

Rising Oil Prices: A Potential Threat to Economic Recovery and Energy-Efficiency Policies

Since the first Earth Day forty years ago, major progress has been made in protecting our environment. Landmark legislation, including the Clean Air Act and the Clean Water Act, has made our nation safer and cleaner. But, while the United States has weaned itself from its dependence on oil in many sectors, progress to reduce its dependency on oil to meet its transportation needs has been slow. In fact, oil expenditures as a percentage of gross domestic product (GDP) have increased from 1.8 percent in 1993 to 3.8 percent today.¹ This continued reliance on oil leaves the economy vulnerable to sharp increases in oil and gasoline prices, and could potentially derail the economic recovery now underway.

Even in 2009, as the economy was in the midst of the worst recession since the Great Depression, the United States consumed 18.69 million barrels of oil per day, with more than 9 million of those barrels being imported.² The bulk of this oil is used for transportation, producing almost one-third of total annual carbon dioxide emissions in the United States.³

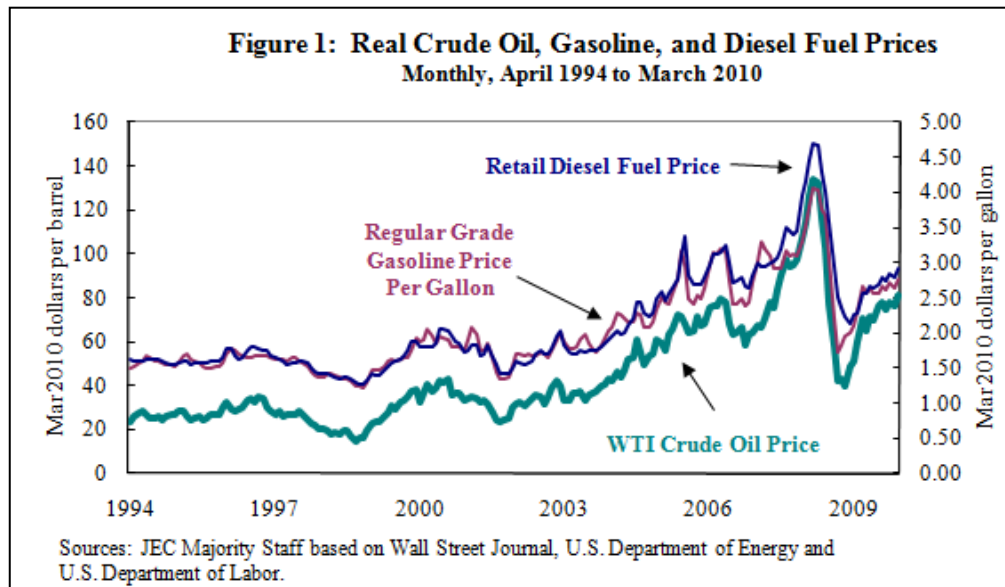
In addition to contributing to climate change, the United States' dependence on oil for transportation leaves consumers with few choices if oil and gasoline prices rise. In the face of higher gasoline prices, consumers without viable transportation alternatives are forced to reduce consumption of other goods and services, dragging down economic growth. Higher oil prices also increase costs for businesses, lower growth levels, reduce tax revenues, and add to deficit pressures, leaving policymakers with fewer tools to encourage cleaner transportation alternatives in the future.

It's critical, therefore, that policymakers continue to promote development of alternative fuels and new transportation choices to reduce petroleum consumption and to help ensure that the country's economic recovery is not jeopardized by rapidly rising oil prices.

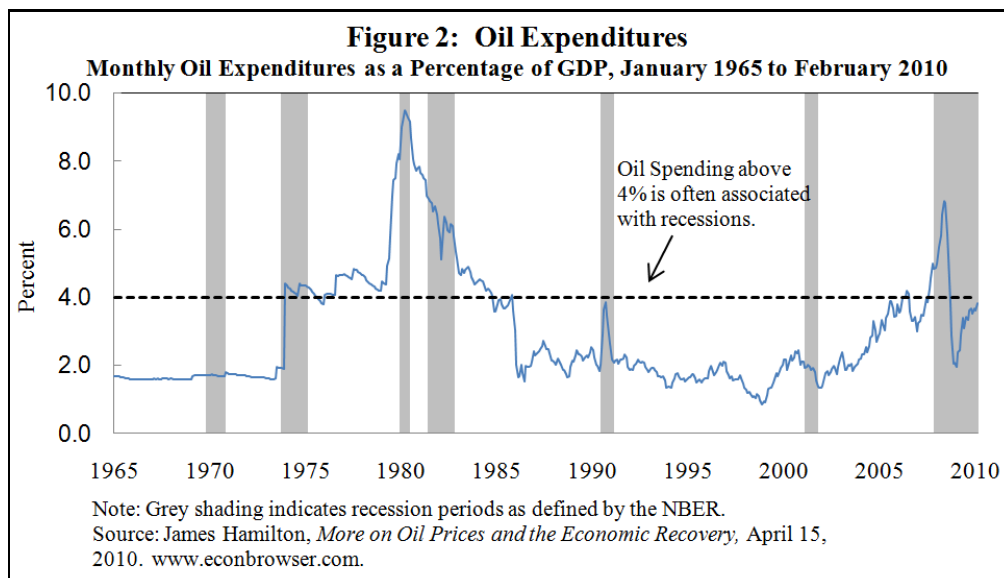
**Report by the Joint Economic Committee
Representative Carolyn B. Maloney, Chair**

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Oil prices contributed to the Great Recession. Oil prices are closely correlated to health of the global economy and rose significantly in 2007-2008, peaking at an inflation-adjusted price of \$134 per barrel in the summer of 2008⁴ (see Figure 1). That significant spike in oil and gasoline prices was one of the causes of the recession because higher transportation costs meant that consumers had less money for buying other goods and services.⁵ Businesses also were hit by increased transportation costs, as they had to pay more to transport their products to stores.



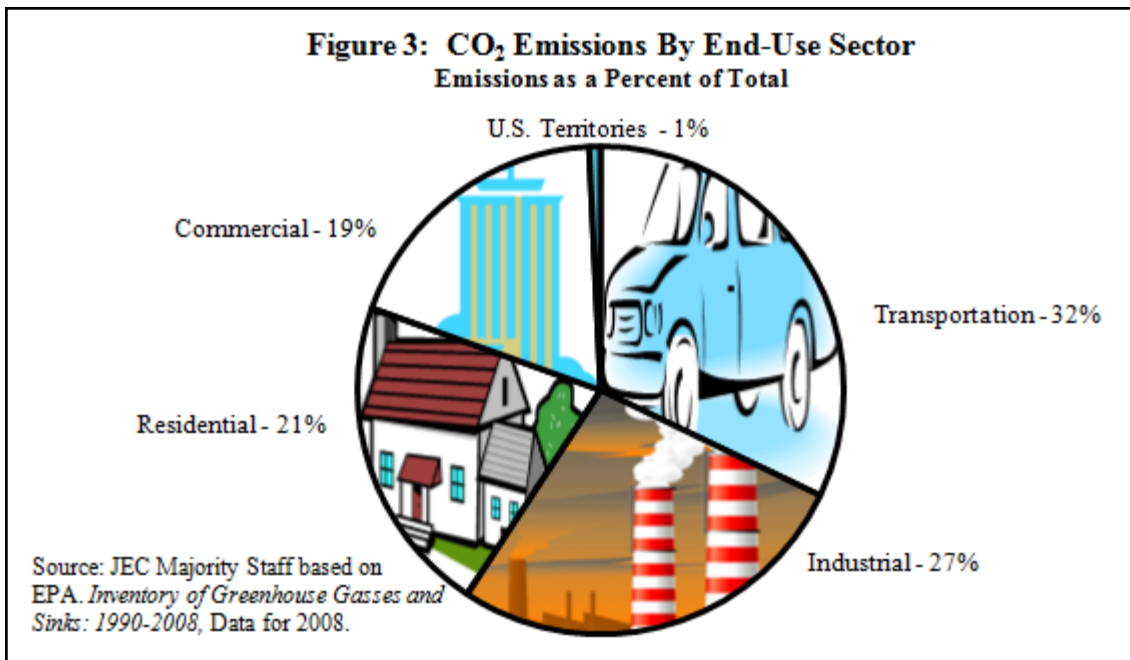
As the global economy went into recession in 2007-2009, demand for oil fell and prices declined. Now, with the global economy emerging from recession, demand for oil is picking up and prices have risen. If prices rise too much, they could threaten the nascent recovery. Absent major efficiency breakthroughs in the use of oil, as prices rise, a larger share of GDP would go to oil expenditures. Looking at the relationship between oil prices and past recessions indicates that when oil expenditures reach 4 percent of U.S. GDP, the U.S. is at risk of falling into a recession (see Figure 2).



Prepared by the Majority Staff of the Joint Economic Committee

Oil price increases impact the U.S. economy by reducing both consumer confidence and consumer spending on other goods, lowering the prices of homes located in ex-urbs, shrinking the demand for automobiles — especially the less fuel-efficient vehicles made by U.S. manufacturers — and, finally, by raising costs of producing goods. Because the United States imports over 50 percent of its oil from abroad, rising oil prices also add to the trade deficit.⁶

Oil is the largest contributor to greenhouse gas emissions in the United States. The reliance on petroleum-based products for transportation in the United States has meant that the carbon dioxide emissions from petroleum use in the U.S. equal 2.4 billion metric tons per year.⁷ While carbon emissions from petroleum declined slightly in 2008 due to the Great Recession, the transportation sector was the largest producer of carbon dioxide in the U.S., having exceeded the industrial sector in 1999.⁸ In 2008, the transportation sector accounted for 32 percent of carbon dioxide emissions, larger than any other end-use sector (see Figure 3).



In order to minimize the impact of oil price rises on consumers and the overall economy, consumers must be able to reduce their consumption of oil easily. To lower the costs of switching to an alternative fuel or alternative form of transportation, policymakers can promote travel demand management, support development of low greenhouse gas emitting fuels, and encourage innovation in advanced vehicle technologies.⁹ Travel demand management techniques include better mass transit, making cities more accessible to pedestrians and cyclists, and pay-as-you go auto insurance, where automobile insurance is priced and billed depending on the number of miles driven.

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Congress and the Administration have taken a number of steps that will help consumers reduce their petroleum use. In addition to reducing pollution, these steps have also stimulated the economy and created jobs. For example, Congress passed the American Reinvestment and Recovery Act in February 2009. That legislation, which helped return the economy to growth in the second half of 2009 after four straight quarters of negative GDP growth, included \$90 billion in clean-energy investments to speed the transition to a clean-energy economy.

In addition to saving or creating an estimated 720,000 job-years by the end of 2012, these clean-energy investments will accelerate the build out of high-speed rail, provide greater access to mass transit, and support research and deployment of next-generation car batteries, advanced biofuels and all-electric vehicles. Each of these investments will broaden the range of transportation choices available to consumers and provide meaningful alternatives to oil and gasoline consumption. Additional transportation options can play a critical role in reducing petroleum consumption and carbon dioxide emissions. By making clean-energy initiatives a major component of the Recovery Act, Congress created jobs in the emerging green sector and laid the groundwork for an economy less dependent on oil and less susceptible to oil price increases.

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1. See Figure 2.
 2. Energy Information Administration, Short-Term Energy Outlook, Table 4a. U.S. Crude Oil and Liquid Fuels Supply, Consumption, and Inventories, Annually, data from 2009, available at http://tonto.eia.doe.gov/cfapps/STEO_Query/steotables.cfm?tableNumber=9.
 3. U.S. Environmental Protection Agency, Inventory of Greenhouse Gasses and Sinks: 1990-2008, Table ES-3. Data for 2008, available at http://www.epa.gov/climatechange/emissions/downloads10/US-GHG-Inventory-2010_Report.pdf.
 4. In March 2010 dollars.
 5. In fact, 10 out of the 11 postwar U.S. recessions were preceded by sharp rises in oil prices. Although some economists believe that rising oil prices have a much smaller impact on the economy, other economists have argued that oil price increases play as an important role today as they did during the recessions in the 1970s and 1980s. The recessions in the 1970s and 1980s were caused by oil price shocks that were characterized by oil supply shocks, once spending for oil as a share of the nation's output is taken into account. See, e.g., Lutz Kilian, "Not all Oil Price Shocks Are Alike: Disentangling Demand and Supply Shocks in the Crude Oil Market," *American Economic Review* 99, no. 3: 1053-69; James Hamilton, "Causes and Consequences of the Oil Shock of 2007-08," *Brookings Papers on Economic Activity*, Spring 2009, pp. 215-259.
 6. According to the Energy Information Administration, the U.S. imported 9.02 million barrels per day of oil and 0.68 million barrels per day of refined petroleum products while consuming 18.69 million barrels per day in 2009. http://tonto.eia.doe.gov/cfapps/STEO_Query/steotables.cfm?tableNumber=9.
 7. Energy Information Administration estimates, available at <http://www.eia.doe.gov/oiaf/1605/flash/pdf/flash.pdf>, p. 14, data for 2008.
 8. Energy Information Administration estimates, available at <http://www.eia.doe.gov/oiaf/1605/flash/pdf/flash.pdf>, p. 7, data for 2008.
 9. See Simon Mui, et al., *A Wedge Analysis of the U.S. Transportation Sector*, U.S. Environmental Protection Agency, EPA420-R-07-007, available at <http://www.epa.gov/otag/climate/420r07007.pdf>.