

Competitiveness Accountability & Innovation

Health Care for Hybrids:

*Investing in Oil Savings, Retiree Health Care,
and a Revitalized Auto Industry for a
Stronger America*

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Competitiveness, Accountability, and Innovation:

Investing in Oil Savings, Retiree Health Care, and a Revitalized Auto Industry for a Stronger America

Recent months have brought news of a growing crisis among U.S. automakers. Faced with surging gasoline prices, aging industrial plants and workers, crushing legacy health and pension costs, and a product line lacking in diversity, U.S. automakers are losing money and market share. The response from industry has been to lay off workers, scale back investment, and offer steep discounts that drive up sales but threaten profitability further.

The story is not a new one. Despite periods of profitability and growth, U.S. automakers have lost large swaths of the global and domestic markets to foreign competitors over the last thirty years. Yet the economic importance of the auto industry is undeniable; roughly one in five jobs in the industrial Midwest is dependent upon General Motors alone.

If the industry's financial crises deepen in part because of legacy health care costs, the demand for public intervention to ensure the survival of this important sector of the economy will grow. And, given the strategic, historical, and cultural importance of the U.S. auto industry, the political leadership of both parties is unlikely to stand by much longer. Any emergency relief in the form of public investment to revive the U.S. auto industry, however, should guarantee an equally significant public benefit. An initiative to relieve automakers of retiree health care costs could easily be designed not only to address the immediate crisis in health care financing, but also to ensure accountability and progress on broader public goals, by creating strong incentives for investing in modernization, creating and retaining domestic jobs, and reducing U.S. dependence on oil.

The question for policy makers, elected officials, and taxpayers is what form should such action take and what guarantees and accountability should taxpayers demand, in order to ensure such an investment generates quantifiable public benefits.

The American auto industry faces three significant challenges that are closely related though not often considered together in public debates. Because of the way that health care is financed in this country, U.S. automakers bear a staggering financial burden not shared by competitors, covering legacy and catastrophic health care costs. At the same time, domestic manufacturers continue to lose jobs and market share especially in leading edge advanced technology and energy efficient vehicles. These trends are made more ominous as oil prices skyrocket, turmoil in the Middle East persists, and the threat of global warming looms, creating pressure on the nation to reduce dependence on oil, and on firms to change strategy and diversify their fleets.

This white paper is intended as a thought piece, outlining a new strategy to strengthen incentives for the auto industry to invest in good manufacturing jobs in energy saving technology, by offering legacy health care cost relief. We calculate that by investing in assistance for catastrophic retiree health care costs, it would be possible to save over a million barrels of oil a day, while improving the competitiveness of US business and the retirement security of American workers.

Such an initiative could include the following 5 key elements:

Legacy Health Care Cost Relief: By joining a voluntary program, manufacturers could receive relief for a percentage of their total retiree catastrophic health care costs. The level of relief could then rise with domestic investment in oil saving technology.

Manufacturing Incentives: Firms participating in this program would commit to reinvest a significant portion of health care cost savings into the domestic manufacture and commercialization of fuel-efficient vehicle technologies, including hybrids and clean diesels.

Oil Savings: The incentives would be structured to ensure that firms achieve real oil savings by deploying new technology in their fleet. Continued participation in the program would be tied to ensuring that investments led to real savings.

Trust Fund Financing: By establishing a self-sustaining trust fund, capitalized with a one-time federal appropriation, a program could be designed to minimize costs to the treasury and ensure reliable and sustained funding of retiree benefits.

Cost Offsets: Financing such a measure by closing tax loopholes that reward the outsourcing of U.S. jobs and accounting manipulation, or by linking this program to new revenue streams from climate policies, would further improve incentives.

An initiative should also honor the following principles:

Any program should be **technology neutral**, allowing firms to determine their technology mix, not focusing on a single technology like hybrid cars.

Any program should be a **voluntary incentive program** encouraging firms to move beyond compliance, and not linked to changes in fuel economy standards.

Any program should provide a **significant and predictable benefit** to participating firms, allowing planning certainty for companies across model years.

Any program should include **measurable commitments to public benefits** in return for this substantial public investment in the health of the industry.

Any program should be **open to any automobile manufacturer** producing cars domestically that fund health care for their retirees.

Any program should be structured to allow **flexible oversight and rule making** to ensure that the schedule of benefits responds to changing economic conditions.

Any program should be **grounded in precedent** in existing policy for addressing structural economic problems in strategic industries like energy and transport.

Any program should be **sound policy** from the perspective of health care, environmental, economic, and industrial concerns.

Preserving Jobs, Security, and the Environment: An Opportunity

Since 2001, the U.S. economy has lost 2.7 million¹ jobs in the manufacturing sector. This outsourcing of good jobs with family supporting wages and benefits has hurt U.S. workers and destabilized communities across our nation, especially pressuring the economy of our industrial heartland. These changes are not simply the result of shifting production decisions based on comparative advantage in a globalizing economy. U.S. industry does not face a level playing field when compared with other industrialized nations in the social costs born by business. While our competitors spread the cost of healthcare and retirement broadly across the economy through social insurance, U.S. businesses bear a staggering and disproportionate financial burden by carrying the legacy costs of health care and pensions for retirees as well as providing private health insurance for current workers.

American automobile manufacturers especially bear tremendous economic burdens in the form of legacy healthcare and pension costs, which in turn hurt competitive positioning and increase pressure on wages and job security. The Big 3 domestic automakers – Ford, GM, and Daimler-Chrysler – expect to spend a staggering \$6.7 billion on retiree health care alone in 2005². GM has announced that it will layoff 25,000 workers due in part to these legacy costs, while Ford and GM recently had their credit ratings downgraded to junk bond status, as profits have eroded substantially for U.S. car companies. And although recent sales figures have increased, this has been the product of deeply discounted prices that may not be sustainable in the long term if the companies are to return to profitability.

Continuing a trend toward loss of market share and slipping American leadership in the auto industry would have a devastating ripple effect across the U.S. manufacturing economy, especially in America's Midwestern industrial heartland, impacting a host of other goods from rubber, steel, glass and machined part to paint and carpeting. Leveling the playing field for U.S. industrial competitiveness by fixing the crisis in health care finance will retain good jobs, and should remain one of the top priorities for American political leadership. The crisis in the U.S. auto industry offers a high leverage opportunity to begin to face this national challenge, while improving competitiveness more broadly.

The structural problems for industry resulting from the costs of failing to provide adequate social insurance are further intensified by energy and environmental crises in the broader society, which have disproportionate impact on car makers. The national security implications of our growing dependence on imported oil, for example, are increasingly of concern to Americans. This was played out on the front pages of national newspapers when the China National Offshore Oil Corporation (CNOOC) attempted to acquire California-based Unocal, including their energy assets. Although largely a peripheral player, the fight over Unocal demonstrated that finite oil resources could become a point of contention as China emerges as a global power.

Of more immediate national security concern is the dominance of oil markets by nations that are hostile to the United States. Currently, the two largest funding sources for Islamic extremism and terrorism, Saudi Arabia and Iran, are also the first- and second-largest oil exporters. Record profits in the oil industry frequently undermine hopes of democratic reform by supporting patronage and military build up and funding extreme elements in oil states ruled by monarchies and repressive regimes.³ As a result, reducing oil dependence is increasingly recognized as a critical element of both national and economic security, creating a new driver of change in the auto industry.

Rapid shifts in pressures on consumers are also impacting U.S. auto manufacturers. Rising gas prices have hit record levels in recent years with gas at the pump recently breaking \$3.00 a gallon while crude oil prices climbed toward \$70.00 a barrel⁴. The market fundamentals show few signs of relief. Chinese demand for petroleum increased 25% last year and now stands only behind the U.S. in consumption⁵. Most analysts – from Goldman Sachs to the National Energy Commission to Chevron Chairman and CEO David J. O'Reiley – believe that the era of cheap oil is over, while constrained refining capacity even before Hurricane Katrina

has meant further pressure on gasoline prices. Environmental pressures like concern over the threat of global climate change and local air pollution are not only matters of public health, but also create additional instability for American manufacturers by establishing an uncertain regulatory environment. Higher oil prices are likely to disproportionately impact US auto manufacturers due to their greater dependency on fuel-inefficient, truck-based SUVs and pickups.⁶

As a result of all of these forces, there is a growing bi-partisan consensus that meaningful policy responses are needed, and energy issues remain high on the list of political and pocket book priorities for average Americans. Add to this environment an industry facing severe economic instability, and it is clear that law makers are facing increasing pressure for public policy intervention, making the involvement of the federal government ever more likely. As the Detroit News recently noted, “there is still lots of talk about an indirect bailout – say, through shifting retiree health care and other “legacy costs” to the taxpayer.”⁷ What is far less certain is how to develop policies to promote energy savings while improving the financial health of the domestic industry.

In response to these concerns over jobs, security, industrial competitiveness, and energy, and in the face of political stalemates over addressing the growing demand for oil, several innovative solutions to promote domestic manufacturing of energy efficient vehicles have been introduced into the political dialogue in recent years. These measures – advanced by members in both houses of Congress, and supported by a diverse and bi-partisan array of groups including the Apollo Alliance, the National Commission on Energy Policy, Set America Free, the Natural Resources Defense Council, and the Energy Future Coalition – have focused on expanding the market for more efficient high-performance vehicles and driving new technology into the fleet, like hybrid electric drive trains, advanced diesel engines that meet stringent air quality tests, and alternative or flexible fuel vehicles.

The principal federal policy tools that have been advanced include consumer financial incentives to increase market demand for purchasing high efficiency cars, and increasingly, discussion has centered on manufacturing incentives to convert U.S. assembly lines and retrain workers in an effort to rapidly commercialize a new generation of domestically produced, advanced technology vehicles. While some measures were proposed in the recently passed energy bill, in both the House and Senate, the final bill was largely silent on the issue of reducing U.S. dependence on oil and meaningful measures targeting the domestic manufacture of advanced technology cars were not included in the final package. Moving forward, it is likely that Congress will have to revisit the question of our nation’s oil imports, and this creates a real opportunity to stabilize the auto industry, increase domestic job retention and creation, and improve the efficiency of the U.S. fleet, through thoughtful policies to promote automobile manufacturing conversion toward high performance energy saving vehicles.

Manufacturing incentives in particular could have a highly beneficial impact on retaining U.S. industrial production and jobs by driving new investment directly into American plants, workers, and capital equipment. These domestic investments would serve to stabilize regional economies and capture the next generation of good jobs in advanced technology for U.S. workers, as plants and products modernize. However, given the difficult financial position of U.S. automakers, there are limits to the effectiveness of constructing strong financial incentives for new investments by offering tax credits to offset corporate income tax liabilities.

It appears increasingly likely, however, that the U.S. auto industry is going to need legacy health care cost relief, either through public intervention or worker concessions and lost retiree benefits, or both. While in Japan these costs are already shared publicly, ensuring a lower cost business climate and more secure benefits for the elderly and infirmed, in the U.S. insufficient attention has been given to the crisis in our health care financing system and the burden that it places on the overall economy.

By linking manufacturing incentives to a real and pressing financial incentive for industry, America could actually strengthen our social safety net, improve the health of industry, and reduce our reliance on oil. Linking

a requirement for domestic manufacturing investments in advanced technology vehicles to any future calls for industry relief would go to the heart of U.S. competitiveness in the auto industry, improving the diversity of the product mix, increasing domestic job creation, and addressing problems with the cost structure faced by firms. Relief for retiree catastrophic health care costs for example, would immediately improve the financial position of the Big Three, while leveling the playing field with competitors. In addition, creating stronger incentives for securing domestic production of more efficient vehicles would help diversify product lines and potentially capture greater market share in advanced technologies for U.S. producers.

In addition to creating meaningful incentives to drive domestically produced technology to market, an approach linking legacy health care cost relief to deployment of more efficient technology could have additional public benefits by averting the potential dislocation of retirees in the event of bankruptcy, layoffs, or further economic disruption within the industry, and by improving the U.S. auto industry's market positioning by expanding capacity to supply changing markets. This paper is intended to stimulate debate on near term opportunities to advance legislation that meaningfully addresses the growing threats to American industrial leadership, our nation's energy freedom, and the economic security of workers, retirees, and consumers.

Understanding Legacy Costs as a Barrier to Domestic Competitiveness

The competitive disadvantage for U.S. automakers from the absence of a national strategy on health care financing is becoming increasingly clear. GM faces the largest legacy costs (defined as health care plus pensions for retired workers) at **roughly \$1,500 per car**. The Big Three (GM, Ford, and the Chrysler division of DaimlerChrysler) together face roughly \$680 per vehicle retiree health care cost disadvantage⁸.

The magnitude of these costs is enormous, and the disparity between the costs faced by U.S. firms and foreign competitors is equally large. In fact, earlier this year, Toyota passed up hundreds of millions of dollars in subsidies when they declined to open a new U.S. plant to manufacture their RAV4 mini-SUV for the North American market. Instead, Toyota chose to build its \$800 million, 100,000 vehicle per year factory in Ontario, Canada, citing among other reasons the fact that Canadian workers were cheaper to hire than Americans due to the Canadian taxpayer financed health care system.⁹

Retiree Health Care Costs

Together, the Big Three automakers support roughly 800,000 retirees and surviving spouses, compared to less than 1,000 for foreign-owned competitors in the United States.¹⁰ Big Three automakers paid total health care expenditures of \$10 billion versus an estimated \$1.6 billion for their competitors in 2003¹¹.

GM alone provides health coverage for 1.1 million beneficiaries including survivors and dependents. In 2004, GM spent \$5.2 billion on health care, of which two-thirds went to 339,000 retirees¹². Ford spent \$2 billion on retiree health care in 2004¹³, and Chrysler Group spent \$1.3 billion¹⁴. This is an average of \$650 per vehicle sold. While in Japan, retirees are switched to national health care within two years. That means the Japanese workforce "legacy" costs for Toyota amounted to just 3,000 people¹⁵.

Clearly the lack of a system for addressing the health care needs of American retirees has become a major competitive disadvantage for our economy as a whole, placing U.S. workers in a diminished bargaining position for wages and job security with the rest of the industrialized world, not based on their skills or productivity, but based simply on the way this country finances health care. Targeting retiree health costs offers not only a strong incentive for fuel savings investment, but a real improvement in market structure.

Catastrophic Coverage and Other Legacy Cost Concerns

In addition to the exceptional costs born by U.S. firms to insure retirees, providing health coverage for the highest risk and sickest beneficiaries, both current workers and retirees, adds enormous costs to the medical expenses carried by industry. Catastrophic coverage for GM, for example, accounts for 30% of total health care costs, to insure just the “sickest” 1% of their pool, according to GM health care analysts¹⁶. Using the federal government’s ability to provide reinsurance protection for industrial employers to reduce exposure to catastrophic coverage costs has attracted a variety of supporters, and broad bi-partisan interest.

The U.S. auto industry also bears responsibility for the defined benefit pension plans of its retirees. While these plans are financed through workers’ deferred wages, declining credit ratings mean that GM and Ford are now listed by the Pension Benefit Guarantee Corporation (PBGC) as “probable failures” at risk of plan termination. While unlikely, should rising pressures on profit margins from health care costs, global competition, and other sources force any of the Big Three into insolvency, they would presumably shed their pension obligations, leaving employees with capped pensions below what they had been promised, and placing further stress on an already overloaded pension guarantee system.

Clearly, providing a mechanism to reduce the auto industry’s exposure to major health care and legacy costs would significantly improve the financial health of this strategic industry, as well as improving the safety net for American workers.

Offering a Plan for Legacy Cost Relief for Domestic Auto Manufacturers

Recognizing the seriousness of legacy health care costs as a burden on U.S. auto industry competitiveness, a program could easily be developed to reduce retiree health care cost burdens of car manufacturers with U.S. production facilities, especially targeting retiree catastrophic health care coverage. Such a plan would help level the playing field for domestic automobile manufacturers when compared to their Asian and European competitors who receive public support for health care and pension obligations. Further, it would avert similar retiree health care cost problems for foreign transplant companies, as they begin to develop more sizeable populations of U.S. autoworker retirees. By helping to establish stronger incentives for domestic production of advanced technology vehicles, this program could also provide significant public benefits in the form of manufacturing job retention and reduced dependence on imported oil. Such a program would represent sound economic, health care, environmental, and security policy, and should be fully compliant with WTO and other trade agreements.

The federal government could play a useful role in strengthening the competitiveness of the auto industry by creating a stop-loss insurance policy for retirees of auto companies manufacturing in the U.S. This reinsurance plan could be financed through a trust fund that would defray the costs of retiree health care coverage. A one-time appropriation on the order of \$10 billion would be sufficient to establish an interest-earning trust fund able to generate income sufficient to sustain a program on an ongoing basis, beyond an initial allotment. In return for this cost relief, automakers would commit to invest in the domestic production of more efficient and advanced technology vehicles, capable of saving over 1 million barrels of oil per day, as has been proposed under a range of domestic manufacturing incentive plans.

While this price tag may at first seem prohibitive, it is not out of line with similar government expenditures of particular strategic importance. For example, the Air Transportation Safety and System Stabilization Act of 2002 offered \$10 billion in loans to the airline industry as they faced unique security threats following the terrorist attacks of 9/11, although as a loan guarantee the actual cost to the treasury was less. Similarly, \$10 billion has been appropriated each year for the last two years for the ballistic missile defense program, and over

\$10 billion dollars has been appropriated to the Halliburton Corporation alone for the reconstruction of Iraqi oil fields and troop support. Clearly when seen in this light, an investment in reduced domestic oil dependence, while addressing a major competitiveness issue facing one of our country's major strategic industries and improving health security for U.S. workers, is in line with similar national commitments. This investment could be offset by closing loopholes within the tax code that encourage accounting manipulation.

This voluntary incentive program would establish a stop-loss insurance plan covering self-insured retiree plans in the auto industry (similar in concept to non-proportional reinsurance), which would play the role of an assuming company for catastrophic health claims and claim adjustment expenses in the retiree population. Estimates indicate that these costs account for roughly two-thirds of expenditures in retiree health care¹⁷. Such a plan would offer very substantial ongoing benefits to retirees and real relief to industry; it would also interact well with Medicare benefits and provide a flexible tool for advancing a broad range of public policy goals.

Legacy Cost Relief as an Incentive for High Efficiency Cars

U.S. auto workers are currently at a disadvantage in the global market, not only because domestic manufacturers have unequal legacy cost burdens, but also because American firms are so heavily concentrated in a few segments of the overall vehicle market. Current incentives have not been sufficient to promote a more diverse product mix or to reclaim market share in small cars or highly efficient vehicles. Establishing incentives that help to expand these markets domestically without increasing outsourcing or creating new competitive disadvantages for U.S. firms and workers will further strengthen the industry.

Because a program of legacy health care cost relief represents a very significant public commitment to strengthen the industry, it is appropriate that the policy incentives come with measures for accountability to make the market more responsive to the broader public benefits of improved oil savings and increased energy conservation. A number of policy mechanisms are available for ensuring these outcomes. Participation in a voluntary stop-loss plan could be linked to guarantees on oil savings, incremental efficiency improvements, or targets for commercializing new technologies like hybrid drive trains and advanced diesel engines. All of these tools are distinct from increasing the national fuel economy standard, and would represent voluntary incentives for moving beyond compliance with existing regulations, independent of any potential changes in the fuel economy standard overall.

Once a federal trust fund is established to provide stop-loss insurance coverage for retiree catastrophic health care expenses, sustained participation in the program could be contingent upon improvements in oil savings, measured against a company's predetermined baseline. One model for such a provision was outlined by the National Commission on Energy Policy (NCEP)¹⁸. Such an approach ensures that incentives lead to gradual and continuous improvements by insisting that new investments in advanced technology do not result in "backsliding" on oil savings elsewhere in the fleet as new technology comes on line, and creates a guarantee that those firms receiving benefits from the program, in fact reduce oil consumption overall. This is a voluntary, performance based incentive model, which could supplement the existing program of corporate fuel economy standards. Attention would need to be paid in implementing such a plan to ensure that firms have predictability in this benefit, and aren't adversely impacted by variations in sales across vehicle classes, but this challenge could be managed, and with rising consumer interest in fuel efficient vehicles, such a "pull" approach can help to ensure that new product lines are brought rapidly to market and aggressively marketed by producers.

This strategy could be used to offer manufacturers an increasing incentive in the form of catastrophic coverage for retirees with increasing rates of reimbursement that rise along with gains in oil saving, but unlike raising baseline standards, it allows firms to opt in to the program and set the timing and pace of any technology investments based on market forces and their specific business strategy or other concerns.

In the context of legacy cost relief, this incentive model might be applied in the following manner. Upon entering into the voluntary program, firms could qualify for a baseline level of relief tied to the “attachment point” for the stop loss policy, or the dollar value above which catastrophic retiree health costs will be reimbursed. This attachment point offers a convenient mechanism for gradually increasing benefits from the program as broader public goals are achieved.

If the trigger for reimbursement on health care costs by the trust fund were set, for example, at \$150,000 per claimant as a baseline level of relief for all participating firms, the program would offer a minimum level of assistance at an estimated 5% of total retiree health coverage costs. This rate of reimbursement could then rise as the manufacturer reached new benchmarks in oil savings – by lowering the stop loss attachment point – thereby covering an increasingly higher percentage of total costs.

Following on the above example, an attachment point could be lowered to \$75,000 as performance crossed a particular threshold. Reimbursements would then cover roughly 10% of U.S. auto industry retiree health expenses (or \$670 million in 2005). Higher rates of reimbursement could also be set to continue offering higher tiers of benefit for oil saving improvements. Setting the appropriate level of reimbursement, and indexing it to oil savings or domestic investment targets could be overseen by an expert board of governors or a federal administrative agency.

To estimate oil savings for this analysis, we assumed a conservative fixed rate of investment at \$800 million per year. This would offset approximately 10% of retiree catastrophic health care costs, and redirect these funds toward investments in manufacturing conversion to deploy a broad range of fuel saving technology. We assumed this investment was focused on offsetting manufacturing fixed capital and engineering costs, and calculated the amount of fuel savings that could be achieved by deploying a range of fuel saving technology. Under these calculations, over the decade running from model year 2009 to 2018, ***it would be possible to save about one million barrels of oil per day at the end of 10 years***, with a program designed to increase fuel economy in two stages.¹⁹

Such an incentive based approach offers a number of benefits when compared to traditional approaches for regulating fuel economy. First, the incentive could be calibrated so that the marginal cost of fuel economy gains remained below the size of the legacy cost benefit, ensuring that the economic proposition represented a real incentive for new investment and technology deployment, not an imposed cost on firms. Continuous improvement targets tied to oil savings are also technology neutral, and could be designed to reward either increased fuel economy or increased use of flexible-fuel or alternative fuel vehicles that use less oil by shifting to carbon neutral bio-fuels or other low carbon, non-petroleum fuels. This strategy has been embraced by the auto industry in Canada in place of focusing solely on fuel economy.

An oil saving incentive linked to legacy cost relief would reward companies for moving beyond compliance with minimum standards, but would also allow greater sensitivity to the impact of timing and product life cycles on a company’s investment decisions and profitability. By using incentives to encourage new investments in fuel saving provisions, this system allows firms to respond to their underlying cost structure, and may facilitate earlier investment in new models. The sustained improvement approach also has the benefit of encouraging each manufacturer to improve against their own performance baseline, and does not disproportionately benefit firms that currently have higher average fuel economies, rewarding all gains for all firms. Further, this approach could be designed to be self regulating, offering an economic disincentive to backsliding, as firms would realize lower levels of legacy cost relief in the event of oil savings decline.

On a side note, environmentally driven policies could also provide an unexpected source of revenue for supporting such a program. With climate change legislation gaining momentum in the national debate, it is important to note that the trust fund proposed here could easily be structured to receive federal dollars from the

auction of carbon emission credits in the event that cap and trade provisions were ever to come into force. These funds could be quite considerable, on the order of tens of billions of dollars, and could represent an important additional funding stream for addressing legacy health care and other competitiveness issues faced by domestic manufacturers within the context of advancing energy independence. Linking this new revenue to improving the cost structure of a high performance domestic auto industry would be an entirely appropriate public purpose for such funds, should such a policy come into force.

Precedents for Federal Action

A number of precedents exist for assisting strategically important or unduly burdened industries with health and pension security. At various times in American history, public interventions have helped railroad workers, coal miners, the airline industry, and employees in other key industries while providing significant public benefits. Stabilizing the U.S. auto industry, strengthening the social safety net for retired workers, and reducing our national dependence on oil can be achieved in tandem, through a voluntary program that matches meaningful public investment with standards for providing a public return on that investment. Several precedents are addressed briefly here, with discussion of the specific policy mechanisms for their implementation in the context of transitional relief for the auto industry.

Railroad Trust Fund

Railroad workers currently receive healthcare, pension, and survivor benefits through a trust fund paid for by federal appropriations from general revenue and matching contributions from railroad companies. Between 1976 and 2003 this fund released \$8.12 billion and insured 12 million present and former employees who were eligible to file for benefits under the RRB.²⁰

This model offers a potential precedent in existing law, which demonstrates the workability and strategic value of linking public support for industry specific health coverage within industrial policy. Further, this legislation demonstrates the value of establishing an entitlement for retirees to avoid the uncertainty of relying solely on yearly appropriations for their coverage. The railroad plan is funded through investment income, payroll taxes, and a fee on railroad companies.

Recent debates over social security have stimulated discussion on the use of private markets to maximize return on long-term public investments. The railroad trust fund invests its assets, subject to certain limitations to ensure stability, in the private market to maximize return. The payroll tax provisions and the employer penalties could be replaced with a one-time appropriation for the fund in a plan designed for the auto industry.

Black Lung Coverage

The Black Lung Fund was established as a way to provide medical support and disability benefits to coal miners. The coal program also offers an important precedent, as helping coal miners was undertaken out of recognition of a public problem that the marketplace was not prepared to address. The black lung program also offers examples of both claimant and financing mechanisms. In its modern form (post-1977) the financing of the black lung fund has three key components: an excise tax, trust fund revenue, and recovery from “responsible operators.” The trust fund model is relevant to this proposal.

The black lung program is useful as a model for establishing an auto industry program in two ways. The excise tax provisions for the coal industry have a direct correlation to the premiums currently paid by U.S. auto manufacturers. In addition, based on a close study of revenue and outlays from the black lung fund, it

is very likely that revenue from such a trust fund once established would be sufficient to cover all associated costs. Although the black lung trust runs a deficit, this is due to the delayed implementation of key financing provisions in 1977, nearly ten years after implementation. As a result, debt servicing subsumes all costs of implementing the health benefits provisions.

In 2002 for example, receipts totaled \$594 million versus \$443 million in outlays attributed to benefits and administrative costs, while interest for 2002 was \$593 million.²¹ The underlying financial model without this liability are quite sound and would be appropriate for application to the auto industry. And, even with this debt, there are proposed plans that would allow for an intra-governmental transfer resulting in lower-rated bonds to be issued to finance the debt, paid with a one-time appropriation to the Treasury.

Financing an Autoworker Retiree's Health Care Trust Fund

Although this paper focuses principally on a trust fund financing mechanism, it is worth noting that this is not the sole option for financing such a measure. Many examples can be found of various funding mechanisms, such as loan guarantees, user fees, or what is known as “feebates.”

Loan guarantees have a long history of being offered in times of industrial crisis, when further access to credit has been denied, or when there has been an overriding social need to keep a company or industry going, often in the name of critical infrastructure or security. One of the best-known cases involves one of the original Big 3 auto manufacturers, Chrysler, which was facing liquidation in the early 1980s. At the time Chrysler was the 10th-largest employer in the United States. The Chrysler Loan Guarantee Act offered \$1.5 billion in aid, and Chrysler survived. This example has made loan guarantees a popular mechanism as, in the end, the loan was repaid and the government, having taken equity in the company in exchange, was able to sell its shares in 1983 for a \$311 million profit. This did not, however, preclude Chrysler from being forced to shed large numbers of jobs, the threat of which had provided the original impetus for government action.

Loan guarantees have most recently been used in the airline bailout at the beginning of the decade. In that case many of the legacy carriers in particular were hard hit by a drop in commercial air travel in the wake of the terrorist attacks of 9/11, as well as increased operating costs as fuel prices have continued to rise. However, in this case, the airlines have continued to struggle. Additionally, as noted in the Chrysler example, companies generally have to be willing to allow the government to take equity in the company as part of the guarantee. Companies may also be wary of taking on additional debt when they are financially struggling.

Another popular method for financing projects of this magnitude is a system of user fees. At this time, however, it is extremely unlikely that a package of user-born expenses could be established. Leaders in Congress and the White House, along with industry and voters themselves, have shown an extreme reluctance to embrace any sort of program that can be cast as a new tax on businesses. A similar approach that is not as often explored is what is known as a “feebate” system. This type of funding is designed to influence customer behavior by combining fees on inefficient vehicles with rebates to efficient vehicles. In this scenario, customer choice would force manufacturers to develop new fuel-efficient vehicles. In addition to garnering political opposition, a fee-based financing mechanism could also have adverse effects on domestic jobs in the near term, by biasing benefits toward foreign manufacturers who dominate the current market for more efficient vehicles.

As a result of these concerns, we look here at a trust fund financing model. In historical precedents for establishing this type of policy, the financing mechanism has often involved trust fund financing. In such cases, the government acquires what the Treasury Department refers to as “Intra-governmental Holdings” or Government Account Series securities held by revolving funds, government trust funds, and special funds. Essentially, a small amount of marketable securities are held by government accounts, such as the railroad

employees fund. Ultimately, this allows for a one-time appropriation that will generate enough interest from the assets (compounded in the fund) that it will be self-sustaining over time.

For this analysis, we assumed a one time appropriation of \$10 billion dollars to establish a trust fund to reimburse retiree catastrophic health costs. Calculating reimbursement at 10% of total retiree catastrophic health care costs, such a fund would generate over \$21 billion of new investment back into the auto industry, with annual payments ranging from \$670 million in year one to over \$2.2 billion in year fifteen. Using very conservative assumptions on the decline of the retiree population, and assuming continuous increases in health care costs at 7.7% annually, this trust fund would be solvent through year thirteen, and would likely in fact provide a stable ongoing source of funding extending beyond the 15-year period.

In addition to interest on the fund's assets, there are other ways to help minimize the government's expenditures in sustaining such a trust fund. It is possible to leverage manufacturers' contribution, which can also be thought of as a user fee. For example, the Black Lung fund operates on a combination of interest, an excise tax, and recovery actions (an involuntary user fee mechanism). The proposal outlined here for the auto industry, however, would be purely voluntarily, and would not require an employer contribution. Instead the fund would reimburse the employer for some portion of the cost of the legacy costs they already pay.

Another mechanism for limiting federal exposure is to provide a loan, specifically through zero-coupon bonds. Zero coupon bonds require no interest payments until they reach maturity, and have long-term maturation periods. By mixing the one-time appropriation with low-interest zero-coupon bonds issued by the government to the fund, the fund could repay interest and principal in the out years, when the actuarial values have adjusted to reflect the retirement and passing of the aging workforce. While bond repayment might need to be further financed, a mature interest-earning trust fund could continue to "earn" money to pay back the loan at a better rate, particularly as the pool of claimants declines. Depending on the duration of the fund, the government could recoup a significant portion of the initial appropriation, potentially even earning money for the government, as was the case with the Chrysler intervention in the early 1980's.

Paying for a Trust Fund through Tax Offsets

There are a variety of tax loopholes that could be closed to help generate tax revenue to offset a one-time appropriation to establish the base trust fund proposed here. Closing these loopholes to finance such a measure could also improve incentives for retaining domestic jobs, or discourage Enron-style accounting manipulation. Four specific options for offsets are discussed here.

A first option is the denial of treaty benefits (reduced rates of taxation) for foreign entities that are primarily U.S. owned. In general, a foreign entity would not be entitled under any tax treaty of the United States with a foreign country to any reduced rate of withholding on any deductible foreign payment. This loophole is frequently used by companies that are primarily U.S.-based in operation and ownership, but who incorporate in foreign countries as means to gain favorable tax rates. This could be further coupled with the prevention of companies incorporating overseas to avoid U.S income taxation.

Another way to increase tax revenue would be to clarify and tighten the economic substance doctrine. This means that more transactions that are made for the sole purpose of avoiding tax liability would be subject to taxation.

Clarifying the economic substance doctrine could also be coupled with enforcing a penalty for transactions that lack economic substance, equal to 40% of the tax understatement that resulted from the transaction. This would further back the loophole's closure, giving it more practical affect, as well as generating revenue through the penalty clause.

Additional civil penalties could be enforced on tax preparers who deliberately understate a client's tax liability, as well as for frivolous tax submissions. Frivolous tax submissions generally include those that are made strictly for the purpose of delay and obfuscation, such as submissions that intentionally do not provide a complete record.

Closing these or similar tax loopholes could easily create sufficient revenue to cover the cost of the initial capitalization of the trust fund, while offering the additional benefit of reducing perverse incentives within the tax code.

Conclusion

The legacy healthcare costs of our nation's retirees place a major competitive burden on the American auto industry and present a real threat to the competitiveness of domestic manufacturing in an increasingly global market. It is essential that U.S. manufacturers receive real relief in order to preserve good jobs and stable communities. Establishing a trust fund to invest in U.S. high performance vehicle production could create a new revenue stream for automobile manufacturing conversion ranging from \$670 million to over \$2 billion per year, and could save over 1.2 million barrels of oil per day.

A concerted effort to address the legacy cost crisis in the auto industry can also secure broader public benefits in improved national security, environmental protection, manufacturing retention, and technology innovation. Clear precedents and sound financing mechanisms exist for engaging the public sector. There is a clear public purpose in solving this growing crisis today. It is time for strong leadership and a clear vision that strengthens markets and builds the economy through appropriate public investment and meaningful policy incentives. With this proposal, we can value the legacy of our retirees even as we promote innovation and position the economy to prosper for future generations.

Outlining a Model Policy

A bill that would create incentives for the auto industry to accelerate efforts to develop more energy-efficient vehicles to lessen U.S. dependence on oil through assistance with its retiree health care costs could include the following key elements. Specific details on funding levels, thresholds for relief, and oil saving targets are points that will best be debated and set within the political process.

Key elements include:

Trust Fund Financing: A trust fund could be established to offer relief for the catastrophic health care costs of auto worker retirees. This self-sustaining trust fund would be capitalized with a onetime appropriation of \$10 to \$15 billion. The coal miner's trust fund could serve as a model (minus the excise tax component and superfund-style cost recovery from operators). The trust fund could reimburse manufactures at a rate that will equal 5-25% of retiree health care costs using a stop loss policy with an adjustable attachment point. The percentage of legacy cost relief could rise as goals in oil savings are met.

Legacy Cost Relief: Upon agreeing to participate in this voluntary program, manufacturers could receive a baseline benefit equal to the equivalent of 5% of total retiree health care costs offered as a stop-loss insurance plan covering approximately 75% of all retiree catastrophic health care costs. The program would offer increasing levels of legacy cost relief indexed to increases in fleet wide oil savings resulting from investments in deploying

more efficient technology as described below. The trust fund would be sufficient to support annual payments starting at \$670 million dollars in year one and rising to over \$2 billion in the out years of such a program.

Manufacturing Incentive: To ensure that this public investment results in a guaranteed public benefit in the form of domestic job retention and improved oil savings, firms participating in this program would commit to reinvest a portion, from 50% to 100% of the health care cost savings, into domestic manufacture and commercialization of hybrid, advanced diesel, or other state of the art fuel saving technologies, to retrain workers, retool assembly lines, and cover R&D, design, commercialization, and other costs of diversifying domestic fleets with high performance vehicles.

Continuous Improvement in Oil Savings: Participating auto makers would agree to a provision that would ensure that oil savings achieved through these subsidized investments do not result in backsliding, or oil consumption elsewhere in the fleet. This could be calculated using a modified form of the formula developed by the National Commission on Energy Policy, which would measure oil savings against a baseline established in the year that firms enter into the program, and compare changes excluding vehicles supported under the program. (See possible language in endnotes.²²) the level of legacy cost relief could then rise on a set schedule in parallel with increases in fuel savings attained by manufacturers.

Increasing Incentive Structure: As a further incentive for domestic investment in manufacturing advanced and fuel efficient vehicles, and to provide increased legacy cost relief, the incentives offered under this program could increase at a rate indexed to increases in oil savings, according to the following schedule: Legacy cost relief could rise by decreasing the attachment point for defining eligible catastrophic health care expenses at a rate indexed to changes in the marginal cost of capital investment necessary to achieve incremental improvements in oil savings, to be determined by a Board of Governors, recalculated periodically, and awarded upon achieving set benchmarks in voluntary beyond compliance fuel savings as set by the board. The benefit level for relief of legacy health care costs could be set as a multiplier of the cost of capital investment, or some fraction thereof, and set at a rate sufficient to create meaningful incentives for new investment in commercializing technology.

Cost Offsets: The trust fund could be financed through closure of tax loopholes that have perverse incentives, causing outsourcing of U.S. jobs and the encouragement of accounting manipulation. Examples of these loopholes are found in Rep. Inslee's New Apollo legislation, and included in the endnotes²³. In addition, the trust fund could be further capitalized through any program for auctioning tradable emission credits enacted through any future climate legislation.

Eligibility: All domestic automobile manufacturers offering full benefits to all workers could be eligible for payment from this fund for retiree catastrophic health care costs. Participation in this program would be entirely voluntary.

Oversight and Rulemaking: The President could ask the Secretary of Energy, in collaboration with the Secretary of Health and Human Services, to establish an independent Board of Governors to oversee this initiative and establish a schedule of retiree health care cost reimbursement rates and corresponding oil savings targets.

Appendix: Methodology for Estimating Oil Savings

To estimate the potential oil savings from passenger vehicles produced by the US “Big 3” automakers, we assume that funds from this program would be used to offset only the fixed costs associated with producing new fuel-efficient technologies, rather than the entire incremental retail cost to the consumer. To estimate the fixed costs, we started with fuel economy cost estimates for the total incremental retail price increase from the study by the National Research Council.²⁴ The actual cost curves we used were derived by the Argonne National Laboratory from the NRC study.²⁵ These cost curves reflect improvements to conventional gasoline cars, using existing or emerging technologies.

The total retail incremental price to the consumer includes variable costs, fixed overhead costs, marketing costs, and profit margins. About 12% of the total retail cost is due to the fixed costs, defined as the cost of capital depreciation and amortization (5.5%) plus research, development and engineering costs (6.5%).²⁶ We also assume that the fixed costs, on average, are recovered over a five-year model life. Therefore, \$800 million per year is equal to \$4 billion in total fixed cost investment for new vehicle models.

In 2004, the Detroit Big 3 (GM, Ford, and Chrysler division of DaimlerChrysler) sold 10.4 million passenger vehicles, 35% being cars and the remaining light trucks. Assuming a rated 27.5 mpg for cars and 22.2 mpg for light trucks, this is an average fuel economy of 23.8 mpg. Based on the cost curves and assumptions described above, we estimate that \$800 million for five years would be sufficient to offset the fixed costs associated with moving the domestic new vehicle fleet from 23.8 mpg to 28.5 mpg. On a per vehicle basis, the average retail price increase would be \$642, but only \$77 (or 12%) of this is due to fixed costs. Hence, to raise all 10.4 million vehicles to 28.5 mpg would cost \$800 million dollars per year (10.4 million x \$77 per vehicle.)

We assume that a ten-year program would require automakers to continuously improve their products at each model year cycle. Using the same methodology, we estimate that an additional \$800 million dollars in the second phase would be sufficient to offset the fixed costs associated with moving the domestic new vehicle fleet from 28.5 mpg to 32.1 mpg in this second phase.

The oil savings would accumulate over time as more and more of the improved vehicles are produced. That is, if all Big 3 participated for 5 years, then 10.4 million vehicles would be improved per year, for a total of about 52 million vehicles on the road at the end of year 5 and 104 million vehicles by the end of year 10. For simplicity, in our estimate we assume a fixed 14-year vehicle life (we ignore annual scrappage), a fixed 14,000 miles driven per year for each vehicle, and a 20% degradation factor for on-road performance. Based on these assumptions, a vehicle achieving a rated 28.5 mpg would save about 107 gallons per year over a vehicle rated at 23.8 mpg. A fleet of 52 million (5 years of production) would save about 389,000 barrels of oil per day. Likewise a fleet of 52 million vehicles rated at 31.8 mpg would save about 626,000 barrels of oil per day. Consequently, at the end of year 10, an \$800 million per year program would save approximately 1 million barrels of oil per day.

In this analysis of fuel savings, we modeled a fixed rate of investment at \$800 million dollars per year. This is a conservative assumption of the investment level that such a trust fund would yield. Our calculations of actual annual cash flows ranged from 670 million in year one to 2.2 billion in year fifteen. We also assume that the automakers choose to implement new technologies across the entire fleet. Alternatively manufacturers could instead invest in producing fewer, but more efficient vehicles, such as hybrids or clean diesels. We believe that it is best to be technology neutral, leaving these decisions to manufacturers.

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Endnotes:

- i See 2000 and February 2005 numbers: <ftp://ftp.bls.gov/pub/suppl/empsit.ceseeb1.txt>
- ii 2/3 of GM's total health care commitment of \$5.2B + reported retiree benefits for Ford at \$2B and Chrysler at \$1.3B
- iii Saudi Arabia has a current budget surplus of \$26 billion, while Iran has amassed nearly \$30 billion in foreign reserves.
- iv NYMEX reported a closing price of \$67.57 per barrel for crude oil on September 2, 2005, after reaching a record high of \$70.85 a barrel on Aug. 30.
- v China recently became the second largest consumer of oil at roughly 6.5 million barrels of oil per day, a little more than a quarter of U.S. consumption levels of roughly 20.4 million barrels (dominated by the transportation sector). Rapid industrial growth has greatly increased Chinese demand for all natural resources. From numerous sources, for example "Fueling the dragon: China's race into the oil market," by the Institute for the Analysis of Global Security, citing various reports by the International Energy Agency. Since overtaking Japan as #2 on the oil importers list, this has been widely reported.
- vi McManus, Walter, et. al, "In the Tank, How Oil Prices Threaten Automakers' Profit and Jobs, Office for the Study of Automotive Transportation, University of Michigan, and the Natural Resources Defense Council, July 2005.
- vii "Chrysler's bailout legacy," Thomas Bray, The Detroit News, 7 June 2005
- viii Based on 2004 vehicle sales for the big three of 10.4 million (GM 4.7, Ford 3.3, DC 2.4), and total retiree health care costs of 7.03 billion (GM 3.73, Ford 2, DC 1.3).
- ix Erwin, Steve. "Toyota to build 100,000 vehicles per year in Woodstock, Ont., starting 2008" CBC News / Canadian Press, 2005.
- x Cooney, Stephen and Brent D. Yacobucci, "US Automotive Industry: Policy Overview and Recent History," Congressional Research Service (CRS), 25 April 2005, p. 44; further citing Automotive Trade Policy Council (ATPC), "Contribution of US Auto Industry," charts 10-14.
- xi *ibid.*
- xii James B. Treece, "Japan's Health Care Gives Toyota Edge," *Automotive News* (28 March 2005), p. 26.
- xiii *ibid.*
- xiv *ibid.*
- xv *ibid.*
- xvi Interview with GM Official, 17 May, 2005. The numbers match up with other outside estimates for various health care proposals that generally put catastrophic cases at 20-30% of total cost based on the attachment point (generally \$50,000-\$75,000).
- xvii "Medical Reinsurance: Considerations for Designing a Government-Sponsored Program" January 2005, American Academy of Actuaries.
- xviii Under the NCEP proposal, the safeguard on oil savings is achieved by comparing the oil consumption of a company's light duty fleet to the rate that would have been achieved if all advanced technology vehicles were produced at average efficiencies in the base year, thereby calculating the fuel economy that would have been resulted in the absence of efficiency incentives.
- xix We estimate that \$800 million per year could raise the average fuel economy of the US automaker fleet to 28.5 mpg in the first five-year period, and to 32.1 mpg in the second five-year period. This estimate is based on the following assumptions:
- Fixed costs are 12% of total retail price cost. Fixed costs include capital depreciation and amortization (5.5%) plus research, development and engineering costs (6.5%) [Source: Vyas et al., "Comparison of Indirect Cost Multipliers for Vehicle Manufacturing," Argonne National Lab, April 2000.]
 - Retail price increase per vehicle for given efficiency gains based on NRC 2001 "mid" fuel economy case. [NRC, Effectiveness and Impact of Corporate Average Fuel Economy Standards (CAFE), 2001]
 - Assumes fixed costs are recovered over a 5-year model life, that is, \$800 million per year equates to a total fixed cost of \$4 billion.
 - Assumes constant sales (10.4 million per year) and VMT does not change over time (13,000 per year per vehicle.)
 - A total of \$800 million per year is available for investment, this assumption is in fact extremely conservative, as our calculations of trust fund payments ranged from 670 million in year one to 2.2 billion in year 15.
- xx Rachel W. Kelly, "Railroad Retirement and Unemployment Benefits," CRS, 10 January 2001.
- xxi See Edward Rappaort, "The Black Lung Benefits Program," CRS, 12 June 2002, and Salvatore Lazzari, "The Black Lung Excise Tax on Coal," 15 September 2004.
- xxii NCEP Fuel Savings Language: NOTE: This language uses a metric based on fuel economy, instead, it would be advisable to develop an alternate metric using oil savings, based on the same principal that improved savings should be guaranteed.
- (1) Sustained Improvement. — In order for an automobile manufacturer to be eligible for incentives, the manufacturer's adjusted average fuel economy for light duty vehicles may not be less than its base year average fuel economy for all of its light duty motor vehicles. For purposes of this subparagraph:
- (i) the term "base year" means model year 2002.

(ii) the term “adjusted fuel economy” means a manufacturers average fuel economy for all light duty motor vehicles adjusted as follows: The fuel economy of each vehicle qualifying for the credit shall be deemed to be equal to the base year average fuel economy for its weight class.

All of the referenced tax loopholes are used in Rep. Inslee’s New Apollo Energy project (HR 2828). These include:

- (1) Denial of treaty benefits (reduced rates of taxation) for foreign entities that are primarily US owned,
- (2) Tightening the economic substance doctrine to exclude transactions whose primary purpose is avoidance of taxation,
- (3) Establishing a penalty for transactions that lack economic substance equal to 40% of the tax understatement that resulted from the transaction,
- (4) Setting penalties for tax preparers who understate a taxpayers tax liability,
- (5) Establishing civil penalties for frivolous tax submissions intended to cause delay,
- (6) Providing expanded authority to disallow acquisitions made solely to avoid tax liability under allowances in IRS code section 269.

xxiv NRC, Effectiveness and Impact of Corporate Average Fuel Economy Standards (CAFE), 2001

xxv Plotkin, et al., “Examining the Potential for Voluntary Standards in the US and Canada,” Argonne National Laboratory, October 2002, p. 111.

xxvi Vyas et al., “Comparison of Indirect Cost Multipliers for Vehicle Manufacturing,” Argonne National Laboratory, April 2000.



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