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Before the

COMMITTEE ON ENERGY AND COMMERCE

U. S. HOUSE OF REPRESENTATIVES

MARCH 3, 2015

Mr. Chairman and Members of the Subcommittee, thank you for the opportunity to appear before you today as you consider how the changing dynamics of world energy impact our economy and energy security.

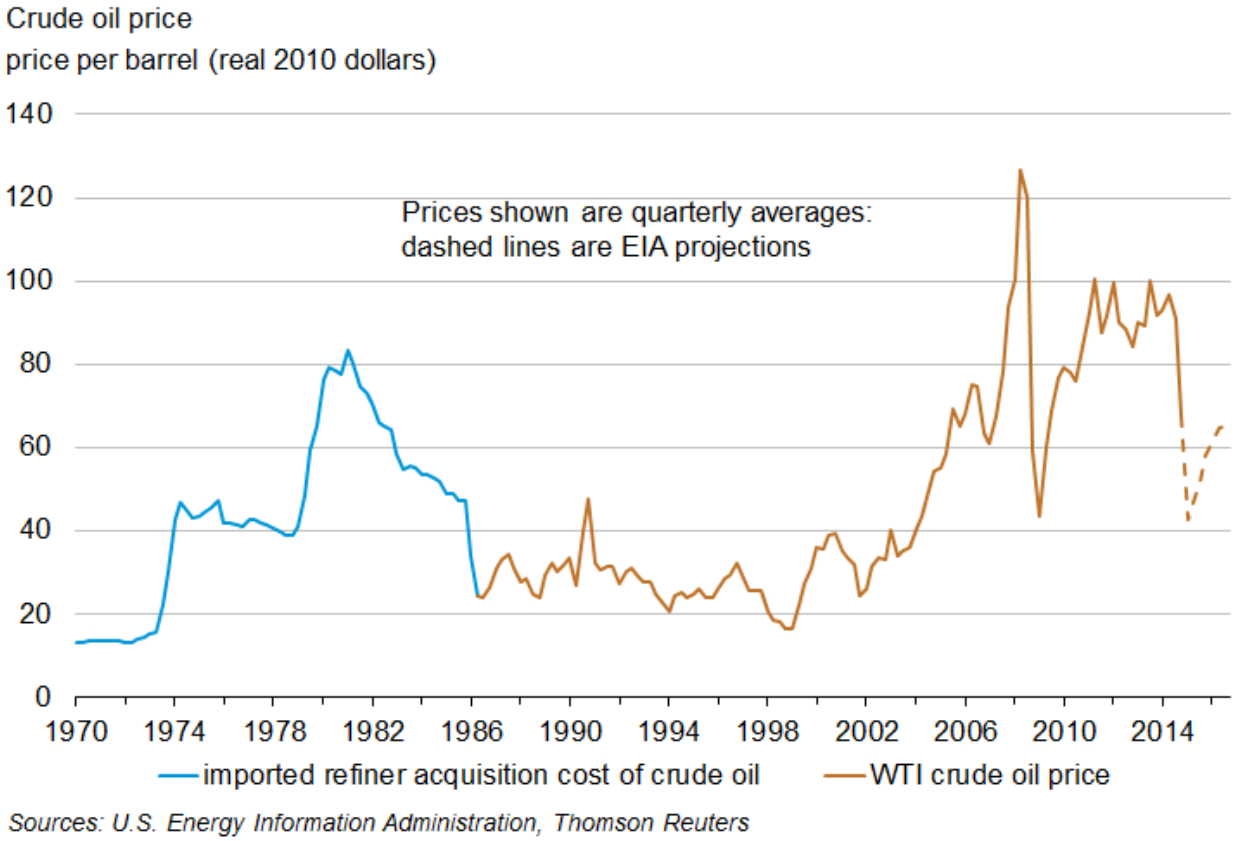
The U.S. Energy Information Administration (EIA) is the statistical and analytical agency within the U.S. Department of Energy. EIA collects, analyzes, and disseminates independent and impartial energy information to promote sound policymaking, efficient markets, and public understanding regarding energy and its interaction with the economy and the environment. By law, EIA's data, analyses, and forecasts are independent of approval by any other officer or employee of the United States Government, so the views expressed herein should not be construed as representing those of the Department of Energy or any other Federal agency.

As requested, my testimony focuses on EIA's oil market outlook, including supply, consumption, prices and the relationship between energy market developments and the economy, drawing on information from EIA's most recent Short-Term Energy Outlook (STEO) and our other data and analysis products.

OIL PRICES

Since the middle of last year, the global supply of crude oil and petroleum products has exceeded consumption, leading to growth in global oil inventories. From their 2014 high point in June, prices fell as the worst fears of the impact of the so-called Islamic State on Iraq's oil production failed to materialize, U.S. production continued to grow robustly, and significant Libyan supplies unexpectedly returned to the market for several months starting in late summer. At the same time, global oil demand growth and expectations for future demand growth were reduced as data from key markets, including China, showed economic growth coming in below consensus expectations at the start of 2014. EIA estimates that commercial oil inventories held by countries in the Organization for

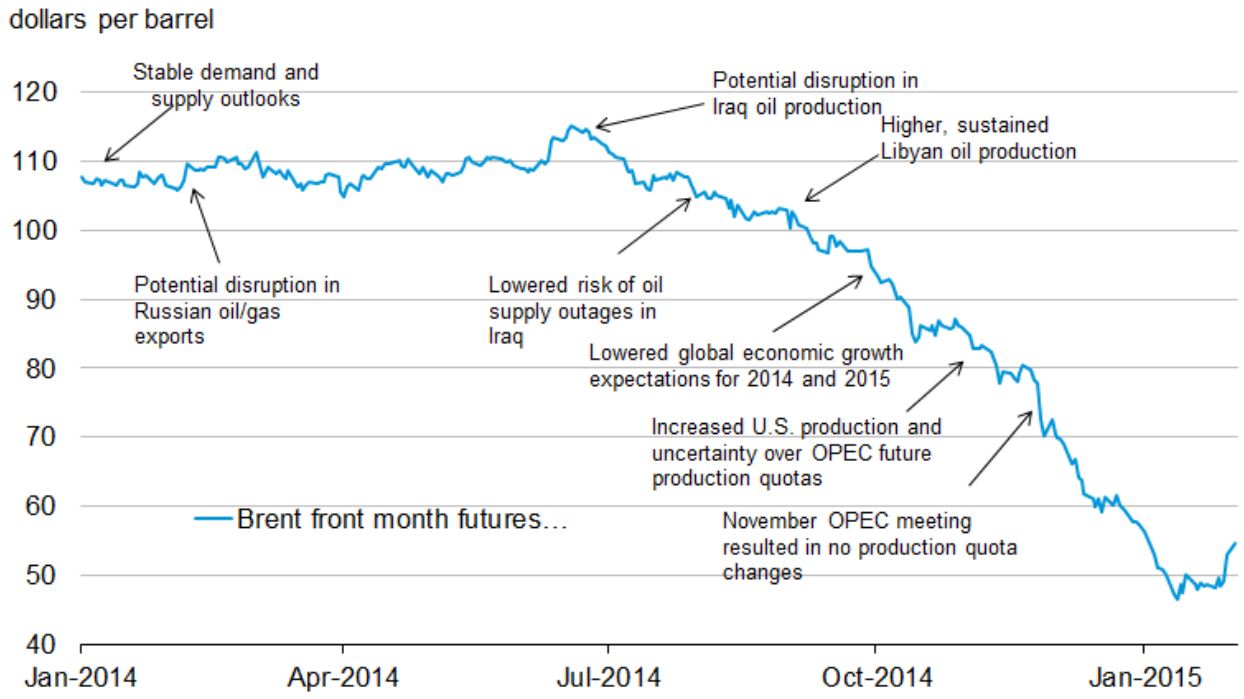
Economic Cooperation and Development (OECD) at the end of January were 203 million barrels (8%) higher than the same time last year, the largest year-over-year increase in at least the last three decades. Put in historical context, this recent inflexion point in oil markets is not the first. The global oil market has experienced a number of significant upward and downward price movements over the last 40 years.



Sources: U.S. Energy Information Administration, Thomson Reuters

By January 2015, the monthly average West Texas Intermediate (WTI) crude oil spot price had fallen from a peak monthly average of $106 per barrel (/b) in June to an average of $47/b, and North Sea Brent crude oil had fallen to $48/b, the lowest levels of these benchmark crudes since early 2009. Prices rebounded in February, with Brent and WTI prices averaging $58/b and $51/b respectively,

reflecting a significant widening of the spread between Brent and WTI as U.S. crude oil inventories have rapidly increased. The recent rise likely reflects some optimism regarding the pace of global market rebalancing, including lower rig counts and capital expenditures on the supply side, and some recent positive news on the global demand side.



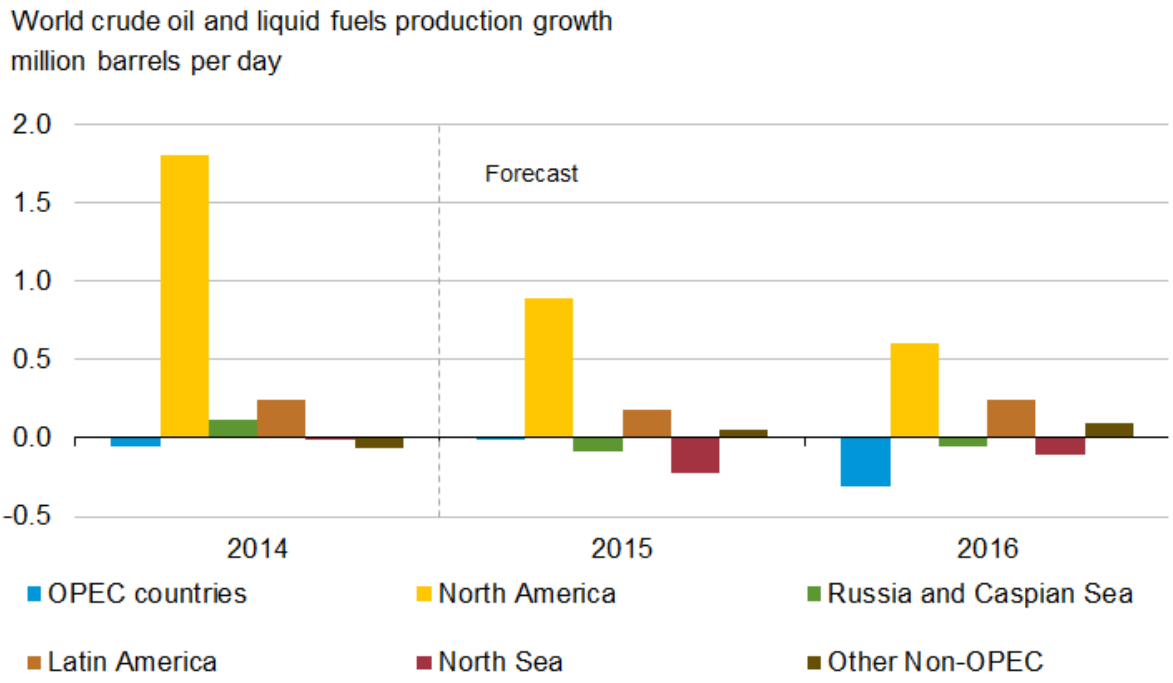
Source: EIA, Bloomberg

Recent values of futures and options contracts suggest very high uncertainty in the price outlook – the implied 95% confidence interval for market expectations for WTI prices in December 2015 calculated for the current STEO ranges from $32/b to $108/b. In the absence of further sanctions or unplanned disruptions, EIA's STEO forecast for WTI prices averages $55/b in 2015, down from the average price of $93/b in 2014. The forecast price decline reflects an expected average global inventory build of 600,000 barrels per day (b/d) in 2015, peaking at over 1.1 million b/d during the second quarter. EIA's WTI price forecast averages $71/b in 2016. In EIA's forecast, the discount of WTI to Brent averages $3/b in 2015 and $4/b in 2016.

GLOBAL OIL SUPPLY

Global supply of crude oil and other liquids grew 2.1 million b/d in 2014 despite unchanged total production from member countries of the Organization of the Petroleum Exporting Countries (OPEC). The United States was the main contributor to global supply growth, adding 1.6 million b/d including 1.2 million b/d of increased crude oil supply.

In 2015 and 2016, non-OPEC supply continues to grow under EIA's price forecast, but more slowly than in recent years, with year-over year growth averaging 0.8 million b/d annually. The slower growth in non-OPEC supply is largely attributable to slower production growth in the United States, Canada, and South America.



Source: EIA, Short-Term Energy Outlook, February 2015

Year-over-year supply growth figures may not reflect the most current trends at times when oil production growth is changing rapidly. While U.S. production of crude oil (not all liquids) averaged an estimated 8.6 million b/d for all of 2014, production in December 2014 was significantly higher at 9.1 million b/d. EIA's forecast for U.S. crude oil production averages 9.3 million b/d in 2015, with average production rising to 9.5 million b/d in 2016 given EIA's price forecast, which is close to the highest annual production in U.S. history of 9.6 million b/d in 1970.

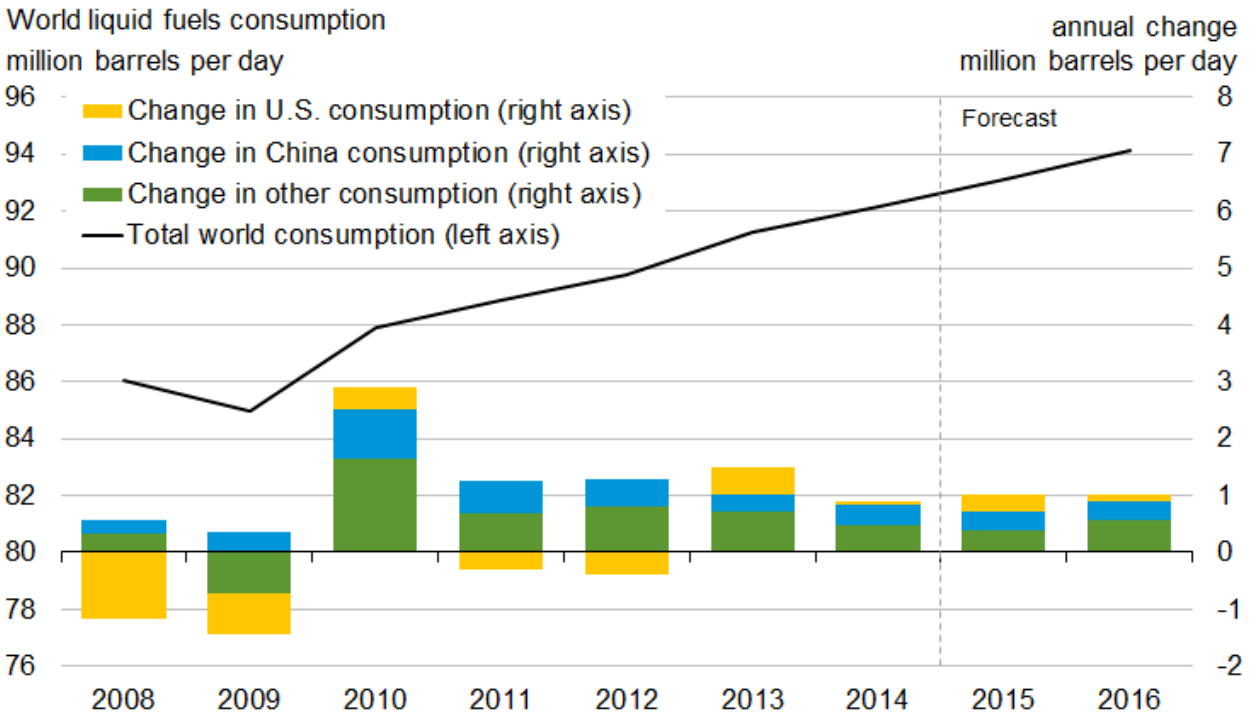
EIA expects onshore drilling activity to decline in 2015 as a result of less-attractive economic returns in some areas of both emerging and mature oil production regions. Many companies will redirect investment away from marginal exploration. However, projected oil prices remain high enough to support some continuing development drilling activity in the Bakken, Eagle Ford, Niobrara, and Permian Basin, which contribute the majority of U.S. oil production growth. EIA expects 2015 production will continue to grow in the second quarter, then decline in the third quarter. With projected WTI crude oil prices rising in the second half of 2015, drilling activity is expected to increase again as companies take advantage of lower costs for both leasing acreage and drilling and completion services. Projected production for the federal offshore region and Alaska, which rise and fall respectively in both 2015 and 2016, are less sensitive to short-term price movements than onshore production in the Lower 48 states.

EIA estimates that OPEC crude oil production averaged 30.1 million b/d in 2014, unchanged from the previous year. Crude oil production declines in Libya, Angola, Algeria, and Kuwait more than offset production growth in Iraq and Iran. EIA expects OPEC crude oil production to fall by 0.1 million b/d in 2015, and to fall by 0.4 million b/d in 2016. Iraq is the largest contributor to OPEC production growth over the forecast period, but its growth is expected to be offset by production declines from other OPEC producers.

Unplanned OPEC crude oil supply disruptions averaged 2.4 million b/d in 2014, 0.6 million b/d higher than in 2013 and contributed to higher crude oil prices during the first half of 2014. Libya and Iraq accounted for almost all of the growth in OPEC disruptions. Changes in the level of unplanned outages, either up or down, could still affect crude oil prices going forward.

GLOBAL OIL CONSUMPTION

EIA estimates that global oil consumption grew by 0.9 million b/d in 2014, averaging 92.1 million b/d for the year. EIA expects consumption to grow 1.0 million b/d in both 2015 and 2016. Projected global oil-consumption-weighted real gross domestic product (GDP), which increased by an estimated 2.7% in 2014, is projected to grow by 2.8% in 2015 and by 3.2% in 2016.



Source: EIA, Short-Term Energy Outlook, February 2015

Non-OECD Asia accounts for more than 50% of forecast oil consumption growth over the next two years. Chinese oil consumption, the main source of the growth, is projected to increase in 2015 and

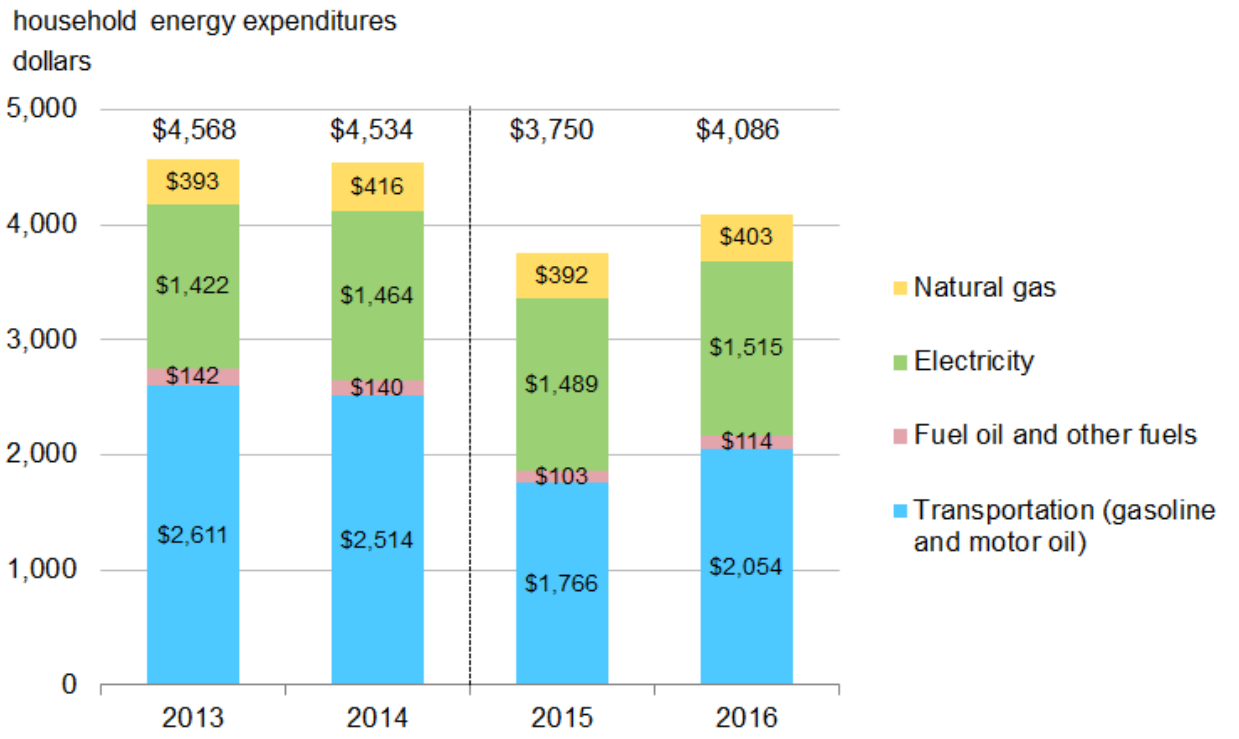
2016, but at a lower rate than in 2014. Projected declines in Russia's oil consumption because of its economic downturn also contribute to lower non-OECD consumption growth over the forecast period compared with 2014.

OECD consumption, which fell by 0.3 million b/d in 2014, is expected to rise modestly in 2015 before declining slightly in 2016. The United States is the leading contributor to projected OECD consumption growth, with U.S. consumption increasing by 0.3 million b/d in 2015 and by 0.1 million b/d in 2016. Demand in Japan and Europe is expected to continue declining over the next two years, albeit at a lesser rate than in 2014.

THE ECONOMY AND CONSUMERS

EIA's energy forecast reflects a U.S. economic growth outlook for 2015-16 that is somewhat stronger than the 2013-14 experience. Energy expenditures as a share of GDP are forecast at 6.2% in 2015, their lowest level since 2002, reflecting both lower oil prices and ongoing increases in energy efficiency.

Consumers are receiving a direct benefit from lower oil prices. EIA expects U.S. regular gasoline retail prices, which averaged $3.36/gal in 2014, to average $2.33/gal in 2015. Based on gasoline expenditures reported in the Consumer Expenditure Survey (CES), the average household is now expected to spend about $750 less for gasoline in 2015 than in 2014 because of lower prices. Many households that have more than one vehicle and/or have higher than average miles traveled will save substantially more than the average value reported for all households, which includes the 13% of all households that do not own or lease even one vehicle.



Sources: 2013 expenditures and income from BLS Consumer Expenditure Survey. The average household in the BLS survey (called a consuming unit) averages 2.5 people and 1.3 income earners. Expenditures for 2014-16 based on average prices from EIA Short-Term Energy Outlook, February 2015

Consumers who heat with propane or heating oil, which together are used as the primary heating fuel in about 11% of American homes, are also likely to see significant cost savings compared to last winter during the current (2014-15) winter. The expenditure savings for fuel oil and other fuels for the average household in the expenditures figure reflect the average savings of all households; the savings for households actually using those fuels are roughly 10 times larger.

INITIATIVES TO IMPROVE ENERGY INFORMATION

I would like to share with the Subcommittee information on a number of important initiatives EIA is pursuing related to the timeliness and detail of oil market data. These efforts are particularly important given the need for policymakers, industry, and the public to closely track rapidly changing developments. EIA just launched its first-ever monthly survey to collect oil production data directly

from operators. In addition to providing a better estimate of the volume of monthly production, this survey will include information on the quality of oil being produced. EIA had previously obtained production data from the states, which have varying lags and gaps in their own data collection programs and had almost no access to data on oil quality, an important consideration in discussions regarding the possible relaxation of current limitations on U.S. crude oil exports. EIA is also providing technical assistance to oil and natural gas producing states through the Groundwater Protection Council (GWPC), which is developing a unified national database of well-level data.

Later this month, EIA plans to begin publishing monthly information on the movement of crude oil by rail, which has grown dramatically in recent years. We are also working with our counterparts from Canada and Mexico on validating data on cross border flows of energy by all modes, improved infrastructure mapping and outlooks for traded energy. This trilateral effort was started with the signing of a Memorandum of Understanding (MOU) by Secretary Moniz and his counterparts from Canada and Mexico. Collectively, these efforts support EIA's commitment to provide timely, accurate, and relevant information at a time when there are many new developments in the sector.

LINKAGES BETWEEN U.S. AND GLOBAL ENERGY MARKETS

As we work to keep up with rapidly changing energy markets, one set of questions we face involves the relevance of international energy markets to the United States as our oil and natural gas production surges, and our net dependence on energy imports declines. Despite these trends, the connectedness of the United States to global energy markets is actually increasing in some important respects.

Notwithstanding declining U.S. net oil imports, producers in the countries of the Persian Gulf region, who hold very large reserves of easy-to-develop oil, will continue to play a central role in oil markets.

Developments in that region and decisions made by producers affecting both production levels and the development of their resources have a direct effect on oil prices that in turn affect producers and consumers everywhere, including the United States. Global interconnections are also readily apparent on the demand side of oil markets. The United States, already the world's largest exporter of petroleum products, has a keen interest how overseas demand for various petroleum products will evolve. More broadly, future trends in global oil demand largely hinge on the rate of consumption growth in the Middle East and non-OECD Asia, including but not limited to China and India. Demand as well as supply will be a key influence on future oil prices, with outcomes having direct implications for both U.S. producers and consumers.

Natural gas markets are also increasingly interconnected. Not long ago, the North American natural gas market, dominated by the United States, was largely isolated from other global regions. The advent of shale gas, which greatly increases the U.S. resource base, could allow the United States to be a significant exporter of liquefied natural gas. The extent to which this actually happens will depend significantly on natural gas demand, supply, and price conditions throughout the world, as well as on future oil prices, given competition among fuels and the use of oil-linked price contracts. Provided that market conditions favor investment in liquefaction capacity to support higher levels of U.S. LNG exports, decisions by policymakers regarding the approval of proposed projects will also come into play.

Faced with the rising connection between U.S. and global energy markets, EIA's efforts to analyze developments in U.S. energy markets increasingly hinges on our ability to understand their linkage to developments outside our borders. In the face of this challenge, we are redeploying some resources to improve our international data and analysis capabilities.

Thank you again for the opportunity to testify before the Committee.