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*CONGRESSIONAL TESTIMONY*

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**Economic Benefit of Replacing  
Imported Oil with Domestically  
Produced Oil**

**Testimony before  
Committee on the Budget  
United States House of Representatives**

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My name is David Kreutzer. I am Senior Policy Analyst in Energy Economics and Climate Change at The Heritage Foundation. The views I express in this testimony are my own, and should not be construed as representing any official position of The Heritage Foundation.

Mr. Chairman, I want to thank you and the other members of the House Committee on the Budget for this opportunity to address you concerning responses to a weakened economy.

Energy is critical to the operation of our economy and the maintenance and improvement of our standard of living. Restricting access to energy, as higher prices do, hurts the economy, drives income down and, of course, drives up prices of other goods.

#### Petroleum Prices Hurt Economy

The past several years have seen a dramatic increase in the price of petroleum and petroleum products. The price of petroleum doubled in the past year, though it has eased in the past two months. The resulting increases in gasoline, diesel fuel and heating oil prices not only directly impact household budgets; they reduce jobs and income as well.

For example, the EPA estimates that the typical light vehicle travels 12,000 miles per year and averages about 20 miles per gallon.<sup>1</sup> Doing the division indicates that the typical vehicle uses about 600 gallons per year. Further, the Department of Transportation data show that the average household owns nearly two cars.<sup>2</sup> Therefore, the cost to the average household of a one-dollar-per-gallon price increase is about \$1,100 per year. But, the damage to the economy doesn't stop there.

Higher petroleum prices squeeze the production side of the economy from both the demand and costs directions. Consumers' demand for output drops as they divert expenditures from other items to gasoline and heating oil. In addition, petroleum products are inputs to both the production and distribution of many goods and services.

Faced with these higher costs, producers try to raise their prices. But the lower demand prevents the prices from rising enough to completely offset cost increases. This leads to production cuts and, therefore, to lower employment. In turn, these conditions put downward pressure on wages and salaries.

The effect of high petroleum prices in the US is a weaker economy; the cause of the high petroleum prices is a change in supply and demand. In the past decade world-wide demand for petroleum has grown faster than supply and has virtually erased spare capacity. Over five million barrels per day as recently as 2002, spare capacity has dropped below two million barrels per day in the past couple of years. When supply is pushed up against its capacity constraints, as it is now, additional demand in one part of the world can be met only with demand reductions elsewhere.

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<sup>1</sup> <http://www.epa.gov/oms/climate/420f05004.htm>

<sup>2</sup> 1.9 per household for 2001. <http://www.fhwa.dot.gov/ohim/hiq/bar2.htm>

When there was spare capacity on the order of three to five million barrels per day, the demand of a new car owner in the developing world could be met with additional lifting. In essence, price in this environment reflects the cost of getting oil from the deepest well. With no spare capacity, fuel for a new driver can be provided only when the price rises high enough to force drivers elsewhere out of their cars. In this situation, slight changes in demand can lead to large changes in price. Similarly, slight changes in supply can also lead to large changes in price.

### What If Petroleum Output Rose?

Among other things, the Center for Data Analysis at the Heritage Foundation has the capability to analyze broad, economy-wide impacts of changes in energy prices. This past spring we analyzed the impacts of higher energy costs that might result from policies to restrict carbon dioxide emissions. This summer we analyzed the impacts of higher gasoline prices on employment, income and household budgets.

Last week the Center analyzed the economic effects of increasing domestic petroleum production by one million barrels per day and two million barrels per day. Because the United States consumes 20 million barrels per day of petroleum and petroleum products, these increases correspond to five percent and ten percent changes on the mix of domestically produced versus imported petroleum. In other words, the additional domestic production would reduce imports from their current level of 65 percent to 60 percent and then 55 percent.

Increasing domestic production of petroleum will affect the economy two ways. First, it will reduce the amount we spend on imported oil. Second, it will lower the price of petroleum. The two effects work together to reduce energy expenditures; to reduce the balance of trade deficit; and to expand economic activity.

The impact of increased production on world petroleum prices depends on the market conditions into which the additional oil is supplied. In a letter dated "July 2, 2008" to Representative Jack Kingston, Guy Caruso, Administrator of the Energy Information Administration, estimated each additional million barrels of oil would lower world price by \$20 per barrel.<sup>3</sup>

This price impact is consistent with recent research showing a short-run elasticity of about 0.05.<sup>4</sup> Adjusting consumption of gasoline, heating oil and other petroleum products is difficult for consumers to do in the short-run. As a consequence, a one percent increase in price reduces consumption by only 0.05 percent. So, a one percent change in supply requires a 20 percent change in price to bring markets back into balance. It is understood that the price impact would be smaller over time once the world economy fully adjusts to the increased production.

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<sup>3</sup> Copy of letter available upon request.

<sup>4</sup> Hughes, Jonathan E., Christopher R. Knittel, and Daniel Sperling, "Evidence of a Shift in the Short-Run Price Elasticity of Gasoline Demand," NBER Working Paper No. 12530, September 2006.

We are comfortable using this elasticity since it seems probable that world petroleum markets, which are not currently in long-run equilibrium, will continue to see strong demand growth, especially over the long-run.<sup>56</sup> Nevertheless, we note that should the world petroleum market ease significantly by the time this increased production comes on line, the price and economic impacts will be less pronounced. Of course, this reduced impact would occur in a world that already had significantly lower petroleum prices.

#### The Estimates

Increasing domestic production by one million barrels per day will reduce imported petroleum costs by \$123 billion; generate an additional \$7.7 billion in economic activity; and cost \$25.6 billion in additional oil production costs. The net gain to the economy will be \$105 billion. The impact on employment will be an increase of 128,000 jobs.

Applying the same analysis to a two million barrel per day increase in domestic petroleum production yields net economic gains to the economy of 270,000 jobs and \$164 billion.

#### Untapped Resources

The Artic National Wildlife Refuge and the Outer Continental Shelf are estimated to contain 30 billion barrels of petroleum. The 10 billion barrels estimated to be in ANWR are enough to fuel all the vehicles for 7.4 million households for 50 years.

While bringing an additional one to two million barrels per day of petroleum out of these resources is not a trivial enterprise, it should be noted that a single platform in the Gulf of Mexico is slated produce one-quarter of a million barrels per day within the next year.

I recommend that Congress proceed expeditiously to open up the Outer Continental Shelf and the Artic National Wildlife Refuge to safe, clean modern drilling so that we can get critically needed petroleum without jeopardizing the environment.

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<sup>5</sup> The backlog of drill-ship orders, the large increase in drilling activity, the below-cost-of-production prices on large SUVs, and the strained capacity of mass transit systems are evidence that markets are not fully adjusted to the higher petroleum prices. This means that markets are not in long-run equilibrium.

<sup>6</sup> In its most recent Mid-Term Oil Market Report, the International Energy Agency projects a return to spare capacities of less than 2 million barrels per day after a slight easing over the next two years.

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