

Testimony

Stephen Moore
Chief Economist
Heritage Foundation

SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

Legislative Hearing To examine the following items:
S.2911, Super Pollutants Act of 2014

TUESDAY, DECEMBER 2, 2014

My name is Stephen Moore and I am the chief economist at the Heritage Foundation. Neither I nor the Heritage Foundation receive any federal funding.

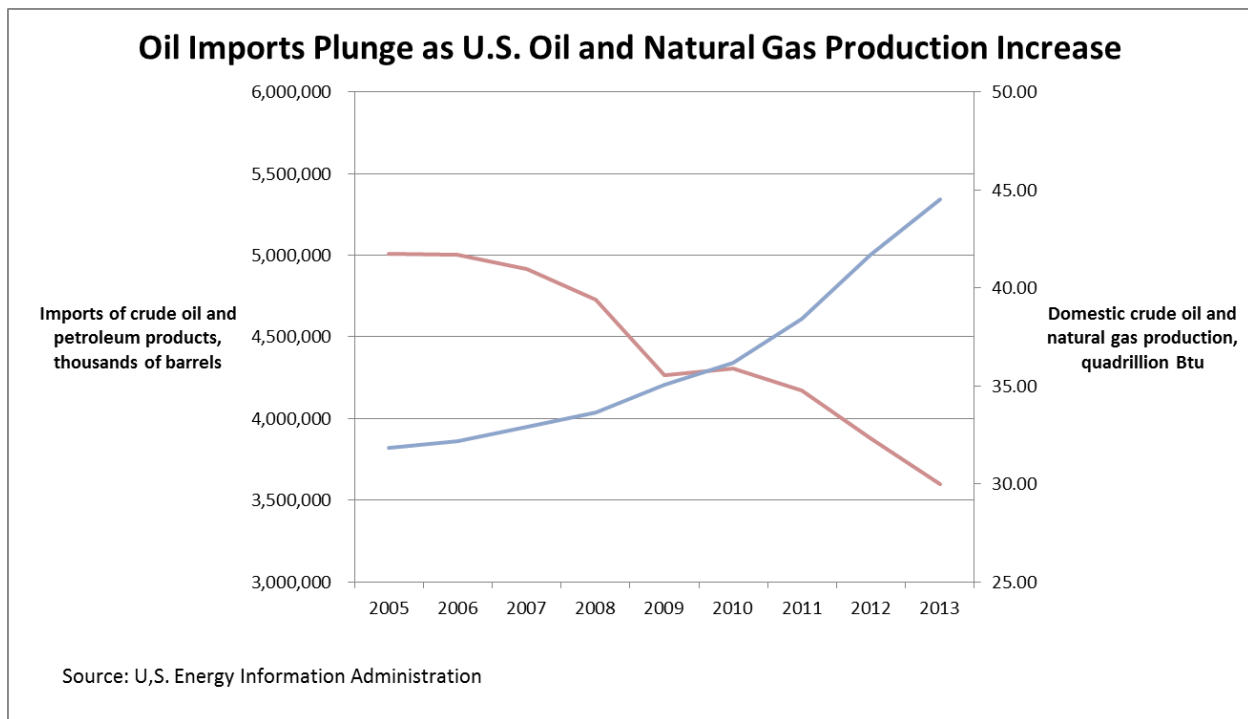
I was asked to comment on the importance of the U.S. Fossil fuels industry on the U.S. Economy and the importance of ensuring that government regulation does not impede this critical industry's growth in future years.

1. The fossil fuels boom is vital to American economic growth.

America is currently experiencing the greatest oil and gas boom in the history of our nation. Over the last seven years U.S. Domestic production of natural gas and oil has increased by nearly 70 percent. This spectacular surge in domestic fossil fuel production was unpredicted even by experts in the industry as recently as 2008-2009. Almost no one saw it coming. The spectacular revival of U.S. Energy development is a result of America's technological prowess, entrepreneurial spirit, and a commitment in the industry to expanding domestic output.

Fracking and horizontal drilling have been game-changing technological improvements that have made shale oil and gas an affordable and abundant domestic energy source. The U.S. has hundreds of years of supply with existing technology, and the drilling procedures keep improving dramatically. As U.S. Production has risen, American reliance on foreign oil

has fallen drastically. See chart. Oil imports are down by more than one third in the past eight years and by year 2020 net imports could be down to zero. This means the elusive goal of energy independence is easily within our grasp in the near term.

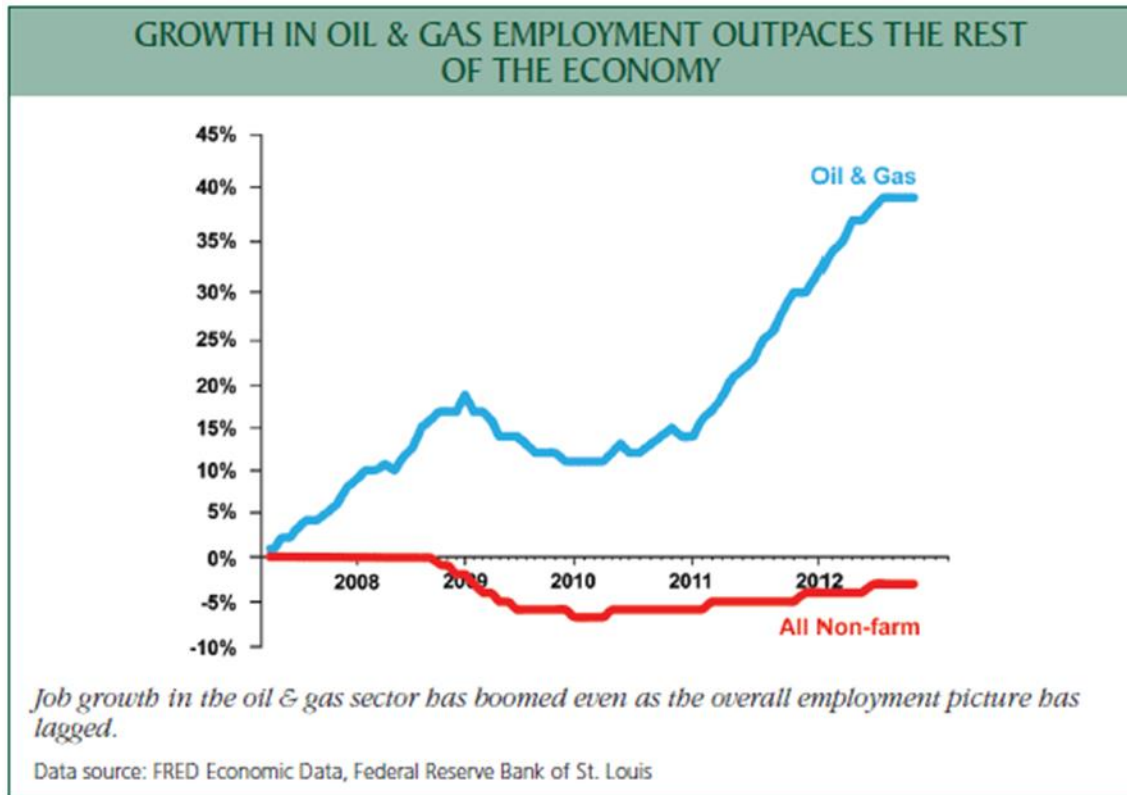


Those who once thought that the U.S. is running out of fossil fuels and that we would soon drill our last barrel of oil have been proven dead wrong. Thanks to the giant shale oil and gas plays in North Dakota, Texas, Oklahoma, Wyoming, West Virginia, Pennsylvania and Ohio, America isn't running out of oil and gas, as President Obama wrongly declared a few years ago, we are running into it.

2. Without the surge of oil and gas development, the Great Recession would not have ended.

The economic ramifications of this fossil fuels revolution are hard to overstate. It is not far from an exaggeration to say that without the surge in shale oil and gas, the great recession of 2008-09 would have lasted several more years. Figure 1 shows the gigantic increase in employment

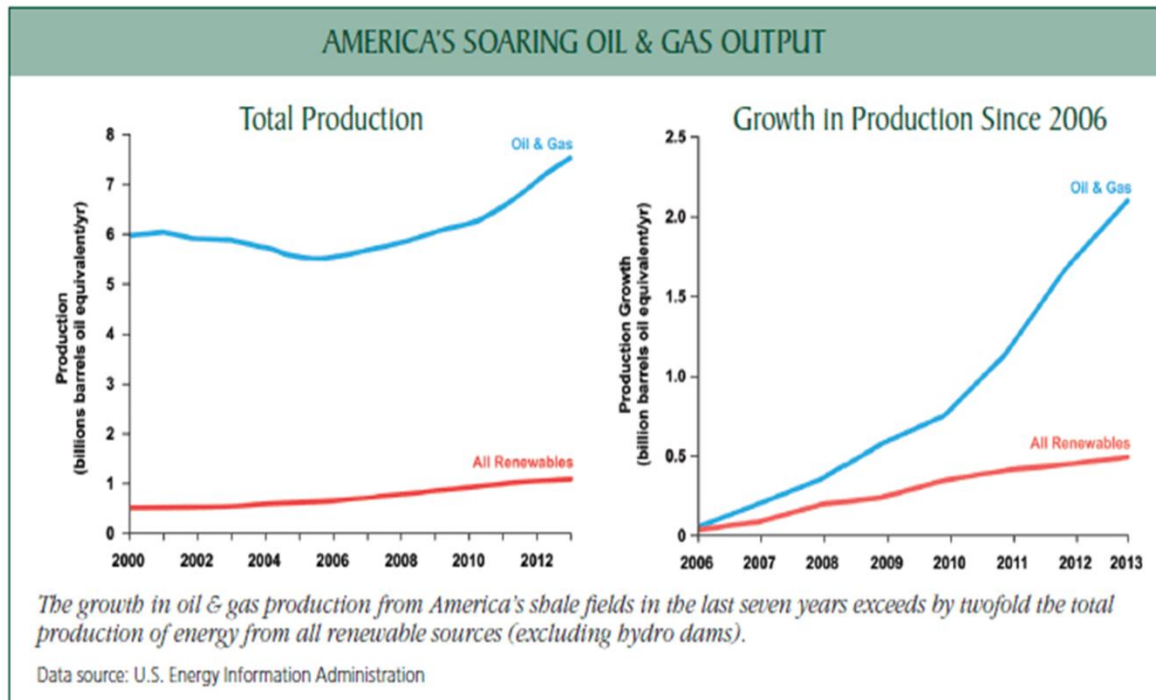
attributable to oil and gas since 2008. The contribution to the U.S. Annual GDP has been in the hundreds of billions of dollars.



Turn off fossil fuel development in America and you turn off the lights on the U.S. Economy - literally and figuratively.

3. Green energy has so far been an inconsequential form of energy production.

Figure 2 shows that almost all the increase in energy production in the US has been from fossil fuels - not so-called "green energy." Despite \$70 billion in direct federal taxpayer subsidies under Presidents George W. Bush and Barack Obama, renewable energy remains mostly a niche market. We have an \$18 trillion industrial economy - it cannot be powered with windmills and solar paneling anytime soon.



This was the conclusion of energy scientists from Google who were in charge of the search engine company's renewable energy research. They very recently acknowledged the unworkability of "green energy" on an economy-wide scale. According to engineers [Ross Koningstein](#) and [David Fork](#), last month:

Starting in 2007, Google committed significant resources to tackle the world's climate and energy problems. A few of these efforts proved very successful: Google deployed some of the most [energy-efficient data centers](#) in the world, purchased large amounts of renewable energy, and offset what remained of [its carbon footprint](#).

Google's boldest energy move was an effort known as [RE<C](#), which aimed to develop renewable energy sources that would generate electricity more cheaply than coal-fired power plants do. The [company announced](#) that Google would help promising technologies mature by investing in start-ups and conducting its own internal R&D. Its aspirational goal: to produce a gigawatt of renewable power more cheaply than a coal-fired plant could, and to achieve this in years, not decades.

Unfortunately, not every Google moon shot leaves Earth orbit. In 2011, the company decided that RE<C was not on track to meet its target and shut down the initiative. The two of us, who worked as engineers on the internal RE<C projects, were then forced to reexamine our assumptions.

At the start of RE<C, we had shared the attitude of many stalwart environmentalists: We felt that with steady improvements to today's renewable energy technologies, our society could stave off catastrophic climate change. We now know that to be a false hope—but that doesn't mean the planet is doomed. They believe the savior could be nuclear energy.

Meanwhile, solar and wind power have received massively greater federal subsidies than oil, gas and coal. A study by the Institute for Energy Research finds that per kilowatt of electricity produced, taxpayer subsidies have been five to ten to twenty times higher for wind and solar energy than for fossil fuels.

4. Shale gas is reducing U.S. greenhouse gas emissions.

This is the environment committee so I should add that although shale oil and gas drilling remains controversial, these breakthroughs in drilling have played a major role in reducing green house gases. The conversion of U.S. Utilities from coal to Natural gas has moved America into the position of reducing our greenhouse gas emissions more than any other industrialized nation. This was a point President Obama made last month and he was right. Coal has also become cleaner, which is reducing U.S. emissions. Here are the changes in greenhouse gas emissions for major nations:

Greenhouse Gas Emitters

| Change in Co2 Emissions 2000-2011 | |
|-----------------------------------|---------|
| United States | -6.50% |
| EU-27 | -5.60% |
| Australia | 10.10% |
| Russia | 19.30% |
| India | 74.10% |
| China | 156.70% |

U.S. Energy Information Administration, 2014.

In other words, the green protesters have it all wrong on fracking and horizontal drilling. These technologies greatly reduce greenhouse gas emissions and make climate change, less, not more probable in the future.

5. The fall in oil prices is a major stimulant to the U.S. Economy and is reducing income inequality.

One other economic windfall from America's fossil fuels renaissance is worth mentioning given the developments of recent weeks and months. I am referring to the steep decline in gas prices.

The crude oil price has fallen to as low as \$66 a barrel at the end of November from nearly \$105 a barrel this Summer - a Godsend for consumers. A rule of thumb is that every penny reduction in gas prices represents more than \$1 billion in annual savings to American consumers.

So we are nearing a \$100 billion a year oil price reduction stimulus to the economy. This is a REAL and durable stimulus, because this extra money injected into the economy never has to be paid back.

The typical household in America spends about \$5,900 a year on energy. Cutting these costs by 30 percent means a near \$1,800 windfall for each family.

On the Democratic side of the aisle, where there is an emphasis on reducing "income inequality," it is critical to understand that lowering energy costs helps the poor far more than the rich. This is because Census Bureau data find that the rich spend far less than half of their income on energy than the poor. So any policy - such as cap and trade, severe EPA emissions regulations, environmental treaties - would hurt the poor far more than the rich. Any measure to slow down domestic fossil fuel

production is nothing more than a regressive tax on those with low incomes.

One study cited in *The Wall Street Journal* found that the savings to the poor from the reduction in natural gas prices were two to three times bigger than the benefits from the Low Income Home Energy Assistant program. And yet shale gas and oil costs taxpayers nothing.

Since energy is a basic input into everything we produce and consume, lower oil prices make EVERYTHING cheaper - from a candy bar to a computer to an airline ticket. Low domestic energy costs - especially from shale gas - is helping revitalize American manufacturing across the country.

6. Government regulation of the oil and gas industry poses a major threat to the revival of the U.S. Economy.

Congress must resist regulations, mandates, and treaties that would jeopardize this treasure chest of domestic energy resources.

In the recent elections, the American voters made it clear, they want jobs to be job number one in America. Yet the new Clean Power Plant rule and the alleged deal President Obama signed with China over climate change threaten tens of thousands of jobs right out of the gate. For example, EPA rules aim to reduce carbon dioxide (CO₂) emissions from U.S. power plants by 30 percent. That's an enormous and costly burden on our power generating utilities. According to Energy Ventures Analysis, an energy research firm, the annual costs for residential, commercial and industrial energy customers in America would be about \$173 billion higher in 2020 —a 37% increase. Average annual household gas and power bills would increase by \$680 or 35%. The poor will take a pounding and all the benefits from today's falling gas prices will be reversed.

Similarly, the climate change pact with China sought by President Obama is little more than unilateral economic disarmament by the United States. Beijing has one quest and that is to replace America as the globe's economic superpower. Raising energy prices and transitioning to highly inefficient forms of electricity production in China is in consistent with that goal, and it's doubly unlikely to happen at a time when the Chinese economy has showed signs of slowing down.

Meanwhile, the Obama administration and the Environmental Protection Agency are deadly serious about strangling U.S. Energy security and production with new anti-carbon mandates.

China is building coal burning energy plants nearly every month. They are trying to figure out how to do fracking so they can get at their oil and gas resources. They are importing huge amounts of coal from the U.S. They just signed a \$300 billion pipeline deal with Putin to transport billions of barrels of gas to China.

Does any of this sound like the agenda of a nation that is ready to swear off fossil fuels?

Europe and in particular Germany bought into the renewable energy/green jobs charade a decade ago. Now their economy is cratering in part because their energy costs have skyrocketed. Industrial production fell last quarter in Germany and high energy prices are a major reason why. Europe's green energy bubble has burst. The U.S. must not follow the policies of the losers.

Americans want a clean environment. We demand clean air and clean water to keep our society healthy. The reductions in pollutants over the last fifty years have been nothing short of miraculous. This committee has done much to ensure that is the case.

But environmental rules need to be made in ways that won't cripple our fossil fuels-driven economy. The top priority now must be to accelerate economic growth, create more jobs, and expand incomes for those in the middle class. No industry is helping achieve that goal more today than our domestic energy producers.