Note

The Evolution of CAFE Standards: Fuel Economy Regulation Enters its Second Act

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"We have over the course of decades slowly built an economy that runs on oil. It has given us much of what we have—for good but also for ill. It has transformed the way we live and work, but it's also wreaked havoc on our climate. It has helped create gains in prosperity unprecedented in history, but it also places our future in jeopardy."[1]

President Obama announcing his National Fuel Efficiency Policy, May 19, 2009

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1. President Barack Obama, Remarks by the President on National Fuel Efficiency Standards (May 19, 2009) [hereinafter *Remarks by President Obama*] (transcript available at http://www.whitehouse.gov/the_press_office/Remarks-by-the-President-on-national-fuel-efficiency-standards/).

I. INTRODUCTION

On May 19, 2009, President Obama stood before an audience in the Rose Garden and announced plans to address climate change through heightened motor vehicle fuel economy standards.[2] Behind the President stood a supporting cast of environmental advocates, government officials, and even auto executives and union representatives that had previously opposed such changes to fuel economy regulation.[3] Building upon this landmark compromise, the Obama Administration forged a subsequent agreement between these parties and on July 29, 2011 announced continued aggressive increases to fuel economy standards through model year 2025.[4] The apparent consensus between the auto industry and environmentalist groups is remarkable in light of their history of hard-fought debates since the inception of fuel economy standards in the late 1970s.

Congress mandated fuel economy regulation in response to the Arab Oil Embargo of 1973.[5] Protesting U.S. support of Israel during the Yom Kippur War, the Organization of Arab Petroleum Exporting Countries imposed an embargo ("the Embargo") in October, 1973 that drastically decreased supplies and quadrupled oil prices.[6] As gas stations across the country ran out of fuel, both the federal and state governments took action to ration supplies.[7] The fuel shortages and increased fuel costs caused by the Embargo had a substantial effect on the national economy.[8] In its aftermath, economists would conclude that the Embargo was at least partially responsible for the contemporaneous stock market crash

2. *Id.*

3. *Id.*

4. *See* Juliet Eilperin, *Automakers, Obama Administration Agree on Fuel Efficiency Standards Through 2025*, WASH. POST, July 27, 2011, at 1.

5. TRANSP. RESEARCH BD., EFFECTIVENESS AND IMPACT OF CORPORATE AVERAGE FUEL ECONOMY (CAFE) STANDARDS 1 (2002).

6. Peter G. Flachsbart, IMPACTS OF THE OPEC OIL EMBARGO ON URBAN TRAVEL BEHAVIOR, GASOLINE CONSUMPTION AND ATTITUDES TOWARD ACCESS TO URBAN OPPORTUNITIES: A CASE-CONTROL STUDY 1-2 (1977). The Embargo was in effect from mid-October 1973 to mid-March 1974. The national average pump price of regular grade gasoline rose from 36.1¢ per gallon in 1972 to 52.4¢ per gallon in 1974.

7. *Id.* The Nixon Administration imposed a nationwide 55 m.p.h. speed limit and requested that gas stations limit purchases to ten gallons and close operations on Sundays. Some states adopted an "odd-even plan" which called for drivers with license plate numbers ending in odd numbers to purchase gas on odd-numbered days, and those with license plate numbers ending in even numbers to purchase gas on even-numbered days.

8. *See* Robert B. Barsky & Lutz Kilian, *Oil and the Macroeconomy Since the 1970s*, 18 J. ECON. PERSP. 115, 131 (2004).

and stagflation in the late 1970s.[9]

The unrest generated by the oil shock led to a call to decrease the nation's dependence on foreign oil, and Congress answered by passing the Energy Policy and Conservation Act of 1975 ("EPCA").[10] The Act authorized the rationing of energy supplies, directed the creation of strategic petroleum reserves, and mandated energy conservation programs at the state and federal levels.[11] Additionally, despite resistance from domestic auto manufacturers, the Act mandated motor vehicle fuel economy regulation.[12] The new Corporate Average Fuel Economy ("CAFE") standards required that all manufacturer's passenger car and light truck fleets meet a prescribed mile per gallon ("mpg") rating for each model year ("MY").[13] The Act defined a manufacturer's fleet-wide fuel economy as the average fuel economy rating of all vehicles it sold in a given model year.[14]

The EPCA set forth an ambitious goal, requiring that the average fuel economy of car fleets double 1975 levels in less than ten years.[15] The Act established the initial standard of 18 mpg for car fleets in MY 1978, representing a 29% improvement from the pre-regulation average fuel economy of 13.9 mpg.[16] The final prescribed standard, to be achieved eight years into the new fuel economy regulation, was 27.5 mpg for MY 1985 and thereafter.[17] For the light truck category, the EPCA did not specify any standard, but instead left this task to the Secretary of Transportation.[18] If a manufacturer's car or light truck fleet average fuel economy failed to meet the CAFE standard for a given MY, it owed a civil penalty equal to $5 multiplied by each tenth of an mpg it fell short of the

9. *Id.*

10. TRANSP. RESEARCH BD., *supra* note 5, at 1. *See* Energy Policy and Conservation Act of 1975, Pub. L. No. 94-163, § 2(1)-(5), 89 Stat. 874 (current version at 42 U.S.C. § 6201 (2000)).

11. Energy Policy and Conservation Act of 1975 § 2(1)-(5).

12. *Id. See* Anthony Perl & James A. Dunn Jr., *Reframing Automobile Fuel Economy Policy in North American: The Politics of Punctuating a Policy Equilibrium*, 27 TRANSPORT REVIEWS 1, 6-8 (2007).

13. Energy Policy and Conservation Act of 1975 § 501(6). The EPA is responsible for rating each model's fuel economy in mpg for the determination of each automaker's corporate average fuel economy.Notably, the EPA has been criticized for overestimating fuel economy and has taken measures to improve its calculation means to better match actual results. Brian Hansen, *EPA Updates Tests That Overstated the Fuel Economy of New Vehicles*, INSIDE ENERGY WITH FED. LANDS, Dec. 18, 2006, at 8. The light truck category includes pickup trucks, vans, and SUVs. TRANSP. RESEARCH BD., *supra* note 5, at 1. The CAFE standard for light trucks has averaged about 7 mpg lower than the corresponding standards for cars. The truck standard has ranged from under 17 mpg when the regulation first began in 1979 to 23.5 mpg in 2010.

14. Energy Policy and Conservation Act of 1975 § 501(7).

15. *Id.* Cars generally include all passenger vehicles that are not SUVs, trucks, or minivans.

16. *Id.* at § 502(a)(1). TRANSP. RESEARCH BD., *supra* note 5, at 16.

17. Energy Policy and Conservation Act of 1975 § 502(a)(1).

18. *Id.* at § 502(b).

standard, multiplied by the number of vehicles it produced in that year's fleet.[19]

The EPCA authorized the Secretary of Transportation to amend CAFE standards through the rulemaking process to a level determined to be the maximum feasible average fuel economy for a given model year.[20] To determine the maximum feasible average fuel economy, the EPCA designated four factors for the Secretary to consider: (1) technological feasibility; (2) economic practicability; (3) the effect of other federal motor vehicle standards on fuel economy; and (4) the nation's need to conserve energy.[21] After 1985, the EPCA subjected this decision to congressional approval if the proposed car standard was outside the narrow range of 26 to 27.5 mpg.[22] This requirement would serve to constrain CAFE standards in future years by creating a significant political hurdle to setting the standard outside the prescribed range.

Initially, the CAFE program seemed to be a successful regulatory scheme. Automakers made significant gains in fuel economy in the 1980s, a decade marked by declining oil prices that in the absence of regulation would have led to lower average fuel economy.[23] Economists credited the regulation with saving 35 billion gallons of gasoline in 1987.[24] Perhaps most importantly, in concert with the congressional intent behind the EPCA, oil imports dropped from 35.1% of total U.S. oil consumption in 1975 to 27.3% in 1985.[25] Despite these promising results at the outset, the apparent success of fuel economy regulation was short-lived.

Fuel economy improvements came to a halt in 1985 when the statutorily mandated increases in CAFE standards ceased.[26] Thereafter, the standards remained essentially stagnant for over two decades while demand for oil grew.[27] Three trends contributed significantly to the nation's increasing demand. First, the number of vehicles on the road was rising because of population growth and an increase in the number of households taking ownership of multiple vehicles.[28] Second, the average number of miles traveled per vehicle also increased, due to urban sprawl

19. *Id.* at § 508(b)(1)(a). This provision is criticized for its failure to incentivize compliance. Luxury automakers frequently choose to buy their way out of regulation. Domestic automakers have never done so for political reasons. *See* NHTSA, Summary of CAFE Fines Collected, http://www.nhtsa.gov/staticfiles/rulemaking/pdf/cafe/Fines_Collected_112010.pdf.

20. Energy Policy and Conservation Act of 1975 § 502(a)(4).

21. *Id.* at § 502(e).

22. *Id.* at § 502(a)(4).

23. *See* TRANSP. RESEARCH BD., *supra* note 5, at 14-15.

24. David L. Greene, Daniel Sperling & Barry McNutt, *Transportation Energy in the Year 2020*, *in* A LOOK AHEAD: YEAR 2020, TRB SPECIAL REPORT 200, 207, 220 (1988).

25. U.S. ENERGY INFO. ADMIN., *Monthly Energy Review*, 15 (Jun. 2005).

26. *See* Perl & Dunn, *supra* note 12, at 4.

27. *See id.*

28. The total number of passenger vehicles on the road has grown by 110 million since 1975.

and low fuel costs.[29] Finally, vehicles classified as "light trucks" and held to lower CAFE standards, such as SUVs, vans, and pickup trucks, were becoming increasingly popular passenger vehicles.[30] The growth in demand for oil could not be met by gains in domestic production; therefore, oil imports rose drastically.[31] The share of total U.S. oil consumption supplied by imports increased from 27.3% in 1985 to over 57% in recent years.[32]

The CAFE program is now a particularly controversial regulatory scheme primarily because of its failure to curb oil consumption.[33] Highlighting another downfall, critics of the program also point to potentially undesirable manufacturing changes made necessary by increased standards.[34] For example, automakers have achieved higher fuel economy targets by decreasing vehicle weight, but lighter vehicles prove less safe in accidents.[35] In fact, the National Highway Traffic Safety Administration ("NHSTA") estimated that lighter vehicles produced to comply with the original CAFE standards led to an additional 1,300 to 2,600 traffic deaths per year.[36] As another example, automakers have also improved fuel efficiency by decreasing performance capabilities.[37] While smaller engines with lower horsepower use less fuel, they require the driver to give up power and acceleration, both performance aspects highly valued by American car buyers.[38] Finally, automakers have achieved fuel economy gains while maintaining performance through application of fuel-efficient

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U.S. DEPT. OF TRANSP., BUREAU OF TRANSP. STATISTICS (2010) *National Transportation Statistics 2009*, Table 1-11.

29. The term "rebound effect" is used to describe the behavioral response where people drive more due to the decreased fuel cost per mile; studies estimate that the rebound effect increases vehicle miles traveled by one to two percent for a ten percent increase in fuel economy. TRANSP. RESEARCH BD., *supra* note 5, at 19.

30. Since 1975, the number of light trucks on the road has increased by 81 million, whereas the number of passenger cars has increased by only 29 million. U.S. DEPT. OF TRANSP., *supra* note 28.

31. *See* Perl & Dunn, *supra* note 12, at 4.

32. *See id. See also* U.S. ENERGY INFO. ADMIN., 2011 ANNUAL ENERGY OUTLOOK, EARLY RELEASE REPORT 11.

33. While dependence on foreign oil has increased, this dependence would be far worse but for the implementation of CAFE standards. In 2002, the National Research Council estimated the savings at 2.8 million barrels of oil per day, or 14% or total consumption. TRANSP. RESEARCH BD., *supra* note 5, at 3.

34. Audio: Evaluation Recent Changes to Corporate Average Fuel Economy Standards, held by Resources for the Future, (Nov. 3, 2010) [hereinafter *Resources for the Future*] *available at* http://www.rff.org/Events/Pages/Evaluating-Recent-Changes-to-Corporate-Average-Fuel-Economy-Standards.aspx.

35. *Id.*

36. TRANSP. RESEARCH BD., *supra* note 5, at 3.

37. *Resources for the Future*, *supra* note 34.

38. *See generally* TOM MCCARTHY, AUTO MANIA: CARS, CONSUMERS, AND THE ENVIRONMENT 1 (2007).

technology (e.g. turbo chargers, improved aerodynamics, better automatic transmissions).[39] However, this added technology increases the cost of new vehicles, causing some car buyers to wait longer to purchase a new vehicle while pushing others into the used car market.[40] Because heightened vehicle cost results in fewer new cars on the road, it creates a lag in the benefits of heightened CAFE standards.[41]

Counterbalancing all of these drawbacks, improved fuel economy leads to fuel cost savings over the life of a vehicle—a point that proponents of fuel economy regulation emphasize.[42] Nevertheless, fuel economy is seldom a strong consideration among American car buyers in the absence of persistently high fuel prices.[43] Critics of the regulation highlight this tension between market demand and the regulatory constraints of the CAFE program, which places the burden on industry to satisfy consumer preference for bigger, faster vehicles while simultaneously meeting higher fuel economy standards.[44]

In light of the inherent defects in fuel economy regulation, economists, environmentalists, and policy experts have advocated for implementation of a gas tax that would properly account for the external costs of driving, namely pollution and national economic vulnerability.[45] The record-high gas prices during the summer of 2008 demonstrate the potential effectiveness of increased gas taxes: Americans drove fewer miles and purchased more fuel-efficient vehicles when the national gas price averaged over $3.50 per gallon for five continuous months.[46] Despite the apparent benefits of a tax that maintains gas prices at a level high enough to affect behavior (some estimate this to be north of $4 per gallon),[47] com-

39. *Resources for the Future*, *supra* note 34.

40. *Id.*

41. *Id.*

42. The amount of these savings is dependent on future oil prices and is thereby hard to predict, although the Obama Administration has valued this benefit at a level which fully compensates the consumer for the added costs of fuel efficient technology necessary to meet the new standards. *Remarks by President Obama*, *supra* note 1.

43. *See* PAUL INGRASSIA & JOSEPH B. WHITE, COMEBACK: THE FALL & RISE OF THE AMERICAN AUTOMOBILE INDUSTRY 444 (1995).

44. *See Resources for the Future*, *supra* note 34.

45. *See* Thomas Merrill & David M. Schizer, *Energy Policy for an Economic Downturn: A Proposed Petroleum Fuel Price Stabilization Plan*, 27 YALE J. ON REG. 1, 4 (2010); DON FULLERTON & SARAH E. WEST, *Can Taxes on Cars and on Gasoline Mimic an Unavailable Tax on Emissions?*, 43 J. ENVTL. ECON. & MGMT. 135, 135 (2002); N. Gregory Mankiw, *Raise the Gas Tax*, WALL ST. J., Oct. 20, 2006, at A12.

46. *See* Robert Puentes & Adie Tomer, *The Road. . .Less Traveled: An Analysis of Vehicle Miles Traveled Trends in the U.S*, BROOKINGS INST. 3 (2008), *available at* http://www.brookings.edu/~/media/Files/rc/reports/2008/1216_transportation_tomer_puentes/vehicle_miles_traveled_report.pdf.; U.S. ENERGY INFO. ADMIN., WEEKLY U.S. REGULAR ALL FORMULATIONS RETAIL GASOLINE PRICES.

47. Editorial, *Car Crazy*, WALL ST. J., May 21, 2009, at A16.

mentators consider the policy a political third rail due to broad public disfavor.[48] Even the progressive Obama Administration made clear early on that it would not consider this alternative to fuel economy regulation.[49] The apparent political impossibility of substantially increasing the gas tax indicates that CAFE standards are likely to remain the primary policy mechanism for controlling oil consumption in the U.S. Recent changes to fuel economy regulation support this conclusion.

The Energy Independence and Security Act of 2007 ("EISA") established significant increases in future CAFE standards.[50] The Obama Administration accelerated the scheduled increases through 2016 in May 2009 and extended the schedule of increased standards another nine years in July 2011.[51] This fast-paced regulatory progress, following two decades of unsuccessful campaigns to heighten CAFE standards, signals a change worthy of investigation. To understand the renewed interest in fuel economy regulation, I first examine the circumstances surrounding the progression of CAFE standards to date through three distinct eras: the first eight years of CAFE regulation prescribed by the EPCA, the two decades following during which the standards remained essentially unchanged, and finally the recent developments beginning with the passage of the EISA in 2007. I next discuss the effect of climate change activism, both in the courtroom and in the court of public opinion, on the debate over fuel economy regulation. I then establish the rare convergence of circumstances concerning the state of the American auto industry and the political landscape that laid the groundwork for significant changes to future CAFE standards. Finally, in light of the initial regulation's failure to prevent drastic increases in oil consumption, I analyze whether the recent changes to CAFE regulation will allow it to avoid the same pitfalls and lead to an enduring reduction in oil consumption and automotive CO_2 emissions, as President Obama so promised in his May 19, 2009 address.[52]

II. The Evolution of CAFE Standards

To appreciate the significance of recent changes to CAFE standards, it is necessary to first understand the history of fuel economy regulation through the backdrops of an ever-changing political scene, the struggles

48. *Id.* Merrill & Schizer, *supra* note 45, at 16.

49. *See* Alec MacGillis, White House Says Transportation System Overhaul Must Wait, Wash. Post, Jun. 26, 2009, *at* A03.

50. Energy Independence and Security Act of 2007, Pub. L. No. 110-140, 121 Stat. 1492 § 102(b)(2)(A) (codified in sections of 2, 15, 40, 42, and 46 U.S.C.).

51. *Remarks by President Obama*, *supra* note 1; Eilperin, *supra* note 4.

52. *Remarks by President Obama*, *supra* note 1 ("For the first time in history, we have set in motion a national policy aimed at both increasing gas mileage and decreasing greenhouse gas pollution for all new trucks and cars sold in the United States of America.").

of the American auto industry, and the rise of climate change concerns. This section details the first two eras of fuel economy regulation: the initial eight years during which the standards increased and the two decades following during which the standards held constant.

A. A Promising Start: 1978-1985

> "Every month that passes brings us closer to the day when we will be dependent on imported energy for 50% of our requirements. A new embargo under these conditions could have a devastating impact on jobs, industrial expansion, and inflation at home. Our economy cannot be left to the mercy of decisions over which we have no control."[53]
>
> President Ford urging Congress to act to reduce dependence on foreign oil, April 10, 1975

The Arab Oil Embargo of 1973 revealed the economic vulnerability that accompanied the nation's growing dependence on foreign oil. The incident galvanized President Ford and the 94th Congress to take action to remedy what was widely seen as a serious and imminent threat to national security.[54] Taking note of recent successes with technology-forcing regulation of the auto industry, the Democratic Congress viewed fuel economy standards as an opportunity to address a major national issue without risk of a political backlash.[55] At the time, the public strongly supported fuel economy regulation, believing that American automakers had the ability to raise the fuel economy of their product lines with relative ease.[56]

By the time the EPCA became law, the auto industry was the only adversary to the new fuel economy standards.[57] In a rare departure from its alliance with the auto manufacturers, even the United Auto Workers Union ("UAW") supported the new regulation after negotiating a provision that allowed separate fuel economy calculations for foreign and domestic fleets.[58] This compromise protected the UAW from the possibility that domestic manufacturers would import more fuel-efficient vehicles to meet the new standards.[59]

Despite their resistance to the new regulation, domestic automakers General Motors ("GM"), Ford, and Chrysler (collectively known as the

53. President Gerald Ford, Address by President Gerald R. Ford Before a Joint Session of the Congress Reporting on United States Foreign Policy (Apr. 10, 1975).

54. *See* Perl & Dunn, *supra* note 12, at 6.

55. *See id.* at 5-8.

56. *See id.* at 6.

57. *See id.* at 6-8.

58. *See id.* at 8.

59. *Id.*

"Big Three") achieved the required fleet-wide fuel economy.[60] The Big Three focused primarily on making vehicles lighter through downsizing to meet the new standards.[61] Other increases in fuel economy came from improvements in vehicle design, including decreased aerodynamic drag and rolling resistance, improved automatic transmissions, and electronic engine controls.[62]

Even though the Big Three successfully complied with the CAFE standards, this new regulation was hurting their business. The Big Three had lost market share to foreign competitors even before fuel economy regulations went into effect: the domestic market share had slipped from 87.4% in 1970 to 85.4% in 1975, a sign of serious trouble ahead.[63] Unlike the Big Three, foreign automakers needed to make only minor adjustments to comply with the new standards.[64] In fact, foreign-made fleets were, on average, 10.6 mpg more efficient than domestic fleets prior to the regulation due to greater demand for fuel efficiency in European and Asian markets.[65] As such, the new CAFE standards likely helped foreign automakers continue to whittle away at the Big Three's market share, which fell another 10.6% by 1980.[66]

The high oil prices caused by the Embargo and the Iraq-Iran War had resulted in a consumer preference shift toward smaller vehicles.[67] This trend was troublesome for the Big Three, having specialized in larger cars and vans. By 1979, unit sales were down 28% at Chrysler, 27% at Ford, and 15% at GM.[68] As larger companies, GM and Ford were better able to withstand the downturn.[69] However, Chrysler laid off nearly a quarter of its blue collar workforce and was on the brink of financial collapse.[70] Chrysler then pled for help from the Carter Administration in the form of federal tax refunds or immediate relief, citing the burdens of

60. Nat'l Highway Traffic Safety Admin., *Domestic Passenger Car Fleet Average Characteristics*, NHTSA, *available at* http://www.nhtsa.gov/cars/rules/CAFE/DomesticCarFleet.htm.

61. OFFICE OF TECH. ASSESSMENT, INCREASED AUTOMOBILE FUEL EFFICIENCY AND SYNTHETIC FUELS 105 (David Sheridan, ed., Office of Technology Assessment 1982).

62. *Id.*

63. *See* Ward's Automotive Yearbook, U.S. Vehicle Sales Market Share by Company, 1961-2010, http://wardsauto.com/keydata/historical/UsaSa28summary/ (last visited Sept. 30, 2011).

64. *See* Nat'l Highway Traffic Safety Admin., *supra* note 60; Nat'l Highway Traffic Safety Admin., *Imported Passenger Car Fleet Average Characteristics*, NHTSA, *available at* http://www.nhtsa.gov/cars/rules/CAFE/ImportedCarFleet.htm.

65. *See* Nat'l Highway Traffic Safety Admin., *supra* note 60; Nat'l Highway Traffic Safety Admin., *Imported Passenger Car Fleet Average Characteristics*, NHTSA, *available at* http://www.nhtsa.gov/cars/rules/CAFE/ImportedCarFleet.htm.

66. *See* Ward's Automotive Yearbook, *supra* note 63.

67. *See Business: Chrysler's Crisis Bailout*, TIME MAGAZINE (Aug. 20, 1979), *available at* http://www.time.com/time/magazine/article/0,9171,947356-3,00.html.

68. *Id.*

69. *Id.*

70. *See id.*

having to satisfy costly new safety, environmental, and fuel economy regulations.[71] Seeing this proposition as an unfair use of the taxpayer money, the government instead offered federal loan guarantees, which Chrysler accepted.[72] In return, the Carter Administration demanded a place at Chrysler's management table, conditioning its loans on the submission of an acceptable financial and operating plan.[73] During the restructuring of the company, the government forced Chrysler to gear its product line toward more fuel-efficient vehicles.[74] This turn of events was "eye opening for the Carter [A]dministration," and came with the realization that placing conditions on government aid was an effective means for advancing regulation.[75]

Shortly thereafter, as Americans continued to buy more foreign-made vehicles, Ford and GM similarly found themselves in need of government assistance.[76] In 1980, Transportation Secretary Neil Goldschmidt offered trade protection against Japanese imports in exchange for a collective bargaining arrangement among the Big Three, the UAW, and the government to establish future automotive policy.[77] Further increases in CAFE standards were critical to this compromise.[78] The Reagan Administration would later refuse to support this proposal, and the bargaining arrangement never came to be.[79] Three decades later, in 2010, President Carter would reflect on this botched opportunity as a primary regret of his presidency.[80]

B. Two Decades of Deadlock: 1986-2007

The election of President Reagan, who campaigned on a deregulatory platform, did not bode well for the future of fuel economy regulation. Upon entering office, the Reagan Administration cancelled a Notice of Proposed Rulemaking initiated by the Carter Administration to increase CAFE standards beyond what the EPCA had prescribed, and would later appear to support proposals to revoke the CAFE program

71. *Id.*

72. *See id.*

73. *See* Perl & Dunn, *supra* note 12, at 8.

74. *Id.*

75. *See id.*

76. *See id.*

77. *See id.*

78. *Id.* at 8-9.

79. *See id.* at 9.

80. David R. Baker, *3 Questions for Former President Jimmy Carter*, S.F. Chron., Oct. 24, 2010, at D1. "The issue that I wish I'd addressed more clearly was to put into law the requirement we'd worked out, with the agreement of the automobile industry, to increase the efficiency of automobiles."

altogether.[81]

Market forces coinciding with Reagan's presidency quieted calls to reduce the nation's dependence on foreign oil, the objective which was then the sole driving force behind fuel economy regulation.[82] As soon as Reagan took office, oil prices began a five-year decline.[83] The monthly average gasoline price dropped from $3.52 in March 1981 to $1.54 in August 1986, and thereafter did not exceed $2 for the remainder of Reagan's term in office.[84] Given the persistently low cost of fuel, consumer preference began to shift back toward bigger, less fuel-efficient vehicles.[85]

Even though the tides had already turned against fuel economy regulation, CAFE standards continued to increase in the early years of the Reagan presidency as required by the EPCA.[86] However, the statutorily mandated increases came to an end in 1985.[87] The following year, NHTSA, acting under the authority of Secretary of Transportation Elizabeth Dole, lowered the standard for the first time from 27.5 mpg to 26 mpg, the minimum allowed without congressional approval.[88]

NHTSA had based its decision on claims from GM and Ford that they were unable to comply with the 27.5 mpg standard due to the unforeseen events, namely the "the rapid decline in gasoline prices during the mid-1980s, attended by a shift in consumer demand away from smaller, more fuel-efficient models."[89] In making its decision, NHTSA had determined that the effect of the higher standard "would largely be limited to attempts to change product mixes through increased marketing efforts and/or product restrictions . . . [which] could result in significant adverse economic impacts and restrict consumer choice to an unreasonable degree."[90] This turn of events highlighted the extent to which rulemaking regarding fuel economy standards was sensitive to changing politics.

Environmental NGOs, as well as certain cities and states particularly concerned with air pollution, opposed the decision to lower CAFE standards. Public Citizen, a nonprofit advocacy group, California and New

81. Perl & Dunn, *supra* note 12, at 9. Robert W. Crandall & John D. Graham, *The Effect of Fuel Economy Standards on Automobile Safety*, 32 J.L. & Econ. 97, 99 (1989).

82. Crandall & Graham, *supra* note 81.

83. *See* U.S. Energy Info. Admin., Short-Term Energy Outlook, http://www.eia.doe.gov / EMEU/steo/realprices/index.cfm. (last visited Sept. 7, 2011). All monetary values are in January 2011 dollars.

84. *Id.*

85. *See* Ward's Automotive Yearbook, *supra* note 63.

86. 15 U.S.C. 502(a)(1) (repealed 1994).

87. *Id.*

88. *See* Perl & Dunn, *supra* note 12, at 9.

89. *Public Citizen v. Nat'l Highway Traffic Safety Admin.*, 848 F.2d 256, 260 (D.C. Cir. 1988).

90. *Id.*

York state, and the cities of Chicago, Los Angeles, Boston, and New York together filed a lawsuit against NHTSA, alleging that its decision to roll back the CAFE standard was arbitrary and capricious, and contrary to the EPCA.[91] They contended that the agency had given market forces and consumer demand so much weight that its decision contradicted the EPCA's "technology-forcing" design and improperly undervalued the need to conserve energy, a consideration explicitly required by the statute.[92] Giving deference to NHTSA's judgment, the D.C. Circuit concluded that the decision to lower the 1986 CAFE standard was reasonable in light of the conflicting policies set forth by the EPCA.[93] This decision came as no surprise: litigations concerning the CAFE standard for light truck fleets had already taken place and yielded similar outcomes.[94]

Resistance to fuel economy regulation, largely supported by market conditions, peaked in the 1990s. Throughout the decade, the monthly average gas price ranged from a low of $1.23 to a high of $2.22, and averaged only $1.64.[95] The Big Three's financial condition greatly improved as consumer demand continued to shift toward less fuel-efficient vehicles: light trucks (SUVs, vans, and pickups) rose from 26.5% of U.S. passenger vehicles in 1990 to 37.2% in 2000.[96] The nation's dependence on foreign oil boomed along with its overall oil consumption, with imports rising by 48% over the course of the decade.[97]

NHSTA's standard setting was again the subject of litigation in the 1990s. However, this time plaintiffs claimed that CAFE standards were too high. Consumer groups alleged that NHTSA had failed to recognize the safety impact resulting from the lighter vehicles produced to meet the standards.[98] Automakers alleged that the agency set the standards too

91. *Id.* at 259.

92. *Id.*

93. *Id.* at 265.

94. Congress had not specified standards for the light truck fleets in the EPCA, but rather left this determination to the Department of Transportation, which set the initial standard at 17.2 mpg in 1979 and had raised it to 20 mpg by 1984. Thereafter, the light truck standard remained relatively constant, and did not reach 21 mpg until 2005. Nat'l Highway Traffic Safety Admin, *Light Truck Fleet Average Characteristics*, NHTSA, *available at* http://www.nhtsa.gov/cars/rules/cafe/LightTruckFleet.htm. *See* Ctr. for Auto Safety v. Nat'l Highway Traffic Safety Admin., 793 F.2d 1322, 1326-37 (D.C. Cir. 1986) (finding reasonable NHTSA's decision to lower the CAFE truck after Ford argued that a change in the standards was necessary due to changes in the "price of fuel, the attendant consumer reaction to falling fuel prices and stable fuel availability, and the increasing import penetration into the truck market.").

95. U.S. Energy Info. Admin., *supra* note, 83.

96. INGRASSIA & WHITE, *supra* note 43. *See* U.S. DEPT. OF TRANSP., *supra* note 28.

97. U.S. Energy Info. Admin., *Annual U.S. Imports of Crude Oil*, http://www.eia.doe.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=MCRIMUS2&f=A (last visited Sept. 7, 2011).

98. *See generally* Competitive Enter. Inst. v. Nat'l Highway Traffic Safety Admin., 901 F.2d 107 (D.C. Cir. 1990) (rejecting the organization's claim that the NHTSA was arbitrary and capri-

high in light of market conditions.[99] Again in this round of litigation, the courts afforded deference to NHTSA's judgment.[100] The CAFE standard for car fleets held constant at 27.5 mpg throughout the 1990s.[101]

By the close of the decade, it was clear that the price of oil had a significant impact on the debate over fuel economy regulation. When oil prices were high, only the auto industry opposed increasing fuel economy requirements. Fuel economy regulation was politically popular during these times. When prices were persistently low, however, only those concerned with air quality were willing to fight for higher fuel economy standards. Under these conditions, the political system as a whole was unresponsive to calls for fuel economy improvements.

The new millennium brought a renewed interest in fuel economy regulation. The events of September 11, 2001 raised concerns that America's reliance on foreign oil was helping to fund the rise of Islamic-extremist terrorism, which had roots in a number of Middle Eastern oil-exporting nations.[102] Also, because many of these nations held anti-American sentiments, there was a fear that these states might again impose an embargo as a means of economic terrorism.[103] Even in the absence of explicit anti-Americanism, unrest in the Middle East translated

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cious in failing to set the minimum standards lower in light of safety concerns); Competitive Enter. Inst. v. Nat'l Highway Traffic Safety Admin., 956 F.2d 321 (D.C. Cir. 1992) (finding that NHTSA failed to coherently address the citizens' groups claim that the agency did not appropriately account for safety concern, and also failed to offer a reasoned explanation for terminating plaintiffs' inquiry regarding lowering the CAFE standard for MY 1990); Competitive Enter. Inst. v. Nat'l Highway Traffic Safety Admin., 45 F.3d 481 (D.C. Cir. 1995) (finding reasonable NHTSA's decision to terminate its rulemaking and to not amend the standard for the 1990 model year because the record did not indicate that any automobile manufacturer had suggested that lowering the CAFE standard would affect production, price, sales, or safety).

99. *See* General Motors Corp. v. Nat'l Highway Traffic Safety Admin., 898 F.2d 165 (1990) (affirming NHTSA's decision to deny the petitions to retroactive amendments to lower CAFE standards for a model year already in progress); Mercedes-Benz of N. Am., Inc., v. Nat'l Highway Traffic Safety Admin., 938 F.2d 294 (D.C. Cir. 1991) (denying manufacturer's petition for review asserting that the agency erred in refusing to entertain its substantive attack on the CAFE standard).

100. *See* Competitive Enter. Inst. v. Nat'l Highway Traffic Safety Admin., 45 F.3d 481 (D.C. Cir. 1995) (finding reasonable NHTSA's decision to terminate its rulemaking and to not amend the standard for the 1990 model year because the record did not indicate that any automobile manufacturer had suggested that lowering the CAFE standard would affect production, price, sales, or safety); Competitive Enter. Inst. v. Nat'l Highway Traffic Safety Admin., 901 F.2d 107 (D.C. Cir. 1990) (rejecting the organization's claim that the NHTSA was arbitrary and capricious in failing to set the minimum standards lower in light of safety concerns); Gen. Motors Corp., 898 F.2d 165 (affirming NHTSA's decision to deny the petitions to retroactive amendments to lower CAFE standards for a model year already in progress).

101. TRANSP. RESEARCH BD., *supra* note 5, at 1.

102. THOMAS L. FRIEDMAN, HOT, FLAT AND CROWDED 79-80 (Farrar, Straus and Giroux et al. eds., 1st ed. 2008).

103. *Id.*

to a higher probability of a future oil shock.[104] In addition to these national energy dependence concerns, apprehensions over global warming were mounting, and climate change activists pointed to America's transportation sector as a major source of greenhouse gas emissions.[105]

Acting on these concerns, John McCain, a Republican senator from Arizona, and John Kerry, a Democratic senator from Massachusetts, offered a bipartisan plan to reform fuel economy regulation in early 2002.[106] Their plan proposed an increase in CAFE standards to achieve a fleet average of 36 mpg by MY 2015.[107] It also proposed the implementation of a CO_2 emissions trading program to allow automakers to meet a lower standard by buying credits from utilities and other businesses that earned the credits through lowering their CO_2 output.[108]

The proposed legislation failed.[109] The Big Three and the UAW successfully argued that the proposed increases in CAFE standards would force them to build smaller vehicles that American consumers would not buy.[110] Siding with industry, the Bush Administration sought to preempt the legislation by asking Congress for the authority to revamp the CAFE regulations with no concrete commitment to future increases.[111] In the end, Republicans had won the votes of Democrats from rural and industrial states in opposing the measure.[112] The Senate voted 62 to 38 to delete the increased CAFE standards from the comprehensive energy bill it was then considering.[113] After this failed attempt to advance fuel economy regulation in 2002, Dick Durbin, a Democratic senator from Illinois, proposed an amendment for major increases to CAFE standards which the Senate similarly defeated 65 to 32 in 2003.[114] He sought passage of

104. *Id.*

105. *Id.*

106. Ben Steiner and Professor Denise L. Mauzerall, Achieving Vehicle Fuel Efficiency: The CAFE Standards and Beyond (May 10, 2006) (unpublished paper, Princeton University) (on file with Princeton University *available at* http://www.princeton.edu/~mauzeral/wws402d_s06/Steiner.pdf)

107. *Id.*

108. *Id.*

109. *Id.*

110. *Id.*

111. Danny Hakim, *Politics Keep Shifting in the Gas-Mileage Debate*, N.Y. TIMES (Feb. 6, 2002), *available at* http://www.nytimes.com/2002/02/06/business/politics-keep-shifting-in-the-gas-mileage-debate.html.

112. David E. Rosenbaum, *Senate Deletes Higher Mileage Standard in Energy Bill*, N.Y. TIMES, (MAR. 14, 2002), *available at* http://www.nytimes.com/2002/03/14/us/senate-deletes-higher-mileage-standard-in-energy-bill.html

113. *Id.*

114. Peter Behr, *Senate Rejects Tougher* FUEL-ECONOMY Standard, WASH. POST (JULY 30, 2003), *available at* http://articles.dailypress.com/2003-07-30/news/0307300363_1_fleet-average-fuel-economy-carbon-dioxide.

the legislation again in 2005 to no avail.[115]

Despite these campaigns' lack of success, a confluence of circumstances was on its way that would serve to break the 20-year deadlock on CAFE reform. Gas prices were rising: the annual national average price at the pump rose steadily from $1.64 in 2002 to $2.97 in 2007.[116] Additionally, the Big Three were in an increasingly perilous financial state due to declining sales and rising healthcare and pension costs.[117] Finally, demands for climate change policy were growing along with knowledge of global warming's harmful effects.[118]

III. A Shifting Dialogue Leads to Regulatory Progress

> "For too long, our nation has been dependent on foreign oil. And this dependence leaves us more vulnerable to hostile regimes and to terrorists who could cause huge disruptions of oil shipments and raise the price of oil and do great harm to our economy."[119]
>
> President Bush urging Congress to increase CAFE standards, January 23, 2007

The impasse on regulatory progress finally gave way in 2007. The Energy Independence and Security Act (EISA) established the first significant changes to CAFE standards since 1985, requiring that the combined car and light truck fleet fuel economy reach 35 mpg by MY 2020.[120] In some aspects, the circumstances surrounding this regulatory progress paralleled those which prompted the creation of the CAFE program: high gas prices led to public support and market demand for higher fuel economy, and Congress acted primarily with the intent of decreasing the

115. David Ivanovich, *Senate Putting Final Touches on Energy Bill: Legislation Faces Rough Road over Fuel Additive Issue*, Houston Chron. (June 24, 2005), *available at* http://www.nytimes.com/2002/02/06/business/politics-keep-shifting-in-the-gas-mileage-debate.html.

116. U.S. Energy Info. Admin., *supra* note 60. The prices listed are the annual average gasoline price.

117. *See* Paul Ingrassia, Crash Course: The American Automobile Industry's Road to Bankruptcy and Bailout—and Beyond (Random House, Inc. 2010).

118. Friedman, supra note 102.

119. George W. Bush, President of U.S., State of the Union Address (Jan. 23, 2007).

120. Energy Independence and Security Act of 2007, Pub. L. No. 110-140, 121 Stat. 1492 § 102(b)(2)(A) (codified as amended in scattered sections of 2, 15, 40, 42, and 46 U.S.C.). This energy bill also mandated increased production of biofuels, improved efficiency in appliances and buildings, and research funding for renewable energy technologies. With regard to the implementation of CAFE standards, the Act required that the standards be set based on a vehicle attributes and altered the credits trading program to allow automakers more flexibility in reaching the new standards. The new program allowed companies to carry credits forward for 5 years (instead of the 3 years previously specified) to encourage early introduction of technology and give incentive for over-compliance; to sell their credits to other companies, with no limit to how much any company can rely on traded credits to raise its CAFE; and to transfer credits between their car and truck fleets, capped at 1 mpg for 2011-2013, 1.4 mpg 2014-2017, and 2 mpg for 2018 and beyond.

nation's dependence on foreign oil.[121] However, by 2007, the push to reform fuel economy regulation had taken on another rationale: environmentalists lauded the heightened CAFE standards as a means to address global warming by reducing the automotive sector's CO_2 output, which in 2007 accounted for 28% of total U.S. greenhouse gas emissions.[122]

It was the growing concern over climate change that set the stage for the Obama Administration to accelerate the EISA's standards in 2009,[123] requiring the combined average fuel economy level reach 34.1 mpg by MY 2016, rather than 35 mpg by MY 2020.[124] By this time, it seemed that circumstances had come full circle from the later years of the Carter presidency: following legislation to increase fuel economy standards under a Republican administration in pursuit of energy independence, the Big Three had fallen into financial despair and pled for government aid from the subsequent Democratic administration and were anxious to achieve regulatory progress.[125] Luckily for the Obama Administration, it faced this set of circumstances at the very beginning of its term, whereas the Carter Administration was left scrambling to advance fuel economy regulation during its final days in office.[126]

Will the Obama Administration succeed in securing lasting reductions in oil consumption where the Carter Administration failed? To begin to answer this question, below, I explore the three coinciding conditions that prompted the recent regulatory progress: climate change litigation, the auto industry bailouts, and the Obama Administration's appetite for regulatory change. In the next section, I analyze whether these conditions denote sustainable trends toward circumstances amenable to advancements in fuel economy regulation, and to what extent the current regulations are susceptible to the conditions which led to the failure of

121. *Id.*

122. Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards, 40 C.F.R §§ 85-86, 600 (2010).

123. *See Remarks by President Obama, supra* note 1 (expressing concern over climate change as factor in acceleration of EISA emission standards); Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards, 75 Fed. Reg. at 25,324 (referring to climate change as factor in President Obama's adoption of National Fuel Efficiency Policy).

124. Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards, 75 Fed. Reg. at 25,330.

125. *See* Julie H. Davis & Tome Krisher, *Automakers plead for Congress' help*, TULSA WORLD, Dec. 3, 2008, at E3 (conveying the financial challenges major American automakers faced); John M. Broder, *Obama to Toughen Rules On Emissions and Mileage*, N.Y. TIMES, May 19, 2009, at A1 (expressing auto manufactures' support of new national efficiency standard).

126. The Carter Administration was working to implement higher requirements through rule-making in 1980, during Reagan's presidential campaign. *See* Perl & Dunn, *supra* note 12, 8-9.

the initial CAFE program to achieve lasting reductions in oil consumption.

A. Climate Change Litigation

In his May 19, 2009 address, President Obama announced that a series of major lawsuits would be dropped in support of the new National Fuel Efficiency Policy.[127] The lawsuits to which he was referring concerned states' rights to regulate automotive CO_2 emissions as a tailpipe pollutant under the Clean Air Act (CAA).[128]

Although the EPCA expressly forbids state regulation of fuel economy, states are allowed to regulate tailpipe emissions through an exception to the CAA's state action preemption provision.[129] Because California regulated tailpipe emissions prior to the enactment of the CAA, the CAA provides that California is entitled to implement tailpipe emission standards more stringent than the federal standards if the State obtains a waiver from the Environmental Protection Agency (EPA).[130] There are only three conditions under which the EPA may deny California's petition for a waiver. First, the EPA may deny the waiver if California's finding that its proposed standards are more protective than federal standards is arbitrary or capricious.[131] Second, the agency may deny the waiver if California's air quality does not imply the "compelling and extraordinary conditions" necessary to justify more stringent standards.[132] Lastly, it may deny the waiver if California's proposed standards are inconsistent with the EPA's authority to prescribe federal emissions standards.[133] Amendments to the CAA in 1977 added a "piggyback" provision: if California receives a waiver from the EPA, other states may also adopt standards in excess of the federal standards so long as these are not more stringent than California's standards.[134]

As knowledge of climate change grew, it became clear that CO_2 emissions from the automotive sector were a significant source of green-

127. *Remarks by President Obama*, *supra* note 1.

128. *See* California Environmental Protection Agency Air Resources Board, Climate Change for Mobile Sources, http://arb.ca.gov/cc/ccms/ccms.htm (last visited Sep. 30, 2011).

129. 49 U.S.C. § 32919(a) (2011); 42 U.S.C. § 7543(a)-(b) (2011). A waiver, allowing state preemption of the CAA, may be granted by the EPA for "any state which has adopted standards . . . for the control of emissions from new motor vehicles or new motor vehicle engines prior to March 30, 1966." 42 U.S.C. § 7543(b)(1). Only California meets this requirement. *See* Cent. Valley Chrysler-Jeep, Inc. v. Goldstene, 529 F. Supp. 2d 1151, 1156 (E.D. Cal. 2007).

130. *See* Cent. Valley Chrysler-Jeep, Inc., 529 F. Supp. 2d at 1156.

131. 42 U.S.C. § 7543(b)(1)(A) (2010).

132. 42 U.S.C. § 7543(b)(1)(B).

133. 42 U.S.C. § 7543(b)(1)(C).

134. Clean Air Act Amendments of 1977, Pub. L. No. 95-95, § 129(b), 91 Stat. 685, 750 (1977).

house gases.[135] Characterizing CO_2 as an air pollutant in an attempt to bring it under the purview of the CAA, progressive states would fight to regulate automotive CO_2 emissions via California's waiver right to the CAA.[136] However, because regulating CO_2 tailpipe emissions and regulating fuel economy are practically one in the same, the states' requests were questionable in light of the EPCA's prohibition of fuel economy regulation at the state level.[137]

California's plight to regulate automotive CO_2 emissions began in 2002 when the state legislature passed A.B. 1493, which directed the State's Air Resources Board to create regulations to reduce greenhouse gas emissions from cars and light trucks.[138] In September 2004, the Board announced California's new automotive regulations.[139] The standards, prescribed in units of grams of CO_2 emitted per mile, were to commence in 2009 and continue increasing through 2016.[140] The standards would have effectively raised the State's fuel economy standard from 27.5 mpg (then the CAFE standard) to 43.7 mpg.[141] In December 2005, California requested a waiver from the EPA, pursuant to its exemption from the CAA preemption provision, to implement the greenhouse gas emission standards set forth by the Board.[142]

The auto industry vehemently opposed California's proposed standards.[143] Automakers sued the state in the Eastern District of California, claiming that the EPCA preempted its greenhouse gas standards and also that the standards conflicted with federal policy to leverage agreements from foreign nations for global CO_2 emission standards.[144] The case,

135. *See* Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards, 75 Fed. Reg. at 25,326.

136. *See Cent. Valley Chrysler-Jeep, Inc.*, 529 F. Supp. 2d at 1156.

137. The amount of CO2 emissions is essentially constant per gallon of fuel consumed. Higher fuel economy results in less fuel burned to travel a given distance. Thus, the less fuel a vehicle burns, the less CO2 it emits in traveling that distance. *See* Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards, 75 Fed. Reg. at 25,327.

138. Cal. Assem. B. 1493 (codified at CAL. HEALTH & SAFETY CODE § 43018.5(a) (West 2011)).

139. *See* Green Mountain Chrysler Plymouth Dodge Jeep v. Crombie, 508 F. Supp. 2d 295, 338 (D. Vt. 2007).

140. *See* Cent. Valley Chrysler-Jeep, Inc., 529 F. Supp. 2d at 1156.

141. *See* Green Mountain Chrysler Plymouth Dodge Jeep, 508 F. Supp. 2d at 342 n.49.

142. California State Motor Vehicle Pollution Control Standards; Notice of Decision Denying a Waiver of Clean Air Act Preemption for California's 2009 and Subsequent Model Year Greenhouse Gas Emission Standards for New Motor Vehicles, 73 Fed. Reg. 12,156, 12,157 (Mar. 6, 2008).

143. *See* John M. Broder, *California Wants Strict Auto Emission Rules*, N.Y. TIMES, May 23, 2007, at A19 (displaying auto industry's opposition towards California's proposed emission standards).

144. Cent. Valley Chrysler-Jeep, Inc., 529 F. Supp. 2d at 1154.

Central Valley Chrysler-Jeep v. Witherspoon, was stayed awaiting the outcome of *Massachusetts v. EPA*, a Supreme Court case which would decide whether CO_2 qualified as an air pollutant under the CAA.[145] In April 2007, the Supreme Court, in a 5 to 4 decision, ruled that the EPA had the authority to regulate CO_2 emissions.[146] Notably, the Court rejected the argument that the EPA cannot regulate automotive CO_2 emissions because to do so would *de facto* tighten fuel economy standards, authority over which Congress assigned to the Department of Transportation (DOT).[147] The Court reasoned that the "EPA has been charged with protecting the public's 'health' and 'welfare,' a statutory obligation wholly independent of the DOT's mandate to promote energy efficiency," and concluded that "[t]he two obligations may overlap, but there is no reason to think the two agencies cannot both administer their obligations and yet avoid inconsistency."[148]

Following the reasoning in *Massachusetts v. EPA*, in December 2007, the district court in *Central Valley* rejected the automakers' claims challenging California's authority to issue automotive greenhouse gas standards.[149] A district court in Vermont, a state which was attempting to piggyback off of California's proposed CO_2 regulations, had similarly rejected the automakers' claims three months prior.[150] In Rhode Island, yet another state attempting to implement automotive greenhouse gas emission standards, a district court cited these two cases in rejecting the same automaker claims under the doctrine of issue preclusion.[151]

In October 2007, California sued the EPA demanding action on the waiver necessary to enact its proposed CO_2 emission standards.[152] The EPA, then under the Bush Administration, finally denied California's request in March 2008, over two years after the state filed the request, finding that California had not met the CAA requirement of showing that the waiver was needed to address "compelling and extraordinary conditions" regarding the state's air quality.[153] This was the first time the EPA had

145. *Id.* at 1153-54.

146. Massachusetts v. EPA, 549 U.S. 497, 558-60 (2007).

147. *Id.* at 531-32.

148. *Id.* at 531-32.

149. Cent. Valley Chrysler-Jeep, Inc., 529 F. Supp. 2d at 1170.

150. Green Mountain Chrysler Plymouth Dodge Jeep v. Crombie, 508 F. Supp. 2d 295, 347 (D. Vt. 2007) ("Congress has consistently acknowledged interplay and overlap between emissions reductions regulations and fuel economy regulations, and could not have intended that an EPA-approved emissions reduction regulation did not have the force of a federal regulation.").

151. Lincoln-Dodge, Inc. v. Sullivan, 588 F. Supp. 2d 224, 234 (D. R.I. 2008).

152. California v. EPA, 2008 U.S. Dist. LEXIS 117283, at *3-4 (N.D. Cal. Dec. 22, 2008).

153. California State Motor Vehicle Pollution Control Standards, Notice of Decision Denying a WAIVER of Clean Air Act Preemption for California's 2009 and Subsequent Model Year Greenhouse Gas Emission Standards for New Motor Vehicles, 73 Fed. Reg. 12,156, 12,157 (MAR. 6, 2008).

denied such a request from California.[154]

The litigations regarding states' right to regulate CO_2 tailpipe emissions not only put pressure on President Bush and the 110th Congress to toughen CAFE standards, but also caused great concern among automakers that someday, under a more progressive administration, the EPA might grant California's waiver. The piggyback provision to California's waiver right allowed the possibility of 50 different state-level automotive CO_2 emission standards, implying enormous logistical challenges and financial burdens for the auto industry.[155] With the threat of a patchwork of different fuel economy standards looming, automakers were becoming more amenable to advancements in federal regulation so long as these would prevent states from enacting their own standards.[156]

The parties to the lawsuits discussed above entered into a settlement agreement on May 19, 2009, the same day President Obama announced the new National Fuel Efficiency Policy.[157] The Obama Administration would later grant California's waiver on June 30, 2009, a mostly symbolic gesture as the state was obliged to work with federal regulators to establish future standards which would be enforced nationally.[158] The month prior, California had announced its commitment to revise its program for MYs 2012–2016 such that compliance with the federal fuel economy standards would be deemed to be in compliance with California's greenhouse gas standards.[159]

On May 7, 2010, NHTSA and the EPA issued a joint rulemaking establishing new requirements for the purpose of reducing vehicular greenhouse gas emissions and improving the fuel economy of America's vehicle fleet.[160] In this joint rulemaking, the EPA established greenhouse gas emission standards under the CAA, and NHTSA established CAFE standards under the EPCA, as amended by the EISA.[161] The new policy permits automakers to produce and sell a single fleet nationally, thereby

154. JAMES E. MCCARTHY & ROBERT MELTZ, CONG. RESEARCH SERV., RL 34099, CALIFORNIA'S WAIVER REQUEST UNDER THE CLEAN AIR ACT TO CONTROL GREENHOUSE GASES FROM MOTOR VEHICLES 5, 10-11 (2009), *available at* http://ncseonline.org/NLE/CRSreports/09Mar/RL34099.pdf.

155. Jessica L. Powers, *Reduce, Reuse, Resort to Litigation: Global Warming Lawsuits and What They Mean for Texas*, 40 TEX. TECH. L. REV. 123, 146-147 (2007) (quoting Rachel L. Chanin, *California's Authority to Regulate Mobile Source Greenhouse Gas Emissions*, 58 N.Y.U. ANN. SURV. AM. LAW 699, 721 (2003)).

156. Mary Beth Houlihan et al., *2009: A Year of Significant CAA Developments on All Fronts*, 40 ENVTL. L. REP. NEWS & ANALYSIS 10250, 10252 (2010).

157. *Remarks by President Obama*, *supra* note 1.

158. Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards, 40 C.F.R §§ 85-86, 600.

159. *Id.* at 25327-28.

160. *Id.* at 25326.

161. *Id.* at 25328.

allowing them to avoid the costly burdens they would have faced in having to comply with varied federal and state standards.[162]

B. History Repeats: The Bailouts of Chrysler and GM

Climate change litigation was not the only worry of the domestic auto industry during the past decade. As gas prices rose from 2002 to 2008, consumers began to shy away from larger vehicles.[163] The domestic auto industry suffered from this trend because sales of gas guzzling trucks, SUVs, and vans were its primary source of profits.[164]

The Big Three's declining market share and their failure to deliver on promises made to voluntarily increase fuel economy had diminished their political clout.[165] Despite their weakened bargaining position, the Big Three vehemently fought the 2007 proposals to increase CAFE standards, complaining that the changes targeted the best-selling trucks and SUVs on which they depended for profits.[166] This time, the UAW also opposed the changes, worried that heightened regulations would encourage small car production to move overseas.[167] To avoid becoming the political punching bag for democrats looking to make climate change policy, the auto industry first attempted to delay the regulatory changes by pushing for comprehensive climate change legislation.[168] Other CO_2 emitting industries, wanting to stall any such legislation, lobbied Congress to act on fuel economy regulation—for instance, the National Petroleum Council advocated the position that the fuel economy of America's vehicle fleet should be improved "at the maximum rate possible."[169]

After it became clear that increases in CAFE standards were politically unstoppable, the Big Three resorted to mitigating the potential im-

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162. *Id.* at 25326.

163. *See* Ingrassia, *supra* note 117, at 164.

164. *Id.* at 136. The domestic auto industry faced another competitive disadvantage due to climbing worker pension and health care costs.

165. *See* Carl Hulse, *Vote on Mileage Reveals New Configuration in the Senate*, N.Y. Times, June 23, 2007, at A11. Meanwhile, foreign automakers were gaining support in Washington by opening more manufacturing facilities in the U.S.; Mike Spector & Maya Jackson-Randall, *Big Three Try to Rev Up Weakened Political Clout — Congress Is Asked to Ease Its Plans on Fuel Standards*, Wall St. J., June 7, 2007, at A4.

166. *Hot Topic: Fuel Economy Back in the Saddle*, Wall St. J., May 12, 2007, at A9.

167. John J. Fialka & Mike Spector, Senate Approves Energy Bill, Including Fuel-Efficiency Plan, Wall St. J., June 22, 2007, at A6.

168. Jeffrey Ball & Mike Spector, *Industries Show Uncertainty Over Ruling's Impact — Some Favor Regulation From Congress, Others From Federal Agencies*, Wall St. J., April 3, 2007, at A10 ("Several domestic and foreign auto makers referred inquiries to the Alliance of Automobile Manufacturers, a trade group [that] issued a brief statement calling for a 'national, federal, economy-wide approach to addressing greenhouse gases.'").

169. Editorial, Leadership Needed; Higher Fuel Economy Standards May Be Doomed Without Nancy Pelosi's Support, Wash. Post, July 26, 2007, at A20.

pact.[170] First, industry advocated for less significant hikes in fuel economy standards.[171] Second, they asked for the new fuel economy standards to be based on the size of the vehicle instead of mandating a fleet-wide average.[172] This would allow automakers to avoid downsizing to meet the new standards as was the case with the initial regulations. Finally, the Big Three wanted the rulemaking power to remain with the DOT rather than the EPA because the EPA, by design, emphasized environmental concerns over consumer preference and safety concerns.[173] These requests were, for the most part, honored by the Bush Administration in its implementation of the EISA. The standards to be imposed were less aggressive than was technologically achievable and also were based on the vehicle's "footprint" (the wheelbase times the track width).[174] Additionally, the EPA was excluded from the standard-setting process.[175]

By the time the EISA passed into law, the auto industry supported the increases in CAFE standards (at least publicly), but pushed for government assistance, pointing to foreign governments investing heavily in next generation cars.[176] This blow to the Big Three was to be outdone just two years later, when worsened financial troubles would leave the future of Chrysler and GM at the mercy of the Obama Administration.

Following the stock market crash on September 14, 2008, vehicle sales dropped to the lowest levels seen in nearly thirty years.[177] Chrysler and GM, on the brink of financial collapse, pled for government help.[178] After Congress rejected a plan to issue $14 billion in emergency loans to the automakers,[179] President Bush diverted $17.4 billion of the Troubled Asset Relief Program (TARP) fund their way, which would be enough to get them by until the end of his term.[180] On February 17, 2009, Chrysler

170. Micheline Maynard, *Turnabout on Fuel Standards*, N.Y. TIMES, December 7, 2007, at C1.

171. *Id.*

172. John D. McKinnon & Mike Spector, *U.S. Car Makers Stand to Gain From Bush Plans — Health, Fuel Initiatives Reflect Effort to Ease Pressures on Big Three*, WALL ST. J., Jan. 25, 2007, at A1.

173. Ball & Spector, *supra* note 168.

174. *See* Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards, 40 C.F.R §§ 85-86, 600 at 25332.

175. *Id.*

176. John M. Broder, House, 314-100, Passes Broad Energy Bill; Bush to Sign It Today, N.Y. TIMES, *Dec. 19, 2007, at A24;* Spector & Jackson-Randall, *supra* note 165.

177. INGRASSIA, *supra* note 117, at 218.

178. *Id.* at 223 (explaining that Ford had initially requested federal assistance, but withdrew because it was in better financial condition than Chrysler and GM due to better management decisions and a 2006 $23.6 billion loan).

179. *Id.* at 224-27.

180. *Id.* at 227.

and GM filed viability plans with the Obama Administration, as was required in taking the TARP money, and requested another $21.6 billion in federal assistance.[181] When the TARP funds officially ran out on March 30, President Obama offered Chrysler and GM an additional 30 and 60 days, respectively, of government aid.[182] The additional time and funding would prove insufficient and on April 30, Chrysler filed for bankruptcy, followed by GM one month later on June 1.[183] By this time, the total amount of federal aid to Chrysler, GM and their subsidiaries had topped $100 billion, drawing significant public criticism but allowing the Obama Administration considerable influence over the companies' management.[184]

During these negotiations, the Obama Administration was moving quickly to take advantage of its influence. Between the two automakers' bankruptcy filings, on May 19, 2009, the Big Three would willingly agree to support the President's new National Fuel Efficiency Policy, accelerating the timeline for fuel economy improvements and establishing corresponding greenhouse gas emission standards, thereby necessitating the EPA's input.[185] The Policy also mandated a fleet-wide average in combination with the footprint standards.[186] In so doing, the Policy removed the opportunity for manufacturers to reduce fuel economy requirements simply by increasing a vehicle's size just enough to reach lower target levels. Indeed, the Policy stripped away the conditions that industry had fought for and won under the Bush Administration. The 2009 bailouts marked the first time that the automakers would acquiesce without resistance to stricter fuel economy regulation since their financial troubles in 1979-80.

C. Right Politics, Right Time

Two trends are primarily responsible for renewing the political will to mandate fuel economy improvements: rising angst over high fuel prices and loudening calls for climate change policy. By Bush's second term, oil prices were climbing in a way unseen since the oil crises of the 1970s.[187] In fact, fuel prices were the highest they had ever been, affecting the average American as well the nation's economy as a whole. On the envi-

181. *Id.* at 232.

182. *Id.* at 242.

183. *Id.* at 255, 270.

184. *Id.* at 275.

185. *See* Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards, 40 C.F.R §§ 85-86, 600 at 25326.

186. *Id.*

187. *See* Gasbuddy.com, Gas Price Historical Price Charts, http://www.gasbuddy.com/gb_retail_price_chart.aspx?time=24 (last visited Sept. 29, 2011) (demonstrating that the highest gas price during the past oil crises was $4.12 in July, 2008)

ronmental front, climate change issues were increasingly a topic of discourse, driving a tide of public opinion in support of policy aimed at reducing CO_2 emissions.[188] Conveniently, one solution could address both of these issues: reducing oil consumption would simultaneously decrease both CO_2 emissions and the nation's susceptibility to high oil prices.

Fuel economy regulation was the most politically palatable means for achieving lower oil consumption. At this point, the regulation had existed for nearly 30 years. Thus, despite the policy's debatable effectiveness, it required the least effort from a legislative standpoint to enact regulatory change. Also, because fuel economy regulation bears no immediate perceptible burden on the public, it protects politicians from a negative public reaction and corresponding reelection concerns. Finally, the domestic automakers, being the only major adversaries to the new regulation, no longer had the political clout or public support to effectively fight against advancements in fuel economy regulation.

President Bush was resistant to giving the EPA or the states power to enforce automotive CO_2 emission standards,[189] but by 2007 both the President and the 110th Congress were feeling pressure to advance fuel economy standards. In addition to the growing calls to act on energy independence and global warming concerns, the EPA was sitting on California's waiver request following the Supreme Court's decision in *Massachusetts v. EPA*. In a compromise, on the same day the EPA initially denied California's waiver request, President Bush would sign the EISA mandating higher CAFE standards.[190] Despite the Bush Administration's refusal to fully recognize greenhouse gas regulation, environmentalists lauded the EISA as a win.[191] The Union of Concerned Scientists estimated that the measures established by the EISA would cut automotive CO_2 emissions from 15% to 18% by 2025.[192]

The political popularity of fuel economy regulation had never been higher. With the EISA's passage, Democrats and Republicans alike could

188. *See generally* AN INCONVENIENT TRUTH (Participant Productions 2006) (added visibility to global warming effects and stirred public debate).

189. John D. McKinnon et al., Bush Offers Plan To Curb Reliance On Foreign Oil — State of the Union Tilts Toward Domestic Issues; Long Odds for Agenda, WALL ST. J., Jan. 24, 2007, at A1. Bush maintains that regulators, rather than lawmakers, are better situated to set new higher requirements for automakers.

190. Liz Marshall, *Biofuels and the Time Value of Carbon: Recommendations for GHC Accounting Protocols*, WORLD RES. INST., *available at* http://www.arb.ca.gov/fuels/lcfs/workgroups/ewg/071510wri-working-paper.pdf.

191. Press Release, Conservation Group Blasts Proposed National Gas-mileage Standards Bush Administration Cooks the Numbers to Allow Automakers to Keep Polluting (July 1, 2008), *available at* http://www.biologicaldiversity.org/news/press_releases/2008/cafe-07-01-2008.html.

192. Nick Timiraos, *Hot Topic: Fuel Economy Back in the Saddle*, WALL ST. J., May 12, 2007, at A9.

enter the 2008 election cycle having addressed issues important to their constituents. Presidential candidate and Senator Hillary Clinton announced her plans to double the fuel economy of the U.S. vehicle fleet by 2030.[193] Then Senator Barack OBAMA announced that he would increase CAFE standards by 4% a year, equating to about a 1 mpg increase per year, beginning in 2009.[194]

Having campaigned on a platform of change, President Obama was anxious to achieve regulatory progress upon entering office on January 20, 2009.[195] Indeed, fuel economy regulation was one of the first issues he addressed.[196] He issued a memorandum to Secretary of Transportation Ray LaHood six days after entering office, asking NHSTA to consult with the EPA before issuing future CAFE regulations and to reconsider its stance regarding the implications of *Massachusetts v. EPA* to CAFE regulation.[197] The President leveraged the Big Three's request for government aid as well as the Supreme Court's decision in *Massachusetts v. EPA* to gain a consensus unseen since the days when the Carter Administration had attempted to establish collective decision-making for fuel economy regulations in 1980. Democrats counted the May 19, 2009 agreement among California, the EPA, NHTSA, the Big Three, and the UAW to establish the new National Fuel Efficiency Policy as a political win.[198]

IV. AN EVALUATION OF THE CAFE PROGRAM'S FUTURE EFFECTIVENESS

The disappointing history of fuel economy regulation raises doubts as to whether the new regulations will succeed in not only halting the growth in demand for oil, but also in initiating a sustained downward trend in oil consumption for the first time in history. As demonstrated in the previous section, a unique set of circumstances led to the recent changes in fuel economy regulation. This section compares the past circumstances to the present to evaluate whether the current landscape for fuel economy regulation will allow it to avoid the failings of the past.

As was the case with the original CAFE standards, the future CAFE standards through MY 2016 are achievable with known technology and

193. Joseph B. White, *Eyes on the Road: New Drive for Fuel Efficiency*, WALL ST. J., Nov. 20, 2007, at D2.

194. *See* Workingcalifornians.com, Barack Obama on Environment, *available at* http://workingcalifornians.com/candidate_position/barack_obama_on_environment (last visited Sept. 29, 2011).

195. Memorandum on the Energy Independence and Security Act of 2007, 74 Fed. Reg. 4907 (Jan. 26, 2009).

196. *Id.*

197. *Id.*

198. *See Remarks by President Obama*, *supra* note 1.

will undoubtedly result in fuel economy improvements.[199] Thus, at least in the short-term, these standards will curb oil consumption. Yet, questions remain as to whether future fuel economy improvements beyond MY 2016 will be great enough to overcome the three ongoing trends that negated the effectiveness of the initial CAFE standards: (1) the increasing number of vehicles on the road, (2) the increasing number of vehicle miles traveled, and (3) the increasing proportion of light trucks. All three of these metrics have grown fairly steadily since the CAFE program began, with setbacks coinciding only with notably poor economic conditions.[200] It is unlikely that the number of vehicles on the road and the total vehicle miles traveled will decline or even level off without a significant change in transportation policy (e.g. higher gas taxes, more expensive and more prevalent tolls). However, the new regulations may slow the trend toward light trucks to some extent: because the standards are now tied to a vehicle's footprint, the automakers will no longer have the incentive to preferentially produce and market light trucks to escape the higher CAFE standard for cars.

Given that the overall demand for oil is likely to increase, past experience teaches that fuel economy improvements must keep pace with this growing demand in order to remain effective. Just as the initial improvements in fuel economy resulted in only a temporary reduction in oil import levels and, for that matter, CO_2 emissions, so too will the current changes if the government fails to mandate additional improvements beyond 2016. Recognizing this need, the Obama Administration announced an agreement on July 29, 2011 for further increases through MY 2025.[201] The newly announced standards require a fleet wide average of 54.5 mpg, representing a 50% reduction in automotive CO_2 emissions from present emissions.[202]

The Obama Administration likely did not push for legislation on fuel economy regulation because the 110th Congress had more pressing issues to address, such as healthcare reform and an ailing economy. However, the choice between specifying future CAFE standards through legislation or through rulemaking is critical, as statutory standards have proven to be

199. *See* Nat'l Highway Traffic Safety Admin, CAFÉ Rules Overview, NHTSA, *available at* http://www.nhtsa.gov/cars/cafe/rules/overview.htm (showing that the rate of increase in fuel economy standards from 2011 to 2016, at 1.1 mpg per year, is comparable to the rate of increase that was required by the EPCA from 1978 to 1985, at 1.2 mpg per year); *see also* Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards, 40 C.F.R §§ 85-86, 600. (explaining that, as was the case in 1975, industry has the technology to achieve the future standards).

200. U.S. ENERGY INFO. ADMIN., *supra* note 32. The total number of vehicles on the road has increased at a fairly steady rate, oscillating between 1% and 3% per year, since 1975.

201. Eilperin, *supra* note 4, at A17.

202. *Id.*

a more effective means for securing improvements in fuel economy regulation. History teaches that this regulation is politically sensitive, rendering rulemaking too subject to change between different administrations. Reagan's moves to decrease the standard to the statutory minimum and to cancel Carter's Notice of Proposed Rulemaking to increase standards beyond MY 1985 illustrate this point. While the Obama Administration's rulemaking that sets standards as far out as 2025 is promising, it is subject to the same fate as Carter's similar proposed rulemaking. Even Obama's accelerated standards through 2016 are subject to administrative change, as the National Fuel Efficiency Policy establishing these standards is also the product of agency rulemaking.

Although it is best to write fuel economy regulation into law, the circumstances fostering the political will to change fuel economy law are rare. In both 1975, when Congress passed the EPCA, and in 2007, when Congress passed the EISA, the domestic auto industry was in relatively weak financial condition, and there was widespread apprehension over the nation's dependence on foreign oil in light of unrest in the Middle East and high prices at the pump. In contrast, when Senators McCain and Kerry attempted to pass legislation to advance CAFE standards in 2002, their efforts failed in spite of obvious need for such advancements in part because the Big Three had some level of political clout at that time and in part because fuel prices had not yet reached a level to generate serious concern among the public.

Notably, the confluence of circumstances necessary to pass fuel economy legislation may come about more often in the future. Global demand for oil has reached a level which global supply cannot consistently meet. Thus, it is likely that oil prices will remain persistently high in light of the ever-increasing global demand. Furthermore, unrest in the Middle East, a major oil-exporting region, appears unlikely to subside in the foreseeable future. As a result, there is a greater likelihood of oil shocks and high oil prices in the coming decades barring an unlikely decline in global oil consumption.

It is also possible that the domestic auto industry will not fight advancements in fuel economy requirements as it did in the past. American auto manufacturers are now advertising themselves as the producers of the cars of the future, responding to public opinion in favor of green companies. Additionally, hybrid and electric vehicles may achieve substantial market penetration with the renewed push for fuel-efficient vehicles. This would obviate the difficulty industry now faces in satisfying conflicting market demands and regulatory constraints. Even if demand for alternative vehicles does not grow, higher oil prices in the foreseeable future will help to create demand for fuel-efficient vehicles. On the other hand, the industry has retracted similar commitments to improve fuel

economy in the late 1970s. Thus, as the financial condition of the Big Three improves, it is reasonable to presume that the industry would again push for less stringent regulations.

The establishment of EPA's authority to regulate automotive CO_2 emissions undoubtedly marked a significant change in the landscape for fuel economy regulation. First, it allowed the Obama Administration to leverage the automakers' preference for one national standard, even if it meant increases in the federal standard, over having to meet multiple federal and state standards. While future administrations may disfavor advancements in fuel economy requirements, barring legislative changes to the CAA,[203] there will always be progressive states pushing to regulate automotive CO_2 emissions through California's waiver right. States may thereby put pressure on the current administration to maintain acceptably high standards. Also, if a future administration attempts to reverse the changes made by the National Fuel Efficiency Policy to have the EPA, NHTSA, and California work together on fuel economy standards, litigation on the matter is guaranteed, serving as a likely deterrent to such action. Notably, states had no such influence in the original debates over CAFE standards because state regulation was expressly prohibited by the EPCA.

Representing another key difference between past and present, the regulation now has a dual rationale. It is likely that the new and growing climate change concerns will better serve to encourage enduring advancements in fuel efficiency than the energy independence concerns which incited the initial fuel economy regulations. History has shown that the political will to fight for energy independence is strongly tied to the present fear of oil shortages, and when oil is plentiful and inexpensive there have been no advancements in the fuel economy of America's vehicle fleet. In contrast, concerns over climate change are persistent and increasing over time as the science behind global warming improves and its harmful effects become more evident. Furthermore, as knowledge and acceptance of climate change grow, it is increasingly unlikely that future administrations would undo climate change policy by, for example, refusing the EPA's or California's participation in automotive CO_2 regulation

203. Notably, such a bill was recently proposed. *See* John M. Broder, *Inhofe & Upton: Just Say No to the E.P.A.*, N.Y. TIMES BLOG (Mar. 3, 2011, 5:27 PM), http://green.blogs.nytimes.com/2011/03/03/inhofe-and-upton-just-say-no-to-the-e-p-a/. ("The Inhofe-Upton bill allows many Clean Air Act programs to continue, but takes away the agency's authority to apply the landmark law to carbon dioxide. A deal negotiated with automakers to limit carbon dioxide emissions from cars and light trucks would be allowed to stand through 2016, but no further greenhouse gas emissions rules for vehicles would be permitted. State programs to try to address global warming and carbon emissions would be allowed to continue.").

or removing the parallel greenhouse gas standards that the National Fuel Efficiency Policy put into place.

V. Conclusions and Recommendations

An examination of the history of fuel economy regulation provides instructive lessons. Perhaps most importantly, fuel economy regulation can lower oil consumption but improvements in fuel economy must continue if the regulation is to keep pace with the ever-growing energy demands of the transportation sector. Also, legislation is superior to rulemaking when attempting to secure future fuel economy improvements, because rulemaking is especially subject to changes in the political scene. Finally, the conditions generating the political will to make legislative change to fuel economy regulation have been rare, suggesting that lawmakers should act expediently to secure this kind of change when the right circumstances exist.

In light of these lessons, Congress should amend the EPCA's prescription for CAFE standards as soon as the political climate allows. Ideally, the CAFE standard would ramp up steadily over a longer time period, for example, over the course of the next four decades. Long-term mandates would give the industry the certainty it needs to invest in research of alternative technologies. The legislation should aim to ban gasoline and diesel powered vehicles over the long-term, thereby eliminating the nation's energy independence problem, and significantly reducing the nation's CO_2 emissions. Although this may seem to be a lofty goal, it would bring U.S. automotive policy in line with recent European policy proposals to the same end.[204]

The recent actions to advance fuel economy regulation undoubtedly denote significant progress. The Obama Administration took advantage of uniquely favorable conditions to implement important changes in fuel economy regulation, accelerating the increase in future CAFE standards, establishing automotive greenhouse gas emission standards, and attempting to secure future improvements in fuel economy through MY 2025. Indeed, the success of fuel economy regulation looks more promising as it enters its second act.

204. *Petrol-Powered Cars Could Be Banned from European Cities by 2050*, Env't News Service (Mar. 29, 2011), *available at* http http://www.ens-newswire.com/ens/mar2011/2011-03-29-01.html.