to performance as opposed to non-performance vehicles (i.e., additional aerodynamic improvements may not be available for performance vehicles).[52]

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[50] U.S. Department of Energy, Office of Public Affairs, *Fact Sheet: Advanced Technology Vehicles Manufacturing Loan Program* (November 6, 2008).

[51] U.S. Department of Energy, *Advanced Technology Vehicles Manufacturing Incentive Program: Interim Final Rule; Request for Comment* (November 5, 2008), p. 34.

[52] Ibid. p. 24.

In determining which vehicles were standard or performance vehicles, DOE plotted the ratio of peak horsepower to curb weight for each vehicle. In cases where vehicles in the same size class had significant differences in power-to-weight ratio, DOE identified break points for each class, with vehicles above that break point considered as performance vehicles. In its determination, DOE separated most car classes — and no truck classes — into standard and performance.

From Model Year 2005 data for vehicle attributes and CAFE ratings, DOE developed a table of average fuel economy by class and target fuel economy under the program (See **Table 2**).

Table 2. Fuel Economy Averages and Program Requirements by Vehicle Class

Vehicle Class	Power / Weight	2005 Fuel Economy Average	2005 mpg x 125%
Two-Seater	< 0.121	25.3	31.6
Two-Seater Performance	≥ 0.121	22.2	27.8
Minicompact Sedan	< 0.088	29.3	36.7
Minicompact Performance Sedan	≥ 0.088	22.4	28.0
Subcompact Sedan	< 0.082	29.6	37.0
Subcompact Performance Sedan	≥ 0.082	22.8	28.5
Compact Sedan	< 0.073	33.8	42.2
Compact Performance Sedan	≥ 0.073	23.6	29.5
Mid-Size Sedan	< 0.085	29.4	36.7
Mid-Size Performance Sedan	≥ 0.085	23.1	28.9
Large Sedan	n/a	26.2	32.7
Small Wagon	n/a	32.7	40.8
Mid-Size and Large Wagons	n/a	26.7	33.4
Small and Standard Pickups	n/a	19.7	24.6
Minivan	n/a	24.3	30.4
Passenger Van	n/a	19.0	23.8
Cargo Van	n/a	24.2	30.2
Sport Utility Vehicle	n/a	21.8	27.2

Source: U.S. Department of Energy, *Advanced Technology Vehicles Manufacturing Incentive Program: Interim Final Rule; Request for Comment* (November 5, 2008), p. 27.

Selection Criteria for Loan Program — Financial Solvency

In evaluating loan applications, DOE has identified four key criteria: the technical merit of the vehicles (or components), program factors such as economic development and geographic diversity, the risk of the loan, and priority for existing facilities 20 years old or older:

> (b) Evaluation criteria. Applications that are determined to be eligible pursuant to paragraph (a) of this section shall be subject to a substantive review by DOE based upon factors that include, but are not limited to, the following:
> (1) The technical merit of the proposed advanced technology vehicles or qualifying components, with greater weight given for factors including, but not limited to:
> (i) Improved vehicle fuel economy above that required for an advanced technology vehicle;
> (ii) Potential contributions to improved fuel economy of the U.S. light-duty vehicle fleet;
> (iii) Likely reductions in petroleum use by the U.S. light-duty fleet; and
> (iv) Promotion of use of advanced fuel (e.g., E-85, ultra-low sulfur diesel).
> (2) Technical Program Factors such as economic development and diversity in technology, company, risk, and geographic location.
> (3) The adequacy of the proposed provisions to protect the Government, including sufficiency of Security, the priority of the lien position in the Security, and the percentage of the project to be financed with the loan.
> (4) In making loans to those manufacturers that have existing facilities, priority will be given to those facilities that are oldest or have been in existence for at least 20 years even if such facilities are idle at the time of application.[53]

Among other considerations, the interim final rule requires that DOE consider "financial projections demonstrating the applicant's solvency through the period of time that the loan is outstanding."Also for a manufacturer to be eligible, EISA requires that the recipient "financially viable without the receipt of additional Federal funding associated with the proposed project."[54] In interpreting this statutory language, DOE may have made it more difficult for automakers to take advantage of the loan program and any other future support for the auto industry:

> In today's interim final rule, the Department interprets the term "additional Federal funding" to mean any loan, grant, guarantee, insurance, payment, rebate, subsidy, credit, tax benefit, or any other form of direct or indirect assistance from the Federal government, or any agency or instrumentality thereof, other than the proceeds of a loan approved under section 136, that is, or is expected to be made available with respect to, the project or activities for which the loan is sought under section 136, and is to be received by the applicant after entering into an Agreement with DOE.[55]

As part of this determination, for a loan, an applicant must demonstrate "a net present value which is positive, taking all costs, existing and future, into account."

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[53] Ibid. pp. 54-55.

[54] P.L. 110-58, Section 136(d)(3)(A).

[55] DOE, op. cit. p. 15.

Because of the auto industry's current challenges, some automakers may be unable to demonstrate to DOE their solvency and the viability of fuel economy improvement projects. These financial solvency and viability requirements may prove to be a significant barrier to the approval of loan applications.