STATEMENT OF ADAM SIEMINSKI

ADMINISTRATOR

U.S. ENERGY INFORMATION ADMINISTRATION

U.S. DEPARTMENT OF ENERGY

BEFORE THE

COMMITTEE ON FOREIGN AFFAIRS

SUBCOMMITTEE ON THE WESTERN HEMISPHERE

UNITED STATES HOUSE OF REPRESENTATIVES

JUNE 9, 2016

Chairman Duncan, Ranking Member Sires and Members of the Committee, I appreciate the opportunity to appear before you today to provide testimony on the U.S. energy outlook for the Western Hemisphere.

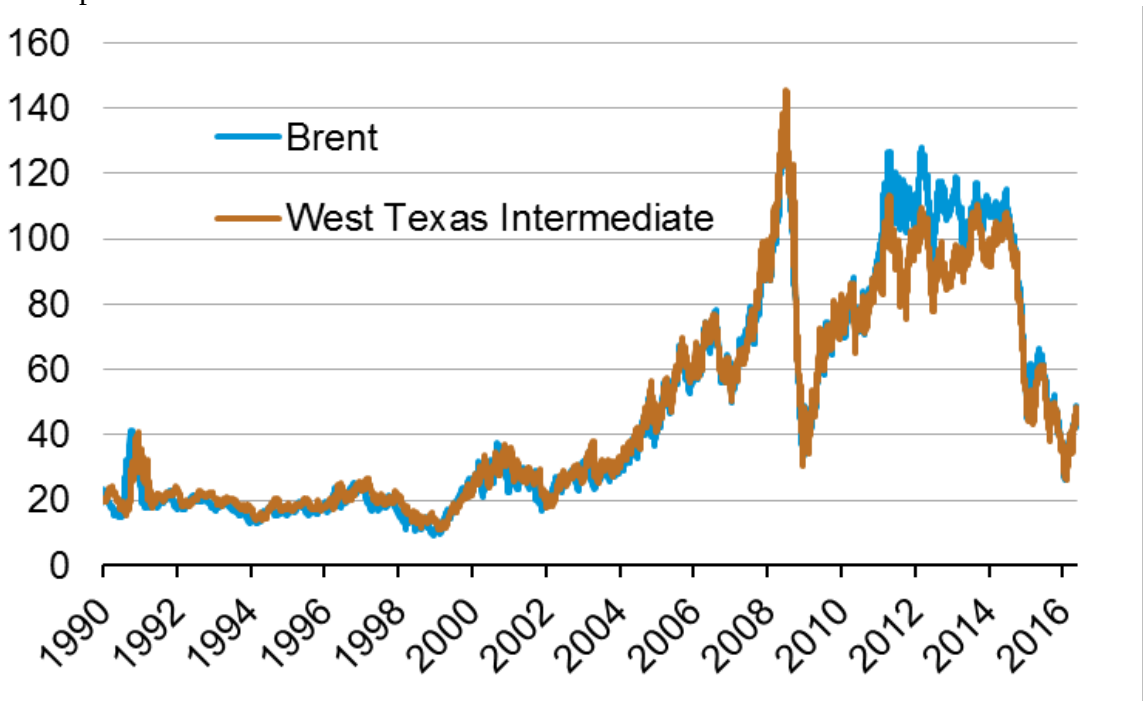
The U.S. Energy Information Administration (EIA) is the statistical and analytical agency within the U.S. Department of Energy. EIA collects, analyzes, and disseminates independent and impartial energy information to promote sound policymaking, efficient markets, and public understanding regarding energy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

The energy data and projections that I will discuss today are widely used by government agencies, the private sector, and academia as a starting point for their own energy analyses. For the U.S. energy sector, EIA prepares both short-term energy outlooks examining monthly trends over the next one to two years and long-term outlooks with annual projections over the next 20-to-25 years. My testimony will summarize some key findings from the June Short-Term Energy Outlook (STEO), which was released on Tuesday before addressing some of our longer-term perspectives from the Annual Energy Outlook 2016 (AEO2016) and International Energy Outlook 2016 (IEO2016).

I will start with a review of the near term price and supply situation drawn from the STEO and recent data.

Crude Oil Prices: Crude oil prices hit a low point in the first quarter of 2016. North Sea Brent (Brent), the major marker for water-borne crude oil, and West Texas Intermediate (WTI) fell to $26 per barrel (b), the lowest level for both crudes since 2003. Brent and WTI crude oil prices averaged just under $47/b in May. Improving economic data, growing supply disruptions, and falling U.S. crude oil production and rig counts contributed to the price increase (Figure 1).

Figure 1: Daily crude oil spot prices (January 1, 1990—May 23, 2016)
dollars per barrel



Source: EIA, based on Thomson Reuters

Brent crude oil prices are forecast to average $43/b in 2016 and $52/b in 2017, with WTI forecast to average slightly less than Brent in 2016 and to be the same as Brent in 2017.

However, the current values of futures and options contracts suggest high uncertainty in the price outlook. For example, EIA's forecast for the average WTI price of $46/b in September 2016 should be considered in the context of NYMEX contract values for September 2016 delivery. Prices for options and futures contracts traded during the five-day period ending June 2 suggest that the market expects that average WTI prices in September 2016 could range from $36/b to $69/b (at the 95% confidence interval).

Changes in oil prices have different impacts on the various countries in the western hemisphere. A primary differentiation is based on a country's net import or next export position. Table 1 below shows the implied exports based on production and consumption by country of petroleum and other liquids (crude oil, condensate, natural gas plant liquids, biofuels, coal-to-liquids, gas-to-liquids, and refined products). Some countries listed as importers also export crude oil, petroleum products, and/or biofuels, such as Brazil and the United States. The same applies to some countries listed as exporters that also import crude oil and/or petroleum products. Other issues to consider include the level of dependence of a country on oil revenues for meeting budgetary requirements, the level of subsidies, and other macroeconomic considerations.

Table 1: Implied exports of petroleum and other liquids in the Americas, 2014
thousand barrels per day

Country	Production	Consumption	Implied exports
Exporters			
Canada	4,383	2,395	1,988
Venezuela	2,685	794	1,890
Mexico	2,812	2,007	805
Colombia	1,016	291	725
Ecuador	556	230	326
Bolivia	67	64	3
Trinidad and Tobago	115	50	65
Suriname	14	16	(2)
Peru	181	172	10
Paraguay	2	27	(25)
Importers			
Belize	2	5	(3)
Aruba	3	6	(3)
Barbados	1	8	(7)
Martinique	(0)	19	(20)
Nicaragua	-	35	(35)
Uruguay	1	48	(47)
El Salvador	(0)	47	(48)
Costa Rica	0	56	(55)
Argentina	718	776	(59)
Guatemala	14	79	(65)
Netherlands Antilles	1	71	(70)
Jamaica	2	80	(78)
Cuba	49	171	(123)
Dominican Republic	(0)	125	(125)
Brazil	2,966	3,145	(179)
U.S Virgin Islands	-	185	(185)
Chile	15	322	(306)
United States	14,021	19,106	(5,085)

Source: EIA

Note: The consumption and implied exports are estimates that are subject to change slightly as more data becomes available.

Non OPEC Production: EIA estimates that petroleum and other liquid fuels production in countries outside of the Organization of the Petroleum Exporting Countries (OPEC) grew by 1.5 million barrels per day (b/d) in 2015, with most of the growth occurring in North

America. EIA expects non-OPEC production to decline by 0.6 million b/d in 2016 and by 0.2 million b/d in 2017, with most of the production declines occurring in the United States.

U.S. crude oil production averaged 9.4 million b/d in 2015; EIA forecasts production to average 8.6 million b/d in 2016 and 8.2 million b/d in 2017. The forecast reflects a decline in Lower 48 onshore production that is partially offset by growing production in the federal Gulf of Mexico. Over the longer term in the AEO2016 Reference case, production grows to 11.3 million b/d by 2040, reflecting higher recovery rates driven by technology advances and higher prices. The full AEO2016, which will be released later this summer, examines alternative resource and oil price cases with implications for production.

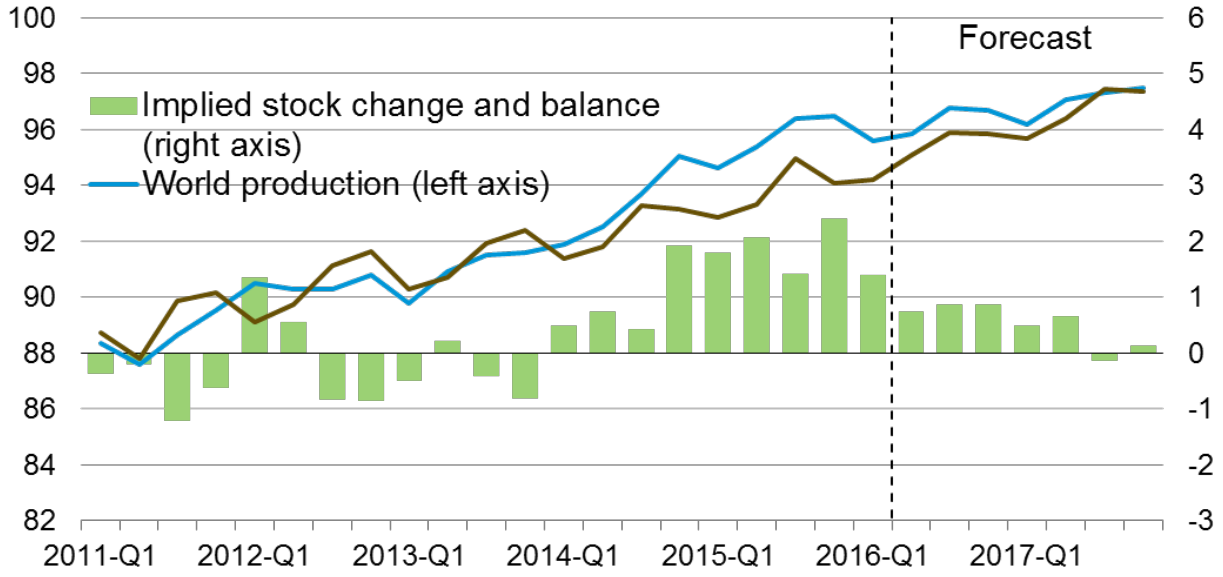
Petroleum and other liquids production, with the exception of production from U.S. tight oil plays, is relatively robust through 2017 because of investments that were committed to major projects when oil prices were higher. More generally, most of the industry's cuts have been to capital budgets that largely affect production levels beyond 2017.

***OPEC Production**:* OPEC crude oil production averaged 31.5 million b/d in 2015, an increase of 0.8 million b/d from 2014, led by rising production in Iraq and Saudi Arabia. Forecast OPEC crude oil production rises by 0.8 million b/d in 2016, with Iran accounting for most of the increase, followed in 2017 with an additional 0.7 million b/d. OPEC noncrude liquids production averaged 6.6 million b/d in 2015, and it is forecast to increase by 0.3 million b/d in both 2016 and 2017, led by increases in Iran and Qatar.

The forecast does not assume a collaborative production cut among OPEC members and other producers over the period, as major OPEC producers are expected to continue their strategy of maintaining market share.

EIA estimates that inventory builds of global petroleum and other liquid fuels will average 1.0 million b/d in 2016 and 0.3 million b/d in 2017, bringing the market back into balance in late 2017 (Figure 2).

Figure 2: World liquid fuels production and consumption balance
million barrels per day



Source: EIA Short-Term Energy Outlook, June 2016

Natural Gas prices: The Henry Hub natural gas spot price averaged $1.92/million British thermal units (MMBtu) in May, unchanged from the April price. Henry Hub, is the main marker price for natural gas traded by pipeline across North America. Through the 2015-16 winter, prices remained relatively low because of lower demand as a result of warmer-than-normal temperatures, record inventory levels, and production growth. EIA expects prices will gradually rise through the summer, as demand from the electric power sector increases, but forecast prices remain lower than they were last summer. Monthly average Henry Hub spot prices are forecast to remain lower than $3.00/MMBtu through December 2016.

Natural gas production and trade: U.S. marketed natural gas production was 80.1 billion cubic feet per day (Bcf/d) in February 2016, which is the second-highest production level on record and an increase of 1.4% from January. Growth was strongest in the Marcellus and Utica production areas. Production in Pennsylvania increased by 3.5% from January levels, and production in Ohio and West Virginia increased by 10.7% and by 1.7%, respectively; however, preliminary data since March, including EIA's Drilling Productivity Report, indicate production growth may be slowing because of reduced drilling activity in response to low natural gas prices.

U.S. natural gas exports, by both pipeline and liquefied natural gas (LNG) tanker shipments, are expected to increase through 2017. Although overall domestic demand growth levels off, production remains high, reducing demand for natural gas imports from Canada while supporting growing exports to Mexico. Growing demand from Mexico's electric power sector coupled with flat natural gas production in Mexico creates a growth opportunity for U.S. pipeline gas. With the startup of Cheniere's Sabine Pass liquefaction plant in early 2016 and subsequent expected increases in liquefaction capacity, EIA projects LNG gross exports will increase to an average of 0.5 Bcf/d in 2016 and 1.3 Bcf/d in 2017.

Trade between the United States and the rest of the Western Hemisphere

The United States and Canada have had extensive energy trade in crude oil and refined products, natural gas and electricity for decades. The electrical grid, natural gas and liquid pipeline systems between the United States and Canada are highly integrated. Oil trade with Mexico has for decades involved U.S. imports of Mexican crude oil and U.S. exports of refined products to Mexico. In recent years, natural gas pipeline connections between the

United States and Mexico have greatly expanded, supporting rapid growth in U.S. natural gas exports to Mexico. With the exception of linkages in the San Diego area, the U.S. and Mexican electricity systems are not very well integrated.

An EIA report, *Liquid Fuels and Natural Gas in the Americas*, dated 2014 provides extensive background on the energy market interconnections across the Americas. For example, in 2012, Intra-American crude oil and petroleum products trade accounted for most of the total energy liquids trade in the region. Tables 2 and 3 show U.S. imports and exports of petroleum products other than crude within the hemisphere. By 2012 U.S. exports of distillate fuel to Central and South America had eclipsed exports to Europe.

Table 2: U.S. non-crude petroleum product exports to the Americas
thousand barrels per day

	2012	2013	2014	2015
Mexico	565	532	559	687
Canada	349	415	478	526
Brazil	166	179	217	184
Chile	148	142	146	150
Panama	126	144	177	163
Ecuador	63	84	98	126
Venezuela	85	81	76	81
Total Americas	**1986**	**2117**	**2373**	**2649**
Total World	**3137**	**3487**	**3824**	**4292**

Source: EIA, Petroleum and Other Liquids Data

Table 3: U.S. non-crude petroleum product imports from the Americas
thousand barrels per day

	2012	2013	2014	2015
Canada	521	563	505	585
Mexico	60	68	61	70
Venezuela	47	52	56	51
Brazil	37	42	15	25
Colombia	30	22	23	22
Trinidad and Tobago	40	25	21	15
Total Americas	**817**	**835**	**730**	**823**
Total World	**2071**	**2129**	**1897**	**2050**

Source: EIA, Petroleum and Other Liquids Data

In addition to the natural gas pipeline trade with Canada and Mexico, since the beginning of 2016, multiple cargoes from the Sabine Pass LNG export facility have been delivered to Argentina, Brazil, and Barbados.

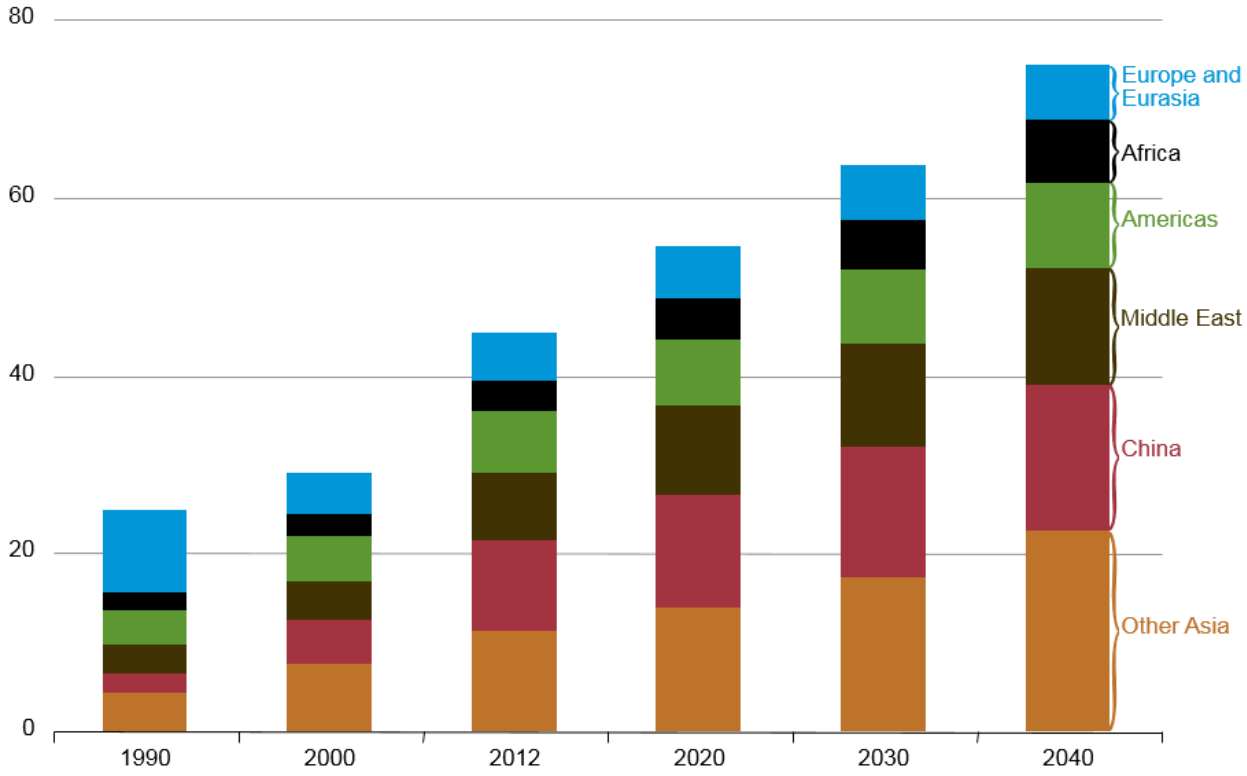
Insights from the International Energy Outlook 2016 (IEO2016)

There are vast oil and gas resources in the Western Hemisphere. By 2012, the countries of the Americas were the world's second-leading producer and consumer of liquid fuels, and leading producer and consumer of natural gas. This section refers to summary highlights from the *International Energy Outlook 2016* (IEO2016) Reference case only. For more detail refer to the complete IEO2016 at http://www.eia.gov/forecasts/ieo/. The analysis is divided by the OECD Americas (Canada, the United States, Mexico and Chile) and the non-OECD countries. The non-OECD includes the following subregions: Southern Cone (Argentina, Uruguay, Paraguay, also Chile which became an OECD member in 2010), the Andean Region, and the Northern Producers (Colombia, Venezuela, and Trinidad and Tobago). The OPEC countries in the non-OECD Americas are Venezuela and Ecuador.

Petroleum and other liquids consumption

Worldwide consumption of petroleum and other liquid fuels increases from 90 million b/d in 2012 to 100 million b/d in 2020 and 121 million b/d in 2040. Non-OECD regions account for essentially all the growth in liquid fuels consumption. In particular, non-OECD Asia and the Middle East account for about 75% of the world increase in liquids consumption from 2012 to 2040, with Africa and the non-OECD Americas each accounting for about 10% of the world increase (Figure 3).

Figure 3: Non-OECD petroleum and other liquid fuels consumption by region, 1990–2040
million barrels per day



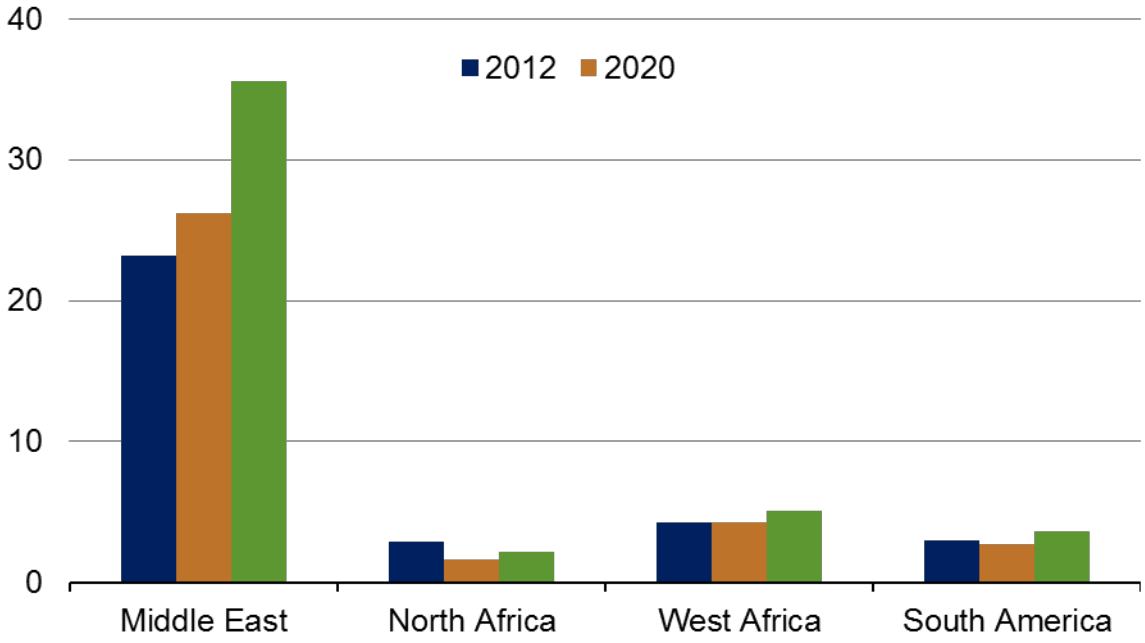
Source: EIA International Energy Outlook 2016 Reference case

In non-OECD Americas, notably Brazil, Colombia, and Peru, long-term economic expansion is expected to support growing demand for liquid fuels, primarily for transportation uses, but, also in the industrial sector. Brazil, with the region's largest economy, accounts for about 60% of the regional growth in liquid fuels demand over the period to 2040.

Petroleum and other liquids production

The IEO2016 Reference case assumes that countries in the OPEC countries will invest in incremental production capacity to maintain a 39%-43% share of total world liquids production through 2040, consistent with their share over the past 15 years. Most of the production growth occurs in the Middle East (Figure 4). The South American OPEC members, Venezuela and Ecuador, contribute very little to the growth.

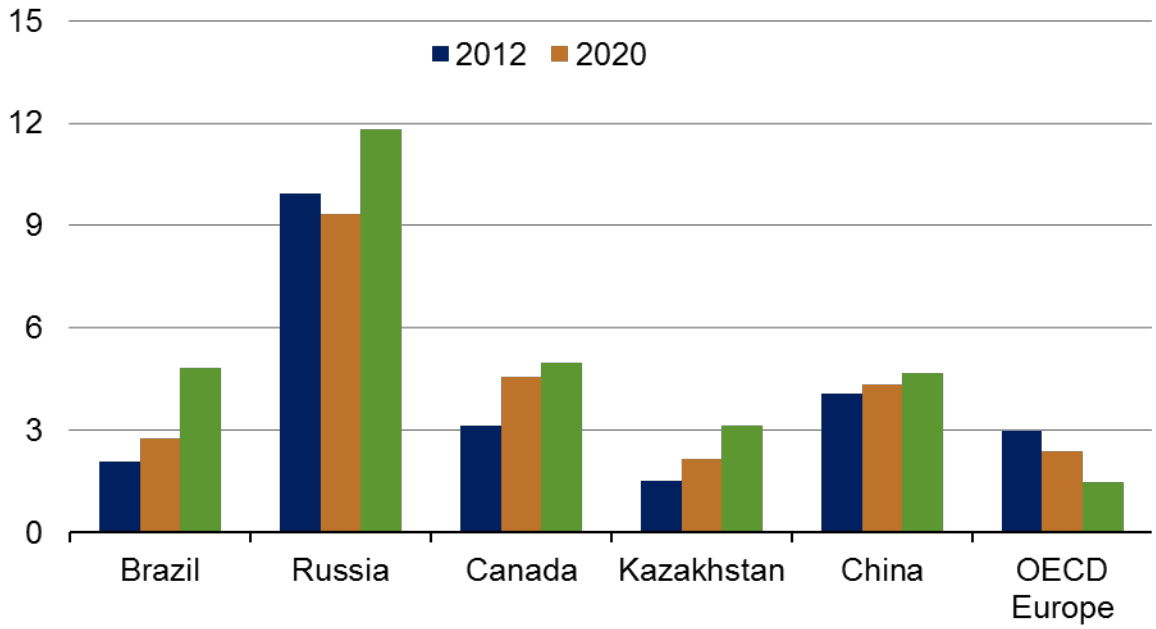
Figure 4: OPEC crude and lease condensate production
million barrels per day



Source: EIA International Energy Outlook 2016 Reference case

Increases to non-OPEC supplies outside of the United States are primarily from Brazil, Russia, Canada, and Kazakhstan (Figure 5).

Figure 5: Non-OPEC crude and lease condensate production in selected country groupings
million barrels per day



Source: EIA International Energy Outlook 2016 Reference case

Key influences on consumption and production are price trends and the reactions of consumers and producers to those trends, which in turn influence future prices. EIA has developed three price cases to examine a range of potential interactions of supply, demand, and prices in world liquid fuels markets: the IEO2016 Reference case and alternative Low Oil Price case and High Oil Price case. Table 4 reflects production based on the Reference case price path.

Table 4: Petroleum and other liquids production by region and country
million barrels per day

	2010	2015	2020	2025	2030	2035	2040	Growth (2012-2040)
OPEC	35.8	37.2	39.2	41.4	44.6	48.7	52.2	1.20%
South America	3.1	3.2	3.0	3.1	3.4	3.6	3.9	0.70%
Non-OPEC	52.3	57.9	61.1	63.1	64.4	65.9	68.7	0.90%
OECD	21.5	26.3	29.2	28.8	28.6	28.2	28.9	0.90%
OECD Americas	16.1	22.0	24.9	24.7	24.7	24.5	25.2	1.20%
United States	9.7	14.9	17.0	16.7	16.5	15.8	15.9	1.30%
Canada	3.4	4.5	5.4	5.4	5.5	5.7	6.0	1.60%
Mexico and Chile	3.0	2.7	2.5	2.6	2.6	2.9	3.3	0.40%
Non-OECD Americas	4.8	5.3	5.7	6.6	7.3	8.2	9.3	2.40%
Brazil	2.7	3.1	3.6	4.5	5.1	5.6	6.3	3.10%
Other Central and South America	2.1	2.2	2.1	2.1	2.2	2.6	3.0	1.20%
Total World	88.1	95.0	100.3	104.5	109.0	114.6	120.9	1.00%

Source: EIA International Energy Outlook 2016

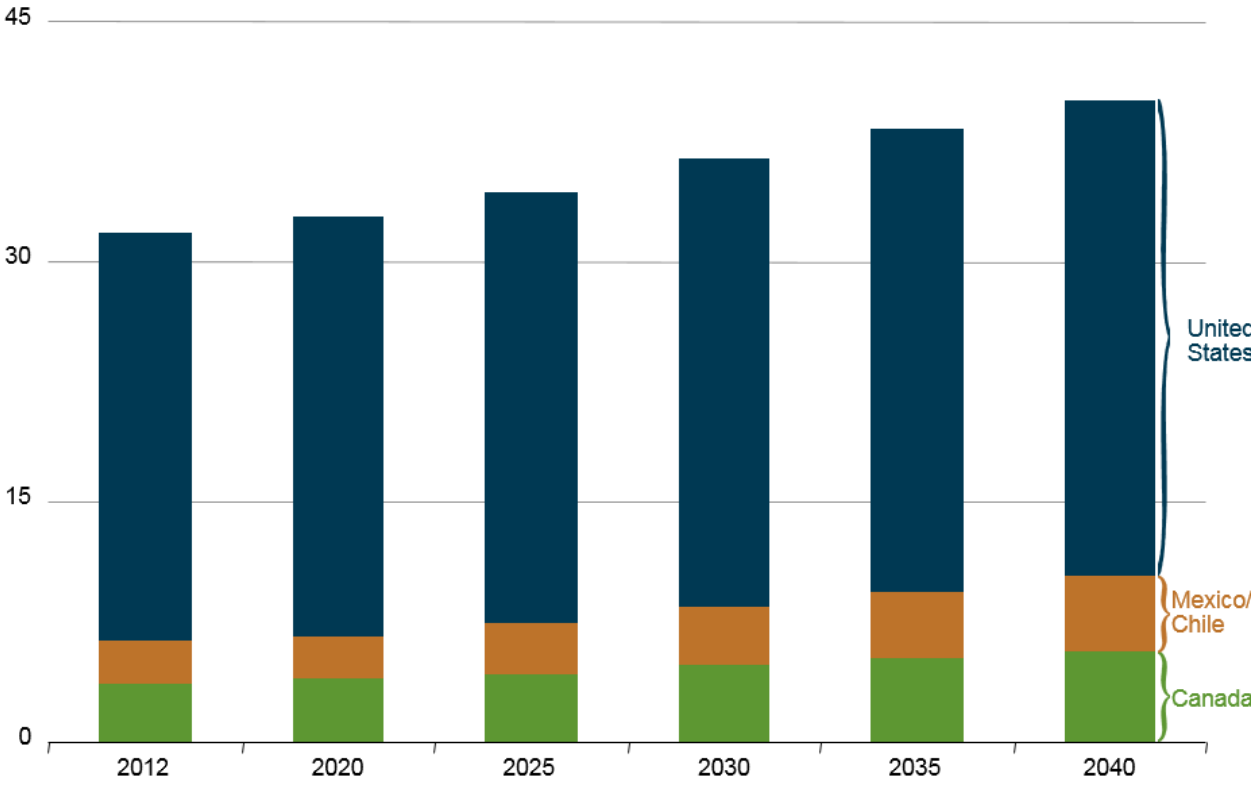
In response to recent low oil prices, capital expenditures for investment in future production potential have been delayed or canceled, though, many OPEC and non-OPEC large capital investment projects scheduled to be completed over the next several years will continue as planned. Over time, a continued slowing of investment will make it difficult for supply to respond quickly to future growth in demand for liquids. As a result, prices are expected to return to the range of $80/b within the next decade. If supply growth slows as a result of

underinvestment, a sustained period of higher prices may be required to induce additional capital back into the market. Long project development timelines may delay the reentry of some production from tight oil plays (noncontinuous resources) into the market.

Natural Gas Consumption

OECD Americas: Projected annual natural gas consumption in the OECD Americas region rises steadily to over 40 Tcf in 2040 (Figure 6). The region accounts for 41% of the total increase in natural gas use by OECD countries and 10% of the increase in total world natural gas consumption.

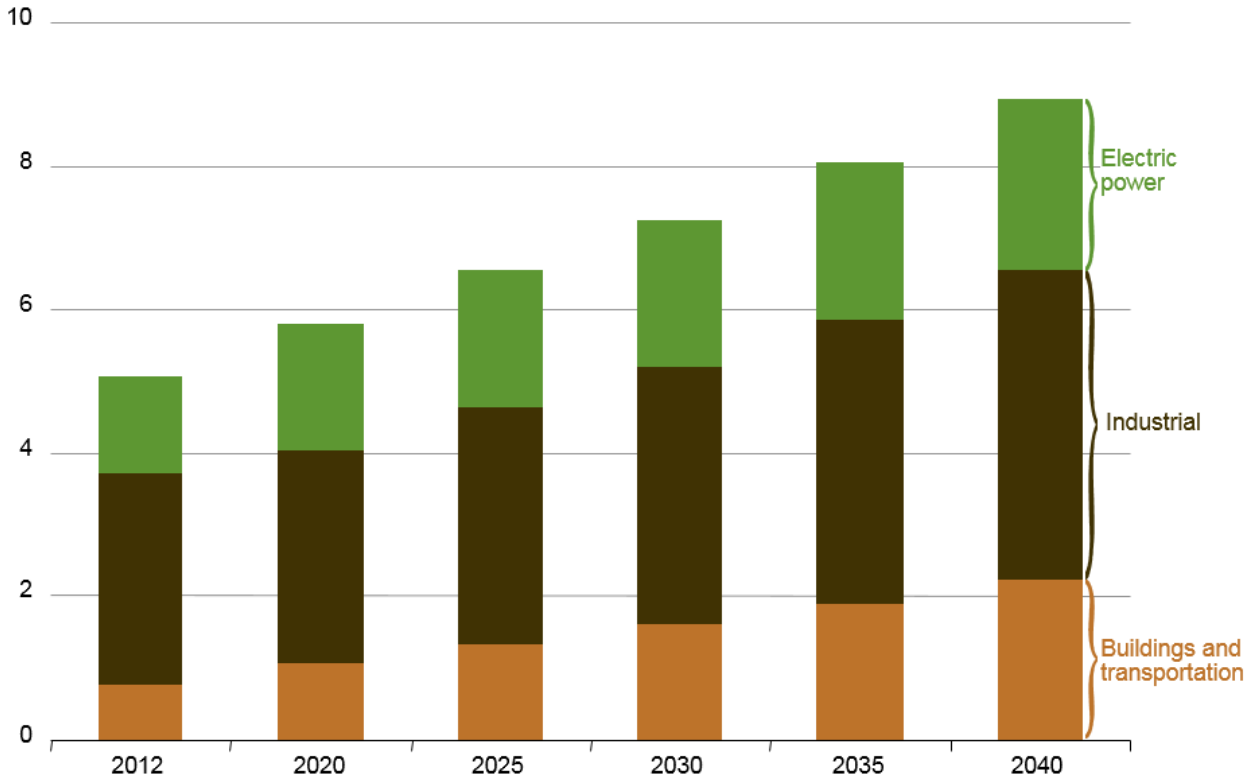
Figure 6: OECD Americas natural gas consumption by country, 2012–40
trillion cubic feet



Source: EIA International Energy Outlook 2016 Reference case

Non-OECD Americas: Natural gas consumption in the non-OECD Americas region increases by an average of 2.0% per year from 2012 to 2040 (Figure 7). The electric power sector accounts for more than one-third of the consumption growth over the period, followed by the industrial sector at approximately one-quarter. Brazil's industrial sector natural gas consumption accounts for more than 60% of the country's total increase in natural gas use.

Figure 7: Non-OECD Americas natural gas consumption by end-use sector, 2012–40
trillion cubic feet



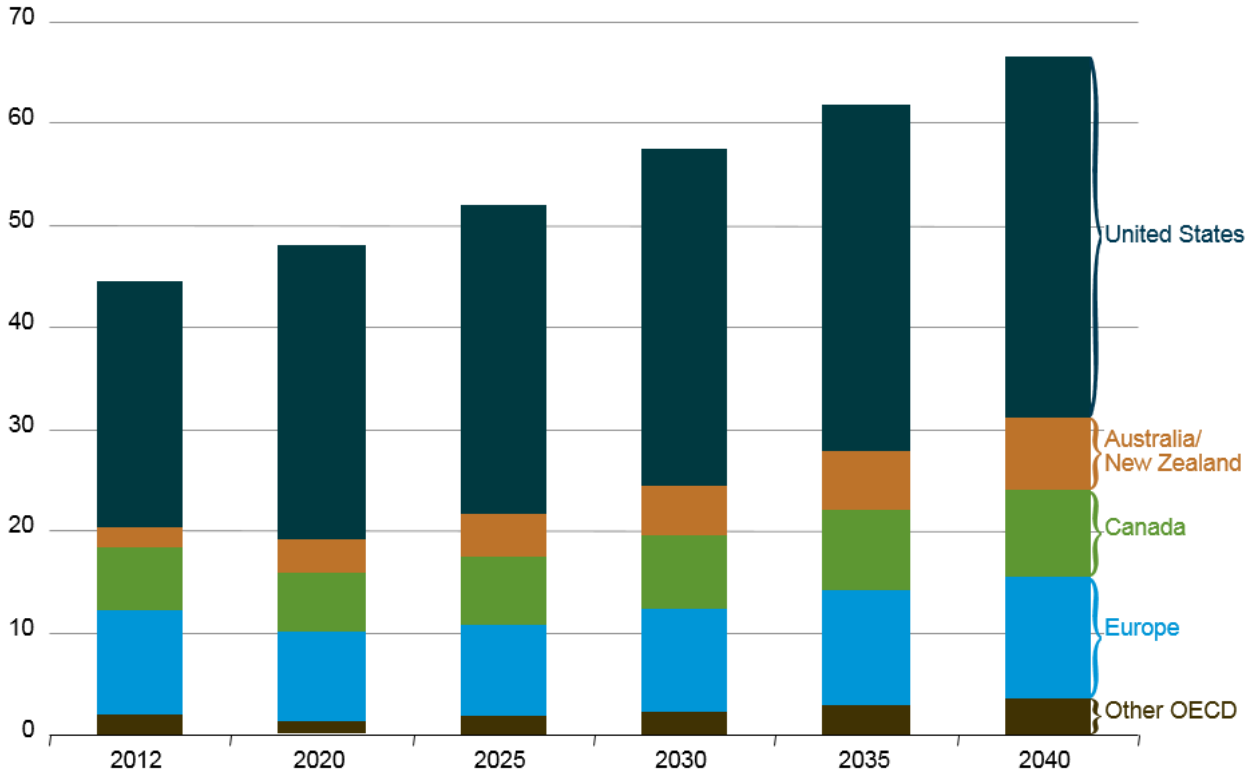
Source: EIA International Energy Outlook 2016 Reference case

Natural Gas Production

OECD Americas: Natural gas production in the OECD Americas grows by 49% from 2012 to 2040. The United States, which is the largest producer in the OECD as a whole, accounts for

more than two-thirds of the region's total production growth from 24 Tcf in 2012 to 35 Tcf in 2040 (Figure 8). Mexico's natural gas production is relatively flat in the midterm, but it more than doubles in the later years of the projection, as production from shale gas resources grows. Mexico's most prospective shale gas resources are extensions of the successful Eagle Ford Shale in the United States, but the area has not been explored as fully as that north of the border, so there is more uncertainty surrounding estimates of the size and potential for production.

Figure 8: OECD natural gas production by country and region, 2012–40
trillion cubic feet

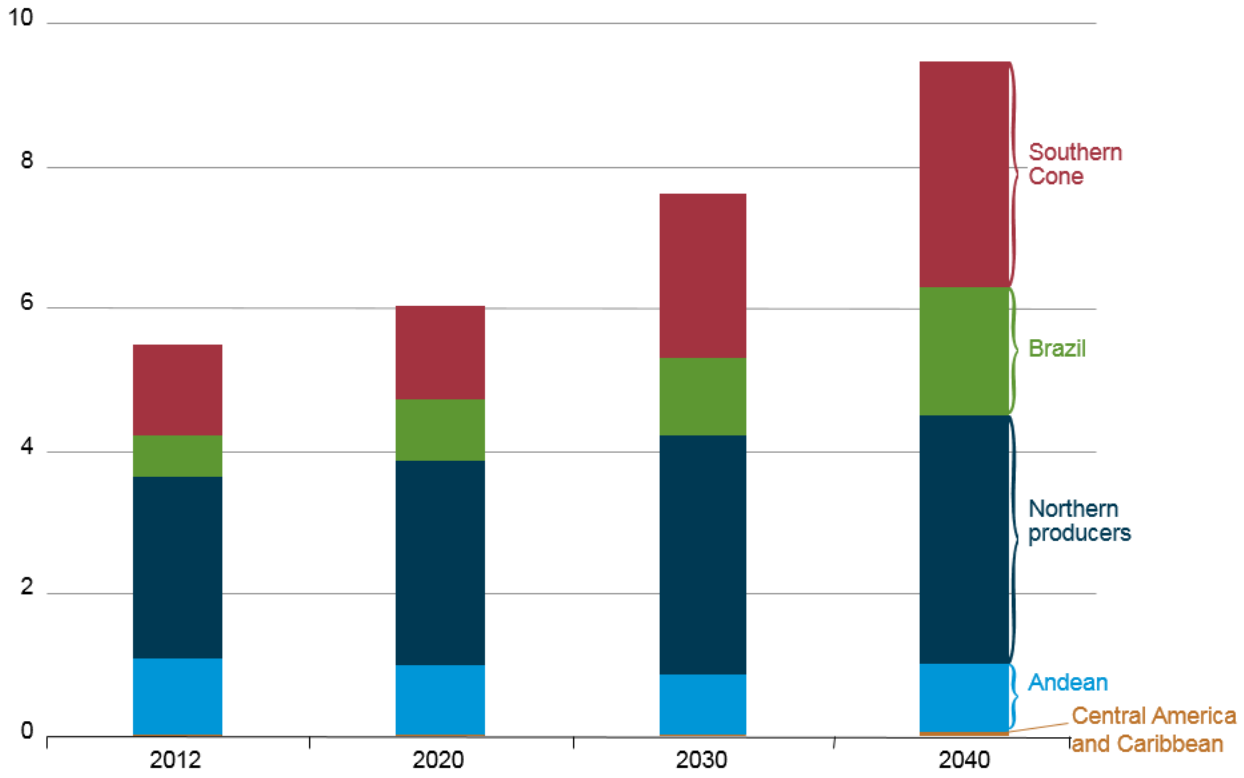


Source: EIA International Energy Outlook 2016 Reference case

Non-OECD Americas: Natural gas production in the non-OECD Americas region nearly doubles in the IEO2016 Reference case by 2040 (Figure 9). Despite recent declines, countries in the

Southern Cone (mainly, Argentina) become the region's leading natural gas producers by 2040 growing by nearly 150%.

Figure 9: Non-OECD Americas natural gas production, 2012–40
trillion cubic feet



Source: EIA International Energy Outlook 2016 Reference case

Table 5 reflects natural gas production based on the reference price assumption.

Table 5: Natural gas production by region and country
trillion cubic feet

	2010	2015	2020	2025	2030	2035	2040	Growth (2012-2040)
OECD Americas	31.3	32.9	35.7	38.6	42.1	44.6	47.3	1.40%
United States	24.0	25.8	28.7	30.4	32.9	34.0	35.3	1.40%
Canada	5.4	5.8	5.8	6.6	7.2	7.9	8.6	1.20%
Mexico	1.8	1.4	1.2	1.5	2.0	2.6	3.3	2.50%
Chile	0.1	0.0	0.0	0.0	0.0	0.0	0.1	1.50%
Non-OECD Americas	5.4	5.6	6.1	7.0	7.6	8.4	9.4	2.00%
Brazil	0.4	0.8	0.9	1.0	1.1	1.4	1.8	4.00%
Northern Producers	2.8	2.4	2.9	3.3	3.3	3.3	3.5	1.10%
Southern Cone (ex Chile)	1.4	1.2	1.3	1.9	2.3	2.8	3.1	3.30%
Andean	0.8	1.1	1.0	0.9	0.8	0.9	1.0	-0.40%
Central America and Caribbean	0.0	0.0	0.0	0.0	0.0	0.1	0.1	3.10%
Total World	114.0	124.6	134.0	149.4	167.5	185.4	202.4	1.90%

Source: EIA International Energy Outlook 2016 Reference case

The following are some highlights for some of the natural gas producers in the region with the most potential.

Brazil: Brazil's natural gas production triples by 2040, more than one-third of which comes from tight gas, shale gas, or coalbed methane production. Recent discoveries of oil and natural gas in

the offshore presalt Santos Basin are also expected to increase the country's natural gas production, particularly in the Tupi field.

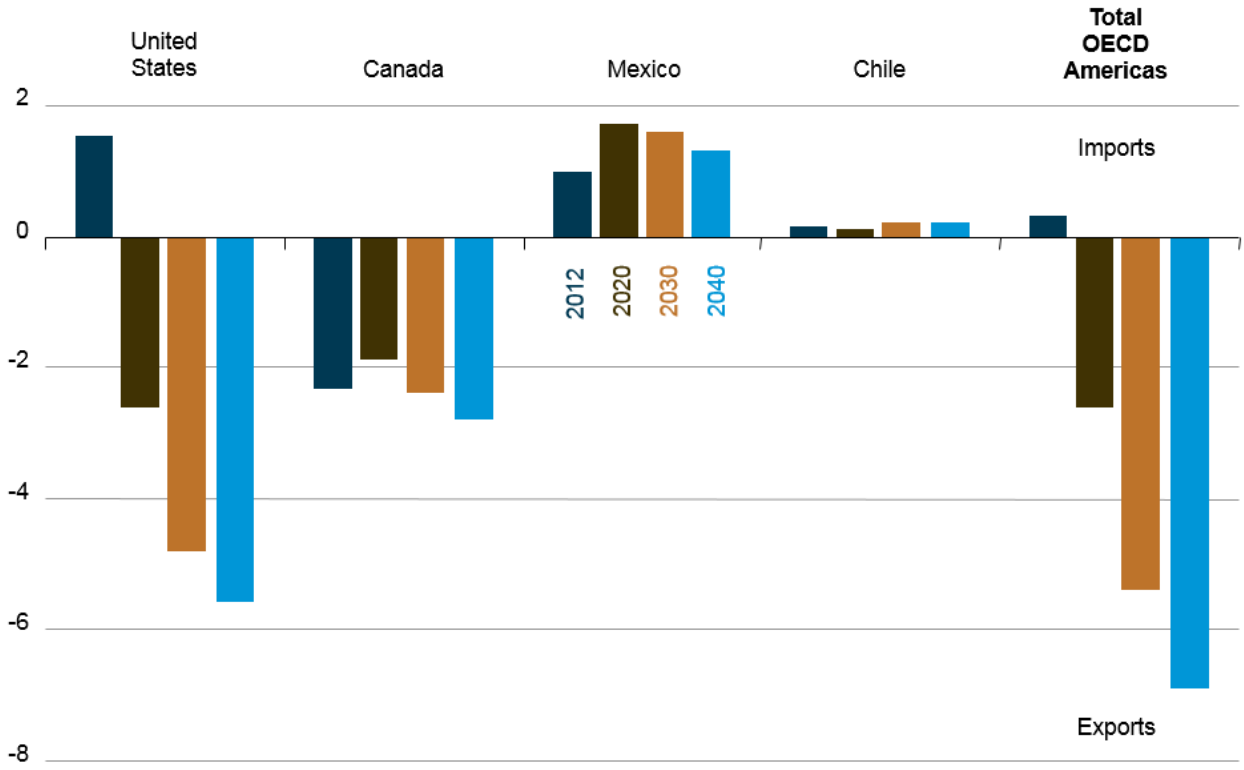
Argentina: Argentina, the country with potentially the largest gas resource, leads the non-OECD Americas region in its pursuit of tight gas and shale gas development. Many international companies hold leases and have drilled wells in shale formations. Much of the initial activity has targeted shale oil and natural gas in the Neuquen Basin's Vaca Muerta Shale formation, located in west-central Argentina. National energy company Yacimientos Petroliferos Fiscales (YPF), the largest shale operator in the country, reported production in April 2015 of 22,900 b/d of oil and 67 million cubic feet per day (MMcf/d) of natural gas from three joint ventures in Vaca Muerta: one with Chevron at the Loma Campana field, a second with Dow Chemical at the El Orejano field, and a third with Petronas at La Amarga Chica field. In addition, China's national oil company Sinopec and Russia's national oil company Gazprom have recently signed a memorandum of understanding with YPF for the joint development of shale resources from the same basin.

Venezuela: Venezuela's 198 Tcf of proved natural gas reserves are the Western Hemisphere's second-largest reserves, after the United States. An estimated 90% of Venezuela's natural gas reserves are associated, meaning that they are co-located with oil reserves. Although Venezuela has plans to increase its production of nonassociated gas, largely through the development of its offshore reserves, those plans have been delayed by a lack of capital and foreign investment.

Natural gas trade

OECD Americas: With the exception of Mexico, regional net imports among the nations of the OECD Americas trend downward through 2040 (Figure 10). In the AEO2016, the United States becomes a net exporter of natural gas in 2017. U.S. domestically sourced exports of LNG began in 2016 and grow to 5.1 Tcf in 2030.

Figure 10: OECD Americas net natural gas trade, 2012–40
trillion cubic feet



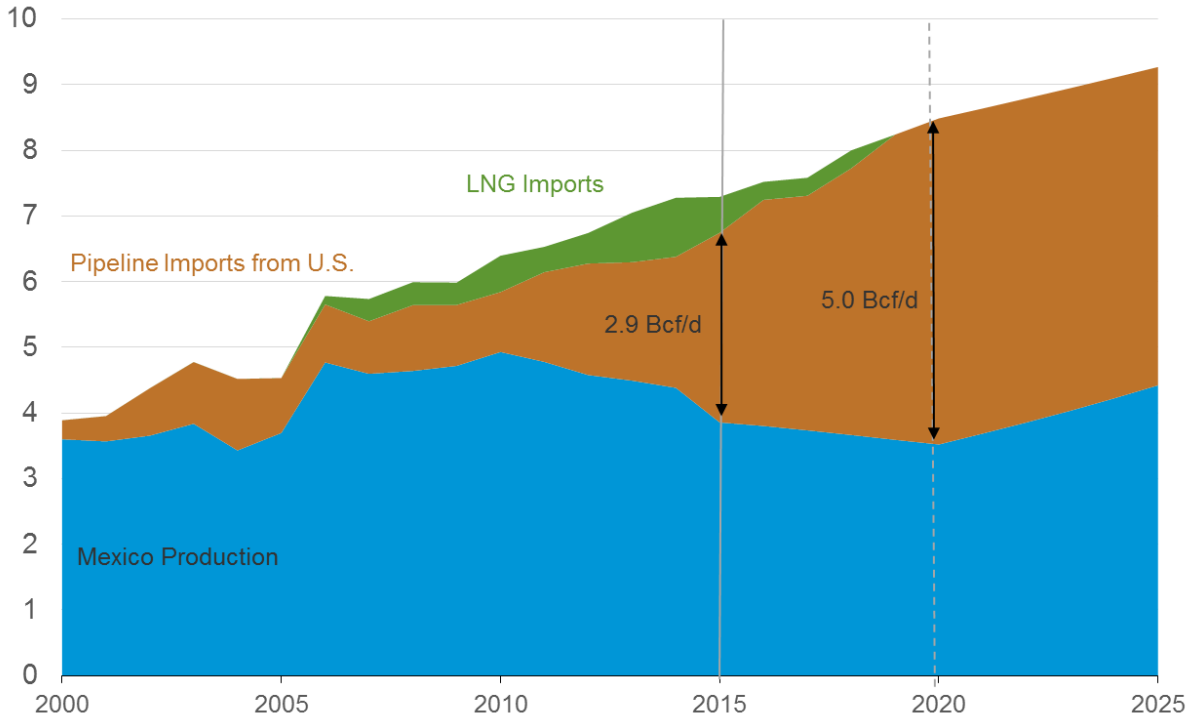
Source: EIA International Energy Outlook 2016 Reference case

Pipeline exports of natural gas from Canada to the United States continue declining as U.S. shale gas production grows; however, Canada remains a net exporter of natural gas, with LNG export volumes replacing some of the lost pipeline export volumes.

U.S. natural gas exports to Mexico

Most of the growth in U.S. net exports can be attributed to exports of LNG globally, although U.S. pipeline exports of natural to Mexico also grow steadily to fill the growing gap between production and consumption in Mexico. With new U.S. pipeline export capacity being brought online, and connecting pipelines in Mexico ramping up to full capacity, exports of natural gas by pipeline from the United States are beginning to displace Mexico's imports of LNG. Before the boom in U.S. shale gas production, Mexico had expected only limited growth in pipeline imports from the United States. With the rise of U.S. shale production and the decline in natural gas prices, Mexico's need for LNG imports has fallen, and its LNG regasification terminals have been operating below capacity. In 2012, U.S. exports to Mexico totaled 620 billion cubic feet. Mexico's net natural gas imports are expected to more than double, to 1.3 Tcf in 2040, after reaching their highest level in the mid-2020s when increases in Mexico's natural gas production slow the country's demand for imports (Figure 11).

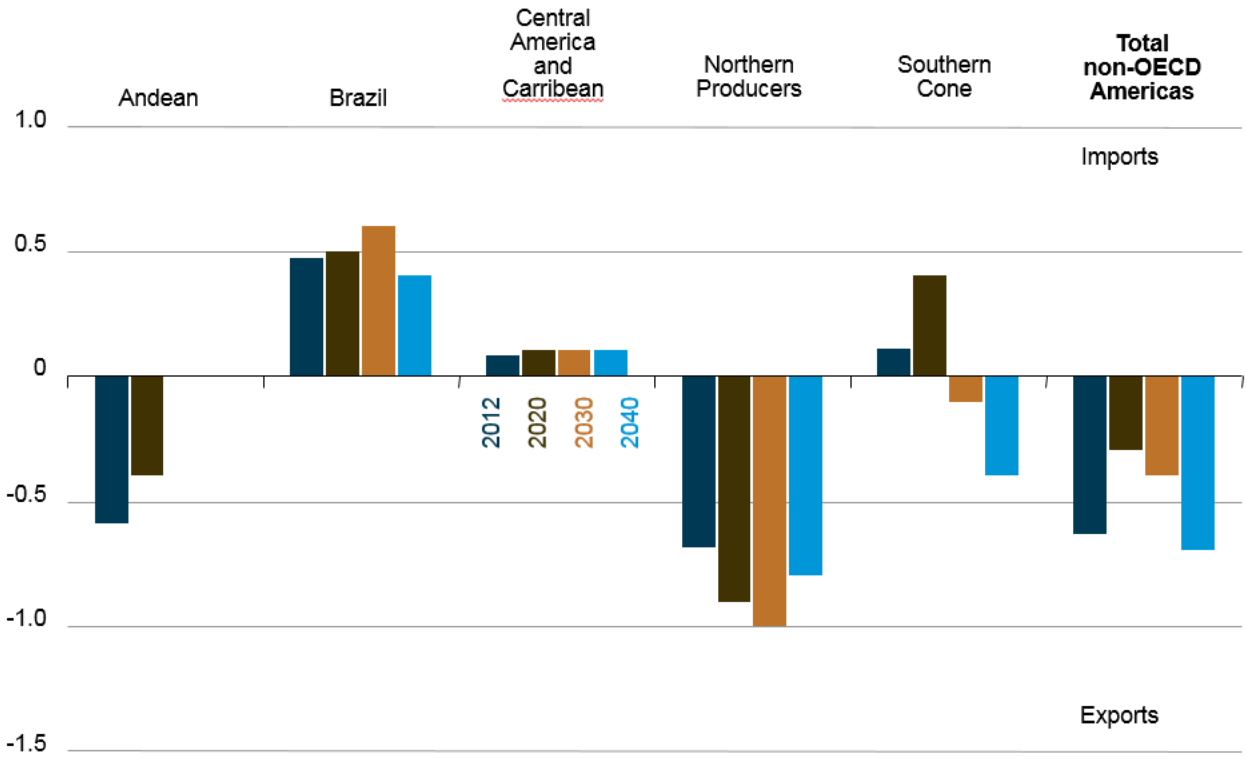
Figure 11: Mexico Natural Gas Supply, 2000-2025
billion cubic feet per day



Source: EIA Annual Energy Outlook 2016 Reference Case

Non-OECD Americas: Natural gas trade in the non-OECD Americas region has become increasingly globalized as several countries have become involved in the LNG trade. New LNG regasification capacity facilitates growth in the region's gross imports of natural gas through 2040, but the discovery of large new natural gas reserves throughout the region increases its gross exports by a larger amount. As a result, the region's overall trade balance remains relatively flat, with net exports increasing slightly over the period (Figure 12).

Figure 12: Non-OECD Americas net natural gas trade, 2012–40
trillion cubic feet



Source: EIA International Energy Outlook 2016 Reference case

Although LNG regasification facilities in Brazil and in the Southern Cone (excluding Chile) have received LNG supplies fairly consistently over the past three years, the Southern Cone becomes a net exporter of natural gas by 2030, largely as a result of the discovery of substantial shale gas reserves in Argentina's northwestern Neuquén province. Net imports to Brazil remain essentially flat from 2012 through 2040. Overall net exports from the Andean region end in 2030 and net exports from the Northern Producers increase by an average of 0.5% per year from 2012 to 2040.

Economic Uncertainties in the Region

Projected growth of real GDP in Brazil in IEO2016 averages 2.4% per year from 2012 to 2040 in the Reference case. This is a relatively slow rate of growth, especially for a developing country, reflecting both current economic weakness and questions about future growth. There is little doubt that Brazil has the consumers to generate demand for goods and services, but the supply side of its economy appears to constrain economic growth. Structural reforms, particularly to state-owned enterprises and labor markets, will be important for Brazil to generate long-term growth.

Outside Brazil, investment in the non-OECD Americas is constrained by policy uncertainty, and commodity exports are not expected to provide the level of government revenue that they have in the recent past. The proximity of the region to the United States and the trade relationships of its national economies with the U.S. economy suggest that the region's growth will be linked, in part, to that of the United States. Most countries in the region have flexible exchange rates, positive trade balances, and relatively low fiscal deficits and public debts. Regional inflation is lower than it was in the mid-1990s, and a relatively young labor force supports the region's economic growth prospects. Real GDP in the non-OECD Americas (excluding Brazil) increases by an average of 2.8%/year from 2012 to 2040.

NORTH AMERICAN COOPERATION ON ENERGY INFORMATION (NACEI)

Finally, I would like to describe the work EIA has been doing with counterparts in Canada and Mexico. In December of 2014, U.S. Energy Secretary Moniz signed a Memorandum of Understanding (MoU) with his Canadian and Mexican counterparts creating a framework for

trilateral consultation and sharing of energy information for the North American region. The agreement covers the following areas:

Energy trade statistics: understanding the sources of differences in trade (export and import) data among the three countries;

Geographical energy information: validating and sharing publicly available geospatial information related to energy infrastructure;

Outlooks for energy supply and demand: exchanging views and projections on cross-border energy flows; and

Cross reference for energy terminology: definitions used by each country for traded energy.

The work of the trilateral effort may be found at www.nacei.org. The available information includes: tables and graphs showing the differences in trade data, a number of static maps of energy infrastructure across the three countries and an interactive mapping tool for users, a cross-reference to the definitions of terms used by the three countries, as well as the International Energy Agency (IEA) and the United Nations (IRES). The glossary is available in three languages – English, French and Spanish. Participating agencies include: United States-Department of Energy (DOE): Energy Information Administration, Office of Fossil Energy (DOE), Bureau of the Census. Canada - Natural Resources of Canada, National Energy Board, Statistics Canada. Mexico - Secretariat of Energy **(**SENER), Centro Nacional de Control de Energia (CENACE), Centro Nacional de Control del Gas Natural, (CENAGAS), Comision Federal de Electricididad (CFE), Instituto Nacional de Estadistica y Geografia (INEGI), PEMEX, National Hydrocarbons Commission (NHC), Instituto Mexicano Del Petroleo, PMI Comercio Internacional SA