



Insight

# U.S. Oil and Gas Production Boosts Economic Growth

CATRINA RORKE | OCTOBER 16, 2014

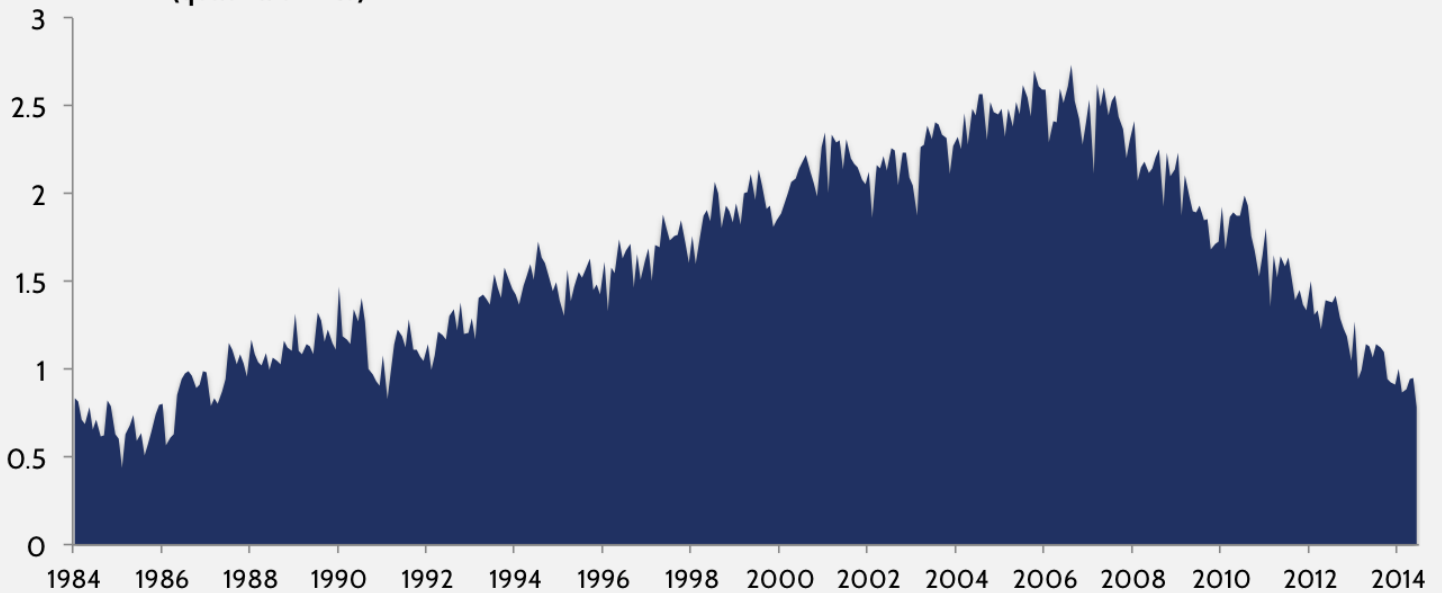
The U.S. is due to outpace Saudi Arabia this week as the world's largest petroleum producer. We've already passed Russia as the largest combined oil and gas producer, and our fracking boom is challenging decades-old rules about international supply and demand, pricing structures, and trade instability.

The domestic oil and gas boom is also a trade game changer here at home. Over the period 2011 to 2013, the U.S. trade imbalance fell \$72 billion while the trade balance in energy increased \$96 billion. The energy industry more than offset what would otherwise have been an increase in the trade deficit. The result is an increase to GDP growth of roughly 0.3 percentage points annually without accounting for multiplier effects from the export stimulus, lower oil and gas prices, and a more stable energy supply.

## ENERGY TRADE TRENDS

Propelled by increasing oil and gas output from major shale plays, net energy imports reversed a persistent, upward trend. Over the past six years, imports have dropped roughly 70 percent to 1984 levels.

**Figure 1. Net Energy Imports**  
(quadrillion Btu)

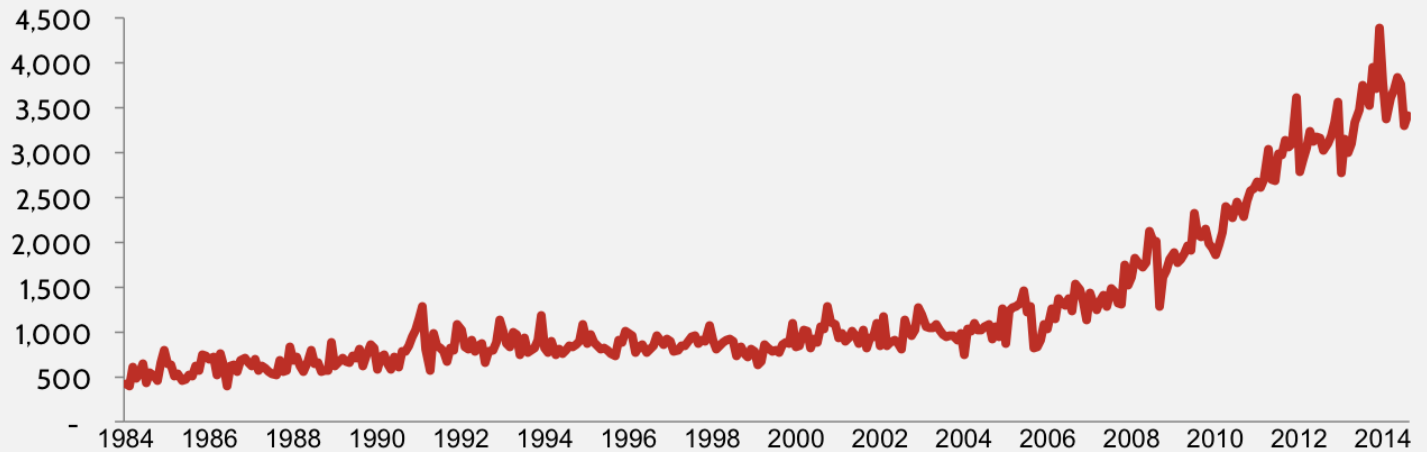


Source: Energy Information Administration, Monthly Energy Review

The energy boom is also spurring major changes in energy exports. Though current [regulations prohibit us from exporting much of the new oil](#)

and [natural gas supply](#) we're generating, we have seen a marked increase in the export of petroleum products not covered by an active ban. Export of such products has more than doubled since the start of the energy boom, reaching 4.4 billion barrels per day in December 2013.

**Figure 2. Petroleum Product Exports**  
(thousand barrels per day)



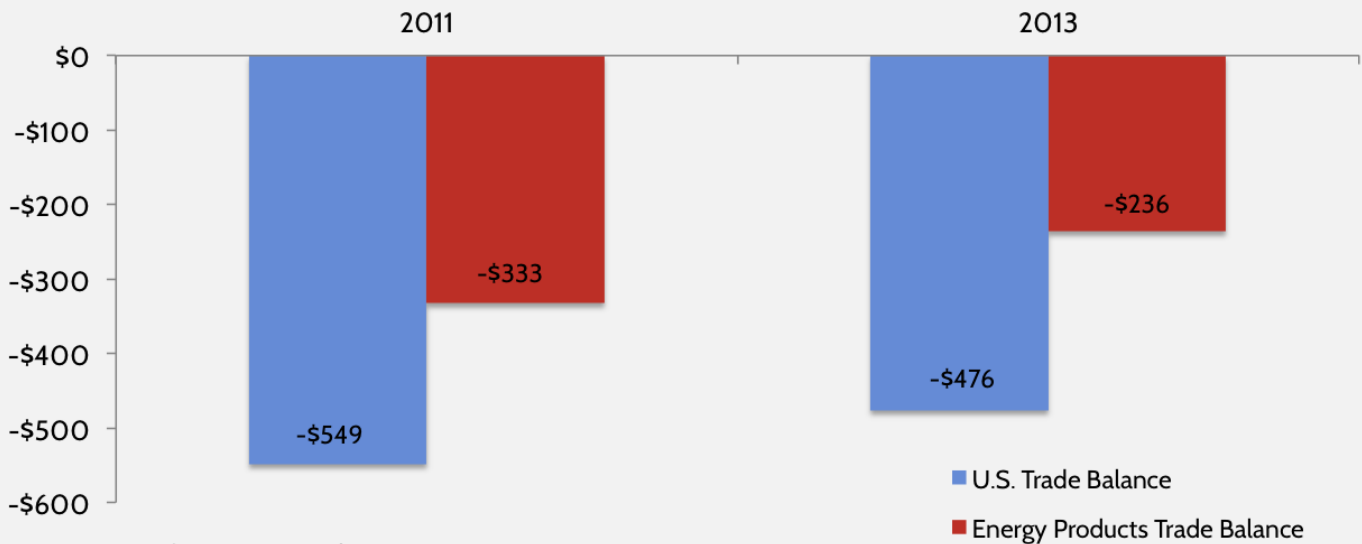
Source: Energy Information Administration, Monthly Energy Review

## TRADE BALANCE TRENDS

Between 2011 and 2013, the value of our trade balance increased \$72 billion. Over the same period, oil and gas imports decreased \$73 billion, and exports increased \$23 billion, avoiding what would have been an increased trade deficit in the larger economy.

**Figure 3. Balance of Trade, 2011 vs. 2013**

(dollars in billions)



Source: Bureau of Economic Analysis

Over the study period, the GDP grew by roughly 4 percent annually. To crudely estimate the contribution of oil and gas, we recalculate GDP growth after removing the \$96 billion represented by the industry. We estimate that without the fracking boom, the GDP would have grown just 3.7 percent annually over 2011-2013, suggesting the energy industry resulted in an annual bump of at least 0.3 percentage points in GDP during the period.

**Table 1. GDP Impacts of Energy Boom**

	Actual GDP (billions of current dollars)	GDP, less oil & gas gains (billions of current dollars)
2011	15,518	15,518
2013	16,768	16,672
GDP Growth	4.0%	3.7%

## CONCLUSIONS

The calculated growth impact of 0.3 percentage points of GDP is certainly significant, but there are even larger impacts of the energy industry over the last few years.

The export stimulus provides multiplier effects to the larger economy. Dramatic gains in domestic oil production have countered the destabilizing impact of major geopolitical events on global prices and reduced the vulnerability of the U.S. economy to oil price spikes. Natural gas production increases have enabled a quicker transition to low-carbon fuels, fueled resurgence in the manufacturing sector, and increased fuel choice in the power sector.

While we don't calculate the economic benefits of these broader impacts here, it is obvious that a pro-growth energy policy, particularly in the states that have enabled the fracking boom, has yielded substantial benefits to the larger economy.